Ministry of Forests and Range
Glossary of Forestry Terms in British Columbia
March 2008

A

AAC apportionment The distribution of the allowable annual cut for a timber supply area among timber tenures by the minister in accordance with Section 10 of the *Forest Act*. (18):Section A paraphrase

abiotic "Pertaining to the non-living parts of an ecosystem, such as soil particles bedrock, air, and water." (106):1 quote

Aboriginal resource site/unit [term obsolete] "An investigated unit identified by the Aboriginal communities/bands that provides resources for food or culture uses (e.g., ceremonies). Each site is described by its band, location and resource type, use and quality on a monthly basis. This information is confidential and not released without a band's permission." (77):15 quote

Aboriginal rights "Rights that some Aboriginal peoples of Canada hold as a result of their ancestors' long-standing use and occupancy of the land. The rights of certain Aboriginal peoples to hunt trap and fish on ancestral lands are examples of Aboriginal rights. Aboriginal rights will vary from group to group depending on the customs, practices, and traditions that have formed part of their distinctive cultures." (64):Section A quote

Aboriginal title "A legal term that recognizes the interest of Aboriginals in the land. It is based on their long-standing use and occupancy of the land as descendants of the original inhabitants of Canada." (64):Section A quote

access management plan [term obsolete] "An operational plan that shows how road construction, modification, and deactivation will be carried out to protect, or mitigate, impacts on known resources or sensitive areas while maximizing the efficacy of forest resource development." (12):1 quote

access structure "A road, landing, pit, quarry, excavated or bladed trail or other logging trail." (86):Section 1(1) quote

account In multiple accounts analysis, accounts are the broad theme areas that form the basis for examining alternatives. Currently, the theme areas used in British Columbia are economy, environment, and community, although in some cases First Nations issues are placed in a separate account. (12):1 paraphrase

active floodplain "The level area with alluvial soils, adjacent to streams, that is flooded by stream water on a periodic basis and is at the same elevation as areas showing evidence of: (a) flood channels free of terrestrial vegetation; (b) rafted debris or fluvial sediments, recently deposited on the surface of the forest floor or suspended on trees or vegetation; or (c) recent scarring of trees by material moved by flood waters." (86):Section 47 quote

activity treatment unit (ATU) "An area of land upon which a silviculture activity is planned and carried out, usually within the boundary of an opening." (22):85 quote

adaptive co-management "A long-term management structure that permits stakeholders to share resource management responsibility and to learn from their actions. It is a systematic approach to improving resource decision making that involves structuring planning and management as a collaborative learning process." (72):69 quote

adaptive ecosystem management "A process for testing hypotheses through management experiments in natural systems, collecting and interpreting new information, and making changes based on monitoring information to improve the management of ecosystems." (47):Section A quote

adaptive management "A systematic process for continually improving management policies and practices by learning from the outcomes of operational programs. Its most effective form—'active' adaptive management—employs management programs that are designed to experimentally compare selected policies or practices, by evaluating alternative hypotheses about the system being managed." (41) quote

adaptive management area "Stands or forest types that require similar management practices and are grouped as one unit for the purposes of silviculture management." (64):Section A quote

adaptive monitoring "Similar to and integrated with the concept of adaptive management, the idea that monitoring programs should themselves be adaptable because of changes in ecosystem management goals, better knowledge about targets, or more efficient means for collecting monitoring information." (47):Section A quote

additive effects "Effects on biota of stress imposed by one mechanism, contributed from more than one source (e.g., sediment-related stress on fish imposed by sediment derived from streambank sources and from land surface sources)." *See also* ***cumulative effects***. (12):1 quote

administrative district "For a timber mark, the forest district that administers the timber mark. This may differ from the geographic district, which is where most of the cutblocks of a timber mark fall geographically." (49):Section A quote

administrative law "The branch of the law which deals with the actions of government in relation to the public." (18):Section A quote

administrative review "A review of a determination made by a statutory decision maker under various sections of the *Forest and Range Practices Act,* as specified in Section 80 of the Act." (120) pers. comm.

advanced decay "The late stage of decay in which the decomposition is readily recognized as the wood becomes punky, soft, stringy, pitted, or crumbly." (52):G-1 quote

advance regeneration "Trees that have become established naturally under a mature forest canopy and are capable of becoming the next crop after the mature crop is removed." (62):1 quote

adverse slope "An uphill incline for hauling or skidding of logs or other loads." (62):1 quote

aerial photography "Photos taken from the air at regular, spatial intervals and used in photo interpretation to provide information about forests and landforms." (62):1 quote

afforestation "The establishment of a forest or stand in areas where the preceding vegetation or land use was not forest." (106):3 quote

age class "Any interval into which the age range of trees, forests, stands, or forest types is divided for classification. Forest inventories commonly group trees into 20-year age classes." (62):1 quote

aggradation "The geologic process by which streambeds, floodplains, and the bottoms of other water bodies are raised in elevation by the deposition of material eroded and transported from other areas. It is the opposite of degradation." (132):G-1 quote

aggregate retention A silvicultural system that retains individual trees and groups of trees within the cutblock for the purpose of maintaining or protecting environmental values and structural diversity during at least one rotation. More than half the total area of the

cutblock is within one tree-height from the base of a tree or the cutblock boundary. (24):Part 2.1–8 paraphrase

agroforestry "A collective name for land-use systems and practices in which trees and shrubs are deliberately integrated with non-woody crops and (or) animals on the same land area for ecological and economic purposes." (64):Section A quote

airdry "The condition at which the moisture content of wood is closely in equilibrium with conditions outdoors, but undercover (usually at about 12 percent moisture content)." (52):G-1 quote

airtanker "A fixed-wing aircraft fitted with tanks and equipment for dropping suppressants or retardants on fires." (67):2 quote

alienation Any land that has had its "right-to-use" transferred from the Crown through grant, lease, or permit or has a special interest noted, as in reserves. Land may be so designated permanently or temporarily. (128):173 paraphrase

all-aged stand "A stand that contains trees of all, or almost all, age classes, including those of exploitable age." *See also* ***uneven-aged stand***. (106):5 quote

allowable annual cut (AAC) "The rate of timber harvest permitted each year from a specified area of land, usually expressed as cubic metres of wood per year." (133):1 quote

altered forest landscape A forest landscape that: (a) is viewable from a significant public viewpoint; (b) contains cutblocks or roads; and (c) is in one of the five categories of visually altered forest landscape prescribed under the Forest Planning and Practices Regulation. (86):Section 1 (1) paraphrase

amortization "A procedure by which the capital cost of projects, such as roads or bridges, is written off over a specified period of time as the timber volumes developed by the projects are harvested and extracted." (62):1 quote

anadromous "Fish that breed in fresh water but live their adult life in the sea. On the Pacific coast, anadromous fish include all the Pacific salmon, steelhead trout, some cutthroat trout, and Dolly Varden char, lampreys, and eulachons." (132):G-1 quote

analysis unit "A grouping of types of forest—for example, by species, site productivity, silvicultural treatment, age, and or location—done to simplify analysis and generation of timber yield tables." (133):1 quote

animal unit month (AUM) "The unit by which forage or grazing capability of Crown range land is measured. It is 450 kg of forage, which is the amount of forage required for one month by an average cow, aged 6 months or older." (129):Section 1(1) quote

appraisal "The process used to determine a stumpage rate for a tract of standing timber. Through a series of calculations, the Revenue Branch's Timber Pricing section estimates the value of products (logs, lumber, and chips) that a stand can produce and the costs of production (including harvesting, transportation, manufacturing, and reforestation). The difference between the sale value and costs is entered into a formula that calculates the stumpage rate. Nearly all Crown cutting authorities must be appraised before any harvesting is allowed." (49):Section A quote

appraisal data submission "The information needed to determine the stumpage rate, including the appraisal map, appraisal summary report, cruise compilation and any other information required by the regional manager or district manager, signed by a registered

professional forester (RPF) or registered forest technologist (RFT)." (44):1–2 quote

aquatic habitat "Habitat where a variety of marine or freshwater flora and fauna occur for long periods throughout the year. Examples include tide pools, estuaries, bogs, ponds, and potential underwater diving areas." (77):10 quote

archaeological site "Locations containing or with the potential to contain the physical remains of past human activity." (12):2 quote

area-based tenure "Timber harvesting tenures covering specific tracks of Crown forest. While the area of the tenure normally remains unchanged, the allowable annual cut is reviewed at least every 5 years and may change up or down at the discretion of the chief forester. Examples include Timber Licence, Tree Farm Licence, Woodlot Licence, and Community Forest." (57):Section A quote

armouring "Placing non-erodible material (e.g., riprap) over material that may be subject to erosion." (23):58 quote

artificial regeneration "Establishing a new forest by planting seedlings or by direct seeding (as opposed to natural regeneration)." (62):1 quote

aspect The direction toward which a slope faces; its exposure in relation to the sun. (67):2 paraphrase

assessment "The process whereby monitoring data are interpreted in the context of questions and issues pertaining to ecosystem management targets. Assessment also includes the development of statistical relationships from monitoring data, other forms of data analysis and interpretations, and modelling linked to the objectives of the initiative." (47):Section A quote

attribute "A component of a natural system or conceptual model of such a system; a subset of the potential biological elements or components of natural systems, which is representative of overall ecological conditions or important human values. Attributes can be used to select indicators to monitor the known or hypothesized effects of ecosystem stressors." (47):Section A quote

audit A systematic review or assessment conducted by the Forest Practices Board in accordance with board-developed standards. Audits determine compliance with the Forest Practices Code based on audit criteria, derived from the *Forest and Range Practices Act* and related regulations, that were established to evaluate or measure each practice required by the Code. These criteria reflect judgements about the level of performance that constitutes compliance with each requirement. (93):Section A paraphrase

available timber "Timber which is available for harvest after due recognition of constraints to protect the environment and other forest uses." *See also* ***operable timber***. (18):Section A quote

available volumes "The portion of total inventory volume that is available for harvesting after all management constraints on timber harvesting have been considered, including definition of the timber harvesting land base, age of tree merchantability, deferrals, and any other priorities or constraints on timber harvesting." (133):1 quote

average long term yield [term obsolete] "The annual average of the total yield over the next 200 years minus unsalvaged losses. This figure is generally greater than the long run sustained yield due to the influence of cutting old growth timber in the first few decades." (18):Section A quote

avoidable waste "Waste volumes left on the ground that could have been removed safely, were not physically obstructed, and were not inaccessible." (51):A-2 quote

azimuth "The horizontal angle or bearing of a point measured from the true (astronomic) north. Used to refer to a compass on which the movable dial (used to read direction) is numbered in 360 degrees." *See **bearing** and **compass***. (62):1 quote

B

Bacillus thuringiensis* var. *kustaki "A biological insecticide developed in Canada. This natural bacterium, which occurs in soils, is sprayed on forests to combat damaging insects." (64):Section B quote

backlog [term obsolete] A Ministry of Forests term applied to forest land areas where silviculture treatments such as planting and site preparation are overdue. Planting is considered backlog if more than 5 years have elapsed since a site was cleared (by harvesting or fire) in the Interior and more than 3 years on the Coast of British Columbia. (62):1 paraphrase

backlog area "An area from which the timber was harvested, damaged, or destroyed before October 1, 1987 and that in the district manager's opinion is insufficiently stocked with healthy well-spaced trees of a commercially acceptable species." (12):2 quote

backpack pump "A portable sprayer equipped with a hand-pump that is fed from a container of liquid fitted with shoulder straps. Used by individual operator to apply chemicals, such as herbicides." (78):29 quote

backspar trail "A bladed or non-bladed pathway over which mobile backspar equipment travels." (128):173 quote

bankfull height "That elevation which characterizes the cross-sectional area of the active stream channel." (128):173 quote

bareroot seedling Planting stock whose roots are exposed at the time of planting (as opposed to container or plug seedlings). Seedlings are grown in nursery seedbeds and lifted from the soil in which they are grown to be planted in the field. (62):1 paraphrase

bark "The tissues of a tree outside the cambium composed of inner living bark and outer dead bark." (52):G-1 quote

basal area "The area of the circle formed by the cross-section of a tree taken 1.3 m above the ground." (39):G-1 quote

base case The environmental, social, and economic conditions that can be expected to occur in the future if existing policies, plans, and practices are followed. The base case description is normally used as a point of comparison (benchmark) for judging the desirability of alternative land use plan scenarios. (12):2 paraphrase

base case harvest forecast "The timber supply forecast that illustrates the effect of current forest management practices on the timber supply using the best available information, and that forms the reference point for sensitivity analysis." (133):1 quote

baseline information "Information collected to provide a standard against which future measurements can be compared." (71):272 quote

basic sector "Sectors of the economy, such as forestry, tourism, and mining, that create flows of income into the region and are assumed to be drivers of the local economy. Non-basic sectors, such as retail outlets, are supported by basic sectors." (133):1 quote

basic silvicultural practices "Maintenance of the productivity of forest sites, restocking of denuded forest lands with commercial tree species, and protection against damage by fire, insects, and diseases to predetermined standards." (18):Section B quote

basic silviculture Harvesting methods and silviculture operations including seed collecting, site preparation, artificial and natural regeneration, brushing, spacing and stand tending, and

other operations that are for the purpose of establishing a free-growing crop of trees of a commercially valuable species and are required in a regulation or silviculture prescription. (18):Section B paraphrase

BC Timber Sales (BCTS) An independent organization within the Ministry of Forests and Range that develops timber sale licences for competitive auction. The price paid for timber through a timber sale licence is used to measure the market value of timber harvested from public land in British Columbia. This value is then used to calculate the stumpage fees paid on public timber harvested under other forms of tenure. BCTS operations are spread geographically across 12 Business Areas (Babine, Cariboo-Chilcotin, Chinook, Kamloops, Kootenay, Okanagan-Columbia, Peace-Liard, Prince George, Seaward/Tlasta, Skeena, Strait of Georgia, and Stuart-Nechako). (54):11 paraphrase

bearing "A direction on the ground or on a map defined by the angle measured from some reference direction: this may be true (geographic) north, magnetic north, or grid north." (62):1 quote

bed load "(1) The sediment that moves by sliding, rolling, or bounding on or very near the streambed. (2) The sediment moved mainly by tractive or gravitational forces or both, but at velocities less than the surrounding flow." (78):15 quote

benchmark "A standard against which planning and management outcomes are compared. Benchmarks may be based on knowledge of ecological processes and functions and their variability (e.g., range of natural variability), on regulatory and legal requirements (e.g., health standards), or on objectives set by local communities and stakeholders (e.g., desired employment level)." (72):69 quote

benefit/cost analysis "A set of procedures for defining and comparing the quantified benefits and costs of a project or course of action; used as an aid to decision making." (72):70 quote

best management practice (BMP) "A practice or combination of practices that are determined to be the most technologically or economically feasible means of preventing or managing potential impacts." (3):178 quote

biodiversity "The biological diversity of plants, animals, and other living organisms in all their forms and levels of organization, including the biological diversity of genes, species, and ecosystems." (86):Section 1(1) quote

bioenergy "The kinetic energy released from biomass when it is eaten, burned, or converted into fuel, or the potential energy embodied in biomass." (64):Section B quote

biofuel "Biomass or materials derived from biomass that can be used to generate energy." (57):Section B quote

biofuel shelf life "The length of time before wood deteriorates beyond the point where it may be useful for biofuel. Generally assumed to be the period from death to when the tree falls over due to root or butt rot." (57):Section B quote

biogeoclimatic classification system A multi-scaled, ecosystem-based classification system that groups ecologically similar sites based on climate, soils, and vegetation; widely used as a framework for resource management and scientific research in British Columbia. (118):17 paraphrase

biogeoclimatic unit Part of the biogeoclimatic ecosystem classification system. The recognized units are a synthesis of climate, vegetation, and soil data and defined as classes of geographically related ecosystems that are distributed within a vegetationally inferred

climatic space. (118):17 paraphrase

biogeoclimatic variant A subdivision of a biogeoclimatic subzone. Variants reflect further differences in regional climate and are generally recognized for areas slightly drier, wetter, snowier, warmer, or colder than other areas in the subzone. (118):21 paraphrase

biogeoclimatic zone A geographic area having similar patterns of energy flow, vegetation, and soils as a result of a broadly homogeneous macroclimate. (118):22 paraphrase

biological control "The use of biotic agents such as insects, nematodes, fungi, and viruses for the control of weeds and other forest pests." (128):173 quote

biological herbicide "A naturally occurring substance or organism that kills or controls undesirable vegetation. Preferred over synthetic chemicals because of reduced toxic effect on the environment." (18):Section B quote

biological legacies Features that maintain processes, habitats, and linkages within forest stands. Examples include coarse wood debris left on site after a harvest, large snags and overstorey trees, patches of older forest, multiple canopy layers, and soil structural characteristics of the forest floor. (72):69 paraphrase

biomass "The dry weight of all organic material, living or dead, above or below the soil surface." (64):Section B quote

biosphere "The portion of the earth comprising the lower atmosphere, the seas, and the land surface (mantle rock) in which living organisms exist." (106):17 quote

biosphere reserve "A management model proposed by the United Nations Man and the Biosphere program, in which a core area is preserved free from human disturbances, surrounded by buffer zones, which then lead into more intensive areas of disturbance and human activity." (78):39 quote

biota "The animal and plant life (fauna and flora) of a given area." (106):17 quote

biotic factors "Any environmental influence of living organisms (e.g., shading by trees, trampling by heavy animals, burning by humans) in contrast to inanimate (i.e., abiotic) influences." (106):17 quote

birddog aircraft An aircraft carrying the person (air attack officer) who is directing fire bombing action on a wildfire. (67):3 paraphrase

bladed trail "A constructed trail that has a width greater than 1.5 m and a mineral soil cutbank height greater than 30 cm." (86):Section 1(1) quote

block cutting "Removal of the crop in blocks in one or more operations, generally for wildlife management purposes, encouraging regeneration, or protecting fragile sites." (64):Section B quote

blowdown (windthrow) "Tree or trees felled or broken off by wind." (106):18 quote **Blue List** List of ecological communities and indigenous species and subspecies of special concern (formerly "vulnerable") in British Columbia. These species are not immediately threatened, but of concern because of characteristics that make them particularly sensitive to human activities or natural events. (73):3 paraphrase

board foot "The unit of measurement of lumber. A board foot is the quantity of lumber contained in or derived by drying, dressing, or working from a piece of rough lumber 1 inch thick, 1 foot wide, and 1 foot long, or its equivalent in thicker, wider, narrower, or longer

lumber." (52):G-1 quote

bole "A tree stem having substantial thickness and being capable of yielding sawtimber, veneer, logs, large poles or pulpwood; seedlings, saplings, and thin poles have stems, not boles." (11):6 quote

bolt "Any short log specially cut to length, usually for the manufacture of a specific product (e.g., shake bolt)." (52):G-2 quote

bonus bid "A premium that a logging operator agrees to pay, in addition to stumpage, for the rights to harvest timber." (49):Section B quote

bonus offer A lump sum dollar value that is tendered to acquire the right to harvest timber under an agreement under the *Forest Act*, irrespective of the volume and type of competitive species and forest products harvested under the agreement. (80):Section 1(1) paraphrase

boreal forest "One of the three main forest zones in the world located in northern regions and characterized by the predominance of conifers." (64):Section B quote

botanical forest products "Non-timber-based products gathered from forest and range land. There are seven recognized categories: wild edible mushrooms, floral greenery, medicinal products, fruits and berries, herbs and vegetables, landscaping products, and craft products." (71):273 quote

breakage For the purpose of waste measurement, any piece of wood that meets the minimum diameter of the cutting authority, that is shorter than 3 m in length, and that is broken at the large end or at both ends. (51):A-3 paraphrase

breast height "The standard height, 1.3 m above ground level, at which the diameter of a standing tree is measured." (103):Section B quote

broadcast burning "A controlled burn, where the fire is intentionally ignited and allowed to proceed over a designated area within well-defined boundaries, for the reduction of fuel hazard after logging or for site preparation before planting. Also called slash burning." (62):2 quote

browse "Shrubs, trees, and herbs that provide food for wildlife." (62):2 quote

brush blade "A straight blade with curved teeth extending below the blade like a rake. The blade is mounted on the front of a prime mover, such as a crawler tractor or a skidder, for use in mechanical site preparation." (22):86 quote

brushing "A silviculture activity done by chemical, manual, grazing, or mechanical means to control competing forest vegetation and reduce competition for space, light, moisture, and nutrients with crop trees or seedlings." (128):173 quote

bucking "Cutting a felled tree into specified log lengths for yarding and hauling; also, making any bucking cut on logs." (128):174 quote

bucking waste For the purpose of waste measurement, any piece of wood that is less than 3 m in length and has been cut at the large end, or at both ends, through improper or careless bucking practices. (51):A-3 paraphrase

buffer zone "A strip of land where disturbances are not allowed, or are closely monitored, to preserve aesthetic and other qualities adjacent to roads, trails, waterways, and recreation sites." (64):Section B quote

burning permit [term obsolete] "A permit required under Section 110 of the *Forest Act*,

municipal bylaw, or letter-patent for authorizing open burning within 1 km of a forest during the fire season, for purposes other than cooking or obtaining warmth." (128):174 quote

burn registration number "A number issued, in accordance with Section 22 of the Wildfire Regulation and required for all Category 3 open fires." (119) pers. comm.

business plan "A plan identifying markets, customers, expenditures, and finances required to carry out the identified 'business' based on projected revenues and costs over a specific period of time." (62):2 quote

butt log "The first log cut from the bottom of the tree." (52):G-2 quote

butt rot "Any decay or rot developing in, and sometimes characteristically confined to, the butt log." (52):G-2 quote

C

cable logging "A yarding system employing winches, blocks, and cables." (128):174 quote

cambium "A single layer of cells between the woody part of the tree and the bark. Division of these cells results in diameter growth of the tree through formation of wood cells (xylem) and inner bark (phloem)." (62):2 quote

campfire "A fire, not bigger than 1 m in height and 1 m in diameter, built for the purpose of cooking or providing warmth." As defined in the Wildfire Regulation, a Category 1 open fire." (128):174 quote; (119) pers. comm.

Canadian Forest Fire Weather Index (FWI) System A subsystem of the Canadian Forest Fire Danger Rating System. The components of the FWI System provide numerical ratings of relative fire potential in a standard fuel type (e.g., a mature pine stand) on level terrain, based solely on consecutive observations of four fire weather elements measured daily at noon (1200 hours local standard time or 1300 hours daylight saving time) at a suitable fire weather station; the elements are dry bulb temperature, relative humidity, wind speed, and precipitation. The system provides a uniform method of rating fire danger across Canada. (67):5 paraphrase

canopy "The more or less continuous cover of branches and foliage formed collectively by the crowns of adjacent trees." (64):Section C quote

canopy closure "The progressive reduction of space between crowns as they spread laterally, increasing canopy cover. The point in time when crowns in a young stand begin to touch and interact." (63):Section C quote

capability (land) "The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at given levels of management intensity. Capability depends upon this set of conditions and site conditions such as climate, slope, landform, soils, and geology." (12):3 quote

capability mapping "A habitat interpretation for a species which describes the greatest potential of a habitat to support that species. Habitat potential may not be reflected by the present habitat condition or successional stage." (128):174 quote

capacity building "Strengthening the knowledge and capabilities of individuals in industry, government, the engaged public, and the science community to apply new skills and knowledge for sustainable forest management." (100):25 quote

carbon budget "Comparative evaluation of the amount of carbon stored in natural forests (sinks) and the amount emitted by them (sources), which is undertaken to determine whether the forests are sequestering more carbon than they are emitting to the atmosphere. Carbon budgets can be drawn up on various scales, including global." (65):Section C quote

carbon offset "The planting of trees on non-forested land such that the uptake of carbon dioxide from the growing trees will offset the production of carbon dioxide from industrial effluent." (106):24 quote

carbon reservoir "An area where carbon has accumulated in appreciable amounts, as a result of past or present activities of a carbon sink." (78):53 quote

carbon sequestration "The uptake and storage of carbon. Trees and plants, for example, absorb carbon dioxide, release the oxygen and store the carbon. Fossil fuels were at one time biomass and continue to store the carbon until burned." (64):Section C quote

carbon sink "An area where the rate of carbon uptake by living organisms exceeds the rate of carbon release. The surplus carbon is actively sequestered into organic or inorganic forms." (78):53 quote

carrying capacity "The average number of livestock and (or) wildlife that can be sustained on a management unit, compatible with management objectives for the unit. It is a function of site characteristics, management goals, and management intensity." (12):4 quote

catastrophic losses "Damage to timber from fire, windfall, insects, or disease that inflicts losses well above the norm reflected in the forest inventory for the locality or region." (45):G-ii quote

catchment basin "A hole dug adjacent to a culvert inlet to allow coarser particles to settle out." (128):174 quote

certification A voluntary, market-based instrument aimed at promoting sustainable forest management that takes into account environmental, economic, and social issues. It involves an independent assessment of forest management according to internationally or nationally accepted standards, and the tracking and monitoring of the supply of forest products to the market place. In Canada, three certification standards are in use: Canadian Standards Association (CSA), Forest Stewardship Council (FSC), and Sustainable Forestry Initiative (SFI). (64) paraphrase

certified pesticide applicator An individual certified (through examination) by the Ministry of Environment's Integrated Pest Management Program to use or supervise the use of pesticides in a specific management category. (128):174 paraphrase

chain "A measuring tape, often nylon, 50 m or 75 m in length, used to measure distances. This term is derived from an old unit of measurement: (80 Ch = 1 mile)." (62):2 quote

chain of custody "The process of monitoring the production and distribution of goods from the forest to the end-product (i.e., tracing the origin of the product)." (64):Section C quote

characteristic visual landscape [term obsolete] "The naturally appearing landscape within a scene or scenes being viewed." (128):174 quote

chipper "A machine for cutting wood into wood chips, and includes chipper canters, chipper edgers, chipping headrigs, and portable debarker chippers." (52):G-2 quote

chlorosis "Blanched or yellowish colouring in plants caused by nutrient or light deficiency." (62):2 quote

choker "A noose of wire rope used for skidding or yarding logs." *See* ***highlead system***. (62):2 quote

Christmas tree permit An agreement that authorizes the holder to grow and (or) harvest Christmas trees for commercial purposes on a specified area of Crown land. (54):9 paraphrase

classified areas [term obsolete] "Areas based on provincial criteria and classification systems which will be identified and mapped according to the Regulations and Field Guides of the Forest Practices Code: riparian management areas, lakeshore management areas, and wildlife habitat areas. These areas, established by a district manager in consultation with a designated B.C. Environment official, guide operations on a site-specific basis and require a combination of forest practices." (128):174 quote

cleaning A release treatment made in a stand not past the sapling stage to free the favoured trees from less desirable species of the same age that overtop them or are likely to do so. (106):30 paraphrase

clear Refers to the condition of a log that is free of knots or stain. (52):G-3 paraphrase

clearcut "An area of forest land from which all merchantable trees have recently been harvested." (103):Section C quote

clearcut system A silvicultural system in which most trees are removed from an area of land in a single harvest. The harvested site is then regenerated to acceptable standards by appropriate means including planting and natural seeding. Note that retention of some live trees and snags for purposes of biodiversity now occurs on most clearcuts. (133):2 paraphrase

clearcutting "The cutting of essentially all trees, producing a fully exposed microclimate for the development of a new age class." (106):151 quote

clearcutting with reserves "A variation of the clearcut silvicultural system in which trees are retained, either uniformly or in small groups, for purposes other than regeneration." (128):174 quote

clearing width "An area within a road right-of-way that is cleared of standing trees for the purpose of constructing or maintaining a road." (86):Section 1(1) quote

client "A person, group, or corporate entity with whom the Ministry of Forests and Range has a business relationship (association, Indian band, corporation, government, individual, society)." (49):Section C quote

climate change "An alteration in measured quantities (e.g., precipitation, temperature, radiation, wind, and cloudiness) within the climate system that departs significantly from previous average conditions and is seen to endure, bringing about corresponding changes in ecosystems and socio-economic activity." (64):Section C quote

climax forest "A forest community that represents the final stage of natural forest succession for its environment." (62):3 quote

clinometer "A simple instrument for measuring vertical angles or slopes. In forestry, used to measure distance and tree heights." (62):3 quote

clone "A plant which is genetically identical to the parent plant; produced asexually (e.g., from cuttings or suckers)." (62):3 quote

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." (62):3 quote

close utilization [term obsolete] "Maximum stump height of 30 cm; minimum top dib of 10 cm." (62):3 quote

coarse-filter approach "An approach to protecting biological diversity that is ecosystem driven and relies on habitat representation and connectivity to maintain most species diversity and processes." *See also* ***fine-filter approach***. (21) quote

coarse woody debris (CWD) "Typically, sound or rotting logs, stumps, or large branches that have fallen or been cut and left in the woods, or trees and branches that have died but remain standing or leaning." (78):62 quote

Coast "In British Columbia, refers to the mainland west of the Cascade Mountains and Coast Mountains and to the off-shore islands. Can also refer to Coast Forest Region." (11):9 quote

code of ethics A bylaw or policy of a professional regulatory body (e.g., Association of BC Forest Professionals) that describes in some detail the values and conduct to which their members subscribe and to which they will be held accountable. The codes of ethics establish expectations for how the professional will interact with and be responsible to the public, employers and clients, the profession, and other professionals. (40):3-3 paraphrase

codominant "A tree whose crown helps to form the general level of the main canopy in even-aged stands, or in uneven-aged stands, the main canopy of the tree's immediate neighbours, receiving full light from above and comparatively little from the sides." (106):40 quote

co-generation "The simultaneous production of electricity and heat from steam." (64):Section C quote

collar "The portion of the log between the inside of the bark and a hole or rot in the heart of the log." (52):G-3 quote

commercial forest "Forest land that is able to grow commercial timber within an acceptable time frame and is designated for such a purpose." (64):Section C quote

commercial thinning "A silviculture treatment that 'thins' out an overstocked stand by removing trees that are large enough to be sold as products such as poles or fence posts. It is carried out to improve the health and growth rate of the remaining crop trees." *See also* ***juvenile spacing***. (62):3 quote

community "A body of people organized into a political, municipal, or social unity; can refer to a geographic or cultural community, and can also refer to an interest-based constituency (e.g., environmental NGOs) or a sector-based grouping (e.g., tourism operators)." (72):70 quote

community forest "A forestry operation managed by a local government, community group, First Nation or community-held corporation for the benefit of the entire community. The majority of community forests in British Columbia are on Crown land under a timber tenure such as a forest licence, tree farm licence, or community forest agreement." (27):61 quote

Community Forest Agreement (CFA) A competitively or directly awarded form of tenure that issues an exclusive right to a First Nation, municipality, or regional district to harvest an allowable annual cut in a specific area. This agreement may also include the right to harvest, manage, and charge fees for botanical forest products and other products. (54):8 paraphrase

community of practice "A group whose members regularly engage in sharing and learning, based on common interest. They may use a variety of mechanisms to engage (e.g., email listserve, workshop)." (100):25 quote

community watershed The drainage area above the most downstream point of diversion on a stream for a water use that is for human consumption and that is licensed under the *Water Act* (e.g., for a waterworks purpose or a domestic purpose). (12):4 paraphrase

compartment "A basic territorial unit of a forest under management. The compartment is

permanently defined for the purpose of location, description, record-keeping, and as a basis for the planning and management of all forest activities." (78):65 quote

compass "Instrument used to determine the direction of magnetic north." *See* ***bearing*** *and* ***azimuth***. (62):3 quote

competing vegetation Vegetation that uses the common resources (space, light, water, and nutrients) of a forest site needed by preferred trees for survival and growth. (128):175 paraphrase

compliance "Conformity with regulatory requirements established by government to protect the environment, human health, and safety." (8):74 quote

compliance evaluation/monitoring A Forest and Range Evaluation Program activity that examines adherence to current legislation and standards (e.g., determining whether a riparian reserve for a particular stream class meets the width requirements specified in either an approved forest stewardship plan or the default standards in regulation. (26):1 paraphrase

composition "The proportion of each tree species in a stand expressed as a percentage of either the total number, basal area, or volume of all tree species in the stand." (63):Section C quote

compression wood "A type of defect that tends to form in conifers on the underside of leaning stems, on the leeward side of trees exposed to strong winds, in crooked stems, and in the lower part of trees growing on a slope." (52):G-3 quote

cone rake "A device for collecting cones from a standing tree. It is lowered, usually from a helicopter, over the crown of a tree. Cones or cone-bearing branches are removed and retrieved by the machine." (63):Section C quote

coniferous stand "An area in which, at rotation age, the coniferous trees collectively represent at least 80 percent of the net merchantable volume of timber." (88):Section 1(1) quote

conifer release "To 'release' established coniferous trees from a situation in which they have been suppressed by thinning out undesirable trees and shrubs which have overtopped them. Carried out to improve the growth of the coniferous trees released." *See* ***brushing***. (62):3 quote

conifers "Trees in the division Pinophyta (the gymnosperms); cone-bearing, usually evergreen, with needle-shaped or scalelike leaves. Conifers are termed 'softwoods' in the forest industry, although Douglas-fir and certain pines have harder wood than some broadleaf trees." (61):149 quote

conk "A hard, fruiting body containing spores of a wood-decaying fungus." (62):3 quote

connectivity "The structural links between habitat patches in a landscape." (61):149 quote

consensus "A decision-making process in which all parties involved explicitly agree on the final decision. Consensus decision making does not mean that all parties are completely satisfied with the final outcome, but that the decision is acceptable to all because no one feels that his or her vital interests or values are violated by it." (78):69 quote

consequences, potential "A component of risk rating. Potential consequences are the detrimental events that could result from a hazard event." (128):175 quote

conservation "The management or control of human use of resources (biotic and abiotic) and

activities on the planet, in an attempt to restore, enhance, protect, and sustain the quality and quantity of a desired mix of species, and ecosystem conditions and processes for present and future generations." (78):69 quote

conservation biology "The branch of the biological sciences that studies biodiversity, species abundance, scarcity, and extinction, and the relationships of these to natural processes, habitat conditions, and population changes in response to human-induced disturbances." (78):69 quote

Conservation Data Centre (CDC) As part of the Environmental Stewardship Division in the B.C. Ministry of Environment, the CDC systematically collects and disseminates information on plants, animals, and ecosystems (ecological communities) at risk in British Columbia. This information is compiled and maintained in a computerized database that provides a centralized and scientific source of information on the status, locations, and level of protection of these organisms and ecosystems. The CDC assigns provincial conservation status ranks. *See* ***species ranking***. (74) paraphrase

conservation status rank A species ranking (designated by a number from 1 to 5) assigned by the Conservation Data Centre based on a standardized assessment of: estimated number of existing occurrences of a species; viability of these occurrences; trend in population size, number of occurrences, or geographic distribution; overall estimated population size; geographic distribution (range); number of occurrences adequately protected and managed; and actual or potential threats facing the species or its habitat. (73):2–3 paraphrase

container seedling "A seedling grown in a receptacle containing soil in which it has developed from seed or as transplants." *See* ***plug*** *and* ***bareroot seedling***. (106):36 quote

continuous improvement "A business or operational approach based upon the philosophy that performance improvement is the responsibility of all staff in an organization and adherence to this approach is ongoing." (56):81 quote

contour map A topographic map that portrays relief by means of lines that connect points of equal elevation. (62):3 paraphrase

contractor A person who has an agreement with the holder of a forest licence, timber licence, or tree farm licence to carry out one or more aspects of the holder's timber harvesting operations under the licence, and includes "person under contract" as defined by the *Forest Act* regulations. (80):Part 12, Section 152 paraphrase

contractual framework [term obsolete] "Where forest practices are primarily regulated by contracts." (18):Section C quote

contravention "A violation of a provision of the *Forest and Range Practices Act*." (93):Section C quote

control line "A comprehensive term for all constructed or natural fire barriers and treated fire perimeter used to control a fire." (67):7 quote

control points "A system of points with established positions or elevations, or both, which are used as fixed references in positioning map features." (62):3 quote

conventional ground skidding "Log yarding using any combination of rubber-tired or tracked skidding equipment to drag, slide, or carry logs on the ground." (71):274 quote

conventional logging "Any combination of mechanical or hand felling and rubber-tired or tracked skidding equipment. In the Interior, cable logging is not considered conventional; on the Coast, it is." (128):175 quote

Co-ordinated Resource Management Plan (CRMP) [term obsolete] "A specific type of sub-unit plan. To date it has been used mainly for managing Crown and alienated grazing lands. This plan involves consultation with resource agencies and resource users in establishing objectives in the management and development of a specific area." (18):Section C quote

coppice system "An even-aged silvicultural system for which the main regeneration method is vegetative sprouting of either suckers (from the existing root systems of cut trees) or shoots (from cut stumps). In British Columbia, this system is limited to broadleaved (hardwood) species management." (24):Part 2.1–16 quote

cord "128 cubic feet of stacked roundwood (whole or split, with or without bark) containing wood and airspace, with all the pieces of similar length and lined up on approximately the same direction. Example: a pile of firewood 4'x4'x8'." (62):4 quote

corduroy "Logs placed transversely along a road, usually with branches intact, and covered with fill material, to 'suspend' the road over soft subsoils." (128):175 quote

core indicators "A subset of the overall suite of potential indicators that is represented at all times and places in a monitoring data collection program. Core indicators are important for comparing subregions within ecoregional monitoring areas and to the applicability of monitoring information across projects conducted at different spatial and temporal scales." (47):Section C quote

corridor A band of vegetation, usually older forest, that serves to connect distinct patches on the landscape. Corridors provide connectivity, which permits the movement of plant and animal species between what would otherwise be isolated patches. (18):Section C paraphrase

cost-effectiveness analysis "An analysis which compares alternative input combinations on the basis of their overall cost; used as an aid to decision making." (72):70 quote

countable conifer "Conifers meeting or exceeding a minimum countable height and counted towards the maximum density determination during a free-growing survey." (22):86 quote

countable height "The height above which all trees are tallied and considered as countable conifers." (22):87 quote

criteria and indicators "A criterion is a category of conditions or processes by which sustainable forest management may be assessed. An indicator is a measure of an aspect of the criterion. Those used in Canada are generally based on the Montreal Process initiated in 1994." See also ***Montreal Criteria & Indicators (C&I) Process***. (38):91 quote

critical habitat "An ecosystem or particular ecosystem element occupied or used by a species, or local population, that is essential for its health and (or) long-term persistence." (72):70 quote

critical winter range "Forested habitat, usually stands of mature or old-growth conifers, which provides deer and elk with resources critical to survival during severe winters." (123):285 quote

crop tree "A healthy tree of a species that is ecologically suitable for the site, and commercially valuable." (88):Section 1(1) quote

cross-ditch "A ditch excavated across the road at an angle and at a sufficient depth, with armouring as appropriate, to divert both road surface water and ditch water off or across the road." (128):175 quote

cross-drain culvert "A pipe or log structure covered with soil and lying below the road surface, used to carry ditch water from one side of the road to the other." (128):175 quote

crown "The live branches and foliage of a tree." (62):4 quote

crown class "A category of tree based on its crown position relative to those of adjacent trees." *See* ***codominant***, ***dominant***, ***intermediate***, *and* ***overtopped***. (106):40 quote

crown closure "The stand condition resulting in the crowns of trees touching and effectively blocking sunlight from reaching the forest floor. Crown closure is expressed as a percentage." (22):87 quote

crown density "The amount and compactness of foliage of a tree crown." (106):40 quote

crown fire "A fire that advances through the crown fuel layer, the upper part of the tree bearing live branches and foliage." (64):Section C quote

Crown land "Land that is owned by the Crown. Referred to as federal Crown land when it is owned by Canada, and as provincial Crown land when owned by a province." (62):4 quote

Crown Land Use Planning Enhancement (CLUPE) A program established through the Forest Investment Account to augment the province's strategic land use planning program. CLUPE funding is intended to: (1) build land/resource planning capacity in the communities where planning is happening, and develop local-level support for planning outcomes; (2) specify government's objectives for Crown forest land and resources; (3) ensure that forest land planning decisions are based on sound analysis and information; and (4) ensure that strategic land use plans achieve their intended social, economic, and environmental objectives. (92) paraphrase

Crown timber "Timber on Crown land, or timber reserved to the government." (80):Section 1(1) quote

cruise The systematic measurement of a forested area designed to estimate to a specified degree of accuracy the volume of timber it contains, by evaluating the number and species of trees, their sizes, and conditions. Cruise data can also include an assessment of habitat conditions, environmentally sensitive areas, and a tally of important features that have to be considered in an integrated resource management plan. Also, a quantified sample that determines the quality and quantity of timber to be sold, as well as providing information regarding stand productivity for estimating stumpage value, and data for management, protection, and silvicultural decisions. (78):79 paraphrase

cull "Trees or logs or portions thereof that are of merchantable size but are rendered unmerchantable by defects." (103):Section C quote

culmination age "The age at which a timber stand reaches its highest average growth rate, or mean annual increment (MAI). MAI is calculated as stand volume divided by stand age. Culmination age is the optimal biological rotation age to maximize long-term volume

production from a growing site." (133):2 quote

cultural diversity "The variety and variability of human social structures, belief systems, and strategies for adapting to biological situations and changes in different parts of the world." (78):80 quote

cultural heritage resource "An object, a site, or the location of a traditional societal practice that is of historical, cultural, or archaeological significance to the province, a community, or an aboriginal people." "Cultural heritage resources include archeological sites, First Nations traditional use sites, and structural features and landscape features of cultural or historic significance." (80):Section 1(1) quote; (128):175 quote

culturally modified tree "A tree or a remnant of a tree with evidence of traditional aboriginal forest use." (133):3 quote

culture "A complex body or assemblage of human beliefs, art, morals, customs, religion, and laws, which has evolved historically and is handed down through the generations as a force that determines the behaviour and standard social characteristics of a society." (78):80 quote

culvert "A pipe, pipe arch, or log structure covered with soil and lying below the road surface, used to carry water from one side of the road to the other." (128):175 quote

cumulative effects "Effects on biota of stress imposed by more than one mechanism (e.g., stress in fish imposed by both elevated suspended sediment concentrations in the water and by high water temperature)." *See also* ***additive effects***. (71):274 quote

current plant community "The plant community currently occupying a site. It is usually described by strata, structure, and species composition." (101):142 quote

cut "The excavation required to lower the natural ground line to the desired road profile." (128):176 quote

cut-and-fill "System of bench construction on hillslopes to produce road rights-of-way and landings whereby convex slopes are excavated and concave slopes (gullies) are filled; also, excavation of the upslope side of the right-of-way, and fill on the downslope side (so called "half-bench" construction)." (71):274 quote

cut bank "The excavated bank from a ditch line to the top of the undisturbed slope of a road." (62):4 quote

cutblock "A specific area, with defined boundaries, authorized for harvest." (133):3 quote

cutblock adjacency "The desired spatial relationship among cutblocks. Most adjacency restrictions require that recently harvested areas must achieve a desired condition (green-up) before nearby or adjacent areas can be harvested. Specifications for the maximum allowable proportion of a forested landscape that does not meet green-up requirements are used to approximate the timber supply impacts of adjacency restrictions." (133):3 quote

cut control "The administrative process that reconciles the harvesting rights granted under a licence with the volume of timber actually harvested by the holder of the licence." (115) pers. comm.

cutover "An area of forest from which some or all of the timber has recently been cut." (61):149 quote

cut period "The interval between major harvesting operations in the same stand." (62):4 quote

cut slope "The face of an excavated bank required to lower the natural ground line to the desired road profile." (97):Section 1(1) quote

cutting authority "Refers to: (a) a cutting permit issued under a forest licence, a timber sale licence, a timber licence, tree farm licence, a community forest agreement, a community salvage licence, a woodlot licence, or forestry licence to cut; (b) a timber sale licence that does not provide for the issuance of a cutting permit; (c) a licence to cut; or (d) a road permit." (44):1–2 quote

cutting cycles "The planned, recurring interval of time between successive cuttings in a crop or stand." (128):176 quote

cutting permit "The legal document (cutting authority) that authorizes the holder of a specific form of agreement issued under the *Forest Act* to harvest timber. A cutting permit usually contains information regarding permit area, stumpage, timber marks, and waste assessments." (115) pers. comm.

cutting plan [term obsolete] "A plan for harvesting the timber from an area defined within a cutting permit. This plan must be approved by the Forest Service before operations may begin." (18):Section C quote

D

damaged timber "Timber that has been affected by injurious agents such as wind (as in the case of blowdown), fire, insects, or disease." (128):176 quote

danger tree "A tree that is hazardous because of location or lean, physical damage, overhead hazards, deterioration of the limbs, stem or root system, or any combination." (67):9 quote

dbh (diameter at breast height) "The stem diameter of a tree measured at breast height, 1.3 m above the ground." (62):4 quote

dbh class "A range of dbh values used to group trees together." (39):G-2 quote

deactivation "Measures taken to stabilize roads and logging trails during periods of inactivity, including the control of drainage, the removal of sidecast where necessary, and the re-establishment of vegetation for permanent deactivation." (128):176 quote

deadhead "A log that floats with at least 3/4 of its length totally submerged, or has the entire diameter of one end out of the water." (81):Section 1(1) quote

dead potential "A dead tree with sound wood potential." (39):G-2 quote

debris flow "Rapid flow of a slurry of saturated debris, including some or all of soil, surficial material, weathered rock, mud, boulders, and vegetative debris. A general designation for all types of rapid downslope flow, including mudflows, rapid earthflows, and debris torrents." (71):275 quote

debris flow initiation hazard The relative risk of gully wall failure and (or) debris movement in gully channels, as tempered by the stream runout distance. (128):176 paraphrase

decay "The decomposition of wood substance caused by the action of wood-destroying fungi, resulting in softening, loss of strength and mass, and often changes of texture and colour." (52):G-3 quote

deciduous stand "An area in which, at rotation age, the deciduous trees collectively represent at least 80 percent of the net merchantable volume of timber." (88):Section 1(1) quote

deciduous trees "Trees in the class Magnoliopsida of the division Magnoliophyta (angiosperms); characterized by having flowers with pistils and stamens (sometimes in separate flowers), fruit-borne seeds containing two cotyledons (seed leaves), and broad leaves that are usually shed annually." (61):149 quote

decision analysis "A structured way of thinking about how the action taken in the current decision would lead to a result. The technique distinguishes the decision to be made, the chance and unknown events that can affect the result, and the result itself. Decision analysis then constructs logical or mathematical models of the relationships within and between these three features of the decision situation. The models are used to estimate the possible implications of each course of action in relation to predetermined objectives." (72):70 quote

decision support systems "Analytical tools (e.g., computer models) that aid decision making by providing information on the projected implications of alternative management actions." (122):14.3 quote

declination (magnetic) "The angle between true (geographic) north and magnetic north (direction of the compass needle). Declination varies from place to place and can be 'set' on a

compass for a particular location." (62):4 quote

decline Disease that is characterized by a progressive decline in a tree's health and growth and that may kill it. While the causes of this phenomenon are not known, it is generally believed that a combination of factors is to blame (e.g., pollution, soil acidification, drought, freeze-thaw action). (65):Section D paraphrase

decomposers "Micro-organisms that break down, digest, and metabolize organic wastes, such as dead leaves, dropped fruits, wood, and dead animals." (65):Section D quote

defect "Any abnormality or irregularity which lowers the commercial value of wood. Typically, defects may reduce a log's firmwood volume and (or) log grade." (52):G-4 quote

defensible space "The utilization of fuel and vegetation management techniques to reduce fire exposure to vulnerable structures and infrastructure." (79):100 quote

deferred area [term obsolete] "Defined in the *Forest Practices Code of British Columbia Act* Operational Planning Regulation as an area: (a) specified in a higher level plan where timber harvesting or other forest development activities have been postponed for a period of time; or (b) that the district manager has determined should not be harvested or otherwise developed until a higher level plan for the area is completed." (12):6 quote

deficit forest [term obsolete] "A forest in which existing stands cannot provide enough harvest volume to maintain the harvest at the level of long run sustained yield until the stands created when existing stands are cut become available for harvest." (18):Section D quote

defined forest area management "Changing the volume-based forest management regime prevalent throughout much of the province, to defined forest areas, managed with key attributes of area-based tenures (e.g., Tree Farm Licences)." (38):91 quote

defoliation "An unseasonable reduction in the foliage cover of a plant due to attacks by insects or fungal disease, or as a result of other factors such as drought, storms, or chemicals in the atmosphere." (61):149 quote

defoliator "An agent that damages trees by destroying leaves or needles." (62):4 quote

deforestation "The long-term removal of trees from a forested site to permit other site uses." (64):Section D quote

degradation "(1) The erosional removal of materials from one place to another, which lowers the elevation of streambeds and floodplains. (2) Any process or activity that removes or lessens the viability of ecosystem functions and processes, and hence biological diversity." (78):86 quote

deleterious substance "Any substance that, if added to water, would degrade or alter the quality of the water so that it becomes deleterious to fish or fish habitat, or becomes unsuitable for human consumption or any other purpose for which it is legally licensed (such as irrigation and livestock watering)." (128):176 quote

delivered wood costs "The costs associated with accessing and harvesting timber and delivering it to a timber processing facility." (86):Section 1(1) quote

depletion "The use or consumption of a resource at a rate greater than the resource can be replenished within a defined time period. The notion of time is important, since many renewable resources can be restored if consumption is halted." (78):88 quote

depth of burn (DOB) "The reduction in forest floor thickness due to consumption by the fire

process; most commonly used in connection with prescribed burning." (67):9 quote

designated area [term obsolete] "An identifiable geographic unit of the forest land base that requires a specific combination of forest practices to adequately protect important resource values." (18):Section D quote

designated heritage trail "A heritage trail designated under the *Heritage Conservation Act*." (128):176 quote

designated official [term obsolete] "Not a defined term in the *Forest Practices Code of British Columbia Act*. However, commonly used to refer to a person designated by name or title to be a designated energy, mines and petroleum resources official, designated environment official, or designated forest official." (18):Section D quote

designated skid road / skid trail [term obsolete] "A pre-planned network of skid roads or skid trails, designed to reduce soil disturbance and planned for use in subsequent forestry operations in the same area." "Multiple passes by tracked or rubber-tired skidders or other equipment are anticipated." (71):275 quote; (120) pers. comm.

designated wilderness area *See* ***wilderness area***.

desired future stand condition "A description of the characteristics of the future stand." (128):176 quote

desired future state "A vision statement, especially in a land and resource management plan, that illustrates desired future land and resource conditions. It is intended to help those implementing the plan to understand the long-term land and resource use goals of the participants in the planning process." (12):7 quote

desired plant community "The plant community that produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the objectives set in range use plans and higher level plans. It must be consistent with site potential." (101):142 quote

determination Any act, decision, procedure, levy, finding, order, or other determination made under the *Forest and Range Practices Act*, regulations, or standards by the minister or an official. (84):Section 1(1) paraphrase

detrimental soil disturbance "Soil degradation; any change in physical, chemical, or biological properties of the soil that reduces soil fertility or productivity or results in adverse impacts on other ecosystem components (e.g., compaction, surface soil displacement, pH changes)." (72):71 quote

development "The advancement of the management and use of natural resources to satisfy human needs and improve the quality of human life. For development to be sustainable, it must take into account the social, ecological, and economic factors of the living and non-living resource base, and of the long-term and short-term advantages and disadvantages of alternative actions." (106):46 quote

development objectives [term obsolete] "The short-term (often 5-year) planning objectives for a specific management area." (62):5 quote

development plan [term obsolete] "A specific plan outlining harvesting, road construction, protection, and silviculture activities over the short-term (often 5 years) in accordance with the approved forest management plan." (62):5 quote

dewatering "Condition in stream channel when all the water flow occurs within the permeable streambed sediments, so no surface water is left; common in small streams with

considerable accumulations of gravel." (18) quote

diameter-limit harvesting "A silvicultural system used to maintain established understorey trees. All trees larger than a specified diameter are removed, with care being taken not to damage the residual stand. Horse skidding is often used to harvest trees under this system." (133):3 quote

diameter tape "A tape measure specially graduated so that the diameter may be read directly when the tape is placed round a tree stem, bole, or piece of roundwood." (52):G-4 quote

dib (diameter inside bark) "The diameter of a tree or log excluding double bark thickness." (103):Section D quote

dibble "A tool used to prepare planting holes for seedlings." (106):47 quote

difficult sites "Forest sites with environmental conditions that are unfavourable for tree establishment and growth." (128):176 quote

digital model "Computer-based representation of a mathematical model describing natural phenomena. These models use complex equations to perform essentially mathematical simulations of natural phenomena. They are used to study and test hypotheses about tides, climate change, the changes in an insect population or a forest, and so on." (65):Section D quote

direct seeding "The manual or mechanical sowing of tree seed on an area, either in spots or broadcast." (106):48 quote

direct tributary A portion of a tributary stream that is a minimum of 100 m in length, and has the same stream order as the most downstream reach of the tributary. (86):Section 1(1) paraphrase

discretionary authority "The power to make a decision where the choice of whether to make a decision is that of the decision maker." (18) quote

discretionary silviculture activities "Silviculture activities that are not required by legislation. These may include backlog reforestation (areas harvested prior to 1987), reforestation activities on some areas burned by wildfire, and brushing, spacing, fertilizing, and pruning." (38):91 quote

disc trencher "A machine designed for mechanical site preparation. It consists of rotating scarifying steel discs equipped with teeth that create rows. The discs are attached to the rear of a prime mover such as a skidder." (22):87 quote

dispersed retention A variant of the retention silvicultural system in which, after timber harvesting, the retained individual trees or small groups of trees are generally less than two tree lengths apart, but occasionally more if groups are left. (98):Section 1(1) paraphrase

distribution analysis "A class of analysis that attempts to assess the social distribution of the economic or environmental impacts arising from land use or resource management decisions." (72):71 quote

district manager A manager for a forest district established under the *Forest Act* and the part of a range district established under the *Range Act* that covers the same area as the forest district with responsibilities as specified in the *Forest Act, Forest and Range Practices Act,* and the *Ministry of Forests and Range Act*. (121):Section 2(1) (d) paraphrase

disturbance "A significant change in the structure and (or) composition of ecosystems, communities, or populations through natural or human-induced events." (61):149 quote

ditch block "A physical blockage of a ditch line, lower than road surface and directly down-grade of the cross-drain, designed to deflect water flow into the cross-drain." (128):177 quote

dob (diameter outside bark) "The diameter of a tree or log including bark." (103):Section D quote

dominant "A tree whose crown extends above the general level of the main canopy of even-aged stands, or in uneven-aged stands, above the crowns of the tree's immediate neighbours and receiving full light from above and partial light from the sides." (106):40 quote

dot grid A traditional mapping technique in which a transparent sheet of film (overlay) with systematically arranged dots is used to determine areas on maps, aerial photos, plans, etc. (103):Section D paraphrase

down-rated bridges "Bridges whose carrying capacity has been reduced." (128):177 quote

drag scarification "A method of site preparation that disturbs the forest floor and prepares logged areas for regeneration. Often carried out by dragging chains or drums behind a skidder or tractor." (62):5 quote

drainage "The surface and subsurface water derived within a clearly defined catchment area, usually bounded by ridges or other similar topographic features, encompassing part, most, or all of a watershed. The term is sometimes used to describe an operating area or location." (133):3 quote

drainage basin "Area of the earth's surface from which surface drainage all flows to a single outlet stream (a 'watershed' in North America)." (71):275 quote

drainage structures "Include metal and wooden culverts, open-faced culverts, bridges, and ditches." (128):177 quote

drainage system "A culvert, cross-ditch, swale, or outslope/inslope designed to move water from one side of the road to the other." (128):177 quote

drawdown [term obsolete] "The process of reducing allowable annual cuts to a sustainable level." (18):Section D quote

drip torch "A hand-held incendiary device that releases slow-burning flaming fuel at a predetermined rate." (67):10 quote

drop zone "Target area for the release of the airtanker's load." (67):10 quote

dryland sort "Flat areas, usually paved, where loads of logs are lifted out of the water or off-loaded from logging trucks and spread onto the ground for scaling, grading, and subsequent sorting." (52):G-4 quote

due diligence defence "A statutory defence in which an alleged contravener must prove on a balance of probabilities that the particular event which caused the alleged contravention was not reasonably foreseeable, or, if it was, that the person took all reasonable care to prevent it." (125) pers. comm.

duff "The layer of partially and fully decomposed organic materials lying below the litter and immediately above the mineral soil. It corresponds to the fermentation (F) and humus (H) layers of the forest floor. When moss is present, the top of the duff is just below the green portion of the moss." (67):11 quote

dust palliatives [term obsolete] “Chemicals or compounds applied to road surfaces to reduce dust created by traffic.” (128):177 quote

E

early seral "Stands are defined as early seral if they are younger than 40 years of age. An exception is deciduous-dominated stands in the Boreal White and Black Spruce biogeoclimatic zone, which are defined as early seral up to 20 years of age." (133):3 quote

earlywood "The part of a tree's growth ring that is produced at the beginning of the growing season; it is usually less dense and lighter in colour than late wood. Also called springwood." (52):G-4 quote

ecodivision "An area of broad climatic and physiographic uniformity. There are seven ecodivisions occurring within British Columbia. Ecodomains and ecodivisions place British Columbia in a global context. Ecodivisions are meant to be mapped at 1:7 500 000 for use in national state of the environment reporting." (9) quote

ecodomain "An area of broad climatic uniformity. There are three terrestrial and one oceanic ecodomain occurring in British Columbia. Ecodomains are meant to be mapped at 1:30 000 000 for use in global environmental strategies." (9) quote

ecological balance A state of dynamic equilibrium within a community of organisms in which genetic, species, and ecosystem diversity remain relatively stable, subject to gradual changes through natural succession. (1):668 paraphrase

ecological community "Term used by the Conservation Data Centre to include natural plant communities and plant associations and the full range of ecosystems that occur in British Columbia. These may represent ecosystems as small as a pool or as large as an entire river basin, an ecoregion, or a biogeoclimatic zone." (7):Section E quote

ecological health "Both the occurrence of certain attributes that are deemed to be present in a healthy, sustainable resource, and the absence of conditions that result from known stresses or problems affecting the resource." (18) quote

ecological integrity "A quality or state of an ecosystem in which it is considered complete or unimpaired, including the natural diversity of species and biological communities, ecosystem processes and functions, and both the ability to absorb disturbance (resistance) and to recover from disturbance (resilience)." (72):71 quote

ecological land classification "A process of delineating and classifying ecologically distinctive areas based on geologic, landform, soil, vegetative, climatic, wildlife, water, and human factors. This holistic approach to land classification can be applied incrementally, from site-specific ecosystems to very broad ecosystems." (64):Section E quote

ecologically suitable species "Coniferous or deciduous tree species that are naturally adapted to a site's environmental conditions, including the variability in these conditions that may occur over time." (128):177 quote

ecological reserve "A legally protected natural area where human influence is minimized, functioning primarily for the preservation of genetic resources and for scientific research. Change, itself a natural phenomenon, is not interfered with but is allowed, as far as possible, to proceed uninterrupted by humans." (78):102 quote

ecological resilience "The capacity of an ecosystem to absorb disturbance or stress and remain within its range of natural variability." (48):2 quote

ecological restoration "An intentional activity that initiates the recovery of an ecosystem with

respect to its integrity and health. It seeks to protect and restore the plant and animal communities of a given area or region and the renewal of the ecosystem and cultural functions necessary to maintain these communities now and into the future." (72):71 quote

ecological units "Areas of land with similar biological, geological, and climatic environments." (128):177 quote

economically accessible "Forest management units and forest stands from which the allowable annual cut can be profitably harvested within the foreseeable future." (103):Section E quote

economically operable "Forest stands for which log prices exceed harvesting costs, including profit and return to capital." (18):Section E quote

economic impact analysis "Analytical techniques that estimate the economic effects of management scenarios on income, revenues, and employment within specific communities, regions, or the province as a whole." (12):8 quote

ecoprovince "An area with consistent climatic or oceanography, relief, and regional landforms. There is one oceanic, two marine/terrestrial, and seven terrestrial ecoprovinces occurring within British Columbia. Ecoprovinces are meant to be mapped at 1:2 000 000 for use in provincial state of the environment reporting." (9) quote

ecoregion "An area with major physiographic and minor macroclimatic or oceanographic variation. There are 43 ecoregions in British Columbia of which 39 are terrestrial. Ecoregions are meant to be mapped at 1:500 000 for regional strategic planning." (9) quote

ecoregion classification "The ecoregion classification system is used to stratify British Columbia's terrestrial and marine ecosystem complexity into discrete geographical units at five different levels. The two highest levels, ecodomains and ecodivisions, are very broad and place the province globally. The three lowest levels, ecoprovinces, ecoregions and ecosections, are progressively more detailed, narrow in scope, and relate segments of the province to one another. They describe areas of similar climate, physiography, oceanography, hydrology, vegetation, and wildlife potential." (76) quote

ecosection "Areas with minor physiographic and macroclimatic or oceanographic variations. There are 114 ecosections in British Columbia varying from pure marine units to pure terrestrial units. Ecosections are meant to be mapped at small scales (1:250 000) for resource emphasis and area planning." (9) quote

ecosystem "A functional unit consisting of all the living organisms (plants, animals, and microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow. An ecosystem can be of any size—a log, pond, field, forest, or the earth's biosphere—but it always functions as a whole unit. Ecosystems are commonly described according to the major type of vegetation (e.g., forest ecosystem, old-growth ecosystem, or range ecosystem)." (128):177 quote

ecosystem at risk "An extirpated, endangered, or threatened ecosystem or an ecosystem of special concern (formerly called 'vulnerable')." (7):Section E quote

ecosystem-based management "An adaptive approach to managing human activities that seeks to ensure the coexistence of healthy, fully functioning ecosystems and human

communities. The intent is to maintain those spatial and temporal characteristics of ecosystems such that component species and ecological processes can be sustained and human well-being supported and improved." (72):71 quote

ecosystem integrity "The quality of a natural unmanaged or managed ecosystem in which the natural ecological processes sustain the function, composition, and structure of the system." (64):Section E quote

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. (113):16 paraphrase

ecosystem productivity "The ability of an ecosystem to produce, grow, or yield products—whether trees, shrubs, or other organisms." (71):276 quote

ecosystem type "An ecosystem defined using the site-series level in the biogeoclimatic ecosystem classification system, plant associations, or some equivalent ecosystem surrogate representing the full range of site conditions within a biogeoclimatic variant. Groupings of similar ecosystem types within a variant may be used to assess and meet representation targets when appropriate. Red- or blue-listed ecosystems cannot be grouped to meet targets." (72):71 quote

ecotone "A transition area between two adjacent ecological communities usually exhibiting competition between organisms common to both." (123):290 quote

ecotourism "A type of tourism that focusses on nature-related experiences (e.g., whale watching)." (64):Section E quote

ecozone "An area of the earth's surface representing large and very generalized ecological units characterized by interacting abiotic (non-living) and biotic (living) factors." (64):Section E quote

edatope A specific combination of soil moisture regime and soil nutrient regime. (118):16 paraphrase

edatopic grid "A grid showing all combinations of soil moisture and nutrients from very dry, low nutrients to wet, high nutrients." (11):18 quote

edge "The outer band of a patch that has an environment significantly different from the interior of the patch." (12):8 quote

edge/area ratio "Length of forest edge per cutblock area." (12):8 quote

edge effect Habitat conditions (such as degree of humidity and exposure to light or wind) created at or near the more-or-less well-defined boundary between ecosystems (e.g., between open areas and adjacent forest). (128):177 paraphrase

effectiveness evaluation/monitoring A Forest and Range Evaluation Program activity that determines whether policies or practices are meeting desired objectives based on evidence of outcomes. These evaluations are used to assess the impacts of operational activities on specific resource values (e.g., assessing post-harvest stand structure and comparing it to baseline data for that ecosystem). (26):2 paraphrase

effectiveness monitoring "Evaluating system status and trends resulting from the implementation of a management plan; evaluating whether the management plan achieves the desired outcomes or predicted targets." (47):Section E quote

element "A species or ecological community. The term 'species' is used to include all entities at the taxonomic level of species, including interspecific hybrids, as well as all subspecies and plant varieties. Ecological communities are based primarily on Ministry of Forests and Range vegetation classification and the International Classification of Ecological Communities." (7):Section E quote

element occurrence (EO) An area of land and (or) water in which a species or ecological community is, or was, present. The EO should have practical conservation value for the element as evidenced by potential continued (or historic) presence and (or) regular recurrence at a given location. (7):Section E paraphrase

element occurrence record (EOR) "A record from the Conservation Data Centre containing information about an element occurrence, such as location, condition, and type of occurrence." (7):Section E quote

employment coefficient "The number of person-years of employment supported by every 1000 cubic metres of timber harvested; for example, a coefficient of 1.0 indicates that every 1000 cubic metres harvested supports one person-year, or 500 000 cubic metres supports 500 person-years." (133):3 quote

employment multiplier "An estimate of the total employment supported by each direct job; for example, a multiplier of 2.0 means that one direct job supports one additional indirect and induced job." (133):4 quote

endangered species "A species facing imminent extirpation or extinction." (7):Section E quote

endemic losses "Damage to timber from normal populations of insects or disease that inflicts average losses over the long term for the locality or region. The forest inventory provides net merchantable volumes which reflect 'endemic' (average or normal) losses." (45):G-ii quote

endemic species "A species that is indigenous to a particular area; not introduced and often with a limited geographical range." (78):108 quote

endhaul To move excavated material from one section of the road to another or to a disposal site, during road construction or modification. (128):177 paraphrase

engineered wood products "A composite wood product made from glued fibre, lumber, and (or) veneer to meet specific design criteria." (64):Section E quote

entrainment "Mobilization, by flowing water, of sediment or organic debris from the bed or banks of a stream channel." (70):75 quote

entrenched "A legislative requirement which previously may only have been required by contract or policy." (18):Section E quote

environmental assessment "A process designed to contribute pertinent environmental information to the decision-making process of forest management and other resource projects and programs." (64):Section E quote

environmentally sensitive areas (ESAs) "Areas designated on forest cover maps as requiring special management attention to protect important scenic values, fish and wildlife resources, historical and cultural values, and other natural systems or processes. In forestry, ESAs include potentially fragile, unstable soils that may deteriorate unacceptably after forest harvesting, and areas of high value to non-timber resources such as fisheries, wildlife, water, and recreation." (71):276 quote; (120) pers. comm.

environmental rehabilitation "Measures undertaken to remedy environmental damage done to the land." (18):Section E quote

environmental risk assessment "A process for estimating the likelihood or probability of an adverse outcome or event due to pressures or changes in environmental conditions resulting from human activities." (72):71 quote

environmental (or ecosystem) services "Valuable, ongoing streams of benefits provided by healthy ecosystems, such as air and water purification, biodiversity maintenance, climate stabilization, mitigation of floods and droughts, detoxification and decomposition of wastes, generation and renewal of soil and soil fertility." (72):71 quote

environmental service values "Values related to the ability of forest ecosystems to assimilate waste and respond to human disturbances while continuing to provide environmental goods and services, such as clean air and water, soil retention, and wildlife habitat." (61):149 quote

ephemeral stream "A stream or portion of a stream that flows only in direct response to precipitation, drying up shortly after precipitation ceases." (23):58 quote

equivalent clearcut area "An index of potential watershed-level hydrologic impacts (e.g., increased peak runoff) due to forest cover removal, normally expressed as a percentage of the naturally forested area of a watershed; areas where forest cover has been completely removed by harvesting, fire, or other disturbances are assessed as full percentages (e.g., clearcuts, intensive burns); areas with partial stand removal are pro-rated according to the percentage of the crown cover removed (i.e., equivalent to clearcut); areas partially recovered through forest regeneration are pro-rated according to the degree of crown closure and tree height." (72):72 quote

erosion "The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep." (78):113 quote

escaped fire "A wildfire (or prescribed fire that has burned beyond its intended area) that remains out of control following initial attack." (67):12 quote

even-aged "A forest stand or forest type in which relatively small (10–20 year) age differences exist between individual trees." (62):5 quote

even-aged silvicultural system "A silvicultural system that is designed to regenerate and maintain an even-aged stand. Clearcutting, seed tree, and shelterwood are even-aged systems." (128):177 quote

even-aged stand A stand of trees consisting of one or two age classes. Even-aged stands are often the result of fire, or a harvesting method such as clearcutting or shelterwood. (128):177 paraphrase

even flow "In harvest scheduling, the requirement that the harvest level in each period be equal to the harvest level in the preceding period." (18):Section E quote

evergreen "Never entirely without green foliage, leaves persisting until a new set has appeared." (18):Section E quote

excavated or bladed trail A constructed trail that has an excavated or bladed width greater than 1.5 m, and a mineral soil cutbank height greater than 30 cm. (86):Section 1(1) paraphrase

exclosure "A fenced area, generally of limited extent, enclosing vegetation and keeping out livestock or wildlife." (106):60 quote

existing visual condition A component of the visual landscape inventory that represents the level of human-made landscape alteration caused by resource development activities in a visual sensitivity unit; expressed as visual quality classes. (19):32 paraphrase

exotic species "Species that have been moved beyond their natural range as a result of human activity. Exotic species are also known as alien species, foreign species, introduced species, non-indigenous species, and non-native species." (7):Section E quote

experiential knowledge "Knowledge gained through experience rather than structured academic or learning processes." (100):25 quote

extension A people-focussed, continuous process of learning and improving that provides support for adaptive natural resource decisions. Extension programs help to identify information and knowledge gaps, to develop knowledge-based solutions, and to inform and enable partnerships in knowledge generation and learning. Knowledge and technology exchange activities, which serve to extend the benefits of research beyond the scientific community, include: workshops; field trips; conferences; and the publication of field guides, extension notes, journal articles, newsletters, and workshop reports. (100):25 paraphrase; (107) pers. comm.

extensive evaluation In resource stewardship monitoring, an evaluation involving the collection of categorical data using visual estimates or relatively simple measurements. More rigorous and quantitative than routine evaluations, extensive evaluations are used to collect detailed information on a given area (e.g., assessing the level of soil disturbance on high-vulnerability karst terrain). (31) paraphrase

extinct species "Species that no longer exist." (7):Section E quote

extirpated "Taxa that no longer exist in the wild in British Columbia, but do occur elsewhere. Ecological communities that no longer exist in British Columbia, but do occur elsewhere." (7):Section E quote

F

falldown effect "A decline in timber supply or harvest level associated with the transition from harvesting the original stock of natural mature timber over one rotation to harvesting at a non-declining level (typically equal to the annual increment) after conversion to a forest with a balanced age class structure." (18):Section F quote

fan destabilization A hydrogeomorphic process in which one or more of the following occur beyond the naturally occurring range of variability: (a) an increase in the depth of a channel within an alluvial or colluvial fan; (b) a flow of water and sediment over the banks of a channel within an alluvial or colluvial fan, which spreads out across the surface of the fan; or (c) the creation of a new channel within an alluvial or colluvial fan. (86):Section 1(1) paraphrase

featured-species management A type of wildlife management that does not attempt to manage for all species, but selects a few species of particular concern or interest (e.g., big game species or endangered species) and aims management programs at them. It is generally assumed that providing habitat for these species provides habitat for other species as well. (64):Section F paraphrase

feller-buncher "A self-propelled machine used to fell trees by shearing them off near the ground using a hydraulic apparatus. Some models also strip limbs and bunch the logs for later pickup." (64):Section F quote

felling and bucking "The process of cutting down standing timber and then cutting it into specific lengths for yarding and hauling." (128):178 quote

fertilization "The addition of fertilizer to promote tree growth on sites deficient in one or more soil nutrients. Also used to improve the vigour of crop trees following juvenile spacing or commercial thinning." (62):6 quote

fettering "Occurs when a government policy or direction sets such tight constraints on the decision maker that the independent decision making intended by a statute is not carried out." (93):Section F quote

fibre (wood) "A material in which the wood is reduced to predominantly individual fibres by mechanical or chemical means, or a combination of the two. Virgin fibre is derived from trees not previously processed into paper; recycled fibre has been reclaimed from a previous product such as old newsprint and reprocessed and incorporated into a new product." (64):Section F quote

fill "The placement of excavated materials necessary to raise a low point in a road alignment up to the required grade line." (78):122 quote

fill bank "The fill material used to shape a road from the outer edge of the travelled portion to its intersection with the existing ground profile." (62):6 quote

fill-in planting "Planting required to supplement poorly stocked natural regeneration or to replace seedlings that have died on previously planted sites." (62):6 quote

fillslopes "Slopes created by fill material (used to support the road); can be excavated from adjacent cutslopes when building roads, or trucked in from elsewhere." (71):277 quote

finding "A deduction of fact made by the Forest Practices Board based on information obtained during an investigation." (93):Section F quote

fine-filter approach A species- or site-driven approach to maintaining biodiversity that is

designed, by describing very specific management actions, to protect those species and plant communities that are not adequately managed under a coarse-filter approach. (21) paraphrase

fine fuels "Fuels that ignite readily and are consumed rapidly by fire (e.g., cured grass, fallen leaves, needles, small twigs)." (67):13 quote

fire behaviour "The manner in which fuel ignites, flame develops, and fire spreads and exhibits other related phenomena as determined by the interaction of fuels, weather, and topography. Some common terms used to describe fire behaviour include: smouldering, creeping, running, torching, spotting, and crowning." (67):13 quote

fire bombing "An air attack operation involving the use of aircraft to drop suppressants and retardants to suppress or retard the spread of forest fires." (67):13 quote

firebreak *See* ***fuelbreak***.

fire control "An action to contain, extinguish, or limit the spread of a fire." (134):Section 1(1) quote

fire danger "An assessment of both fixed and variable factors of the fire environment, which determine the ease of ignition, rate of spread, difficulty of control, and the fire impact." (67):14 quote

fire ecology "The study of the relationships between fire, the physical environment, and living organisms." (67):15 quote

fireguard "A strategically planned barrier, either manually or mechanically constructed, intended to stop or retard the rate of spread of fire, and from which suppression action is carried out to control a fire. The constructed portion of a control line." (67):15 quote

fire hazard "The potential fire behaviour for a fuel type, regardless of the fuel type's weather-influenced fuel moisture content or its resistance to fireguard construction. Assessment is based on physical fuel characteristics, such as fuel arrangement, fuel load, condition of herbaceous vegetation, and presence of elevated fuels." (128):178 quote

fire impact "The immediately evident effect of fire on the ecosystem in terms of biophysical alterations (e.g., crown scorch, mineral soil exposure, depth of burn, fuel consumption)." (67):16 quote

fireline "That portion of the fire upon which resources are deployed and are actively engaged in suppression action. In a general sense, the working area around a fire." (67):16 quote

fire management "The activities concerned with the protection of people, property, and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social, and economic criteria." (67):16 quote

fire retardant "A substance that by chemical or physical action reduces flammability of combustibles." (67):18 quote

fire risk "The probability or chance of fire starting determined by the presence and activities of causative agents." (67):18 quote

fire scar "A healing or healed-over injury on a woody plant caused or aggravated by fire." (52):G-5 quote

fire season The period(s) of the year during which fires are likely to start, spread, and do damage

to values-at-risk sufficient to warrant organized fire suppression; a period of the year set out and commonly referred to in fire prevention legislation. In British Columbia, the fire season is considered to extend from April 1 to October 31. (67):18 paraphrase

firestorm A large continuous area of intense burning characterized by violent fire-induced convection resulting in gale-force indraft surface winds near and beyond the fire perimeter, a towering convection column, and the occurrence of large fire whirls. (67):19 paraphrase

fire suppressant "An agent used to extinguish the flaming and smouldering or glowing stages of combustion by direct application to burning fuels." (67):42 quote

fire suppression "All activities concerned with controlling and extinguishing a fire following its detection. Synonymous with fire control." (67):19 quote

Fire Weather Index (FWI) *See* ***Canadian Forest Fire Weather Index System***.

firmwood "The volume of healthy fibre of a log." (49):Section F quote

firmwood deductions "Deductions made from the gross volume of a log to account for rot, hole, char, and missing wood." (52):G-5 quote

first-order stream "Stream originating in a seepage zone or spring, with no entering tributaries; the most headward channels in the drainage network." (18):Section F quote

first pass "The first of two or more planned entries over a specific period of time (usually one rotation) to harvest timber." (128):179 quote

fish-bearing waters "Lakes, streams, and ponds that have resident fish populations." (128):179 quote

fisheries sensitive feature Includes any of the following: (a) the littoral zone of a lake; (b) a freshwater area where the water is less than 10 m deep; or (c) a flooded depression, pond, or swamp that is not a stream, wetland, or lake, but either perennially or seasonally contains water, and is seasonally occupied by species of regulated fish. (86):Section 1(1) paraphrase

fisheries sensitive watershed (FSW) "A designation under the *Forest and Range Practices Act*. To qualify as an FSW candidate, watersheds must meet two criteria: significant fisheries values and watershed sensitivity." (8):75 quote

fisheries-sensitive zones "Aquatic environments deemed important for the life history of fish, including areas that may not be defined as streams. May include side and flood channels, valley wall ponds, swamps, seasonally flooded depressions, lake littoral zones or spawning areas, estuaries, and recreationally fished areas." (78):129 quote

fisheries stream class A "Streams or portions of streams that are frequented by anadromous salmonids and (or) resident game fish or regionally significant fish species." (128):179 quote

fish habitat "The aquatic environment and the immediately surrounding terrestrial environment that afford the necessary biological, chemical, and physical support systems required by fish species during various life history stages." (106):68 quote

FISS (Fisheries Information Summary System) "A provincial GIS database that provides spatially represented summary fish and fish habitat data for water bodies throughout British Columbia." (72):72 quote

fixed area plot sampling "A controlled cruise method where small plots of a fixed size are used to sample a portion of a forest area to obtain information (such as tree volume) that can be used to describe the whole area." (62):6 quote

flood discharge criterion "The volume of flood that a bridge or culvert must be designed to accommodate." (71):277 quote

floodplain "A level, low-lying area adjacent to streams that is periodically flooded by stream water. It includes lands at the same elevation as areas with evidence of moving water, such as active or inactive flood channels, recent fluvial soils, sediment on the ground surface or in tree bark, rafted debris, and tree scarring." (128):179 quote

fluvial processes "All processes and events by which the configuration of a stream channel is changed; especially processes by which sediment is transferred along the stream channel by the force of flowing water." (18):Section F quote

flyrock "Rock displaced by blasting and propelled beyond recoverable limits." (128):179 quote

focal species "Species that warrant special protection and stewardship. As such, they help determine area for protection and stewardship actions to sustain and improve known populations. May include ***keystone species*** or ***umbrella species***." (72):72 quote

foliar analysis "A chemical analysis of leaves or needles, designed to evaluate the status of nutrients." (128):179 quote

foot board measure "A volume of lumber equal to 12 inches by 12 inches by 1 inch." (39):G-2 quote

forage "Grasses, herbs, and small shrubs that can be used as feed for livestock or wildlife." (62):6 quote

ford "A dip constructed in the roadbed at a stream crossing, instead of a culvert or bridge. The streambed must be of erosion-resistant material, or such material must be placed in contact with the streambed." (128):179 quote

forest "A complex community of plants and animals in which trees are the most conspicuous members and where the tree crown density—the amount of compactness of foliage in the tree tops—is greater than 10 percent." (64):Section F quote

forest and range assets "All the forest and range resources on Crown land, including the water, soil, biodiversity, timber, forage, wildlife habitat, recreation, and scenic resources." (38):91 quote

Forest and Range Evaluation Program (FREP) "A science-based resource stewardship monitoring and evaluation initiative established by the Ministry of Forests and Range and the Ministry of Environment to monitor and evaluate the status and trends of British Columbia's forest and range resources." (46) quote

Forest and Range Practices Advisory Council (PAC) Council appointed by the Minister of Forests and Range to periodically review and evaluate requirements of the *Forest and Range Practices Act* for its continued improvement. (33) paraphrase

Forest Appeals Commission (FAC) "An independent tribunal established under Section 194 of the *Forest Practices Code of British Columbia Act* and continued under the *Forest and Range Practices Act* to hear appeals of most determinations made under the *Forest and Range Practices Act*." (120) pers. comm.

forest cover "Forest stands or cover types consisting of a plant community made up of trees and other woody vegetation, growing more or less closely together." (128):179 quote

forest cover inventory A survey of trees and tree-related matters that includes information required by the Minister of Forests and Range. (86):Section 1(1) paraphrase

forest cover map "A map showing relatively homogeneous forest stands or cover types, produced from the interpretation of aerial photos and information collected in field surveys. Commonly includes information on species, age class, height class, site, and stocking level." (62):6 quote

forest cover objectives "Specify desired distributions of areas by age or size class groupings. These objectives can be used to reflect desired conditions for wildlife, watershed protection, visual quality, and other integrated resource management objectives. General adjacency and green-up guidelines are also specified using forest cover objectives." *See **cutblock adjacency** and **green-up***. (133):4 quote

forest cover type "A group of forested areas or stands of similar composition which differentiates it from other such groups. Forest cover types are usually separated and identified by species composition and often also by height and crown closure classes. In detailed typing, age, site, and other classes may also be recognized." (103):Section F quote

forest-dependent community "A community or census subdivision that derives at least 50 percent of employment income from the forest sector." (61):150 quote

forest development plan "An operational plan under the *Forest Practices Code of British Columbia Act*, guided by the principles of integrated resource management (the consideration of timber and non-timber values), which details the logistics of timber development over a period of usually 5 years. Methods, schedules, and responsibilities for accessing, harvesting, renewing, and protecting the resource are set out to enable site-specific operations to proceed." Replaced by forest stewardship plans (FSPs) under the *Forest and Range Practices Act*. (128):179 quote; (120) pers. comm.

Forest Development Review Committee (FDRC) [term obsolete] "The group made up of government organizations, stakeholders, licensees, and the general public that is responsible for reviewing development plans." (18):Section F quote

forest development unit An area identified in a forest stewardship plan where forest development may occur during the term of the plan, and within which, during the term of the plan, timber to be harvested or roads to be constructed are entirely located. (86):Section 1(1) paraphrase

forest ecology "The relationships between forest organisms and their environment." (62):6 quote

Forest Ecosystem Network (FEN) "An area that serves to maintain or restore the natural connectivity within an area." (133):4 quote

forested swamp "Wooded, nutrient-rich mineral wetland or a wooded peatland with standing or gently flowing water in pools and channels. The water table is usually at or near the surface." (72):72 quote

forest encroachment "The intrusion or establishment of a significant number of trees on grassland(s)." (38):91 quote

forester A professional engaged in the science and profession of forestry. In some countries, the

term is restricted to those who received formal post-secondary education in forestry or who possess the equivalent qualifications. A forester may or may not be a Registered Professional Forester, which is a legally recognized title. (106):70 paraphrase

forest fire "Any wildfire or prescribed fire that is burning in forest, grass, alpine, or tundra vegetation types." (67):22 quote

forest floor "Layers of fresh leaf and needle litter, moderately decomposed organic matter, and humus or well-decomposed organic residue." (71):277 quote

forest floor displacement hazard "A ranking of the potential adverse impacts on forest productivity resulting from removal of the accumulated organic matter that constitutes the forest floor." (128):180 quote

forest health "The vigour or physiological condition of a forest." (128):180 quote

forest health factors "Biotic and abiotic influences on a forest that have an adverse effect on the health of trees and other plants." "Biotic influences include fungi, insects, plants, animals, bacteria, and nematodes. Abiotic influences include frost, snow, fire, wind, sun, drought, nutrients, and human-caused injury." (86):Section 1(1) quote; (128):180 quote

forest health pest "A forest health factor that limits the ability to meet resource management objectives." (22):88 quote

forest health treatments "The application of techniques to influence pest or beneficial organism populations, mitigate damage, or reduce the risk of future damage to forest stands. Treatments can be proactive (e.g., spacing trees to reduce risk of attack by bark beetles) or reactive (e.g., spraying insecticides to treat outbreaks of spruce budworm)." (128):180 quote

forest ingrowth "The process whereby previously open forest becomes more dense, and treed grasslands become more densely covered with young trees." (38):92 quote

forest interior conditions "The environmental conditions typical of the central or interior part of a habitat patch. They are usually relatively stable and uninfluenced by the changing climatic conditions and other variables (noise, wind, sunlight, temperature, moisture) associated with edge conditions." (78):178 quote

forest inventory "An assessment of British Columbia's timber resources. It includes computerized maps, a database describing the location and nature of forest cover, including size, age, timber volume, and species composition, and a description of other forest values such as recreation and visual quality." (133):4 quote

Forest Investment Account (FIA) A forest-sector investment model, led by government, established to aid the development of a globally recognized, sustainably managed forest industry. FIA programs provide funding to forest sector associations, researchers, tenure holders, manufacturers, and government agencies to support sustainable forest management practices, improve the public forest asset base, and promote greater returns from the utilization of public timber. (92) paraphrase

Forest Investment Council (FIC) Convened by the Deputy Minister of Forests and Range, the Council makes recommendations on all elements of Forest Investment programs, including objectives, parameters, and standards, financial and performance monitoring and audits, and funding allocations. (10):40 paraphrase

forest land (*Assessment Act*) [term obsolete] "Land which has as its highest and best use the

growing and harvesting of trees, including land which is being managed in accordance with a forest management plan approved under regulations, but does not include a farm." (18):Section F quote

forest land (B.C. Assessment Authority) [term obsolete] "Land having as its highest and best use the growing and harvesting of trees." (18):Section F quote

forest land (Ministry of Forests) "Provincial forests and other unalienated Crown lands for which the Ministry of Forests and Range is responsible, including both forested lands and non-forested lands such as tundra, wetlands, rangelands, deserts, rock, and ice." (128):180 quote

forest land "Land primarily intended for growing, or currently supporting, forest. It includes land not now forested (e.g., clearcut lands and northern lands that are forested but not intended for any commercial forestry use) and plantations." (64):Section F quote

forest landscape "A portion of the land that the eye can see in one glance and in which the forest is the most dominant element." (18):Section F quote

forest licence A volume-based agreement entered into under the *Forest Act* (Part 3, Division 2) that issues the right to harvest an allowable annual cut in a specified timber supply area or tree farm licence area. With a term of up to 20 years, this licence is either replaceable every 5–10 years or non-replaceable. (54):8 paraphrase

forest management "The practical application of biological, physical, quantitative, managerial, economic, social, and policy principles to the regeneration, management, utilization, and conservation of forests to meet specified goals and objectives while maintaining the productivity of the forest. Particularly, that branch of forestry concerned with the overall administrative, economic, legal, and social aspects and with the essentially scientific and technical aspects, especially silviculture, protection, and forest regulation. Includes management for aesthetics, fish, recreation, urban values, water, wilderness, wildlife, wood products, and other forest resource values." (106):71 quote

forest management cycle "The phases that occur in the management of a forest including harvesting, site preparation, reforestation, and stand tending." (62):7 quote

forest management plan [term obsolete] "A general plan for the management of a forest area, usually for a full rotation cycle, including the objectives, prescribed management activity, and standards to be employed to achieve specified goals. Commonly supported with more detailed development plans." (62):7 quote

forest mensuration "The measurement of volume, growth, and development of individual trees and stands, and the various products obtained from them." (103):Section F quote

forest officer A person employed by the B.C. Ministry of Forests and Range who is designated by the minister, the chief forester, a regional manager, or a timber sales manager to be a forest officer, through name or title. (80):Section 1(1) paraphrase

forest pathologist "A professional engaged in the study and (or) management of diseases and pathogens of forest trees." (78):137 quote

forest planning model "An analytical model (usually computer-based) that successively harvests and grows collections of forest stands over a period of several decades according to specific data and management assumptions." (133):4 quote

forest practice "A prescribed activity that is carried out by: (a) the government; (b) the holder of

an agreement under the *Forest Act;* (c) a person in a prescribed category of persons on private land, subject to a tree farm licence, a community forest agreement, or a woodlot licence, or on Crown forest land." Prescribed activities for forest practices include: timber harvesting; road construction; road maintenance; road use; road deactivation; silviculture treatments, including grazing for the purposes of brushing; botanical forest product collecting; and fire use, control, and suppression; and any other activity that is carried out by the government or by the holder of an agreement under the *Forest Act*. (84):Section 1(1) quote; (86):Section 1(1) paraphrase; (131) pers. comm.

Forest Practices Board (FPB) An independent body that reports to the public about compliance with the *Forest and Range Practices Act* (FRPA) and the achievement of its intent. The board's main roles under FRPA are: auditing forest practices of government and licence holders on public lands; auditing government enforcement of FRPA; investigating public complaints; undertaking special investigations of forestry issues; participating in administrative appeals; and providing reports on board activities, findings and recommendations. (94) paraphrase

Forest Practices Code (FPC) Term commonly used to refer to the *Forest Practices Code of British Columbia Act*, implemented in June 1995. Although some sections of this Act are still in force, the activities of forest and range licensees in British Columbia are now governed by the *Forest and Range Practices Act* and regulations, which took effect on January 31, 2004. (32) paraphrase

forest profile "The range of forest conditions that exists across the landscape, including such factors as timber species, quality, condition and age, location, elevation, topography, accessibility, and economic viability." (128):180 quote

forest renewal "The renewal of a tree crop by either natural or artificial means." (62):7 quote

Forest Renewal British Columbia (FRBC) "Incorporated in 1994, FRBC was created as a precursor to the Forest Investment Account as a forest investment model. The purpose was to renew the forest industry in British Columbia, enhance the productive capacity and environmental value of forest lands, create jobs, provide training for forest workers, and strengthen communities." (10):40 quote

forest resources Resources and values associated with forests and range including, without limitation, soil, visual quality, timber, forage and associated plant communities, water, fish, wildlife, biodiversity, recreation, resource features, and cultural heritage resources. (84):Section 149 paraphrase

forestry "The profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit and in a sustainable manner to meet desired goals, needs, and values." (106):72 quote

forestry community "Those with an active hand in management, with the ability to affect sustainable forest management, or who are affected by forest management activities. This includes: forest and range licensees, First Nations and other Aboriginal organizations, forestry practitioners, provincial and federal government employees, academics, researchers, environmental organizations, other sectors working on the forest land-base, municipal and regional governments, and public advisory committees." (100):25 quote

Forestry Innovation Investment (FII) A provincial government agency that invests in initiatives to market British Columbia forest products and promote sustainable forest practices internationally. (99) paraphrase

forestry licence to cut An agreement under the *Forest Act* (Section 47.6) that authorizes the harvesting of relatively small volumes of timber for various purposes including small-scale salvage, timber removal for scientific purposes, forest health, and BC Timber Sales-related activities. (54):9 paraphrase; (115) pers. comm.

forestry practices "Any activity that is carried out on forest land to facilitate the use of forest resources, including, but not limited to, timber harvesting, road construction, silviculture, grazing, recreation, pest control and wildfire suppression." (64):Section F quote

Forest Science Program (FIA-FSP) A Forest Investment Account program that funds forest science initiatives addressing the critical knowledge and information needed to enable science-based sustainable management of British Columbia's forest resources. The program focusses on applied research in the areas of sustainable forest management and improving timber growth and value, and achieving more effective use of forest science results through extension. (92) paraphrase

Forest Service road A road constructed, modified, or maintained by the minister under the provisions of the *Forest Act,* or declared a Forest Service road. Forest Service roads are used to provide access to managed forest land. (80):Section 1(1) paraphrase

Forests For Tomorrow A Ministry of Forests and Range program set up in 2005 to improve future timber supplies and ecosystems through investments in seed and seedling production, site preparation, planting and fertilization, surveying, mapping, and research. The program, introduced in response to recent catastrophic wildfires and the mountain pine beetle epidemic, aims to strengthen the resilience of British Columbia's forests to climate change and natural disturbances. (58) paraphrase

forest stewardship plan (FSP) "A map-based, landscape-level view of potential forest development activities that are intended to take place on the area described in the plan, over a period of up to five or, if extended, up to 10 years. Under British Columbia law, persons (i.e., industry and the Crown agency, BC Timber Sales) must have authorization from the province before they are permitted to harvest Crown timber or build roads. To obtain that authorization, they must first submit an FSP for review and approval." A forest stewardship plan must address objectives set by government to preserve the integrity of the environment and to enable sustainable commercial forest and rangeland practices. Tenure holders address these objectives by crafting results or strategies, which are required to be measurable and enforceable, contributing to effective compliance and enforcement by government. (42):4 quote; (25) paraphrase

forest tree breeding "The application of knowledge of genetics to developing improved trees." (106):72 quote

forest tree improvement "The application of genetics to produce trees or a source of seed to create trees with specific desirable traits based on their phenotypic and genotypic characteristics; the improvement or enhancement of wood quality, volume, and growth rates using a combination of genetic improvement and silvicultural activities, such as fertilization and pruning." (78):137 quote

forest type "The classification or label given to a forest stand, usually based on its tree species composition. Pure spruce stands and spruce-balsam mixed stands are two examples." (133):5 quote

forest type labels "The symbols used to code information about forest types on a forest cover map, such as site, disturbance, age and height class, species, stocking." (62):7 quote

forest type lines "Lines on a map or aerial photo delineating forest cover types." (62):7 quote

forest type representation "Retaining a representative sample of all naturally occurring forest types." (133):5 quote

forest yield "Typically defined as the total volume of wood produced by a forest usually expressed in cubic metres per hectare." (102) pers. comm.

forest yield regulation The administrative and technical process that facilitates yield control (regulation); often narrowly interpreted as a process that ensures regular and sustained forest yields. (18):Section F paraphrase

FORREX A British Columbia-based charitable organization responsible for the design and delivery of the provincial Forest Research Extension Program. (100):1 paraphrase

forwarder "A self-propelled machine, usually self-loading, that transports trees or logs by carrying them completely off the ground." (64):Section F quote

fragmentation "The splitting or isolating of patches of similar habitat, typically forest cover, but including other types of habitat. Habitat can be fragmented naturally or from forest management activities, such as clearcut logging." (64):Section F quote

free-growing "An established seedling of an acceptable commercial species that is free from growth-inhibiting brush, weed, and excessive tree competition; or young trees that are as high as or higher than competing brush, with 1 m of free-growing space around their tops." (71):278 quote

free-growing assessment "The determination for whether young trees have attained free-growing status." (128):180 quote

free-growing date The date by which a free-growing stand must conform to the stocking standards set for it. (86):Section 1(1) paraphrase

free-growing height "The minimum height that a crop tree must attain before it forms part of a free-growing stand." (86):Section 1(1) quote

free-growing stand "A stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs, or other trees." (84):Section 1(1) quote

free growing tree "A healthy, preferred, or acceptable well-spaced tree that is at least the minimum height, and is at least the minimum size relative to competing vegetation within the effective growing space." (22):89 quote

free use permits "An agreement entered into under the *Forest Act* (Part 3, Division 9) that provides the right to harvest up to 50 cubic metres of timber for non-commercial purposes, or up to 250 cubic metres of timber for a traditional or cultural activity. Permit term is limited to a maximum of 1 year and the permit holder is not required to pay stumpage." (115) pers. comm.

freshet "Minor flooding or overflowing of a stream caused by heavy rains or snowmelt." (111):Section F quote

FRPA value regime Resource values identified under Section 149(1) of the *Forest and Range Practices Act* for which the Lieutenant-Governor-in-Council may make regulations prescribing objectives. These values currently include: soils, visual quality, timber, forage and associated plant communities, water, fish, wildlife, biodiversity, recreation resources,

cultural heritage resources, and resource features. (42):9 paraphrase

fruiting body "The reproductive part of a fungus that contains or bears spores. Also known as a ***conk***." (62):7 quote

fry "The life stage of fish between full absorption of the yolk sac and less than 1 year old." (78):141 quote

fuelbreak "An existing barrier or change in fuel type (to one that is less flammable than that surrounding it), or a wide strip of land on which the native vegetation has been modified or cleared, that acts as a buffer to fire spread so that fires burning into them can be more readily controlled. Often selected or constructed to protect a high-value area from fire." (67):23 quote

fuel hazard "The potential fire behaviour, without regard to the state of weather or topography, based on the physical fuel characteristics, including fuel arrangement, fuel load, condition of herbaceous vegetation, and the presence of ladder fuel." (134):Section 1(1) quote

fuel management The planned manipulation and (or) reduction of living or dead forest fuels for forest management and other land use objectives (such as hazard reduction, silvicultural purposes, wildlife habitat improvement) by prescribed fire, mechanical, chemical or biological means, and (or) changing stand structure and species composition. (67):24 paraphrase

fuelwood "Trees used for the production of firewood logs or other wood fuel." (62):7 quote

full bench cut "Forming the roadway entirely in cut." (128):180 quote

full cost accounting "A tool to identify, quantify, and allocate the direct and indirect environmental costs of an activity. Full cost accounting helps identify and qualify the direct costs, hidden costs, and less tangible costs of a product, process, or project." (72):72 quote

full-tree system "A harvesting system in which trees are cut and skidded to the landing before any processing takes place. This system is characteristic of highly mechanized harvesting operations, and is restricted to small timber because of the difficulty of handling large pieces without causing excessive soil disturbance or damage to machinery or timber." (116):147 quote

fungicides "Products that can inhibit the growth of fungi or kill them. Fungicides are used in agriculture and industrial plantation forestry to protect plants and trees from certain fungal diseases." (65):Section F quote

Future Forest Ecosystems A Ministry of Forests and Range initiative for maintaining and enhancing the resilience and productivity of British Columbia's forest ecosystems by adapting the forest and range management framework to effectively address the effects of climate change, wildfire events, bark beetle infestations, and other rapidly changing ecological conditions. (34) paraphrase

G

galleries "Passages carved out under bark or in wood by insects feeding or laying eggs." (62):7 quote

gap analysis "A technique that assesses conservation plans and identifies ecosystems, land formations, or habitat types that are not currently adequately represented in the existing system of protected areas and reserves. Should be performed at regional, subregional, landscape, and watershed scales." (72):72 quote

gap dynamics "The change in space and time in the pattern, frequency, size, and successional processes of forest canopy gaps caused by the fall or death of one or more canopy trees." (64):Section G quote

genetically improved seed and (or) vegetative propagules "Seed or propagules that originate from a tree breeding program and that have been specifically designed to improve some attribute of seeds, seedlings, or vegetative propagules selection." (128):181 quote

genetic diversity "Variation among and within species that is attributable to differences in hereditary material." (128):181 quote

genotype "The entire genetic constitution, or the sum total of genes of an organism, in contrast to the phenotype." (128):181 quote

geographic district "For a timber mark, the forest district where most of the cutblocks of a timber mark fall geographically. This may differ from the administrative district that administers the timber mark." (49):Section G quote

geographic information system (GIS) "An information system that uses a spatial database to provide answers to queries of a geographical nature through a variety of manipulations, such as sorting, selective retrieval, calculation, spatial analysis, and modelling." (61):150 quote

geotextile material "A synthetic material placed under road fill, bridges, or reinforced slopes with the primary purpose of limiting fine aggregate transfer." (23):59 quote

girdling "To kill a tree by severing or damaging the cambium layer and interrupting the flow of food between the leaves and the rest of the tree. A method of 'brushing' carried out using a hatchet or special tool to cut through the bark and cambium of the tree." (62):8 quote

global positioning system (GPS) "A method of accurately determining or relocating a ground position using the signal from several satellites simultaneously. A small portable computer evaluates the time for each signal to reach it and then computes a three-dimensional location." (45):G-iv quote

global warming "A real and projected trend in the warming of the earth's surface caused by natural changes in the global climate system and by human activities such as the release into the atmosphere of the gaseous by-products (principally carbon dioxide) of fossil-fuel consumption, which trap long-wavelength radiant energy." (61):150 quote

goal "A broad, general statement, usually not quantifiable, that expresses a desired state or process to be achieved. Normally, a management goal is stated in terms of purpose, often not attainable in the short term, and provides the context for more specific objectives." (106):110 quote

grade "A measure of log quality (expressed in numbers or alphabetic characters) used by scalers." (49):Section G quote

grade deduction "In log grading, the process of determining the portion of the log not suitable for the manufacture of various products." (52):G-5 quote

grading "Classifying timber, lumber, or logs according to quality or end-use." (62):8 quote

grapple yarder "A machine used in harvesting to bring logs into a landing. The grapple closes like teeth around the log and is controlled by the machine operator." (62):8 quote

grazing lease "A lease of Crown land issued for grazing purposes under the *Land Act* and administered by the Ministry of Forests and Range." (114) pers. comm.

grazing schedule "Describes the number and class of livestock, along with the affected area and period of use." (128):181 quote

grazing season "The period of the year during which livestock may graze on Crown land under a grazing licence or grazing permit." (114) pers. comm.

green attack "Describes a beetle attack code assigned to a tree infested by bark beetles but still has green foliage. Boring dust may be found in the bark crevices and pitch tubes may be seen on the bole. The inner bark contains beetles in their characteristic egg, larval, or pupal galleries." (78):152 quote

greenbelt "A strip of undisturbed soil and vegetation left along waterways or access routes to minimize the environmental impact from development." (62):8 quote

greenhouse effect "The warming of the earth's atmosphere caused by increasing levels of carbon dioxide and other gases in the air, which trap the sun's heat within the atmosphere." (64):Section G quote

greenhouse gases "Those gases, such as water vapour, carbon dioxide, tropospheric ozone, nitrous oxide, and methane, that are transparent to solar radiation but opaque to longwave radiation. Their action is similar to that of glass in a greenhouse." (64):Section G quote

greenhouse gas sink "A pool or reservoir that absorbs a greenhouse gas or its precursors at a greater rate than it releases them. A forest is a carbon sink when its uptake of carbon dioxide from the atmosphere, principally through photosynthesis, exceeds its release through processes such as decomposition and burning." (61):150 quote

greenhouse gas source "A point or source that releases a greenhouse gas or its precursors at a greater rate than it absorbs them. A forest is a carbon source when its release of carbon dioxide into the atmosphere, principally through decomposition and burning, exceeds its uptake during photosynthesis." (61):150 quote

green tree retention "A tree, pole-sized or larger, retained in either a dispersed or aggregated manner after the regeneration period under the clearcutting, seed tree, shelterwood, group selection, or coppice methods." (106):153 quote

green-up "The time needed after harvesting for a stand of trees to reach a desired condition (usually a specific height)—to ensure maintenance of water quality, wildlife habitat, soil stability, or aesthetics—before harvesting is permitted in adjacent areas." (133):5 quote

grey attack "Describes a beetle attack code assigned to a tree infested by bark beetles. Such trees have been dead for two or more years and have little or no foliage left. The boles of trees that have been dead for long may have loose bark and checking. Pitch tubes on the bark

of the lower bole, and (or) galleries under the bark, may still be discernible." (78):153 quote

gross merchantable volume "Volume of the main stem, excluding stump and top but including defective and decayed wood, of trees or stands." (103):Section V quote

gross scale The volume of a log inside the bark including unsound wood and holes in the log. (52):G-6 paraphrase

gross total volume "**gross total**: [volume brut total] Volume of the main stem, including stump and top as well as defective and decayed wood, of trees or stands." (103):Section V quote

ground-based systems "Logging systems that employ ground-based equipment such as feller-bunchers, hoe chuckers, skidders, and forwarders." (18):Section G quote

ground rules "The terms, conditions, and procedures that consensus-based planning participants agree upon for governing the planning process." (122):14.5 quote

ground truthing "The use of a ground survey to confirm the findings of an aerial survey or to calibrate quantitative aerial observations." (18):Section G quote

groundwater "Water below the level of the water table in the ground; water occupying the subsurface saturated zone." (70):75 quote

group retention A variant of the retention silvicultural system in which, after harvesting, portions (0.25 hectares or more) of the original stand are retained, with approximately four tree lengths or less between the portions. (98):Section 1(1) paraphrase

group selection *See* ***selection system***.

growing stock "The volume estimate for all standing timber at a particular time." (133):5 quote

grubbing "Removal of stumps, roots, embedded logs, organics, and unsuitable soils before or concurrently with subgrade construction." (128):181 quote

guidebooks "Refers to the Forest Practices Code guidebooks. Although these guidebooks are not legally enforceable, their guidelines and procedures may provide useful information." (120) pers. comm.

guideline [term obsolete] "An optional practice or new practice not currently in the Forest Practices Code. Although guidelines are generally voluntary, the implication is that practitioners will use these concepts and principles in meeting their resource objectives." (71):279 quote

guild management "A method of management by which species are assembled into groups based on similarities in their habitat requirements. One species is selected to indicate the group; conserving the habitat of that particular species ensures the conservation of other members of the guild." (64):Section G quote

gully assessment procedure "A procedure for determining gully sediment and debris transport potential, and suggested management strategies." (128):182 quote

gully process A rapid erosion of sediment that creates a channel or increases the depth of an existing channel; or a debris flood. (86):Section 1(1) paraphrase

gully system A steep headwater channel on a hillslope consisting of a headwall, a transport zone, and in some cases a fan. It acts as a conduit for water, sediment, and woody debris.

(3):179 paraphrase

H

habitat "The environment in which a population or individual lives; includes not only the place where a species is found, but also the particular characteristics of the place (e.g., climate or the availability of suitable food and shelter) that make it especially well suited to meet the life cycle needs of that species." (64):Section H quote

habitat enhancement "Any manipulation of habitat that improves its value and ability to meet specified requirements of one or more species." (18):Section H quote

habitat management Management of the forest to create environments that provide habitats (food, shelter) to meet the needs of particular organisms. (62):8 paraphrase

hack and squirt "A method of conifer release and juvenile spacing where the bark of a tree is cut (hack) and herbicides are injected (squirt) to kill the tree." (62):8 quote

handheld "A small microcomputer capable of being carried in one hand, that runs on batteries and is capable of operating anywhere independently of an external power supply. The Ministry and its forest industry clients make extensive use of handheld computers for scaling, and for the Residue and Waste measurement program. Data collected in the handheld is generally transferred to a desktop microcomputer for reporting and calculations." (49):Section H quote

hardwood Trees of the botanical group Angiospermae that generally have broad leaves (e.g., alder, maple, poplar) in contrast to the conifers. The term has no reference to the actual hardness of the wood. (52):G-6 paraphrase

harvest To fell or remove timber, other than under a silviculture treatment. (86):Section 1(1) paraphrase

harvest cut "The felling of the mature crop of trees either as a single clearcut or a series of regeneration cuttings." (62):8 quote

harvest forecast "The flow of potential timber harvests over time. A harvest forecast is usually a measure of the maximum timber supply that can be realized, over time, for a specified land base and set of management assumptions. It is a result of forest planning models and is affected by the size and productivity of the land base, the current growing stock, and management objectives, constraints, and assumptions." (133):5 quote

harvesting "The removal of produce from the forest for utilization; comprising cutting, sometimes further initial processing (topping and trimming), and extraction." (63):Section H quote

harvesting method/system "The mix of felling, bucking, and yarding systems used in logging a stand of timber." (71):279 quote

harvesting prescription [term obsolete] "Detailed plan on how, when, and where timber will be harvested from an area.". (71):279 quote; (120) pers. comm

harvest pattern "The spatial distribution of cutblocks and reserve areas across the forested landscape." (128):182 quote

harvest rate "The rate at which timber is harvested, commonly expressed as an allowable annual cut (AAC)." (128):182 quote

harvest schedule [term obsolete] "A document listing the stands to be harvested by year or period, usually showing types and intensities of harvests for each stand, as well as a

timetable for regenerating currently non-productive areas." (18):Section H quote; (120) pers. comm.

hauling "A general term for the transportation of logs from one point to another, usually from a landing to the mill or shipping point." (62):8 quote

hazard "Any action or substance that has a potential to create an adverse effect without reference to the probability of the potential actually occurring (which is defined by risk assessment). The condition of stands, trees, and the prevailing environmental conditions, which are conducive to the creation of a hazard (e.g., very dry fine fuels for a fire; stressed trees for insect or disease attack)." (78):159 quote

hazard (entomology) "The degree of vulnerability of a stand to a particular pest given that the insect is present." (106):85 quote

hazardous or danger tree "A tree or any component of a tree that has sufficient structural infirmity to be identified as having a high risk of falling and causing personal or property damage." (128):182 quote

hazard reduction "Treatment of living or dead forest fuels to diminish the likelihood of a fire starting, and to lessen the potential rate of spread and resistance to control." (67):25 quote

hazards, potential "A component of risk rating. Potential hazards are the detrimental events that could result from inappropriate harvesting practices." (128):182 quote

healthy ecosystem An ecosystem in which structure and functions allow the maintenance of biodiversity, biotic integrity, and ecological processes over time. (113):17 paraphrase

heartrot "Any rot characteristically confined to the heartwood. It generally originates in the living tree." (52):G-6 quote

heartwood "The inner core of a woody stem composed of non-living cells and usually differentiated from the outer wood layer (sapwood) by its darker colour." *See* ***cambium***. (62):8 quote

height class Any interval into which the range of tree or stand heights is divided for classification and use (commonly 3-, 5-, or 10-m classes); also the trees or stands falling into such an interval. (103):Section H paraphrase

height/diameter curve "A graphic representation of the relationship between individual tree heights and diameters used to determine tree volumes in localized areas." (62):8 quote

helicopter operability "Stands with greater than 500 cubic metres per hectare within a reasonable flight distance (about 2 km) from a land or water drop." (133):5 quote

helitack "Initial attack on wildfires involving the use of helicopters and trained crews, deployed as a complete unit." (67):26 quote

helitank "A specially designed tank fitted to a helicopter and used for transporting and dropping suppressants or retardants." (67):26 quote

helitanker "A helicopter equipped with a helitank or bucket." (67):26 quote

helitorch "A specialized drip torch, primarily using a gelled fuel, slung and activated from a helicopter." (67):26 quote

herbicide "Chemical substances or living organisms (called bioherbicides) used to kill or control vegetation such as brush, weeds, and competing or undesirable trees." (62):8 quote

heritage areas "Sites of historical, architectural, archaeological, paleontological, or scenic significance to the province." (128):182 quote

heritage trail "A trail having cultural significance by reason of established Aboriginal use or use by early immigrants." (128):182 quote

higher level plans "Higher level plans establish the broader, strategic context for operational plans, providing objectives that determine the mix of forest resources to be managed in a given area." (133):5 quote

highgrading "A partial harvest removing only the most valuable tree species, or trees of desirable size and quality, without regard for the condition of the residual stand." (61):150 quote

high hazard (forest health) "Physical characteristics (including tree species, composition, age, and size) and biogeoclimatic factors that make a forest highly susceptible to attack by damaging agents." (128):182 quote

highlead system "Logging system that uses cables rigged to a spar high above the ground so that one end of the logs can be lifted during yarding." (62):9 quote

high sensitivity areas [term obsolete] "Areas having special concerns, issues, or the potential for negative impacts on resource values, including any soils with high hazard or very high hazard for compaction, erosion, mass wasting, or displacement." (120) pers. comm.; (128):182 quote

high side (stumps) "The position where the ground meets the stump on the uphill side, ignoring any root flare, obstacles, vegetation, and loose matter that has accumulated at the base of the tree. Length measurements usually start from 30 cm above this point." (51):A-4 quote

high-value stream [term obsolete] "As defined in the Forest Practices Code of British Columbia Cutblock and Road Review Regulation, a high-value fish-bearing stream and a stream in a community watershed." (120) pers. comm.; (18) quote

hip chain "A device used to measure distance by means of an anchored filament wrapped around a wheel that revolves as you walk (handy for measuring distances on your own)." (62):9 quote

historical variation "More often called 'range of variability.' The spectrum of conditions possible in ecosystem composition, structure, and function considering both temporal and spatial factors." (78):258 quote

hoe-chucking (loader-forwarder) A ground-based logging system that uses an excavator or hoe to pick up logs and move them to a roadside and (or) landing. (116):59 paraphrase

human dimension An integral component of ecosystem management that recognizes that people are part of ecosystems, that people's pursuits of past, present, and future desires, needs and values (including perceptions, beliefs, attitudes, and behaviours) have influenced and will continue to influence ecosystems and that ecosystem management must include consideration of the physical, emotional, mental, spiritual, social, cultural, and economic well-being of people and communities. (78):166 paraphrase

human impact or influence A disturbance or change in ecosystem composition, structure, or function caused by humans. (113):17 paraphrase

humus "A brown or black complex material resulting from the partial decomposition of plant or animal matter and forming the organic portion of the soil." (61):150 quote

hydrological regime "The pattern of occurrence in time of water at or near the surface of the earth (e.g., temporal changes in streamflow, soil moisture, groundwater levels, precipitation)." (72):73 quote

hydrologic green-up (height) "The height a stand must reach for it to provide the same timing and quantity of water yields as old growth." (133):5 quote

hydrology "Science that deals with the waters above and below the land surfaces of the earth, their occurrence, circulation, and distribution, both in time and space, their biological, chemical, and physical properties, their reaction with their environment, including their relation to living beings." (111):Section H quote

hydroriparian ecosystem "Aquatic ecosystems plus adjacent terrestrial ecosystems that are influenced by, or influence, the aquatic system. They extend vertically, below ground in the soil (especially in near-stream gravels), and above ground toward the vegetation canopy." (72):73 quote

hydroseeding "A mechanical seeding technique in which a mixture of seed and water is sprayed onto slopes too steep for hand broadcasting or drilling, followed by raking and harrowing. Fibrous material is sometimes added to the mix to help hold the seed to the soil surface and act as a mulch." (78):167 quote

hypsometer "A simple instrument, often a stick or other straight edge, used to measure the heights of trees on the basis of similar angles." (62):9 quote

I

identified wildlife "Species at risk and regionally important wildlife in British Columbia that have been designated by the chief forester (Ministry of Forests and Range) and deputy minister (Ministry of Environment) as requiring special management attention during forest and range operational planning or higher level planning. While there are currently no ecological communities designated as identified wildlife, they may be added in the future." (7):Section I quote

Identified Wildlife Management Strategy (IWMS) An initiative of the Ministry of Environment in partnership with the Ministry of Forests and Range that provides direction, policy, procedures, and guidelines for managing identified wildlife—species at risk and regionally important wildlife—on Crown forest and range land or private land that is subject to a tree farm or woodlot licence. The strategy aims to minimize the effects of forest and range practices on these species by maintaining critical habitats throughout their current ranges and, where appropriate, their historic ranges. (108):1 paraphrase

immature "In even-aged management, those timber trees or timber stands that have grown past the regeneration stage but are not yet mature." (103):Section I quote

immature timber "Stands of timber where the age of the leading species in a stand is less than the specified cutting age. Cutting ages are established to meet forest management objectives. Usually stands with lodgepole pine and whitebark pine or a deciduous species as the leading species are considered as immature timber when the stand age is less than 81 years. Otherwise, all stands having conifers other than lodgepole pine and whitebark pine as the leading species are immature when the stand age is less than 121 years." (128):182 quote

impact assessment "A study of the potential future effects of resource development on other resources and on social, economic, and (or) environmental conditions." (12):15 quote

implementation evaluation/monitoring A Forest and Range Evaluation Program activity that determines the rate of progress towards specific goals (including the adoption of new practices, policies, or guidelines), and whether proposed practices were implemented as planned (e.g., assessing the type of stand-level biodiversity attributes in wildlife tree retention areas). (26):2 paraphrase

improved stock "Trees selected from the natural population with better than average characteristics such as growth rates." (133):5 quote

improvement cutting "The removal of trees of undesirable species, form, or condition from the main canopy of the stand to improve the health, composition, and value of the stand." (62):9 quote

incipient decay "The early stage of decay in which the decomposition has not proceeded far enough to soften or otherwise change the hardness of the wood noticeably. It is usually accompanied by a slight discoloration of the wood." (52):G-6 quote

increment "The increase in diameter, basal area, height, volume, quality, or value of individual trees or stands during a given period." (62):9 quote

incremental silviculture A Ministry of Forests and Range term that refers to the treatments carried out to maintain or increase the yield and value of forest stands; includes activities such as commercial thinning, juvenile spacing, pruning, and fertilization that are not part of the basic silviculture obligations required to establish a free-growing forest stand

following timber harvesting. *See* ***basic silviculture***. (62):9 paraphrase

increment borer "A tool used to extract a core of wood from a living tree for the purpose of studying the annual growth rings of the tree." (62):9 quote

increment core "That part of the cross-section of a tree extracted by an increment borer; used to determine tree age and growth pattern." (62):9 quote

indicators "Measures that index the state of complex functions which are difficult to assess. Good indicators respond to management actions, are related clearly to the function considered, can be measured or described simply, are relatively insensitive to factors beyond the management actions considered, and are appropriate for the purpose and scale considered." (72):73 quote

indicator species "A species that is closely correlated with a particular environmental condition or habitat type such that its presence or absence can be used as an indicator of environmental conditions." (78):173 quote

Indigenous knowledge "Knowledge held by Indigenous people representing generations of observations and experiential learning; also known as traditional ecological knowledge or traditional knowledge." (100):26 quote

indirect and induced jobs "Indirect jobs are supported by direct business purchases of goods and services. Induced jobs are supported by employee purchases of goods and services (e.g., at retail outlets)." (133):6 quote

industrial operation "Operations such as land clearing, timber harvesting, timber processing, mechanical site preparation and other silvicultural treatments, mining, and road construction." (128):182 quote

initial attack "The action taken to halt the spread or potential spread of a fire by the first firefighting force to arrive at the fire." (67):29 quote

initial mature inventory [term obsolete] "That portion of the existing total mature forest inventory which is available for harvest. This portion reflects all management constraints that are necessary to protect the environment and other forest uses and varies with the constraints identified for each option." (102) pers. comm.; (18):Section I quote

inner gorge "A stream reach or portion of stream that is bounded by steep hillslopes (greater than 40 percent sideslope) and terminates upslope into more gentle topography." (128):183 quote

Innovative Forest Practices Agreement (IFPA) "Established in 1996, this initiative enables government to enter into agreements with forest licensees to test innovative forestry practices through a variety of pilot projects." (10):41 quote

inoperable lands Areas defined as unavailable for harvest for terrain-related or economic reasons. Operability can change over time as a function of changing harvesting technology and economics. (133):6 paraphrase

inquiry "A written or oral contact to the Forest Practices Board in which no action is requested of the Board, except to send information about the Board's complaint function." (93):Section I quote

insecticide "Any chemical or biological preparation used to kill or disrupt the development of insects." (63):Section I quote

insloping "Shaping the road surface to direct water onto the cut side of the road." (128):183 quote

institutional arrangements "The laws, regulations, policies, social norms, and organizations governing and participating in resource use. Institutional arrangements specify who has access to resources, guide resource development activities, and define who will monitor and enforce the rules." (72):73 quote

Integrated Land and Resource Registry (ILRR) "A single source of reliable information on 262 different legal interests on Crown land (tenures, regulated uses, land and resource use restrictions, and reservations) that is visually represented on a map and available to the public using a standard Web browser. The ILRR also contains information on Crown land parcels, private land parcels (where available), administrative boundaries (e.g., forest districts, electoral boundaries), and base map information (topography, grids, etc)." (4) quote

integrated resource guidelines "Guidelines requiring that forest management activities (such as harvesting, road building, and silviculture treatments) be conducted in a special way to protect or enhance timber and non-timber forest resource values." (133):6 quote

integrated resource management (IRM) " A holistic approach to resource management that entails the management of two or more resources (e.g., water, soil, timber, pasture, wildlife, and recreation) and that integrates the values of the community into the design of policies or projects to use and sustain these resources in perpetuity." (64):Section I quote

integrated resource use "A decision-making process whereby all resources are identified, assessed, and compared before land use or resource management decisions are made." (18):Section I quote

intensive evaluation "A Forest and Range Evaluation Program activity that involves quantitative data collection and analysis with comparison to controls. Comparisons can be made between data sets as well as to established standards to provide a measure of effectiveness. Evaluation sites can also be set up for long-term monitoring activities." (47):Section I quote

interest-based negotiation "A form of negotiation that focusses on coming to agreement by reconciling the interests rather than the positions of persons or groups." (72):73 quote

interface fire "A fire that involves human development and wild land simultaneously." (79):100 quote

interface region/zone "A region/zone where there is potential for a fire that involves human development and wild land simultaneously." *See* ***wildland urban interface***. (79):100 quote

Intergovernmental Panel on Climate Change (IPCC) "A panel open to all members of the United Nations Environment Programme and the World Meteorological Organization. The IPCC assesses the scientific, technical, and socio-economic information relevant to the understanding of the risk of human-induced climate change." (61):150 quote

Interior "In British Columbia, refers to the area east of the Cascade Mountains and Coast Mountains." (11):30 quote

interior conditions Achieved at a point where edge effects no longer influence environmental conditions within a patch. For coastal forests in British Columbia, the edge effect is

generally felt for a distance equivalent to 2–4 times average tree height into the stand. The effects usually involve light intensity, temperature, wind, relative humidity, and snow accumulation and melt. *See* ***edge effect***. (28):79 paraphrase

intermediate Trees with crowns either below or extending into the canopy formed by codominant and dominant trees; receiving little direct light from above and none from the sides; usually with small crowns considerably crowded on the sides. (103):Section I paraphrase

interpretive forest site A designated forest site and ancillary facilities developed by the Ministry of Forests and Range to interpret, demonstrate, or facilitate the discussion of the natural environment, forest practices, and integrated resource management. (12):17 paraphrase

intertree distance "The distance between tree boles, usually used in the context of thinning. Recommended guidelines for intertree distances are established for different thinning programs depending on site variables, the species and age of trees, and management objectives." (62):10 quote

invasive species "Any species not native to a particular ecosystem whose introduction causes, or is likely to cause, economic or environmental harm or harm to human health." (61):151 quote

inventory, forest "A survey of a forest area to determine such data as area, condition, timber, volume, and species for specific purposes such as planning, purchase, evaluation, management, or harvesting." (103):Section I quote

investigation "A detailed examination undertaken by the Forest Practices Board; usually involves a site visit plus interviews and file searches, with all involved licensees, district and (or) regional offices of government agencies, the complainant, and others." (93):Section I quote

J

joint administration [term obsolete] "A term referring to the joint powers of the Ministry of Forests, Ministry of Environment, Lands and Parks and the Ministry of Energy, Mines and Petroleum Resources to enforce the Forest Practices Code. It is also used to refer to the involvement of the Ministry of Forests and the Ministry of Environment, Lands and Parks in certain aspects of strategic and operational planning." (120) pers. comm.; (18):Section J quote

judicial review "A review of a decision by a court authorized and conducted under the *Judicial Review Procedure Act* primarily concerned with the fairness of the procedures used to make a decision, whether or not the decision maker was acting within his or her jurisdiction, and errors of law." (18):Section J quote

juvenile spacing "A silvicultural treatment to reduce the number of trees in young stands, often carried out before the stems removed are large enough to be used or sold as a forest product. Prevents stagnation and improves growing conditions for the remaining crop trees so that at final harvest the end-product quality and value is increased." *See* ***commercial thinning***. (62):10 quote

K

karst features "Include fluted rock surfaces, vertical shafts, sinkholes, sinking streams, springs, complex subsurface drainage systems, and caves. Karst is a distinctive topography that develops as a result of the dissolving action of water on carbonate bedrock (usually limestone, dolomite, or marble)." (133):6 quote

karst resources "Refers to all components of a karst system, including the physical, biological, and aesthetic aspects of a karst landscape." (23):59 quote

key area "A relatively small area selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed that key areas, if properly selected, will reflect the overall acceptability of current grazing management." (18):Section K quote

key species "Forage species that must, because of their high degree of use, be considered in the management program." (128):183 quote

keystone species "Species that are dominant in function and possibly (but not necessarily) in structure within any one ecosystem. They hold a crucial role in supporting the integrity of the entire ecosystem, and therefore affect the survival and abundance of many other species in the same ecosystem." (78):184 quote

kiln "A chamber having controlled air flow, temperature, and relative humidity, which is used for drying lumber, veneer, and other wood products." (64):Section K quote

Kyoto Protocol (To the United Nations Framework Convention on Climate Change) Strengthens the Convention by committing major industrial countries to legally binding targets to limit or reduce their greenhouse gas emissions. The Protocol was adopted at a Conference of Parties to the Convention in Kyoto, Japan, in December 1997. Canada ratified the Protocol on December 17, 2002. (61):151 paraphrase

L

ladder fuels "Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to the ease of torching and crowning (e.g., tall shrubs, small-sized trees, bark flakes, tree lichens)." (67):30 quote

lake "A naturally occurring static body of water greater than 2 m in depth and greater than 1 ha in size, or a licensed reservoir." (128):183 quote

lakeshore management area "The lands directly adjacent to a lake, in which forest practices standards are designed to maintain the unique combination of fish, wildlife, water, and recreation values that occur on and around lakes." *See* ***riparian management area***. (128):183 quote

lakeshore management zone "An area adjacent to a lake with a riparian class of L1." *See* ***riparian management zone***. (120) pers. comm.

Land and Resource Data Warehouse (LRDW) The corporate repository for integrated land, resource, and geographic data that supports a variety of business requirements for the natural resource sector, other government agencies, industry, and the public. (5) paraphrase

land and resource management plan (LRMP) "A strategic, multi-agency, integrated resource plan at the regional level. It is based on the principles of enhanced public involvement, consideration of all resource values, consensus-based decision making, and resource sustainability." (128):183 quote

Land Base Investment Program (LBIP) The largest of the five programs under the Forest Investment Account, comprising investments in land base activities planned and delivered by recipients on Crown land in accordance with government standards. Program investments are expected to improve the forest asset base and support sustainable forest management practices on Crown land through: higher level strategic decision making and planning; increased timber volume and value; increased site productivity; restored terrestrial, aquatic, and riparian environments; better decision-making information and tools; and infrastructure that protects public safety and mitigates environmental hazards. (92) paraphrase

landform "Any physical, recognizable form or feature of the earth's surface, having a characteristic shape, and produced by natural processes." (71):281 quote

landing An area modified by equipment to make it suitable as a site for gathering logs before they are transported, which is located within a cutblock or the clearing width of a road identified in a road permit. (86):Section 1(1) paraphrase

landing pile or cull pile "An area of piled slash, logging residue, and stumps, created as a result of harvesting operations and the construction of roads and landings." (128):183 quote

landscape "Interacting geographic areas that are bounded by physical features and that contain similar patterns of watersheds and vegetation cover. Ecological landscapes have no fixed size; practical sizes for landscapes in a forest planning context in British Columbia generally range from 25 000 to 100 000 hectares." (72):74 quote

landscape ecology "(1) The study of the development and dynamics of landscape heterogeneity using and applying concepts from the disciplines of ecology, wildlife biology, cultural anthropology, landscape planning, and economics. (2) Assessment and analysis of the spatial and temporal patterns of landscape development; the processes leading to

maintenance of the landscape mosaic; and the interactions, fluxes, and influences of these processes on biotic and abiotic components." (78):187 quote

landscape inventory *See* ***visual landscape inventory***.

landscape level "A watershed, or series of interacting watersheds or other natural biophysical (ecological) units, within the larger land and resource management planning areas. This term is used for conservation planning and is not associated with visual landscape management and viewscape management." (70):77 quote

landscape-level biodiversity "The *Landscape Unit Planning Guide* provides objectives for maintaining biodiversity at both the landscape level and the stand level. At the landscape level, guidelines are provided for the maintenance of seral stage distribution, patch size distribution, and landscape connectivity." (133):7 quote

landscape-level strategy Activities required to achieve forest management objectives identified in a sustainable forest management plan. (88):Section 1(1) paraphrase

landscape pattern "The number, frequency, size, and juxtaposition of landscape elements (stands and patches) that are important to the determination or interpretation of ecological processes." (106):103 quote

landscape sensitivity A component of the landscape inventory that estimates the sensitivity of the landscape based on: the visual prominence of importance of features; conditions that affect visual perception; and social factors that contribute to viewer perceptions. (71):281 paraphrase

landscape unit An area of land and water used for long-term planning of resource management activities. These units, which are typically 5000–400 000 ha in area, are important for designing strategies and patterns for landscape-level biodiversity and for managing a variety of resource values. (29) paraphrase; (68) pers. comm.

landscape unit objectives Objectives established for a landscape unit to guide the management of resource and environmental values. (29) paraphrase; (68) pers. comm.

land-use planning "The iterative process of inventorying and assessing the status, potential, and limitations of a particular geographic area (the land base) and its resources, with a view to planning and managing these resources to satisfy human needs now and in the future." (78):188 quote

large organic debris (LOD) "Entire trees or large pieces of trees that provide channel stability or create fish habitat diversity in a stream channel." (128):184 quote

large woody debris A large tree part, conventionally a piece greater than 10 cm in diameter and 1 m in length. (70):78 paraphrase

latewood "The denser, smaller-celled, usually darker, later formed part of an annual ring, also called summerwood." (52):G-7 quote

leader "The length of tree stem from the top of the tree down to the first set of branches, representing 1 year of growth and reflecting the tree's vigour and the site's growing potential." (128):184 quote

leave trees "All trees, regardless of species, age, or size, remaining on a harvested area as a result of a predetermined silviculture prescription to address a possible range of silviculture or resource needs." (71):281 quote

licence to cut [term obsolete] "An agreement under the *Forest Act* allowing a person who purchases or occupies land, and who does not otherwise have the right to harvest Crown timber from the land, to cut and (or) remove timber on the land." (115) pers. comm.; (128):184 quote

licensee "The holder of a cutting authority." (51):A-5 quote

lightning detection system "A network of electronic field sensors linked to a central computer to detect, triangulate, plot the location, and record cloud-to-ground lightning flashes in real time over a predetermined area." (67):31 quote

limiting factor "Any environmental factor or process (physical, chemical, or biological) whose presence, absence, or abundance is the main factor restricting the distribution, numbers, or conditions of an organism." (78):195 quote

linear feature "A geographic feature that can be represented by a line or set of lines (e.g., rivers, roads, and power lines)." (106):107 quote

litter "The surface layer of the forest floor that is not in an advanced stage of decomposition, usually consisting of freshly fallen leaves, needles, twigs, stems, bark, and fruits." *See* ***duff***. (106):107 quote

littoral zone "The shore zone between the high and low water mark." (128):184 quote

livestock As defined in the *Range Act* means animals of the genus *bos*, horses, mules, asses, sheep, goats, llamas, and alpacas, and any prescribed animals, but does not include wildlife under the *Wildlife Act*, exotic game animals, bison, swine, or poultry. (129):Section 1(1) paraphrase

load description slip (LDS) "An identifying document that must accompany each truckload of timber when timber is transported or moved (e.g., from the harvesting site to the scale site)." (49):Section L quote

local plan "A plan that facilitates resource management decisions for small- to medium-sized watershed areas (e.g., 50 000–100 000 ha). It focusses on similar issues and values as regional-level plans (e.g.. timber, biodiversity, tourism), but at a more detailed level. An example of a local-level plan is a Sustainable Resource Management Plan (SRMP)." (6) paraphrase; (68) pers. comm.

local planning "A term describing a variety of resource planning initiatives undertaken to develop integrated approaches to resource use and development." (12):18 quote

local resource use plan (LRUP) [term obsolete] "A plan approved by the district manager for a portion of the provincial forest that provides area-specific resource management objectives for integrating resource use in the area. These plans are prepared pursuant to Section 4 (c) of the *Ministry of Forests Act*." (12):18 quote

log boom "Floating logs tied together in rafts to be towed by boat to their destination." (62):10 quote

logging *See* ***harvesting***.

logging cost "Expressed in dollars per cubic metre, logging cost is the cost to extract the timber from the forest and transport it to the point of appraisal." (49):Section L quote

logging (cutting) plan [term obsolete] "A map, along with a written plan, describing the road building, harvesting, and other related operations that are submitted for a forest officer's

approval to ensure that the applicable standards and obligations stated in the Pre-Harvest Silviculture Prescription and the harvesting agreement are met." (120) pers. comm.; (18) quote

logging trail "A narrow, temporary path used by harvesting equipment." (128):184 quote

log salvage "Securing, pursuing, or searching for drift timber." (81):Section 1(1) quote

long-line skyline "A system that allows harvesting over long distances, as well as suspension of logs above the ground. Such systems decrease the amount of road needed to access an area, and minimize soil disturbance." (133):7 quote

long run sustainable yield (LRSY) "The long run sustainable yield for any timber supply area (TSA) is equal to the culmination of mean annual increment weighted by area for all productive and utilizable forest land types in that TSA." (18):Section L quote

long-term harvest level "A harvest level that can be maintained indefinitely given a particular forest management regime (which defines the timber harvesting land base, and objectives and guidelines for non-timber values) and estimates of timber growth and yield." (133):7 quote

long-term research installation (LTRI) a physical site (or sites) specifically designed and established to enable long-term experiments concerning resource management issues and treatment options where potentially one or more decades are needed to properly assess biophysical responses. LTRIs may be inter- or multi-disciplinary and/or integrated; they must support at least one long-term experiment. (99A):quote

lop-and-scatter "A hand method of removing the upward-extending branches from tops of felled trees to keep slash low to the ground, to increase rate of decomposition, lower fire hazard, or as a pre-treatment prior to burning." (106):109 quote

lopping "Chopping branches, tops, and small trees after felling into lengths such that the resultant slash will lie close to the ground." (63):Section L quote

loss factors "Reductions made to gross timber volumes to allow for decay, waste, and breakage." (62):10 quote

low ground pressure (LGP) equipment "Machines that exert a total ground pressure of less than 43.4 kilopascals." (18):Section L quote

M

mainline "A principal timber extraction road." (123):286 quote

major culvert A stream culvert that has a maximum design discharge of 6 cubic metres per second or greater, or is one of the following: (a) a pipe having a diameter of 2000 mm or greater; (b) a pipe arch having a span greater than 2130 mm; or (c) an open bottom arch having a span greater than 2130 mm. (86):Section 1(1) paraphrase

managed forest land "Forest land that is being managed under a forest management plan utilizing the science of forestry." (62):10 quote

management area "Stands or forest types that require similar management practices and can be grouped for treatment as a management unit." (62):10 quote

management assumptions "Approximations of management objectives, priorities, constraints, and other conditions needed to represent forest management actions in a forest planning model. These include, for example, the criteria for determining the timber harvesting land base, the specification of minimum harvestable ages, utilization levels, integrated resource guidelines, and silviculture and pest management programs." (133):7 quote

management objective "A specific goal, related to ecosystems, ecosystem components, or natural resources, to be affected by an action or development; a specific defined goal to be achieved." (72):74 quote

management option "A prescription of management activities over time that will achieve specified management objectives." (30):2 quote

management plan "A plan required under Section 35 of the *Forest Act* that describes management objectives and strategies for achieving the objectives for all forest resources within a tree farm licence. Must be submitted every 5 years and requires the approval of the chief forester." (102) pers. comm.

management target "A numerical value to be achieved in relation to a management objective." (72):74 quote

management unit plan [term obsolete] "The third level of planning in the Ministry of Forests hierarchical planning system. A plan prepared for a timber supply area which takes into account regional goals and land use interactions. Management unit plans provide a basis for Forest Service programs. The annual allowable cut for the management unit is calculated on the basis of the management unit plan." (18):Section M quote

management zone "The outer portion of a riparian management area situated adjacent to a stream, lake, or wetland and established to conserve and maintain the productivity of aquatic and riparian ecosystems when harvesting is permitted." (128):184 quote

mandate "The authorization for an organization to carry out its program or activities, and includes legislation and other government direction." (50):20 quote

map folio [term obsolete] "A series of maps bound together, often produced as overlays of information (e.g., soils, fish, water, forest, and wildlife)." (62):10 quote

marine-sensitive features Includes (a) herring spawning areas, shellfish beds, marsh areas, aquaculture sites, juvenile salmonid rearing areas, and adult salmon holding areas; (b) littoral zones of a marine or estuary system; (c) marine areas where the water is less than 10 m deep. (86):Section 1(1) paraphrase

mass wasting "Movement of soil and surface materials by gravity." (128):184 quote

master licence to cut An agreement entered into under the *Forest Act* (Section 47.5(2)) that authorizes timber harvesting under cutting permits in all or part of a forest district. These agreements are currently restricted to the harvesting of timber in conjunction with operations in the oil and gas sector. (54):9 paraphrase; (115) pers. comm.

matrix "The largest or dominant part of a landscape mosaic. In the context of planning in British Columbia, the matrix is the managed portion of the landscape where forest harvesting or other extractive resource use may occur. It is the area outside of protected areas and reserves." (72):74 quote

mature "In even-aged management, those trees or stands that are sufficiently developed to be harvestable and that are at or near rotation age (includes overmature trees and stands if an overmature class has not been recognized)." (103):Section M quote

mature seral "Forest stands with trees between 80 and 120 years old, depending on species, site conditions, and biogeoclimatic zone." (133):7 quote

mature timber "Stands of timber where the age of the leading species in a stand is greater than the specified cutting age. Cutting ages are established to meet forest management objectives. Usually stands with lodgepole pine or a deciduous species as the leading species are classified as mature timber when the stand age is greater than 80 years. Otherwise, all stands having conifers other than lodgepole pine and whitebark pine as the leading species are mature when the stand age is greater than 120 years." (128):184 quote

maximum density "The maximum allowable stand density above which stands must be spaced to a target density of well-spaced acceptable stems to achieve free-growing status." (128):184 quote

maximum modification A category of visually altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is very easy to see, and is very large in scale and (or) rectilinear and geometric in shape. (86):Section 1(1) paraphrase

mean annual increment (MAI) "Stand volume divided by stand age. The age at which average stand growth, or MAI, reaches its maximum is called the culmination age. Harvesting all stands at this age results in a maximum average harvest over the long term." (133):7 quote

mean value index "One of the values calculated by the Stumpage Adjustment and Reporting System on a quarterly basis for log-based (Coast) and end-product (Interior) appraisals. The mean value index is a benchmark against which individual stands (whose value index equals the selling price minus the operating costs) of timber are compared." (49):Section M quote

mechanical site preparation "Any activity that involves the use of mechanical machinery to prepare a site for reforestation." (128):185 quote

mechanized access and use "Refers to access and use by, for example, mountain bikes and other bicycles, hang gliders, and other human-powered mechanized equipment. Associated facilities include aircraft landing facilities, boat docks, and heliports." (128):185 quote

mechanized stand tending treatment "Any stand tending activity that involves the use of mechanical machinery to treat a stand." (128):185 quote

memorandum of understanding (MOU) "A commonly used mechanism formalizing an

agreement among stakeholders, particularly jurisdictional bodies, to provide guidelines for interactions and behaviour among the signatory parties." (72):74 quote

merchantable timber "A tree or stand that has attained sufficient size, quality and (or) volume to make it suitable for harvesting." Timber that (a) was older than 75 years on January 1, 1975, and (b) is on an area of Crown land in sufficient quantities (as determined by the regional manager) to be commercially valuable when the timber cruise is submitted. (62):11 quote; (80):Section 1(1) paraphrase

merchantable volume "The amount of sound wood in a single tree or stand that is suitable for marketing under given economic conditions." (62):11 quote

meridian line "A north–south reference line often appearing on maps. Meridian lines are also etched into the bearing plate on a compass." (62):11 quote

microclimate "The climate of small areas, such as under a plant or other cover, differing in extremes of temperature and moisture from the climate outside that cover." (106):115 quote

microsite "A small area which exhibits localized characteristics different from the surrounding area. For example, the microsites created by a rock outcrop with thin soils, or the shaded and cooled areas created on a site by the presence of slash." (62):11 quote

milling costs "Also known as manufacturing costs and measured in dollars per cubic metre. This is one of the cost components calculated during an appraisal. Milling costs include all the costs associated with taking a log and turning it into lumber or chips." (49):Section M quote

mineral soil Soil consisting predominantly of, and having its properties determined by, mineral matter. Usually contains less than 20 percent organic matter. (106):116 paraphrase

minimum harvestable age "The age at which a stand of trees is expected to achieve a merchantable condition. The minimum harvestable age could be defined based on maximum average productivity (culmination of mean annual increment), minimum stand volume, or product objectives (usually related to average tree diameter)." (133):8 quote

minimum utilization standard [term obsolete] A standard, previously included in every timber harvesting licence, that was expressed as a maximum stump height, diameter at stump height, and top diameter and that could vary by species and timber supply area (and supply blocks within timber supply areas). (128):185 paraphrase

mission (or mission statement) A statement that guides an organization's actions, tells others what it does, and presents an image to others that reflects its values. It is a basis for organizational culture and a means of allocating resources. (50):20 paraphrase

mitigation "To minimize, reduce, or moderate a certain force such as potential for wildfires." (79):100 quote

mixed stand "A stand composed of two or more tree species." (106):117 quote

mixed-wood "Forests that have a mix of coniferous and deciduous trees." (133):8 quote

mixedwood stand An area in which, at rotation age, the coniferous and deciduous components each collectively represent at least 20 percent of the net merchantable volume of timber. (88):Section 1(1) paraphrase

model "An abstraction and simplification of reality constructed to help understand an actual

system or problem. Forest managers and planners have made extensive use of models, such as maps, classification systems, and yield projections, to help direct management activities." (133):8 quote

model forest "A forest or designated area including forests and woodland for which an integrated management plan is created and implemented to achieve multiple objectives on a sustainable basis." (64):Section M quote

modification A category of visually altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is large in scale and natural in its appearance, or small to medium in scale, but with some angular characteristics. (86):Section 1(1) paraphrase

modified burning zone "A zone within or adjacent to a smoke-sensitive area that requires special considerations and burning techniques, even under favourable conditions, to maintain air quality within a smoke-sensitive area." (18):Section M quote

moisture content (wood) "The mass of water in wood expressed as a percentage of its total weight." (52):G-8 quote

monitoring A systematic process of collecting and storing data related to particular natural and human systems at specific locations and times. Determining a system's status at various points in time yields information on trends, which is crucial in detecting changes in systems. (47):Section M paraphrase

monoculture "In general, even-aged, single-species forest crops." (71):283 quote

Montreal Criteria & Indicators (C&I) Process "This global initiative was so named because the first meeting sponsored by the Conference on Security and Cooperation in Europe was held in Montreal. Currently, 12 countries representing 90 percent of the world's boreal and temperate forests have agreed to collaborate to develop national C&I for the conservation and sustainable management of all boreal and temperate forests." (64):Section M quote

mop-up "The act of extinguishing a fire after it has been brought under control." (67):19 quote

mortality "Death or destruction of forest trees as a result of competition, disease, insect damage, drought, wind, fire, and other factors (excluding harvesting)." (103):Section M quote

motorized access and use "Refers to access and use by, for example, float planes, helicopters, fixed-wing aircraft, motorboats, motor bikes, all-terrain vehicles, snowmobiles, and motorized equipment." (128):185 quote

mountain pine beetle (*Dendroctonus ponderosae* Hopkins) A small, dark, cylindrical bark beetle that attacks and kills standing, living, pine trees including lodgepole, ponderosa, and western white pine. Although normally limited to highly stressed trees within pine forest ecosystems throughout western North America, certain circumstances (e.g., unusual hot, dry summers and mild winters in forests filled with mature lodgepole pine) can lead to destructive epidemic outbreaks. The current outbreak of mountain pine beetle in British Columbia, the largest in Canada's history, has destroyed millions of lodgepole pine—the province's most commercially harvested tree. (66) paraphrase

Mountain Pine Beetle Action Plan A co-ordinated response to the mountain pine beetle infestation that guides all levels of government, communities, industries, and stakeholders working to mitigate impacts of the pine beetle. It addresses forestry and environmental issues as well as economic, social, and cultural sustainability. (59)

paraphrase

multiple accounts analysis "An analytical technique that specifies a framework of evaluation accounts under which management scenarios can be systematically assessed in terms of their social, environmental, and economic impacts. It is flexible and often utilizes non-monetary valuations of the likely effects." (12):19 quote

multiple use [term obsolete] A system of resource use where the resources in a given land unit serve more than one user. Multiple use can be effected in three ways: (1) different uses of adjacent subareas which together form a composite multiple use area; (2) the alternation in time of different uses on the same areas; and (3) more than one use of an area at one time. In multiple use planning, where differing resource uses are conducted at the same time on the same area and conflicts between users will occur, one resource is determined to be the dominant use and all other secondary uses are integrated only in-sofar as they are compatible with the first. Often multiple use planning sacrifices the production of the individual resources in favour of the overall mix of resource uses that brings the greatest social and economic benefits. (120) pers. comm.; (130):133 paraphrase

multiple use sustained yield calculation (MUSYC) [term obsolete] A linear programming forest planning model developed by the United States Forest Service. MUSYC was previously used as the British Columbia Forest Service's standard forest planning model for carrying out timber supply area computer analysis. (18):Section M paraphrase

mycorrhiza "The symbiotic association between higher plant roots and specific fungi that aid plants in the uptake of water and certain nutrients." (61):151 quote

N

native species "A species known to have existed on a site before the influence of humans." (61):151 quote

natural boundary "The visible high water mark of any lake, stream, or other body of water where the presence and action of the water are so common and usual and so long continued in all ordinary years as to mark upon the soil of the bed of the lake, river stream, or other body of water a character distinct from that of the banks, both in vegetation and in the nature of the soil itself." (128):185 quote

natural disturbance Periodic impact of natural events such as fire, severe drought, insect or disease attack, or wind. (113):17 paraphrase

natural disturbance regimes "The historic patterns (frequency and extent) of fire, insects, wind, landslides, and other natural processes in an area." (71):283 quote

natural disturbance type (NDT) "An area that is characterized by a natural disturbance regime, such as wildfires, which affects the natural distribution of seral stages. For example, areas subject to less frequent stand-initiating disturbances usually have more older forests." (133):8 quote

natural justice "A set of judicially defined and legally enforceable procedures designed to ensure that administrative decisions are made fairly." (125) pers. comm.

naturally resistant seed sources "Tree species or provenances that have been shown to exhibit increased resistance to some specific pest, over that of the species or provenance that would normally be used in artificial regeneration in a particular situation." (128):185 quote

natural plant community "A unit of vegetation with a relatively uniform species composition and physical structure. Natural plant communities also tend to have characteristic environmental features such as bedrock geology, soil type, topographic position, climate, and energy, nutrient, and water cycles." (7):Section N quote

natural range barrier "A river, rock face, dense timber, or any other naturally occurring feature that stops or significantly impedes livestock movement to and from an adjacent area." (95):Section 1(1) quote

natural regeneration "The establishment of a plant or a plant age class from natural seeding, sprouting, suckering, or layering." (106):122 quote

natural resource "Means land, water, and atmosphere, their mineral, vegetable and other components, and includes flora and fauna on or in them." (87):Section 1(1) quote

net area to be reforested (NAR) "The area on which the licensee is responsible for establishing a free-growing crop of trees." (22):92 quote

net down procedure "The process of identifying the net land base, or the area of forest land which is available for timber harvesting. The process involves 'netting down' the timber supply area (TSA) gross area to the TSA gross forest area then to the TSA net forest area. Areas and (or) volumes are sequentially deleted or reduced from the gross land base for a number of considerations, including: private ownership, non-forest or non-productive, environmentally sensitive, unmerchantable, inaccessible, wildlife and riparian habitat." (102) pers. comm.

net merchantable volume "Volume of the main stem, excluding stump and top as well as

defective and decayed wood, of trees or stands." (103):Section V quote

net present value (NPV) "A stand's present worth before harvesting once costs associated with its establishment and tending have been subtracted." (62):11 quote

new forestry An approach that sought to sustain high levels of diversity and long-term productivity in managed forests. New forestry was founded on landscape ecology and conservation biology principles, and attempted to leave some of the natural system intact while striving to maximize fibre and timber production, as well as selected wildlife species, on forest land. Can be viewed as a transition from more traditional timber management practices. (78):220 paraphrase

non-commercial brush "Describes a potentially productive forest site that is occupied by shrubs and other deciduous species that are not used commercially." (22):92 quote

non-commercial tree species "A tree species for which there is currently no market." (64):Section N quote

non-designated wilderness "Areas within the provincial forest that have been zoned as wilderness through approved integrated resource management plans including regional land-use plans and land and resource management plans (LRMPs)." (12):19 quote

non-forest land "Land not primarily intended for growing or supporting a forest." (62):11 quote

non-merchantable forest types Stands that are accessible and otherwise available for harvesting, but are assumed to be non-merchantable because of stand characteristics (e.g., small piece size, incidence of decay, species composition, and low stocking). (133):8 paraphrase

non-productive "Land that is incapable of growing a merchantable stand of trees within a reasonable length of time." (22):92 quote

non-replaceable tenures Tenure agreements with fixed terms granted to achieve specific goals (e.g., timber sale licences). (54):3 paraphrase

non-tariff barrier "An economic, political, administrative, or legal impediment to trade other than a duty, tax, or import quota." (64):Section N quote

non-timber forest products "Any commodity obtained from the forest that does not necessitate harvesting trees. It includes game animals, fur-bearers, nuts and seeds, berries, mushrooms, oils, foliage, medicinal plants, peat, fuelwood, forage, etc." (64):Section N quote

non-timber resources "Resources other than timber, such as recreation, aesthetics, wildlife, fish, forage, range, water, and soils." (62):11 quote

non-timber value "A value within the forest other than timber that includes, but is not limited to, biological diversity, fisheries, wildlife, minerals, water quality and quantity, recreation and tourism, cultural heritage values, and wilderness and aesthetic values." (64):Section N quote

normal forest [term obsolete] "An outdated concept, drawing on the idea of a norm or standard forest structure against which existing forest structures can be compared. A normal forest is a forest composed of even-aged fully-stocked stands representing a balance of age classes such that for a specified rotation period, one age class can be harvested in each year. At the end of the rotation, the stands that were harvested first in the cycle would be ready for harvesting again." (18):Section N quote

not satisfactorily restocked (NSR) area "An area not covered by a sufficient number of well-spaced trees of desirable species. Stocking standards are set by the B.C. Forest Service. Areas harvested prior to October 1987 and not yet sufficiently stocked according to standards are classified as backlog NSR. Areas harvested or otherwise disturbed since October 1987 are classified as current NSR." (133):8 quote

not significant non-compliance "A degree of compliance in Forest Practices Board (FPB) audit findings; occurs when the FPB auditor, upon reaching a non-compliance conclusion, determines that a non-compliance event, or the accumulation and consequences of a number of non-compliance events, is not significant and is not considered worth reporting." (93):Section N quote

no-work zones "Areas in which equipment and people are not allowed during forestry operations, usually for safety or ecological reasons." (71):283 quote

noxious weeds Any weeds so designated by the Weed Control Regulation (B.C. Reg. 189/2001) under the *B.C. Weed Control Act*. These are typically non-native plants that were introduced to British Columbia without the insect predators and plant pathogens which help keep them in check in their native habitats. For this reason and because of their aggressive growth, these alien plants can be highly destructive, competitive, and difficult to control. (75) paraphrase

nurse log Typically, a fallen log, tree, or stump that has decayed and become a rooting medium for new trees growing out of and on top of the decaying substrate. Such logs protect seedlings from environmental factors such as wind, insolation, and frost, and provide the appropriate soil and microclimate for seed germination and development. (78):223 paraphrase

O

objective "A concise, time-specific statement of measurable planned results that correspond to pre-established goals in achieving the desired outcome. Commonly includes information on resources to be used, forms the basis for further planning to define the precise steps to be taken, and the resources to be used and assigned responsibility in achieving the identified goals." (106):110 quote

objectives matrix A tool that agreement-holders may use to prepare a forest stewardship plan (FSP). The matrix defines the objectives set by government and identifies any supporting documentation available for the proposed FSP area. (42):246 paraphrase

occupant licence to cut An agreement entered into under the *Forest Act* (Section 47.4) that allows a person who purchases or occupies land, and who does not otherwise have the right to harvest Crown timber from the land, to cut and (or) remove timber on the land. (54):9 paraphrase; (115) pers. comm.

old growth For the purpose of quantitative analysis, old growth is defined as all Coast region forests more than 250 years old, Interior forests dominated by lodgepole pine or deciduous species more than 120 years old, and all other Interior forests more than 140 years old. (27):Section O paraphrase

old-growth attributes "Structural features and other characteristics of old-growth forests, including: large trees for the species and site; wide variation in tree sizes and spacing; accumulations of large dead standing and fallen trees; multiple canopy layers; canopy gaps and understorey patchiness; elements of decay such as broken or deformed tops or trunks and root decay; and the presence of species characteristic of old growth." (128):186 quote

old-growth forest A forest that contains live and dead trees of various sizes, species, composition, and age class structure. Old-growth forests, as part of a slowly changing but dynamic ecosystem, include climax forests but not sub-climax or mid-seral forests. The age and structure of old growth varies significantly by forest type and from one biogeoclimatic zone to another. (12):20 paraphrase

old-growth management areas Areas that contain, or are managed to replace, specific structural old-growth attributes and that are identified and treated as special management areas. (128):186 paraphrase

old-growth timber "Timber that is 250 years and older." (98):Section 1(1) quote

old seral "Old seral refers to forests with appropriate old forest characteristics. Ages vary depending on forest type and biogeoclimatic variant." (133):9 quote

opening "An area denuded of trees due to harvesting, insects, disease, fire, wind, flooding, landslide, or any other similar events." (22):92 quote

operability "Classification of an area considered available for timber harvesting. Operability is determined using the terrain characteristics of the area as well as the quality and quantity of timber on the area." (133):9 quote

operability line A line drawn on a map to differentiate between areas that are operable and those that are not, given status quo harvesting and reforestation technology. Inoperable areas are not economically viable or accessible to harvest. The operability line is used to determine the operable land base in long-run, sustained yield calculations. (128):186 paraphrase; (102) pers. comm.

operable forest "That portion of the production forest that, under current market conditions, can be harvested at a profit." (70):78 quote

operable land "All lands that are not considered inoperable lands." *See* ***inoperable lands***. (128):186 quote

operable timber "Available timber that can be economically logged with present harvesting methods after consideration of access, timber quality, and market price." (18):Section O quote

operating area Geographic area within a timber supply area that has been assigned to an individual licensee for the purposes of long-term planning. The boundaries are subject to change as the timber profile within a timber supply area changes over time. (128):186 paraphrase; (102) pers. comm.

operating costs "Measured in dollars per cubic metre, these include the cost of logging, and the costs of conducting forestry practices required under the licence (silviculture) on the Coast, and the cost of lumber and by-product manufacture (milling costs) in the Interior." (49):Section O quote

operational cruise "An estimate, to a specified degree of accuracy, of the volume of timber on an area to be harvested." (62):11 quote

operational plans Operational plans include forest stewardship plans, woodlot licence plans, range use plans, or range stewardship plans. (84):Section 1(1) paraphrase

operational trial "A relatively extensive field test of a technological innovation, such as a piece of equipment, a pesticide, or a management procedure, in which the scale of the test is large enough for the innovation's performance and convenience in actual use to be fairly assessed." (78):227 quote

opportunity to be heard "An opportunity for a licence holder to review evidence and present its position to a statutory decision maker regarding a supposed contravention, before a decision on the contravention is made." (93):Section O quote

option A set of assumptions representing a possible management direction. Options are constructed as a normal part of a planning process to provide a framework for analysis and to facilitate management decision making. (18):Section O paraphrase

organic soil Soil containing a high proportion (greater than 20–30%) of organic matter. (130):123 paraphrase

orthophoto "Images based on air photos, but which are true to scale and free of distortion. Orthophotos resemble air photos but, in fact, are maps." (78):229 quote

outslope To shape the road surface to direct water away from the cut slope side of the road. (128):186 paraphrase

overlanding A construction technique in which road fill is placed on undisturbed organic soil, stumps, and vegetative material. The objective is to distribute vehicle loads over weak soils using the inherent strength of the vegetation mat to support the weight of the road fill without disturbing subsurface groundwater flows. (20):81 paraphrase

overlay "A spatial operation such as a transparency superimposed on a map or a procedure using computers that combines two or more data sets. For example, an overlay can be performed between management units and soil data showing how much area of each management unit lies on which soil types." (106):129 quote

overmature "A tree or even-aged stand that has reached that stage of development when it is declining in vigour and health and reaching the end of its natural life span; a tree or even-aged stand that has begun to lessen in commercial value because of size, age, decay, or other factors." (106):130 quote

overstorey "The uppermost continuous layer of a vegetation cover; for example, the tree canopy in a forest ecosystem or the uppermost layer of a shrub stand." (64):Section O quote

overtopped "Trees with crowns entirely below the general level of the crown cover receiving little or no direct light from above or from the sides." (103):Section O quote

overtopping "Vegetation higher than the favoured species, as in brush or deciduous species shading and suppressing more desirable coniferous trees." (62):11 quote

P

partial cutting "A variety of silvicultural system in which a stand may be cut to ensure regeneration. In a partial cutting system, only some of the trees are felled during the harvesting phase. The selection method may specify 'removal' or 'leave' trees. Some examples of selection criteria are diameter, species, volume, age, height, disease, or other damage." (45):G-v quote

partial retention A category of visually altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is easy to see, small to medium in scale, and natural and not rectilinear or geometric in shape. (86):Section 1(1) paraphrase

partition "A portion of the allowable annual cut that is attributable to certain types of timber and (or) terrain." (133):9 quote

pass "In timber harvesting, one of a planned sequence of harvesting operations designed to harvest a management unit over an extended period of time in discrete phases, so that the size of individual cutblocks and the total area harvested in any one pass does not exceed prescribed limits." (18):Section P quote

patch In timber management, a small part of the forest. The term is often used to indicate a type of clearcutting (patch cutting) associated with the "staggered setting" approach to distributing harvest units across the forest landscape. In landscape ecology, a small part of the whole landscape, differing from its surroundings. (78):233 paraphrase

patch cutting A silvicultural system that creates openings of less than 1 ha and is designed to manage each opening as a distinct even-aged opening. (24):Part 2.1–16 paraphrase

pathological indicators "When recording cruise data, these include conk, blind conk, scar, fork or crook, frost crack, mistletoe, rotten branch, and dead or broken top." (45):G-v quote

pathological (or pathogenic) rotation age "The maximum rotation age through which a stand of trees may be grown without significant volume loss from disease. The stand age at which annual volume loss from disease equals annual volume increment." (78):234 quote

peace officer "A person employed for the preservation and maintenance of public peace, typically a police officer, police constable, mayor, sheriff or sheriff officer, warden, corrections officer, or any other permanent employee of a penitentiary, prison, or correctional centre." (128):186 quote

performance-based logging [term obsolete] "Approval of future logging activities contingent upon a company's current practices. Until a company is in compliance with the Forest Practices Code, the Government may refuse to enter into a new or replacement agreements, approve new logging plans, and issue new cutting permits." (120) pers. comm.; (18):Section P quote

performance indicator A measurable variable that is specified in a sustainable forest management plan and is used to report progress toward the achievement of a goal. (88):Section 1(1) paraphrase

performance measure A specific measure for ecosystem initiative targets. Collectively, performance measures provide an index of ecosystem condition and the overall progress of a management plan toward achieving its targets. (47):Section P paraphrase

performance measurement framework "A framework by which objectives of a program are identified, targets are declared, and specific processes are applied to monitor and measure

attainment of these objectives and targets." (93):Section P quote

periodic harvest (periodic cut) The removal of several years' accumulated allowable annual cut in 1 year or other period. (62):12 paraphrase

permafrost "Permanently frozen ground comprised of an active layer of soil overlying a layer of ice that varies in thickness. Permafrost is completely impervious to water because it does not thaw, although the active layer does thaw seasonally." (65):Section P quote

permanent access structure "A structure, including a road, bridge, landing, gravel pit, or other similar structure, that provides access for timber harvesting, and is shown expressly or by necessary implication on a forest development plan, access management plan, logging plan, road permit, or silviculture prescription as remaining operational after timber harvesting activities on the area are complete." (18):Section P quote

permanent bridge "A bridge having all its major components constructed of steel, concrete, or pressure-treated timber." (128):186 quote

person-year "One person working the equivalent of 1 full year, defined as at least 180 days of work. Someone working full-time for 90 days accounts for 0.5 person-years." (133):9 quote

pest "An organism capable of causing material damage. Forest pests include insects, tree diseases, and noxious fungi." (64):Section P quote

pesticide "A micro-organism or material that is represented, sold, used or intended to be used to prevent, destroy, repel, or mitigate a pest, and includes: a plant growth regulator, plant defoliator, or plant desiccant; a control product as defined in the *Pest Control Products Act* (Canada); and a substance that is classified as a pesticide by regulation." (109):Section 1(1) quote

pesticide-free zone "An area of land that must not be treated with pesticide, and must be protected from pesticide moving onto it." A minimum 10 m pesticide-free zone must be maintained around or along bodies of water, dry streams, and classified wetlands." (110):Section 1(1) quote; (110):Section 73(1) paraphrase

pest incidence "A measurement of the presence and magnitude of pests within a given area." (128):187 quote

phenotype "The observed state, description, or degree of expression of a character or trait; the product of the interaction of the genes of an organism (genotype) with the environment." (106):134 quote

pheromones "A chemical substance released by animals, including insects, that influences the behaviour or development of other individuals of the same species (e.g., sexual attractants)." (64):Section P quote

phloem "A layer of tree tissue just inside the bark that conducts food from the leaves to the stem and roots." *See* ***cambium***. (62):12 quote

pilot project "A relatively small-scale field trial designed to evaluate a new material, technique, or strategy in order to determine its effectiveness and feasibility under operational conditions." (78):240 quote

pioneer species "Species that are the first to colonize a new site or a new ecosystem. They are generally shade-intolerant and need a lot of sunlight in order to grow. Poplars and birches are pioneer species." (65):Section P quote

pitch tube "A tubular mass of resin that forms on the surface of bark at bark-beetle entrance holes." (62):12 quote

pith "The small cylinder of primary tissue of a tree stem around which the annual rings form." (52):G-10 quote

planned grazing system [term obsolete] "A system approved by the regional manager or district manager respecting the use of land for grazing and the dispersal of livestock over land." (18):Section P quote

planning "The act of deciding in advance what needs to be done to achieve predetermined goals and objectives, creating alternative solutions, and selecting one. The planning process is iterative and never complete, since results encountered in the present determine what may or may not be possible or desirable in the future, and these factors constantly change with time." (78):243 quote

planning horizon "The time period which will be considered in the planning process." (12):21 quote

planning term "The term of the actual plan before it must be updated." (12):21 quote

plantable spot "A suitable microsite on which a seedling could be planted. The suitability of the microsite depends on site conditions and limiting factors such as soil moisture, soil temperature, soil nutrients, climatic conditions, tree species, and stock type to be planted." (22):92 quote

plant association A kind of plant community represented by stands occurring in places where environments are so closely similar that there is a high degree of floristic uniformity in all layers. (113):17 paraphrase

plantation forest "Forest stands established by planting and (or) seeding in the process of afforestation or reforestation which are either of introduced species (all planted stands) or intensively managed stands of indigenous species, which meet the following criteria: one or two species at plantation, even age class, and regular spacing." (64):Section P quote

plant community "An assemblage of plants occurring together at any point in time, thus designating no particular ecological status." (128):187 quote

plant harvesting "The collection of plant life including, but not limited to, bark, berries, boughs, branches, burls, cones, conks, ferns, flowers, grasses, herbs, fungi, lichens, mosses, mushrooms, roots, sedges, shrubs, sprays, and twigs." (96):Section 1(1) quote

planting Establishing a forest by setting out seedlings, transplants, or cuttings in an area. (63):Section P paraphrase

plot "A carefully measured area laid out for experimentation or measurement." (62):12 quote

plot sampling "The estimation of waste within a cutblock or reporting unit from sample plot measurements, and the determination of the sampling error associated with the plot estimates." (51):A-5 quote

plug "A seedling grown in a small container under carefully controlled (nursery) conditions. When seedlings are removed from containers for planting, the nursery soil remains bound up in their roots." *See* ***bareroot seedling***. (62):12 quote

plus tree "A tree selected on the basis of its outstanding phenotype but not yet clonally or progeny tested." (106):138 quote

pocket rot "In wood, any rot localized in small areas, generally forming rounded or lens-shaped cavities." (52):G-10 quote

point sampling "A type of forest sampling in which the sample is selected with a probability proportional to tree size. An angle device (prism) is used to project a constant angle, and all trees wider than that angle are tallied." (106):138 quote

policy "A definite course or method of action to guide present and future decisions or to specify in detail the ways and means to achieve goals and objectives." (106):110 quote

polygon "In GIS work, a stream of digitized points approximating the delineation (perimeter) of an area (e.g., forest type) on a map. Polygons are often comprised of line segments or arcs that join at nodes to produce a polygon." (78):246 quote

potentially unstable soil area "Any area where a moderate to very high likelihood of slope failure exists following conventional road construction or timber harvesting." (128):187 quote

potential natural community "The plant community that would establish if all successional sequences were completed without interferences by humans under current environmental conditions. Natural disturbances are inherent in its development, and acclimatized non-native species may be included." (101):142 quote

practicable Is possible and can be accomplished with known means and resources. (42) paraphrase

precautionary principle Measure taken to reduce potential harm resulting from human activities or environmental change even if some cause and effect relationships are not fully established scientifically. It includes taking action in the face of uncertainty, shifting burdens of proof to those who create risks, and analyzing alternatives to potentially harmful activities. (72):75 paraphrase

precautionary target "A numerical target that is established to achieve low risk management. Precautionary management targets have a low probability of unacceptable consequence." (72):75 quote

precommercial thinning *See **juvenile spacing***.

predictive ecosystem mapping (PEM) "Surrogate for terrestrial ecosystem mapping that does not require fieldwork, but instead uses mathematical formulas to predict ecosystem type using existing maps, data, and knowledge of ecological–landscape relationships." (72):75 quote

predictive monitoring "Monitoring an indicator that is predictive of ecosystem response in the future (a leading indicator) and is linked to a critical stressor." (47):Section P quote

predominant species "Tree species or species group with the greatest volume per hectare (or number of stems in young forests)." (27):65 quote

preferred species "Those species that are ecologically suited to the site. Management activities are primarily aimed at establishing preferred species. The characteristics of these species are consistent with the desired timber and non-timber objectives for the opening." (22):93 quote

pre-harvest silviculture assessment (or survey) "The survey carried out on a stand before logging to collect specific information on the silvicultural conditions, such as planting survival, free-growing status, and stocking." *See **silviculture survey***. (62):12 quote

pre-harvest silviculture prescription (PHSP) [term obsolete] "A document that applies site-specific field data and develops forest management prescriptions for areas in advance of logging. Replaced under the Forest Practices Code by silviculture prescriptions." (12):21 quote

preparable spot "A microsite that is presently unsuitable for planting but, with site preparation, would become an acceptable planting microsite." (22):93 quote

prescribed fire The knowledgeable and controlled application of fire to a specific land area to accomplish predetermined forest management or other land use objectives. These fires are managed to minimize the emission of smoke and maximize the benefits to the site. (50):20 paraphrase

prescription [term obsolete] "A course of management action prescribed for a particular area after specific assessments and evaluations have been made." (18):Section P quote

preservation "A land-use designation that signifies little or no human activity or use within the designated area. A somewhat dated term, as it is now generally realized that nothing can be preserved since natural forces are constantly prevailing, and all systems change over time, the main variable being the rate of change." (78):250 quote

preservation A category of visually altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is very small in scale, and not easily distinguishable from the pre-harvest landscape (86):Section 1(1) paraphrase

primary forest activity Includes one or more of the following: timber harvesting; silviculture treatments; road construction, maintenance, and deactivation. (86):Section 1(1) paraphrase

primary logging "The cutting of timber and the yarding of that timber to a central landing, road side, or drop area in a logging operation." (51):A-5 quote

prime mover "Heavy equipment used to tow other machines such as disc trenchers for site preparation." (22):93 quote

prism "An optical instrument used as an angle gauge, consisting of a thin wedge of glass that establishes a fixed (critical) angle of projection in a point sample." (103):Section P quote

private land "Land that is not Crown land." (80):Section 1(1) quote

private managed forest land "Private land (a) in respect of which there is a management commitment, and (b) that is classified as managed forest land under the *Assessment Act*." (126):Section 1(1) quote

Private Managed Forest Land Council "An independent provincial agency established under the *Private Managed Forest Land Act* to administer the Managed Forest Program and protect key public environmental values on private managed forest land in British Columbia." (127) quote

private tenure "A timber licence, or private land, in a tree farm licence area." (80):Section 1(1) quote

problem forest type "Non-merchantable forest types, including stands of unfavourable stocking (i.e., dense small trees), low productivity sites, and decadent stands with high waste and breakage." (18):Section P quote

procedure "A particular way of accomplishing an objective; generally refers to the method rather

than the result. Procedures are usually developed to describe the methods for implementing policy." (128):187 quote

proceeding An action for the recovery of money under the *Forest Act* (Section 130); may include the enforcement of liens or the filing of certificates. (80):Part 11, Section 130 paraphrase

proclamation date "The date on which a statute has legal effect." (18):Section P quote

production forest "The forest used for production of various commodities, for example timber." (70):78 quote

productive forest land "Forest land that is capable of producing a merchantable stand within a defined period of time." (128):187 quote

professional accountability "The ability of a professional regulatory body to discipline its members for matters of practice or conduct." (40):3-3 quote

professional engineer, professional geoscientist "A member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia." (128):187 quote

professional forester *See* ***registered professional forester***.

professional reliance "Reliance on the judgement of appropriate professionals who are authorized and qualified to provide a service." (40):3-3 quote

prospective monitoring "An approach to monitoring that involves the determination of the status and trend of stressors that have demonstrated linkages to ecosystem effects." (47):Section P quote

protected areas "General large areas set aside for a specific form of protection by government or First Nations under specific legislation or authority. They are generally established through strategic planning at regional or subregional scales." (72):75 quote

protection forest "Forest maintained on steep, unstable slopes to prevent accelerated erosion." (70):78 quote

protocol agreement "An agreement between two or more ministries, or two or more areas of the same ministry, stating the role of each party in relation to the other or others with respect to an issue, or issues over which the parties have concurrent jurisdiction." (18):Section P quote

provenance "The original geographic source of seed, pollen, or cuttings for which the process of natural selection has resulted in some common or shared population characteristics." (64):Section P quote

provincial forest "Forest land designated under Section 5 of the [*Forest*] *Act*." Designation as "provincial forest" restricts land use activities and alienation for other purposes, which can occur more easily on vacant Crown land. This ensures that activities on, or any removal of land from, the provincial forest undergoes due process and consideration. (80):Section 1(1) quote; (80):Section 5(1) paraphrase; (115) pers. comm.

provincial forest inventory "A description of the quantity and quality of forest trees, non-wood values, and many of the characteristics of the land base compiled from statistical data for the forest lands of the province." (62):12 quote

provincial (species) list "List of elements considered to be either endangered or threatened (Red List), of special concern (Blue List), or not at risk (Yellow List) in British Columbia." (7):Section P quote

pruning "The manual removal of the lower branches of crop trees to a predetermined height to produce clear, knot-free wood." (133):9 quote

public "The entire population of British Columbia, including all organizations, companies, and groups." (128):188 quote

public hearing "A hearing formally advertised and convened to afford any person who deems their interest in property to be affected by a proposal an opportunity to be heard by the Forest Service. The Forest Service is not required to follow the tenor of the statements made at the hearing. A public hearing may be convened in respect of tree farm licence applications." (18):Section P quote

public highway A highway for which public money has been spent and which is dedicated to public use by a plan deposited in a land titles office for the district in which the road is situated. (128):188 paraphrase

public involvement "The provision of one or more opportunities for the general public to participate, and thereby influence, the process, and the decisions resulting from the process of planning the goals, policies, activities, schedules, and manner of undertaking all of these as they occur on public land over a specified time period. The 'public' is all-inclusive and includes individual citizens, all levels of government, interest groups, or individual companies." (78):255 quote

Public Sustained Yield Unit (PSYU) The forerunner to today's timber supply area, these units were managed by the Forest Service for a long-term sustained yield of timber through the use of a regulated harvest rate, which was shared among several operators. (54):5 paraphrase

pulp "Wood chips that have been ground mechanically into fibres and are used for the production of inexpensive paper, such as newsprint, or that have been chemically treated to remove the lignin and are used to manufacture higher-quality papers." (64):Section P quote

pulpwood "Wood cut and prepared primarily for manufacture into wood pulp." (52):G-10 quote

pulpwood agreement A volume-based tenure that granted the holder a conditional right to harvest "pulp quality timber," where other sources were insufficient or uneconomic. All existing pulpwood agreements are non-replaceable. (54):8 paraphrase

punky "A soft, weak, often spongy wood condition caused by decay." (52):G-10 quote

Q

qualified opinion Rendered when significant non-compliance is found in a Forest Practices Board audit, but it is considered neither pervasive nor of a sufficient magnitude to warrant an overall negative conclusion. (93):Section Q paraphrase

qualified registered professional A person who has the education and experience that is appropriate to carry out an activity, and is a member of, or licensed by, a regulatory body in British Columbia that has the legislated authority to regulate its members or licensees carrying out the activity (e.g., a registered professional forester). (88):Section 1(1) paraphrase

quality assurance framework A framework for a program that ensures that efficient and effective processes are utilized to ensure that the program is in compliance with statutory requirements. These processes could include inspections, monitoring, or audits. (93):Section Q paraphrase

quasi-judicial "A decision made by a government official or tribunal which involves the application of law to a particular set of facts requiring the exercise of discretion and the application of the principles of natural justice." (125) pers. comm.

R

rain-on-snow event "The combination of heavy rainfall with rapid snowmelt, with the ground still largely frozen. It produces exceptionally high volumes of water in a very short period of time." (78):257 quote

range "Any land supporting vegetation suitable for wildlife or domestic livestock grazing, including grasslands, woodlands, shrublands, and forest lands." (12):23 quote

range development Defined in the *Forest and Range Practices Act* as: (a) a structure, (b) an excavation, (c) a livestock trail indicated in a range use plan or a range stewardship plan as a range development, or (d) an improvement to forage quality or quantity on an area that results from the application of seed, fertilizer or prescribed fire to the area, or the cultivation of the area. (84):Section 1(1) paraphrase

range enhancement "Any treatment, development, or structure designed to achieve or maintain the desired plant community." (18):Section R quote

rangelands "A broad category of land characterized by native plant communities that are often associated with grazing. Rangelands are managed by ecological rather than agronomic methods." (128):188 quote

range of natural variability (RONV) "The range of dynamic change in natural systems over historic time periods (~ 500 years before present). RONV is used as a benchmark to assess the degree of past change and to guide future management." (72):75 quote

range practice A prescribed activity (e.g., grazing of livestock, cutting of hay, and activities related to these practices, or activities related to constructing, modifying, or maintaining a range development) that is carried out on Crown range by the holder of an agreement under the *Range Act* or by a person other than the holder of the agreement. (84):Section 1(1) paraphrase

range readiness "A defined stage of plant growth at which grazing may begin under a specific management plan without permanent damage to vegetation or soil." (112) quote

range readiness criteria "The plant growth criteria that indicate when a range is ready for grazing." (90):Section 1(1) quote

range reference area "Permanent installations designed to monitor the impact of livestock, wildlife, and other disturbances on rangelands throughout British Columbia. These areas consist of fenced exclosures combined with permanent vegetation monitoring plots, but may also include abandoned grazing areas and sites which have never been grazed." (36) quote

range stewardship plan "An operational plan under the *Forest and Range Practices Act* that may be prepared in place of a range use plan by those who have demonstrated a level of competence in range management. This plan is less prescriptive, provides options for more flexibility for experienced operators, and encourages innovation." (114) pers. comm.

range type "A defined area with specific physical characteristics, which differs from other areas in its ability to produce distinctive kinds and amounts of vegetation and in its response to management." (128):188 quote

range use plan "An operational plan that includes requirements specified by the *Forest and Range Practices Act* and allows a *Range Act* agreement holder to graze livestock or cut

hay on Crown range." (114) pers. comm.

rapattack "A method of initial attack whereby firefighters are transported to the fire in a specially equipped helicopter, from which they descend during a hover by means of rappelling down a rope fitted with a mechanical device to control the rate of descent. In this way, fire crews can be transported to fires that would otherwise pose difficult access problems (e.g., lightning-caused fires in remote areas)." (18):Section R quote

rappel crew An initial attack crew trained to descend on a rope fitted with a mechanical device to control the rate of descent from a specially equipped, hovering helicopter. (67):36 paraphrase

rate-of-cut "The proportion of the watershed area allowed to be cut each year." (71):285 quote

rate of spread (ROS) "The speed at which a fire extends its horizontal dimensions, expressed in terms of distance per unit area of time. Generally thought of in terms of a fire's forward movement or head fire rate of spread, but also applicable to backfire and flank fire rate of spread." (67):37 quote

reach "A length of stream channel, (lake or inlet) exhibiting, on average, uniform hydraulic properties and morphology." (70):79 quote

reappraisal "Re-estimation of operating cost, lumber recovery factor, and selling price values at the effective date of the reappraisal. A reappraisal is based on a complete reassessment of cutting authority and assumes the cutting authority being reappraised has been returned to its original condition prior to development or harvesting." (49):Section R quote

reclamation "A planned series of activities designed to recreate the biophysical capacity of an ecosystem in such a way that the resulting ecosystem is different from the ecosystem existing before disturbance." (78):260 quote

reconnaissance "A preliminary inspection or survey of a forest or range area to gain general information (e.g., timber volumes) useful for future management." (106):149 quote

reconnaissance "In fire suppression, to examine a fire area to obtain information about current and probable fire behaviour and other related fire suppression information." (78):260 quote

recreation "Any mental or physical revitalization through the voluntary pursuit of leisure time. Outdoor recreation is recreation that takes place out-of-doors, and forest recreation takes place in a forest or wildland setting." (17):Section R quote

recreation feature "A biological, physical, cultural, or historic feature that has recreational significance or value." (84):Section 1(1) quote

recreation feature objective [term obsolete] "A resource management objective which reflects how a recreational feature or features will be managed, protected, or conserved." (128):188 quote

recreation feature significance "The quality, uniqueness, and availability of a recreation feature as classified in the recreation inventory." (12):23 quote

recreation features inventory "The identification of the elements and features within the recreation resource base; includes natural amenities and historical and cultural artifacts." (17):Section R quote

recreation inventory "A recreation inventory is the identification, classification, and recording

of the types and locations of amenity resources. (17):Section R quote

recreation opportunity spectrum (ROS) "A mix of outdoor settings based on remoteness, area size, and evidence of humans, that allows for various recreation activities and experiences. The descriptions used to classify the settings are on a continuum and are described as: rural, roaded resource, semi-primitive motorized, semi-primitive non-motorized, and primitive." (128):188 quote

recreation opportunity spectrum objectives [term obsolete] "Resource management objectives in approved integrated resource management plans, reflecting the desired recreation opportunity spectrum setting to provide for specific types of recreation opportunities and experiences." (128):188 quote

recreation resource A recreation feature, a scenic or wilderness feature, a setting that has recreational significance or value, or a recreation facility. (84):Section 1(1) paraphrase

recreation site A site and its ancillary facilities developed by the Ministry of Forests and Range for recreation or to protect a recreation resource. (128):189 paraphrase

recreation trail A trail and its ancillary facilities developed by the Ministry of Forests and Range for recreation or to protect a recreation resource. (128):189 paraphrase

recreation value *See* ***recreation resource***.

red attack "Describes a beetle attack code assigned to a tree infested by bark beetles. The crown foliage is in a transition from green to a straw colour and then to a red colour, and finally to a rust colour prior to the needles falling off. At the rust-coloured stage, the bark beetles have usually left the tree to infest a green tree elsewhere." (78):261 quote

Red List List of ecological communities, and indigenous species and subspecies that are extirpated, endangered, or threatened in British Columbia. Red-listed species and subspecies have—or are candidates for—official extirpated, endangered, or threatened status in British Columbia. Not all Red-listed taxa will necessarily become formally designated. Placing taxa on these lists flags them as being at risk and requiring investigation. (7):Section R paraphrase

referral "The process by which applications for permits, licences, leases, etc., made to one government agency by an individual or industry are given to another agency for review and comment." (128):189 quote

reforestation "The re-establishment of trees on denuded forest land by natural or artificial means, such as planting and seeding." (64):Section R quote

regeneration "The act of renewing tree cover by establishing young trees naturally (natural seeding, coppice, or root suckers) or artificially (direct seeding or planting). Regeneration usually maintains the same forest type and is done promptly after the previous stand or forest was removed." (106):150 quote

regeneration cut "Timber harvesting that creates an obligation under the *Forest and Range Practices Act* to plant trees or facilitate the natural regeneration of trees on the harvested area." (83):Section 1 quote

regeneration date The date by which a regenerating stand must conform to stocking standards set for it. (86):Section 1(1) paraphrase

regeneration delay "The period of time between harvesting and the date at which an area is occupied by a specified minimum number of acceptable well-spaced trees." (133):9 quote

regeneration performance assessment (RPA) [term obsolete] "A sampling survey carried out to collect field data on the height growth, competition, and stocking of young stands (5–10 years)." (62):13 quote

regeneration survey "Carried out to determine the initial restocking of a site. It is used to describe the number of trees on a site that have reached acceptable standards." (62):13 quote

regionally important wildlife A category of wildlife referred to as "Identified Wildlife" under the Identified Wildlife Management Strategy. This category includes species that are considered important to a region of British Columbia, rely on habitats that are not otherwise protected under the *Forest and Range Practices Act*, and may be adversely affected by forest or range practices. (108):2 paraphrase

regional manager A "manager for a forest region established under the *Forest Act* and a range district established under the *Range Act*" with responsibilities as specified in the *Forest Act*, *Forest and Range Practices Act*, and the *Ministry of Forests and Range Act*. (121):Section 2(1) (c) paraphrase

regional plan Regional-level plans, such as Land and Resource Management Plans (LRMPs), that provide broad direction for resource management decisions over large areas of several watersheds or several million hectares. They contain broad zones, objectives, and strategies for management of a number of values, primarily: timber, mineral resources, protected areas, fish, wildlife, biodiversity, visual resources, tourism, and recreation. Regional-level plans provide direction for local-level plans, which may subsequently be initiated in a regional plan area to provide more specific management direction. Some regional-level plans also provide objectives and strategies for marine and foreshore uses under provincial jurisdiction. (6) paraphrase; (68) pers. comm.

Regional Resource Management Committee (RRMC) [term obsolete] "A committee comprised of senior regional representatives of government agencies responsible for or affected by resource management decisions who meet in each of the six regions in British Columbia on a regular or periodic basis to consider resource management problems." (18):Section R quote

registered forest technologist A person registered under the *Foresters Act* (Section 14) who specializes in on-the-ground fieldwork and the performance of technical forestry functions in areas such as silviculture, forest protection, forest operations, and forest measurements. (2) paraphrase

registered professional forester (RPF) A person registered under the *Foresters Act* (Section 14) to practice professional forestry in British Columbia. Foresters are involved with the inventory, classification, valuation, appraisal, conservation, protection, management, enhancement, harvesting, silviculture, and rehabilitation of forest lands and ecosystems. They prepare, review, amend, and approve professional documents; assess the impact of professional forestry activities; and audit, examine, and verify the results of activities involving the practice of professional forestry, and the attainment of goals and objectives identified in professional documents. Other activities of RPFs include: planning, locating, and approving forest transportation systems; and assessing, estimating, and analyzing the capability of forest lands to yield a flow of timber while recognizing public values related to forest resources and ecosystems. (91):Section 1 paraphrase

regulated unit [term obsolete] "A Special Sale Area (SSA) that describes a Crown area not under

sustained yield management on which timber may be sold at the discretion of the Minister of Forests. It is not planned that the allowable annual cut on these units will be maintained in perpetuity." (11):47 quote

rehabilitation "Removing all non-commercial cover, preparing the site, and stocking it with acceptable, commercially valuable species." (133):9 quote

reinventory "The remeasurement of an entire survey area to replace (update) an existing inventory in its entirety." (103):Section R quote

release (release operation) "A treatment designed to free young trees from undesirable, usually overtopping, competing vegetation; treatments can include cleaning, liberation, and weeding." (106):152 quote

remediation "Measures undertaken in an area of land to remedy contravention of forest and range practice requirements." (120) pers. comm.

remote automatic weather station (RAWS) "A weather station at which the services of an observer are not required. A RAWS unit measures selected weather elements automatically and is equipped with telemetry apparatus for transmitting the electronically recorded data via radio, satellite or by a landline communication system at predetermined times on a user-requested basis." (67):37 quote

remote sensing "The science and art of obtaining information about an object, area, or phenomenon through the analysis of data acquired by a device that is not in contact with the object; methods include aerial photography, radar, and satellite imaging." (106):153 quote

replaceable tenures Tenure agreements, with terms ranging from 20 to 25 years, that provide licensees with the long-term security to invest in business planning, forest management, and manufacturing. Every 5–10 years, the licence may be updated or replaced to reflect current government policy. Examples include tree farm licences, forest licences, and woodlot licences. (54):3 paraphrase

reportable erosion event [term obsolete] "A natural or man-made disturbance to the forest land base which is causing or will likely cause substantial environmental impacts, or which is a threat to life or property." (128):189 quote

representation analysis "A coarse filter conservation planning tool often used in parallel gap analysis. Representation analysis seeks to identify ecosystems that are characteristic of an area, and assess the relative distribution of those ecosystems." (72):75 quote

representative ecosystems "Ecosystems that are especially common and that define the character of a region." (72):75 quote

reserve "An area of forest land that, by law or policy, is not available for harvesting. Areas of land and water set aside for ecosystem protection, outdoor and tourism values, preservation of rare species, gene pool, wildlife protection, etc." (62):13 quote

reserved timber "Merchantable timber left after completion of primary logging that is reserved from cutting for silviculture, biodiversity and other specific forest management reasons." (51):A-6 quote

reserved trees Trees specifically reserved from harvesting and often referenced in site-level plans, cutting authorities, or by map notations. (71):285 paraphrase; (120) pers. comm.

reserves Forested patches or dispersed individual trees retained during harvesting, or other

forestry operations, to provide habitat, scenic, biodiversity, or other values, for at least one rotation. (24):Part 2.1–6 paraphrase

reserve zone "An area in which no timber harvesting is allowed to occur." (98):Section 1(1) quote

residual basal area "The basal area per hectare of acceptable trees left standing after harvest." (128):189 quote

residuals (residual trees) "Trees left standing after harvesting." (128):190 quote

residual stand structure "The age class or height structure of the stand or remaining trees after harvesting." (128):189 quote

residue "The wood or bark that is left after harvesting or a manufacturing process (e.g., slabs, edgings, trimmings, miscuts, sawdust, shavings, veneer cores and clippings, pulp screenings, and logging slash)." (106):153 quote

resilience "The capacity of a community or ecosystem to maintain or regain normal function and development following disturbance." (64):Section R quote

resistance to control "The relative ease of establishing and holding a fireguard and (or) securing a control line as determined by the difficulty of control and resistance to fireguard construction." (67):37 quote

resource agency "Any government agency, ministry, or department having jurisdiction over a resource that may be affected by a forest or range practice." (120) pers. comm.

resource feature "As identified under the Government Actions Regulation, includes all of the following: (a) a surface or subsurface element of a karst system; (b) a range development; (c) Crown land used for research or experimental purposes; (d) a permanent sample site used as a snow course by or on behalf of the federal or provincial government for the purpose of measuring the water content of the snow pack on a given area; (e) a cultural heritage resource that is the focus of a traditional use by an aboriginal people and that is not regulated by the *Heritage Conservation Act;* (f) an interpretive forest site, recreation site, or recreation trail; (g) a trail or other recreation facility referred to in Section 57 of the Act that is authorized by the minister or under another enactment; (h) a recreation feature that the minister considers to be of significant recreational value." (89):Section 5(1) quote

resource features "Localized resource values or sites of special interest, such as caves, raptor-nesting trees, mineral licks, heritage sites, and recreation trails." (128):190 quote

resource folio [term obsolete] "A collection of resource capability and forest inventory maps, other resource data, interpretations, and management objectives for each resource sector." (105) pers. comm.; (18):Section R quote

resource industry An industry based on the primary resources obtained from agriculture, fisheries, forestry, or mining. (1):671 paraphrase

resource management objective "A concise, measurable statement of a desirable future condition for a resource or resource use that is attainable through management action." (122):14.9 quote

resource management open fire An open fire that burns unpiled slash over an area of any size and is lit, fuelled, or used for silviculture treatment, forest health management, wildlife habitat enhancement, fire hazard abatement, ecological restoration, or range

improvement. (134):Section 1(1) paraphrase

resource management zone (RMZ) "Areas used as divisions or zones of a planning area that are distinct from other zones with respect to biophysical characteristics, resource issues, or resource management direction. They may be defined using descriptive objectives and strategies to describe future land use and resource management activities." (13):Section 4 quote

resource management zone objectives Provide strategic direction on land and (or) resource use, conservation, and protection for a resource management zone. (13):Section 4 paraphrase

resource stewardship monitoring (RSM) Conducted primarily at the district and regional levels, RSM consists of routine monitoring of on-the-ground practices to determine whether the *Forest and Range Practices Act*, forest stewardship plan, or other approved resource value objectives or strategies are being achieved and (or) can be improved. (31) paraphrase

resource value "Values on Crown land that include, but are not limited to, biological diversity, fisheries, wildlife, minerals, oil and gas, energy, water quality and quantity, recreation and tourism, natural and cultural heritage, timber, forage, wilderness, and aesthetic values." (12):26 quote

restoration "A process of returning ecosystems or habitats to their original structure and species composition. Restoration requires a detailed knowledge of the (original) species, ecosystem functions, and interacting processes involved." (78):266 quote

result A description of measurable or verifiable outcomes for a particular established objective, and the situations or circumstances that determine where in a forest development unit these outcomes will be applied. (86):Section 1(1) paraphrase

results-based "code" or forestry The *Forest and Range Practices Act* (FRPA) and regulations, enacted in 2004, introduced the transition to a results-based forest practices framework in British Columbia. Under this approach to forest management, the forest industry is responsible for developing results and strategies, or using specified defaults, for the sustainable management of resources. The role of government is to ensure compliance with established results and strategies and other practice requirements, and evaluate the effectiveness of forest and range practices in achieving management objectives. (31) paraphrase

retention A category of visually altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is difficult to see, small in scale, and natural in appearance. (86):Section 1(1) paraphrase

retention "Individual trees or groups of trees that are retained in harvested forest stands for varying lengths of time to provide for the maintenance of site scale structure and composition." (72):76 quote

retention system A silvicultural system that is designed to retain individual trees or groups of trees to maintain structural diversity and forest influence over the majority of the harvested area for at least one rotation. Generally, retention is intended to be long term, with no intention of future removal. (72):76 paraphrase

right-of-way "A strip of land that is managed specifically for access or the construction and maintenance of electric, telephone, water, other domestic utilities, streets, roads, and highways." (106):155 quote

riparian area An area of land adjacent to a stream, river, lake, or wetland that contains vegetation that, due to the presence of water, is distinctly different from the vegetation of adjacent upland areas. (90):Section 1(2) paraphrase

riparian corridor "An area composed of continuous riparian habitat (e.g., the land on either side of a river bank or around a lake)." (72):76 quote

riparian forest "At a large scale, it is the band of forest that has a significant influence on a stream ecosystem or is significantly affected by the stream. At a smaller scale, it is the forest at the immediate water's edge, where some specialized plants and animals form a distinct community." (64):Section R quote

riparian habitat "The stream bank and flood plain area adjacent to streams or water bodies." (133):10 quote

riparian management area (RMA) "An area consisting of a riparian management zone and a riparian reserve zone." (86):Section 1(1) quote

riparian management zone (RMZ) A portion of the riparian management area established to conserve the fish, wildlife habitat, biodiversity, and the water values of the riparian management zone, and to protect the riparian reserve zone, if any, within the riparian management area. (86):Section 1(1) paraphrase

riparian reserve zone A portion of a riparian management area established to protect fish, wildlife habitat, biodiversity, and water values. (86):Section 1(1) paraphrase

riparian zone "A strip of land of variable width adjacent to and influenced by a body of fresh water." (64):Section R quote

riprap "Rocks, pieces of used concrete, or other material of various sizes placed firmly or loosely on river banks to prevent scouring by the river, or on slopes or road cuts to prevent erosion." (106):155 quote

risk The probability of an undesirable event occurring within a specified period of time. With regard to insect populations, risk involves components to evaluate the likelihood of an outbreak, the likelihood of trees being attacked (susceptibility), or the likelihood of trees being damaged (vulnerability). In fire prevention, risk involves those things or events that cause fires to start (including the physical igniting agents and people). (124):35 paraphrase

risk management "The 'art' of weighing the assessed risks (i.e., the likelihood of a potential loss to an environmental, social, or economic value) against the expected benefits that may be gained from that action or decision." (93):Section R quote

risk rating (assessment) "The process of identifying the degree of risk that a forest and range practice may impose on social, economic, and (or) environmental values. The severity of each potential hazard and the magnitude of the potential consequences that correspond to each hazard provide the overall risk associated with the practice." (128):190 quote; (120) pers. comm.

road deactivation "Measures taken to stabilize roads and logging trails during periods of inactivity, including the control of drainage, the removal of sidecast where necessary, and the re-establishment of vegetation on permanently deactivated areas." (12):27 quote

road location line "The marked location of proposed roads." (128):190 quote

road permit An agreement entered into under the *Forest Act* that allows a person who has the

right to harvest timber under a licence, agreement, or permit, to construct a road, or maintain an existing road on Crown land, other than a Forest Service road. (54):9 paraphrase; (115) pers. comm.

road prism "The area consisting of the road surface and any cut slope and road fill." (86):Section 1(1) quote

roadside work area The area adjacent to a road where decking, processing, or loading timber and (or) piling or disposing of logging debris are carried out. (86):Section 35 paraphrase

root disease or rot "A rot that occurs chiefly in the roots of trees or in the roots of seedlings that have developed woody stem tissues, or any disease with these characteristics." (78):270 quote

rotation "The planned number of years between the formation or regeneration of a tree crop or stand and its final cutting at a specified stage of maturity." (64):Section R quote

rotation age "The age at which a stand is considered mature and ready for harvesting." (62):13 quote

roundwood "Any section of the stem, or of the thicker branches, of a tree of commercial value that has been felled or cut but has not been processed beyond removing the limbs or bark, or both, or splitting the section (for fuelwood)." (52):G-11 quote

routine evaluation In resource stewardship monitoring, a relatively low-intensity evaluation calling for typically inexpensive and rapid data collection often involving visual estimates and "yes/no" checklists. These types of evaluations are useful for identifying management trends or issues that may require more detailed evaluations (e.g., visual assessments of stream bank disturbance to survey the effects of riparian management). (31) paraphrase

RPF *See* ***registered professional forester***.

rules [term obsolete] "Informal working term for draft forest practices requirements proposed for the Forest Practices Code. Following review and public input, rules may be incorporated into the *Forest Practices Code of British Columbia Act* or in Regulations under the Act." (131) pers. comm.; (18) quote

rutting "The resulting depressions in the soil due to the repeated passage of a logging machine's wheels at the same place." (64):Section R quote

S

salmonid "A fish of the fish family Salmonides (e.g., salmon, trout, and char)." (70):79 quote

salvage harvesting "Logging operations specifically designed to remove damaged timber (dead or in poor condition) and yield a wood product. Often carried out following fire, insect attack, or windthrow." (128):191 quote

salvaged logs Logs, whether in a log boom or not, that have been found abandoned and (a) adrift, (b) cast ashore, or (c) lying on or embedded in the bed or bottom, or on the bank or beach, of a river, stream, lake, or ocean, and have then been taken into custody, without the owner's authorization, by a person other than the owner of the logs. (81):Section 1(1) paraphrase

sanitation treatment "The removal of dead, damaged, or susceptible trees, essentially to prevent the spread of pests or pathogens and so promote forest hygiene." (63):Section S quote

sapling "The stage of tree development in between the seedling and the pole stage. Saplings are typically 1–2 m tall and 2–4 cm in diameter, with vigorous growth, no loose, dead bark, and few (if any) dead branches." (78):273 quote

sap rot "Any rot characteristically confined to the sapwood." (52):G-12 quote

sapwood "The living wood of pale colour near the outside of the log. Under most conditions, the sapwood is more susceptible to decay than heartwood." (52):G-12 quote

satisfactorily restocked "Productive forest land that has been denuded and subsequently regenerated to the specified stocking standards in the silviculture prescription." (22):94 quote

sawlog shelf life "The length of time following death that the tree still retains at least the minimum qualities of a sawlog." (57):Section S quote

scale "To measure or estimate the quantity, expressed as the volume, or area, or length, or mass, or number of products obtained from trees after they are felled." (52):G-12 quote

scaler A person who is licensed or appointed to scale timber under the *Forest Act* (Section 100). (52):G-12 paraphrase

scarification "A method of seedbed preparation that consists of removing the forest floor or mechanically mixing it with the mineral soil to eliminate or reduce the dead organic material." (61):152 quote

scenario "A draft statement of how lands and resources in the planning area will be managed in the future. Scenarios usually include a zoning map and associated statements of resource management objectives and strategies." (122):14.9 quote

scenic area An area that is deemed visually important based on its physical characteristics and public use, and that requires special management. (89):Section 7(1) paraphrase

screefing "The removal of herbaceous vegetation and duff to expose a weed-free soil surface for planting. A type of site preparation that may be carried out by mechanical or chemical means." (78):276 quote

seasonal streams "Streams that flow throughout most of the year, but may dry up during portions of the dry season." (71):286 quote

secondary channel "Subordinate channel in a stream reach with more than one channel; minor

channel in a floodplain." (70):79 quote

secondary succession "Process whereby one stand or plant community supplants another; it is triggered by a major disturbance in a forest ecosystem." (65):Section S quote

second-growth forest A relatively young forest that has developed following a disturbance (e.g., wholesale cutting, extensive fire, insect attack) of the previous stand of old-growth forest. (78):279 paraphrase

second-growth timber "Timber less than 250 years of age." (98):Section 1(1) quote

second pass "The next entry to harvest timber after green-up (or other recovery objective) occurs." (128):191 quote

sector "A grouping of producers in the economy according to their primary product (e.g., the forestry, mining, or tourism sector)." (72):76 quote

sedimentation "The process of subsidence and deposition by gravity of suspended matter carried in water; usually the result of the reduction of water velocity below the point at which it can transport the material in suspended form." (128):191 quote

seed "Any part of a forest tree represented, sold, or used to grow a plant." (84):Section 1(1) quote

seed bank "Storage facilities where seeds of rare or obsolete varieties are stored." (64):Section sSquote

seedbed "In natural regeneration, the soil or forest floor on which seed falls; in nursery practice, a prepared area over which seed is sown." (62):13 quote

seedling "A young tree having a diameter at breast height equal to or less than 1 cm." (103):Section S quote

seedlot Seeds that are collected and assembled as a lot for the purposes of registration under Part 5 of the Chief Forester's Standards for Seed Use. (85):Section 1(1) paraphrase

seedlots "Seed from a particular collection event, either from a single tree collection or a pooling of seed from many trees." (128):191 quote

seed orchard "A collection of parent trees maintained for the purposes of producing seeds." (85):Section 1(1) quote

seed planning unit (SPU) An organizational unit that forms the basis for breeding and seed production planning. SPUs are organized by species, seed planning zone, and elevation band and are designed to facilitate program development and strategic planning for tree improvement. (53) paraphrase

seed source The locality where a seedlot was collected. If the stand from which collections were made was exotic, the place where its seed originated is the original seed source. (63):Section S paraphrase

seed trees Trees selected to be left standing to provide seed sources for natural regeneration. Selection is usually on the basis of good form and vigour, the absence of serious damage by disease, evidence of the ability to produce seed, and windfirmness. (128):191 paraphrase

seed tree system An even-aged silvicultural system in which selected trees (seed trees) are left standing after the initial harvest to provide a seed source for natural regeneration. Seed trees can be left uniformly distributed or in small groups. Although regeneration is

generally secured naturally, it may be augmented by planting. Seed trees are often removed once regeneration is established or may be left as reserves. (128):191 paraphrase

seepage zone "An area on a hillslope or at the slope base where water frequently or continuously springs to the surface." (70):79 quote

seismic line "A constructed trail used for seismographic exploration." (128):191 quote

selection system A silvicultural system that removes mature timber either as single scattered individuals or in small groups at relatively short intervals, repeated indefinitely, where the continual establishment of regeneration is encouraged and an uneven-aged stand is maintained. (24):Part 2.1–13 paraphrase

selective logging "Removal of certain trees in a stand as defined by specific criteria (species, diameter at breast height, or height and form). It is analogous to highgrading. Not to be confused with the selection silvicultural system." (71):287 quote

semi-permanent bridge "A bridge having a substantial proportion of its components constructed of steel, concrete, or timber that has been pressure-treated with a suitable preservative." (128):191 quote

senior official [term obsolete] A senior official means: (a) a district manager or regional manager; (b) a person employed in a senior position in the Ministry of Forests, Ministry of Environment, Lands and Parks or the Ministry of Energy, Mines and Petroleum Resources, who is designated by name or title to be a senior official for the purposes the Act by the minister of that ministry. (95):Section 1(1) paraphrase

sensitive areas objectives [term obsolete] "To adequately manage, protect, and conserve the resources of the area. Sensitive areas may be designated under the *Forest Practices Code of British Columbia Act*, through a planning process, or by the Ministry of Forests and Range district manager and designated B.C. Environment official (e.g., forest ecosystem networks and the setting of visual quality objectives for sensitive scenic areas)." (128):192 quote

sensitive resource area [term obsolete] "An identifiable geographic unit of the forest land base that requires a specific combination of forest practices to adequately protect important resource values." (128):192 quote

sensitive slopes "Any slope identified as prone to mass wasting." (71):287 quote

sensitive soils Soils that, because of their slope gradient, texture class, moisture regime, or organic matter content, have a high (Coast) or very high hazard (Interior or Coast) for displacement, surface erosion, or compaction. (86):Section 35 paraphrase

sensitive terrain areas "Areas with moderate to high potential for landslide initiation during timber harvesting or road construction, which therefore require special forest practices to ensure adequate site protection." (133):10 quote

sensitive watershed "A watershed that is used for domestic purposes or that has significant downstream fisheries values, and in which the quality of the water resource is highly responsive to changes in the environment. Typically, such watersheds lack settlement ponds, are relatively small, are located on steep slopes, and have special concerns such as extreme risk of erosion." (128):192 quote

sensitivity analysis "A process used to examine how uncertainties about data and management practices could affect timber supply. Inputs to an analysis are changed, and the results are

compared to a baseline or base case." (133):10 quote

seral species "Plant species of early, middle, and late successional plant communities. The term is often used in a narrower sense in forest management to describe the dominant conifer vegetation that follows major disturbance episodes." (61):152 quote

seral stage "The series of plant community conditions that develop during ecological succession from bare ground (or major disturbances) to the climax stage. Also called successional stages." (61):152 quote

setting "The area (cutblock) being logged in any one continuous operation, which may have several landings and extraction points, but is all part of the same logging operation." (78):281 quote

settlement pond "Larger than a catchment basin and preferably with lower velocity waterflows that enable suspended sediment to settle before the flow is discharged into a creek." (128):192 quote

shade-intolerant species "Plant species that require open, sunny conditions for optimal growth, and will grow poorly, if at all, in shady conditions, although they may colonize gaps. Typically, easily dispersed plant species that can invade a disturbed site and grow rapidly to form the first forest community in the next successional sequence (e.g., many pine species, larch, alder, and cottonwood)." (78):281 quote

shade-tolerant species "Plant species that have evolved to grow well in shade. Typically, these species grow in the understorey, thus shade-tolerant species often dominate a climax forest type (e.g., hemlock)." (78):281 quote

shearing "In Christmas tree culture, to prune the branches to make dense foliage and give the tree a conical shape." (62):14 quote

shelf life "The length of time before wood deteriorates to the extent that it is no longer useable." (57):Section S quote

shelterwood system A silvicultural system in which trees are removed in a series of cuts designed to achieve a new even-aged stand under the shelter of remaining trees. (24):Part 2.1–10 paraphrase

sidecast Moving excavated material onto the downslope side of a temporary access structure, excavated or bladed trail, or landing during its construction. (71):287 paraphrase

significant breach A degree of compliance in Forest Practices Board (FPB) audit findings; occurs when the FPB auditor finds that significant harm has occurred or is beginning to occur to persons or the environment as a result of the non-compliance. A significant breach can also result from the cumulative effect of a number of non-compliance events or conditions. (93):Section S paraphrase

significant non-compliance A degree of compliance in Forest Practices Board (FPB) audit findings; occurs when the FPB auditor determines that the event or condition, or the accumulation and consequences of a number of non-compliance events or conditions, is significant and is considered worthy of reporting. (93):Section S paraphrase

sill "A single structural member used as a foundation to transfer the loads from the bridge superstructure to the supporting soil." (128):192 quote

silvics "The study of the life history, requirements, and general characteristics of forest trees and stands, with particular reference to environmental factors, as a basis for the practice of

silviculture." (106):167 quote

silvicultural system A planned program of silvicultural treatments designed to achieve stand structure characteristics to meet site objectives during the whole life of a stand. This program of treatments integrates specific harvesting, regeneration, and stand tending methods to achieve a predictable yield of benefits from the stand over time. The names of the different silvicultural systems reflect the type of forest structure remaining after initial harvest (e.g., clearcutting, seed tree, shelterwood, selection, and retention). (24):Part 2.1–5 paraphrase

silvicultural system variant Further describes the functional attributes of a silvicultural system. A variant describes the general distribution of cut-and-leave areas or leave-trees on an area over time. (12):28 paraphrase

silvicultural treatments "Activities that ensure the regeneration of young forests on harvested areas, enhance tree growth, or improve wood quality in selected stands. Activities include: site rehabilitation and preparation, planting, spacing, fertilization, and pruning." (133):11 quote

silviculture "The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis." (64):Section S quote

silviculture cost "Cost of establishing a new crop of trees—a component of operating costs measured in dollars per cubic metre." (49):Section S quote

silviculture prescription "A site-specific operational plan that describes the forest management practices and obligations for an area that will be carried out to establish a free-growing stand in a manner that accommodates other resource values as identified." (12):28 quote; (120) pers. comm.

silviculture regime "A series of site-specific silviculture treatments planned over time." (128):192 quote

silviculture survey "A sampling procedure to determine silvicultural conditions, such as planting survival, free-growing status, and stocking, leading to management decisions." (62):14 quote

single tree selection A variant of the selection silvicultural system in which individual trees of all size classes are removed more or less uniformly throughout the stand to promote growth of regeneration. (106):151 paraphrase

site "An area described or defined by its biotic, climatic, and soil conditions in relation to its capacity to produce vegetation; the smallest planning unit." (128):193 quote

site association "A group of related ecosystems physically and biologically similar enough that they have or would have similar vegetation at climax." (118):23 quote

site class The measure of the relative productive capacity of a site for a particular crop or stand; generally based on tree height at a given age and expressed as either good, medium, poor, or low. (62):14 paraphrase

site index "A measure of site productivity. The indices are reported as the average height, in metres, that the tallest trees in a stand are expected to achieve at 50 years (age is measured at 1.3 m above the ground). Site index curves have been developed for British Columbia's major commercial tree species." (133):11 quote

site preparation "Any action taken in conjunction with a reforestation effort (natural or artificial) to create an environment favourable for survival of suitable trees during the first growing season. This environment can be created by altering the ground cover, soil, or microsite conditions, using biological, mechanical, or manual clearing, prescribed burns, herbicides, or a combination of methods." (78):285 quote

site productivity (capability) "The mean annual increment in merchantable volume which can be expected for a forest area, assuming it is fully stocked by one or more species best adapted to the site, at or near rotation age. Expressed in cubic metres per hectare." (103):Section S quote

site rehabilitation "The conversion of the existing unsatisfactory cover on highly productive forest sites to a cover of commercially valuable species." (62):14 quote

site sensitivity "An assessment of the susceptibility of a site to soil-degrading processes, such as soil compaction, erosion, mass wasting, and forest floor displacement." (128):193 quote

site series "Subdivisions of site associations. Site series include all sites within a biogeoclimatic subzone that are capable of producing the same climax vegetation unit or plant association." (22):97 quote

site-specific "Pertaining to a specific planning unit." (128):193 quote

situation report (SITREP) "An itemized list and (or) written account, usually issued on a daily basis, detailing the status of various fire-related activities. A SITREP generally contains information on fire occurrence and area burned to date, fire suppression resources committed to going fires and resources on standby, number of fires in the various stages of control, fire danger class, fire weather forecast and forest closures (if any)." (67):39 quote

skidder "A wheeled or tracked vehicle used for sliding and dragging logs from the stump to a landing." (62):14 quote

skidding "The removal of trees or logs from the stump to a deck or landing by trailing or dragging them along the ground." (78):158 quote

skid road "An excavated or bladed logging trail used by tracked or rubber-tired skidders to drag logs from the felling site to landing or roadside processing area." (128):193 quote

skid trail A pathway travelled by ground skidding equipment when moving trees or logs to a landing. A skid trail differs from a skid road in that stumps are cut very low and the ground surface is mainly untouched by the blades of earth moving machines. (128):193 paraphrase

skyline "Any method of yarding where the logs are fully suspended above the ground by a short span, long span, or multi-span system using a carriage with standing or running lines." (44):1–3 quote

slash "The tree residue left on the ground as a result of forest and other vegetation being altered by forest practices or other land use activities. Slash includes material such as logs, splinters or chips, tree branches and tops, uprooted stumps, and broken or uprooted trees and shrubs." (128):193 quote

slash burning "Intentional burning of debris resulting from timber harvesting operations, where the fuel has not been piled or windrowed, allowing the fire to spread freely over the entire harvested area." (64):Section S quote

slide "A mass movement process in which slope failure occurs along one or more slip surfaces and in which the unit generally disintegrates into a jumbled mass en route to its depositional site. A debris flow or torrent flow may occur if enough water is present in the mass." (71):288 quote

slope failure *See* ***slide****.*

slope processes "All processes and events by which the configuration of the slope is changed; especially processes by which rock, surficial materials and soil are transferred downslope under the dominating influence of gravity." (70):80 quote

slope stability "Susceptibility of a slope to erosion and slides." (62):14 quote

slump "A mass movement process in which slope failure occurs on a usually curved slip surface and the unit moves downslope as an intact block, frequently rotating outward. Slumps appear as discrete block movements, often in place, whereas slides usually break up and travel downslope." (71):289 quote

Small Business Forest Enterprise Program (SBFEP) [term obsolete] A program that permitted the Ministry of Forests to sell Crown timber competitively to individuals and corporations who are registered in the SBFEP. The SBFEP was replaced by BC Timber Sales on April 1, 2003. (128):193 paraphrase

small-scale forestry "In general, non-industrial forestry operations. In British Columbia, small-scale forestry operations are carried out by woodlot licensees, Indian bands, municipalities, and private landowners." (62):14 quote

smoke management "Scheduling and conducting a prescribed burning program under predetermined burning prescriptions and firing techniques that will minimize the adverse effects of the resulting smoke production in smoke-sensitive areas." (67):40 quote

smoke-sensitive area "An area in which smoke from outside sources is intolerable, owing to heavy population, transportation services, existing air pollution, and (or) intensive recreation/tourist use." (67):40 quote

snag "A standing dead tree or part of a dead tree from which at least the smaller branches have fallen." (128):194 quote

softwood "Generally, one of the botanical groups of trees that in most cases have needle- or scale-like leaves; the conifers; also the wood produced by such trees. The term has no reference to the actual hardness of the wood." (52):G-13 quote

soil "The unconsolidated mineral or organic material on the immediate surface of the earth that serves as the natural medium for the growth of land plants." (106):170 quote

soil compaction "The increase in soil bulk density that results from the rearrangement of soil particles in response to applied external forces." (16):4 quote

soil displacement The mechanical movement of soil materials by equipment and logs, involving excavation, scalping, exposure of underlying material, and burial of surface soils. These activities can result in soil degradation by exposing unfavourable subsoils, redistributing and causing the loss of nutrients, and altering slope hydrology. (16):6 paraphrase

soil disturbance "Changes caused by forest practices in the physical, chemical, or biological properties of the soil, including the organic forest floor and the mineral soil extending from the surface to the depth at which the unweathered parent materials is encountered." (128):194 quote

soil disturbance hazard "An assessment of the susceptibility of a soil to adverse impacts on its productive capability due to soil compaction, soil puddling, surface erosion, mineral soil displacement, mass wasting, or forest floor displacement." (128):194 quote

soil horizon "A zone in the soil that is generally parallel to the land surface and distinguished from zones above and below by characteristic physical properties, such as colour, structure and texture, and soil chemistry." (71):289 quote

soil pit "A pit excavated for the purpose of examining the soil. It is most commonly dug by hand using shovels and is usually less than 1 m deep." (78):290 quote

soil productivity "The capacity or suitability of a soil for establishment and growth of a specified crop or plant species, based primarily on nutrient availability." (78):290 quote

soil puddling "The destruction of soil structure and the associated loss of macroporosity that results from working the soil when wet."(16):4 quote

soil rehabilitation "Activities that aim to improve soil productivity to a state where a productive forest can develop on sites that have suffered some form of soil degradation." (60):1 quote

soil verification pit [term obsolete] "An excavation into the mineral soil of sufficient depth to allow assessment of the soil properties used to evaluate soil productivity and sensitivity to forest management-related disturbances. This generally requires an excavation 90 cm deep unless a water table, compact soil, or bedrock is encountered closer to the soil surface, in which case the depth to one of these layers is the minimum depth of pit required." (18):Section S quote

spacing "The removal of undesirable trees within a young stand to control stocking, to maintain or improve growth, to increase wood quality and value, or to achieve other resource management objectives." (71):289 quote

special concern "A designation for species particularly sensitive to human activities or natural events but not endangered or threatened. Special concern was previously referred to as 'vulnerable'." (7):Section S quote

special forest products As defined under the *Forest Act*, these are: Christmas trees; firewood; mining timbers; stakes and sticks; cants; posts and rails (split and round); shake and shingle bolts, blocks, and blanks; and shakes. (82):Section 1 paraphrase

species "A group of individuals that have their major characteristics in common and (usually) can only breed with each other." (78):293 quote

species account "A summary outlining the ecology, distribution and recommended management strategy for a species of identified wildlife." (12):29 quote

species at risk A category of wildlife referred to as 'Identified Wildlife' under the Identified Wildlife Management Strategy. This category includes endangered, threatened, or vulnerable species of vertebrates and invertebrates, and endangered or threatened plants and plant communities that are negatively affected by forest or range management on Crown land and are not adequately protected by other mechanisms. (108):2 paraphrase

species composition "The percentage of each recognized tree species comprising the forest type based upon the gross volume, the relative number of stems per hectare or basal area." (18):Section S quote

species conversion "A change from one tree species to another (i.e., from broadleaved to

conifer).” (106):37 quote

species plan Plans developed by Forest Genetics Council Species Committees for seed planning units with the highest expected return. Species plans contain breeding and seed production projections, plans for propagation and management activities, and analyses of current and proposed seed orchards. Species plans also show the timeline for genetic improvement, including projected supply and demand for planting stock, and projected genetic gain. (53) paraphrase

species ranking A process of assessing the degree of conservation risk for species. In British Columbia, the Conservation Data Centre assigns provincial conservation status ranks based on a standard set of criteria developed over the past 25 years by the international organization NatureServe. (73):2 paraphrase

spot burning “A prescribed burn in which fuels or accumulations of slash are burnt in localized areas; a modified form of broadcast burning.” (106):173 quote

spot fire “A fire that is less than 0.01 ha (10 x 10 m).” “A fire resulting from an ember released from an existing fire and burning outside the original fire perimeter.” (37) quote; (119) pers. comm.

spring “The point where an aquifer intersects with the ground surface and discharges water.” (78):295 quote

spur road “A small branch of a logging road, generally used as a temporary access to a setting.” (78):295 quote

stabilized road width “The width of the travelled portion of the road that has been surfaced with material of sufficient strength and quantity to support the intended traffic.” (128):194 quote

stagnant “Stands or individual trees whose growth and development have been repressed or almost stopped due to poor site conditions or excessive stocking.” (78):296 quote

stain “A discoloration of wood, usually only the sapwood, in live or recently cut trees (including timber, chips, and pulp) caused by certain fungi, and sometimes vectored by insects (particularly bark beetles and ambrosia beetles). Stains may occur in a variety of colours but blue, green, and black are most common.” (106):174 quote

stakeholder “The range of groups and individuals who have a formal or informal stake in resource planning and management decisions, including tenure holders, local resource user and community groups, non-governmental organizations, and research institutions.” (72):77 quote

stand “A community of trees sufficiently uniform in species composition, age, arrangement, and condition to be distinguishable as a group from the forest or other growth on the adjoining area, and thus forming a silviculture or management entity.” (103):Section S quote

standard A required level of quality or attainment. “A standard established by the Chief Forester under Section 169 of the *Forest and Range Practices Act*.” Under this section, the Chief Forester may establish, vary, or revoke standards respecting (a) tree gene resources, (b) fire use, (c) the preparation of an operational plan, (d) a forest practice, and (e) a range practice. (84):Section 1(1) quote; (84):Section 169(1) paraphrase

standards of practice A set of standards or interpretive guidelines established by a professional

regulatory body (e.g., Association of BC Forest Professionals), either as part of their Code of Ethics or as a stand-alone document. These standards will generally describe performance expectations and can be used to guide a professional's general conduct or when carrying out specific tasks. Standards of practice can be used by the professional regulatory body as a benchmark in a practice review or disciplinary proceeding. (40):3-3 paraphrase

stand composition "The proportion of each tree species in a stand expressed as a percentage of either the total number, basal area, or volume of all tree species in the stand." (106):34 quote

stand conversion "The planned manipulation of species composition within a stand to increase the density of the desirable species. It may involve removal of hardwoods and replacement with conifers. The term may also refer to changing the main stand component from one conifer to another (e.g., by harvesting trees subject to pest attack and replacing them with non-susceptible or less susceptible species)." (78):297 quote

stand density A quantitative measure of tree cover on an area in terms of biomass, crown closure, number of trees, basal area, volume, or weight. In this context, "tree cover" includes seedlings and saplings, hence the concept carries no connotation of a particular age. Often described in terms of stems per hectare. (103):Section S paraphrase

stand development "Changes in forest structure over time, during and after disturbances." (71):289 quote

stand dynamics "The study of changes in forest stand structure over time, including stand behaviour during and after disturbances." (128):195 quote

standing "Status held by a person or group which allows the person or group to challenge or appeal a particular decision." (18):Section S quote

standing stem harvesting A logging method that utilizes a helicopter to selectively harvest components of a forest stand. Trees selected for harvesting are based on the licensees' pre-determined requirements (e.g., species, diameter, value). (51):A-8 paraphrase

stand level The level of forest management at which a relatively homogeneous land unit can be managed under a single operational plan, or set of treatments, to meet well-defined objectives. (128):195 paraphrase

stand-level biodiversity "In stands, objectives for biodiversity are met by maintaining specified stand structure (wildlife trees or patches), vegetation species composition, and coarse woody debris levels." (133):11 quote

stand management prescription [term obsolete] "A site-specific operational plan describing the nature and extent of silviculture activities planned for a free-growing stand of trees to facilitate the achievement of specified or identified social, economic and environmental objectives." (128):195 quote

stand model A computer model that forecasts the development of a forest stand, usually in terms of stand attributes such as mean diameter or height. (63):Section S paraphrase

stand strategy [term obsolete] "A documented plan of stand treatments to achieve management objectives during the life of a particular stand." (128):195 quote

stand structure "The horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers, and stems of trees, shrubs, herbaceous

understorey, snags, and downed woody debris." (106):175 quote

stand table "A summary table showing the number of trees per unit area by species and diameter class, for a stand or type. The data may also be presented in the form of a frequency distribution of diameter classes." (103):Section S quote

stand tending "Activities such as thinning, spacing, weed or brush control, carried out in already established stands." (78):298 quote

stand types *See **stand**, **stand structure**.*

statutory decision maker (SDM) "A person given powers under provincial legislation to make administrative decisions and approve operational plans for harvesting, road building, silviculture activities, and range use. SDMs interpret and apply relevant provincial legislation, regulations, and policies." (72):77 quote

statutory framework "The set of legislative provisions that govern forest practices in the province." (125) pers. comm.

stewardship "The concept of responsibly managing natural resources for the benefit of present and future generations and encouraging the active participation of persons or groups, including citizens, communities, government, and industry." (8):76 quote

stocked forest land "Land supporting tree growth, including seedlings and saplings. Stocking is a qualitative expression of the adequacy of tree cover on an area, in terms of crown closure, number of trees, basal area, or volume, in relation to a pre-established norm. In this context, tree cover includes seedlings and saplings; therefore the concept carries no connotation of a particular age." (61):Section S quote

stocking "A measure of the area occupied by trees, usually measured in terms of well-spaced trees per hectare, or basal area per hectare, relative to an optimum or desired level." (128):195 quote

stocking class "A numeric code representing a range of stems per hectare, sometimes estimated by crown closure on aerial photographs (e.g., stocking class 1 is mature with 76 or more stems per hectare of greater than 27.5 cm dbh; class 2 is mature with less than 76 stems per hectare; class 0 is immature." (62):15 quote

stocking plan [term obsolete] "A plan that provides objectives and strategies for land allocation and (or) resource management, including regional plans, subregional plans, and local resource plans." (18):Section S quote

stocking standard The range of healthy, well-spaced, acceptable trees required to establish a free-growing stand or to meet the residual stand requirements following an intermediate cutting or the harvesting of special forest products. (43):4 paraphrase

stocking status "Stocking is an indication of growing space occupancy relative to a pre-established standard. Status refers to whether the site has met those standards. Stocking status is most often described as satisfactorily restocked, not satisfactorily restocked, free-growing, or not free-growing." (22):97 quote

stocking survey "The determination of the stocking of an area of both well-spaced and total trees; also used to generate an inventory label." (128):195 quote

strategic goals Broad business results that define what must be achieved in a specified period of time (e.g., 3–5 years). They provide direction without being overly constricting. See ***goal***. (50):20 paraphrase

strategic land-use planning (SLUP) The process and associated outcomes that provide direction for the management and allocation of public lands and resources (both coastal/ marine and terrestrial) over a defined area (usually a large area based on large administrative boundaries, First Nations traditional territories, marine inlets or ecosystems, or large watersheds). It includes both regional and local plans, with planning at the regional and sub-regional levels involving preparation of resource management zones, objectives. and strategies. Strategic planning differs from operational planning, which tends to focus on single resources at a site-specific level (site plans, harvest plans, etc.). (6):3 paraphrase

strategic plan A plan that provides a clear sense of direction and certainty for the future. It ensures that actions and resources relate to strategic priorities, and that performance can be measured and adjusted where necessary. (50):20 paraphrase

strategic priorities Define what an organization must do to resolve its issues and take advantage of opportunities to reach its goals and vision. (50):20 paraphrase

strategy A description of measurable or verifiable steps or practices that will be carried out for a particular established objective, and the situations or circumstances that determine where in a forest development unit the steps or practices will be applied. (86):Section 1(1) paraphrase

stratum "A subdivision of a forest area to be inventoried. The division of a population into strata (stratification) is usually done to obtain separate estimates for each stratum." (103):Section S quote

stream A watercourse that contains water on a perennial or seasonal basis, is scoured by water, or contains observable deposits of mineral alluvium; it (a) has a continuous channel bed that is 100 m or more in length, or (b) flows directly into a fish stream or a fish-bearing lake or wetland, or a licensed waterworks. (86):Section 1(1) paraphrase

stream bank "The rising ground bordering a stream channel, below the level of rooted terrestrial vegetation and above the normal streambed, which restricts lateral movement of water at normal water levels. The left and right banks are defined looking downstream." (78):301 quote

streambed "The bottom of the stream below the usual water surface." (128):195 quote

stream channel "The streambed and banks formed by fluvial processes, including deposited organic debris." (128):195 quote

stream class The British Columbia Coastal Fisheries/Forestry Guidelines defines three stream classes: (1) Stream Class A includes streams or portions of streams that are frequented by anadromous salmonids and (or) resident sport fish or regionally significant fish species; or streams identified for fishery enhancement in an approved fishery management plan; stream gradient is usually less than 12 percent. (2) Stream Class B includes streams or portions of streams populated by resident fish not currently designated as sport fish or regionally significant fish; stream gradient is usually 8–20 percent. (3) Stream Class C includes streams or portions of streams not frequented by fish; stream gradient is usually greater than 20 percent. (71):290 paraphrase

stream culvert "A culvert used to carry stream flow in an ephemeral or perennial stream channel from one side of the road to the other." (97):Section 1(1) quote

stream gradient "The general slope, or rate of vertical drop per unit of length, of a flowing stream." (62):16 quote

streamside management zone (SMZ) *See* ***riparian management zone***.

stressor "A physical, chemical, or biological entity or process that induces effects on individuals, populations, communities, or ecosystems. Stressors include natural processes and structures, including forms of disturbance (e.g., naturally caused fire, native pathogens, or climate-driven hydrological change), and may also represent anthropogenic alterations of natural processes or structures (e.g., invasion of exotic species, stream diversion or impoundment, or vegetation manipulation)." (47):Section S quote

stub "An artificially created wildlife tree at least 3 m in height, usually created with a mechanical feller buncher." (21) quote

stubble height The height of herbaceous plants remaining after grazing or mechanical harvesting. (90):Section 1(1) paraphrase

stumpage "The fee that individuals and firms are required to pay to the government when they harvest Crown timber in British Columbia. Stumpage is determined through a complex appraisal of each stand or area of trees that will be harvested. A stumpage rate (dollars per cubic metre) is determined and applied to the volume of timber that is cut. Invoices are then sent to individuals or firms." (15):1 quote

subgrade "The material movement necessary to construct the roadway, excluding surfacing." (128):196 quote

substructure "The part of a bridge that supports the superstructure and carries all the applied lateral and vertical loads; includes caps, sills, piles, and posts, each comprising elements known as abutments and piers." (128):196 quote

subsurface drainage "Water flow through permeable soil or rock beneath the surface of the land." (70):81 quote

sub-unit plan [term obsolete] "The fourth level of planning in the Ministry of Forests hierarchical planning system. The aggregation of a number of courses of action in map and written form designed to achieve sub-unit objectives. Normally centred on watersheds." (18):Section S quote

succession "Changes in species composition in an ecosystem over time, often in a predictable order." (64):Section S quote

suitability mapping "A habitat interpretation that describes the current potential of a habitat to support a species. Habitat potential is reflected by the present habitat condition or successional stage." (128):196 quote

superstructure "The part of a bridge found above or supported by the caps or sills, including the deck, girders, stringers, and curbs." (128):196 quote

supply block "A division of a timber supply area; also called timber supply blocks (TSB)." (35):Section S quote

surface soil erosion "For an area where a forest practice has been carried out, this term means the movement of soil particles from the area by wind, gravity, or water at a rate that is greater than that which would have occurred had the forest practice not occurred." (18):Section S quote

surplus forest [term obsolete] "A forest in which existing stands can provide more harvest volume than is needed to maintain the harvest at the level of long run sustained yield until the stands created when the existing stands are cut become available for harvest."

(18):Section S quote

sustainability "A state or process that can be maintained indefinitely. The principles of sustainability integrate three closely interlined elements—the environment, the economy, and the social system—into a system that can be maintained in a healthy state indefinitely." (12):31 quote

sustainable forest development "The development of forests to meet current needs without prejudice to their future productivity, ecological diversity or capacity for regeneration." (64):Section S quote

sustainable forest management "Management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things while providing environmental, economic, social, and cultural opportunities for present and future generations." (64):Section S quote

sustained yield A policy, method, or plan of forest management that aims to achieve an approximate balance between net growth and amount harvested. (62):16 paraphrase; (102) pers. comm.

switchback "A horizontal road curve used for surmounting the grade of a step hill, usually with a small radius (15–10 m) and curving 180 degrees." (128):196 quote

system road "A permanent road required for long-term management of the forest." (18):Section S quote

T

Table Interpolation Program for Stand Yields (TIPSY) "A B.C. Forest Service computer program used to generate yield projections for managed stands based on interpolating from yield tables of a model (TASS) that simulates the growth of individual trees based on internal growth processes, crown competition, environmental factors, and silvicultural practices." (133):11 quote

take or pay A policy related to waste assessments on Crown land. Merchantable Crown timber, whether standing or felled, that is not reserved from cutting and remains on site upon the completion of primary logging of each cutblock, or at the expiry of the agreement or cutting permit, is classified as "waste" by the Ministry of Forests and Range. The ministry will issue an invoice charging for such waste reported in a waste assessment. (51):1-2–1-3 paraphrase

tally "A form completed by a scaler used to capture timber details such as timber marks, species, grade, volume, products, and dimensions. It also identifies the time and place of scale, as well as the ownership of the timber. It is used as a basis for stumpage collection." (52):G-15 quote

target "A numerical objective that specifies the management results to be achieved." (72):77 quote

target "The desired endpoint of an ecosystem management strategy or plan, often dynamic or expressed in terms bounded by a range of variability." (47):Section T quote

target stocking standards "The number of well-spaced acceptable trees per hectare that will, in normal circumstances, produce an optimum free-growing crop; the standards at which silviculture treatments are aimed." (128):196 quote

tariff "An import tax or a list of articles and the import tax that must be paid on items on that list. A protective tariff is meant to protect local businesses from foreign competition; a retaliatory tariff is in response to a foreign country's tax on goods from your country; and an antidumping tariff is to prevent foreign countries from selling their goods in the importing country at a lower price than the goods sell for in the foreign country or at a price lower than the manufacturing cost." (64):Section T quote

temperate forest "One of three main forest zones in the world. The woodland of rather mild climatic areas; composed mainly of deciduous trees." (64):Section T quote

temporary access structure An access structure that is required only for a limited period during a specific forest management phase in a cutblock. These include: excavated or bladed trails, main skid trails, backspar trails, corduroyed trails, and other similar structures, but not gravel pits or quarries. (86):Section 1(1) paraphrase

temporary bridge "A bridge having most of its major components constructed of untreated wood." (128):196 quote

temporary tenures Non-alienated lands on which the timber was alienated to private interests, but where the Crown retained ownership of the lands. These lands included timber licences, timber leases, and timber berths as well as pulp licences and pulp berths, including those in tree farm licences under Schedule 'A.' (18):Section T paraphrase

tending Any treatment carried out to enhance growth, quality, vigour, and composition of the stand after establishment or regeneration and before final harvest. (106):99 paraphrase

tenure The mechanism by which the government transfers specific rights to use Crown, or public, forest or range land and resources to others. Private forest companies, communities, and individuals gain the right to harvest timber in public forests through tenure agreements with the provincial government. Tenures may be area- or volume-based, and replaceable or non-replaceable. (54):2 paraphrase

tenure holder An individual, group, or company that holds a licence agreement as defined in the *Forest Act* (Section 10) or the *Range Act* (Section 3). (128):196 paraphrase

tenure management plan [term obsolete] "A plan that relates to the management, development and use, by the holder of a licence or permit granted under the *Range Act*, of the Crown range to which the licence or permit applies, including the management and use, affecting Crown range, of the following land: to which a licence or permit is made appurtenant, land which is subject to an agreement under Section 17 of the *Range Act*, and unfenced land used for grazing purposes in common with Crown range to which a licence or permit applies." (114) pers. comm.; (18) quote

terrain "The physical features of a tract of land." (128):196 quote

terrain mapping "A method to categorize, describe, and delineate characteristics and attributes of surficial materials, landforms, and geological processes within the natural landscape." (72):77 quote

terrain resource inventory mapping (TRIM) "The system of largest scale topographic maps and GIS data issued by the Province of British Columbia (scale 1:20 000). The complete mapping system includes overlays for elevation, freshwater, terrain, and cultural attributes." (72):77 quote

terrain stability assessment An assessment or characterization of unstable or potentially unstable slopes. A determination of the relative potential of landslide initiation and the type of landslide that may occur on different types of terrain, based on the data obtained from a review of available maps, photos, site data, and field observations. (128):196 paraphrase; (120) pers. comm.

terrain stability risk [term obsolete] "An assessment of both the likelihood of landslide initiation and an order-of-magnitude estimate of the amount of landslide debris that might enter a stream or of the potential lengths of scour of a stream by a landslide." (128):196 quote

terrestrial ecosystem mapping (TEM) "The division of a landscape into map units, showing biogeoclimatic site series, defined by a combination of ecological features, primarily climate, physiography, surficial material, bedrock geology, soil, and vegetation. It provides a biological and ecological framework for land management." (72):77 quote

territory "The lands and waters to which a First Nation asserts or holds its aboriginal rights and title." (72):77 quote

thinning "A cultural treatment made to reduce stand density primarily to improve growth, enhance forest health, or recover potential mortality." (106):185 quote

threatened or endangered habitats Ecosystems that are: (a) restricted in their distribution over a natural landscape (e.g., freshwater wetlands within certain biogeoclimatic areas) or are restricted to a specific geographic area or a particular type of local environment; or (b) were previously widespread or common, but now occur over a much smaller area due to extensive disturbance or complete destruction by such practices as intensive harvesting or grazing by introduced species, hydro projects, dyking, and agricultural conversion.

(128):196 paraphrase

threatened species "Likely to become endangered if limiting factors are not reversed." (7):Section T quote

threshold "A level of an indicator that specifies that a significant or action-triggering condition has been reached." (72):77 quote

threshold level "A mill's timber supply level which, when dropped below, will cause a mill to reduce the number of shifts or to stop production." (133):11 quote

timber "Trees, whether standing, fallen, living, dead, limbed, bucked, or peeled." (80):Section 1(1) quote

timber cruising "The collection of field data on forests commonly by the measurement and recording of information in sample plots. Includes the measurement and estimation of volumes of standing trees." (62):16 quote

timber harvesting land base "Crown forest land within the timber supply area where timber harvesting is considered both acceptable and economically feasible, given objectives for all relevant forest values, existing timber quality, market values, and applicable technology." (133):11 quote

timber licences Area-based tenures that reverted to the government when merchantable timber on the area was harvested and the land reforested. Although these licences are no longer issued, existing licences have variable terms and may be extended (54):8 paraphrase

timber management prescriptions [term obsolete] "Recommended forest management practices, usually pertaining to the sub-unit and operational levels of planning." (18):Section T quote

timber mark A unique set of up to six (6) characters that are stamped or marked on the end of each log designating the specific tenure and cutting permit, from which the tenure type and tenure holder can be determined. (49):Section T paraphrase

timber operability "In a planning context, refers to the economic suitability of timber for harvesting. Parameters to consider in assessing operability include terrain, timber quality, timber size, operating season, labour costs, development costs, and transportation costs." *See also* ***operable timber***. (18):Section T quote

timber processing facility "A facility that processes timber or wood residue or both." (80):Section 1(1) quote

timber sale licence "An agreement entered into under the *Forest Act* (Part 3, Division 3) that is a non-replaceable, competitively awarded form of tenure used exclusively by BC Timber Sales to dispose of timber. Licence holders are required to pay stumpage to the Crown for all timber harvested, although the Crown usually retains responsibility for operational planning and reforestation requirements. A timber sale licence has a maximum term of 4 years." (115) pers. comm.

timber sales manager A manager for a BC Timber Sales business area established under the *Forest Act*, or if no BC Timber Sales business area is established, for the province. (121):Section 2(1) (d.1) paraphrase

timber supply "The amount of timber that is forecast to be available for harvesting over a specified time period, under a particular management regime." (133):11 quote

timber supply analysis "A process that explores the effects on timber supply of existing or potential forest management strategies and alternative timber harvesting levels. The process typically uses a computer model to forecast the development of a forest over time given specific schedules of management activity." (102) pers. comm.

timber supply area (TSA) "A geographically based administrative area designated under the *Forest Act* (Section 7). Timber supply areas have an allowable annual cut as set by the Chief Forester, and are used to provide a sustainable flow of timber to both replaceable and non-replaceable forms of volume-based tenures." (115) pers. comm.

timber supply area plan [term obsolete] "The overall forest management plan developed for a timber supply area. The TSA plan establishes the overall direction for the management of the timber, range, and recreation resources under Forest Service jurisdiction in the TSA." (18):Section T quote

timber supply block (TSB) "A division of a timber supply area." (11):58 quote

timber supply model An analytical model (usually computer-based) that simulates the harvest and growth of collections of forest stands over time according to specific data and management assumptions. Examples include: Forest Service Simulator (FSSIM); Forest Service Spatial Analysis Model (FSSAM); Woodstock; and Forest Simulation Optimization System (FSOS). (30):2 paraphrase; (102) pers. comm.

Timber Supply Review A process, initiated in 1992, to regularly review the timber supply and the allowable annual cut (AAC) in each of the province's 37 timber supply areas and 34 tree farm licences. Each review includes an estimate of the area's long-term sustainable harvesting level and an analysis of projected timber supplies for the short term (20 years), medium term (21–100 years), and long term (200 years or more). Alternative AAC scenarios are investigated in terms of their timber supply, and environmental, economic, and social implications. The chief forester uses this information to determine the AACs for each management unit. (104):7 paraphrase

timber tenure system "The collection of legislation, regulations, contractual agreements, permits, and government policies that define and constrain the use of public forest resources, primarily timber." (54):2 quote

timber utilization "The dimensions and quality of timber that is actually cut and removed from an area." (128):197 quote

tolerance The capacity of an organism or biological process to subsist under a given set of environmental conditions. The range of conditions under which it can subsist, representing its limits of tolerance, is termed its ecological amplitude. For trees, the tolerance of most practical importance is their ability to grow satisfactorily in the shade of and in competition with other trees. (106):187 paraphrase

top height "The average height of the hundred trees of largest diameter per hectare." (11):61 quote

topographic map "A map portraying the correct horizontal and vertical position of the features represented." (78):317 quote

topography "The collective physical features of a geographic area, such as those represented on a map, especially the relief and contours of the land." (128):197 quote

total chance planning [term obsolete] "Early planning over an entire development area for the best overall realization of all objectives identified by broader planning." (18):Section T

quote

total resource plan [term obsolete] "A plan for long-term forest management over an entire area, such as a watershed. The plan identifies known resource values, capabilities and sensitivities; confirms or refines management objectives for those values; and establishes detailed management guidelines by which to achieve those objectives on the ground." (71):291 quote

tracking Mapping the known locations of species and (or) ecological communities. The Conservation Data Centre tracks Red- and Blue-listed elements, and also some Yellow-listed taxa that are vulnerable during times of seasonal concentration (e.g., breeding colonies). (7):Section T paraphrase

trade-off "The exchange of one thing or value in return for another, usually the loss of one benefit for the gain of a different benefit. Trade-offs commonly involve weighing many different factors in the decision-making process, including how equity will be distributed among those who might gain or lose, costs of the trade-off, time required to realize benefits and losses, and whether the proposed trade-off will meet or assist in meeting management goals." (106):188 quote

traditional use site "A geographically defined site that has been traditionally used by one or more groups of people for some type of activity. These sites will often lack the physical evidence of human-made artifacts or structures, and maintain cultural significance to a living community of people. Traditional use sites are usually documented with the assistance of oral historical or written archival sources. Examples include: sacred sites, ritual bathing pools, resource gathering sites such as berry-gathering grounds and culturally modified trees, and the site of a legendary or past event of cultural significance." *See also* ***cultural heritage resource***. (12):32 quote

transect "A narrow sample strip or a measured line laid out through vegetation specifically chosen for study." (106):189 quote

treatment prescription [term obsolete] "Operational details required for carrying out individual silviculture activities such as site preparation and planting." (18):Section T quote

treatment season "The season or year a planned treatment activity will be carried out." (128):197 quote

treatment unit "The geographic unit of productive forest land area designated in a prescription for a specific silviculture activity or series of treatments." (128):197 quote

tree class In cruise compilation, a code assigned to a tallied tree based on the maturity, sound wood potential, and whether the tree is still living or not. (39):G-5 paraphrase

tree farm licence (TFL) An area-based tenure agreement, entered into under the *Forest Act* (Part 3 Division 6), that issues the rights to harvest an allowable annual cut in a specified area, and outlines responsibilities for forest management. With a term of 25 years, this licence is replaceable every 5–10 years. (54):8 paraphrase

Tree Improvement Program An operational investment plan, sponsored by the Forest Investment Account, that encompasses the conservation, controlled use, production, protection, and enhancement of genetic resources of forest tree species, and related communication and extension activities. (92) paraphrase

tree-length harvesting system "Extraction of the complete tree length, minus top and branches, from the stump to the landing. The tree is then cut up into smaller logs in preparation for

loading and hauling, but may also be hauled away in one piece." (78):319 quote

tree line "The limit beyond which trees cannot or do not occur, commonly at high elevation or geographical latitude but sometimes also because of aridity, flooding, or air pollution." (106):190 quote

trimming waste Avoidable waste that results from topping, slashing, bucking, and end-trimming in a manner that does not conform to the merchantability specifications. (51):A-7 paraphrase

turnout "A widening in the roadway where a vehicle may pull or park to allow other vehicles to pass safely." (128):197 quote

U

umbrella species "Species that are wide ranging so that the protection of their various habitats preserves numerous other species." (72):78 quote

unavoidable waste That component of the wood waste that is physically obstructed or cannot be removed for safety or environmental reasons. (51):A-7 paraphrase

uncertainty "A condition of being in doubt. The level of doubt can be described in terms of the knowledge that decision makers have about existing conditions and their belief that future events and outcomes will occur. Common sources of uncertainty include natural variability, statistical variation, lack of information or knowledge, subjective judgement, imperfect observation, or an inherent randomness." (72):78 quote

underplanting "Planting young trees under the canopy of an existing stand." (63):Section U quote

understorey "The lower level of vegetation in a forest. Usually formed by ground vegetation (mosses, herbs and lichens), herbs and shrubs, but may also include subdominant trees." (64):Section U quote

uneconomic areas "Areas defined as unavailable for harvest for economic or terrain-related reasons. Characteristics used in defining uneconomic areas include distance from processing facilities, existing roads, difficulty of road access, and availability of suitable timber. Areas considered uneconomic can change over time as a function of changing harvesting technology and economics." (133):12 quote

uneven-aged silvicultural system "A silvicultural system designed to create or maintain and regenerate an uneven-aged stand structure. Single-tree and group selection are uneven-aged silvicultural systems." (128):197 quote

uneven-aged stand "A stand of trees containing three or more age classes. In a balanced uneven-aged stand, each age class is represented by approximately equal areas, providing a balanced distribution of diameter classes." (128):197 quote

ungulate A hoofed herbivore, such as deer, elk, and caribou. (133):12 paraphrase

Ungulate Winter Range (UWR) An area containing habitat that is necessary to meet the winter habitat requirements of an ungulate species. UWRs are based on the current understanding of ungulate habitat requirements in winter, as interpreted by the Ministry of Environment (MOE) regional staff from current scientific and management literature, local knowledge, and other expertise from the region. Sections 9 and 12 of the Government Actions Regulation of the *Forest and Range Practices Act* outline the regulatory authority for establishing UWR. (8):76 paraphrase

unmanaged forest land "Forest land that is not subject to management under a forest management plan." (62):17 quote

unmerchantable "Of a tree or stand that has not attained sufficient size, quality, and (or) volume to make it suitable for harvesting." (103):Section U quote

unrecovered volume "Timber that is within the cutting specifications of the minimum utilization standards of the cutting authority and not removed from the area." (128):197 quote

unsalvaged losses "The volume of timber killed or damaged annually by natural causes (e.g., fire, wind, insects, and disease) that is not harvested." (133):12 quote

unstable or potentially unstable terrain "An area where there is a moderate to high likelihood of landslides." (12):32 quote

uplands "Terrain not affected by water table or surface water or else affected only for short periods so that riparian (hydrophilic) vegetation or aquatic processes do not persist." (128):197 quote

urban forestry The cultivation and management of trees and forests for their present and potential contributions to the physiological, sociological, and economic well-being of urban society. (1):672 paraphrase

utilization (of forage and browse) "The level of forage and browse use on a site. For herbaceous species, it is measured as a percentage of the current year's growth removed; for browse species, it is measured as a percentage of stem ends removed." (128):197 quote

utilization standards [term obsolete] "The dimensions (stump height, top diameter, base diameter, and length) and quality of trees that must be cut and removed from Crown land during harvesting operations." (128):197 quote

V

validation evaluation/monitoring A Forest and Range Evaluation Program activity that verifies the basic assumptions upon which forest management strategies, practices, and standards are based (e.g., determining whether wildlife tree patches are an appropriate method for maintaining required habitat for wildlife tree users). (26):2 paraphrase

value-added product "A product that has had value added to it through further processing. Examples include windows, doors, kitchen cabinets, flooring, and mouldings. Value-added pulp and paper products include items such as packaging, diapers, coated papers, tissue, business papers, stationery, and other consumer paper products." (64):Section V quote

values-at-risk "The specific or collective set of natural resources and man-made improvements and developments that have measurable or intrinsic worth and that could or may be destroyed or otherwise altered by fire in any given area." (67):45 quote

variable area plot sampling method "A method of timber cruising commonly used for industrial timber cruising in which sampling area (plot size) varies with tree diameter." (62):17 quote

Variable Density Yield Prediction (VDYP) **model** "An empirical yield prediction system supported by the Ministry of Forests and Range, designed to predict average yields and provide forest inventory updates over large areas (i.e., timber supply areas). It is intended for use in unmanaged natural stands of pure or mixed species composition." (133):12 quote

variable retention An approach to forest planning and forest harvesting in which structural elements of the existing forest are retained throughout a harvested area until at least the next rotation to achieve specific management objectives. Varying amounts, types, and spatial patterns of living and dead trees are retained. Variable retention uses all silvicultural systems, from single tree selection to clearcutting, including the retention silvicultural system, to achieve variable retention over a landscape. (24):Part 2.1–9 paraphrase

Vegetation Resources Inventory (VRI) A data standard, developed in 1998, that supports the inventory of both timber and non-timber vegetation and associated ecological attributes at a strategic, management- unit level in British Columbia. The VRI attempts to answer three questions: (1) how much do we have? (2) where is it located? (3) how does it change through time? (55) paraphrase

vegetative lot "Vegetative material that is collected and assembled as a lot for the purposes of registration." (85):Section 1(1) quote

vegetative material "Plant tissue or a plant part, derived through asexual reproduction, that is used to grow a tree." (85):Section 1(1) quote

vegetative propagules "Plants that originate from propagation methods using plant cuttings or other tissue." (128):198 quote

vehicle side-tracking "The lateral displacement of vehicles on a curve caused by the length of the vehicle manoeuvring through the turn; the wider path that the rear of a vehicle takes when negotiating a curve." (128):198 quote

ventilation index (VI) "A term commonly used in air pollution meteorology; a numerical value relating to the potential of the atmosphere to disperse airborne pollutants from a

stationary source (such as smoke from a prescribed fire). It is calculated by multiplying the mixing height by the average wind speed in the mixed layer." (67):45 quote

very unstable terrain "Terrain units classified as being in Terrain Class V in the coastal terrain stability classification, or as having a very high mass wasting hazard according to the Mass Wasting Hazard Assessment Key for interior sites. For these areas, slope failures are highly likely following harvesting or conventional road building." (18):Section V quote

veterans "Refers to mature trees that are considerably older than the rest of the stand. Usually, veterans are trees remaining from a previous forest that have survived while a new forest has been growing up around them." (78):327 quote

viewshed "A physiographic area composed of land, water, biotic, and cultural elements that may be viewed and mapped from one or more viewpoints and that has inherent scenic qualities and (or) aesthetic values as determined by those who view it." (128):198 quote

vision An organization's image of a desired future. It always evolves and stretches an organization without losing sight of what is realistic. (50):20 paraphrase

visual absorption capability "A component of the visual landscape inventory that rates the relative capacity of a landscape to absorb visual alterations and still maintain its visual integrity." (14):54 quote

visual green-up *See* ***green-up***.

visual impact assessment "The assessment of the anticipated visual impact of a proposed forestry operation in perspective view." (117) pers. comm.

visual landscape analysis The process of recommending visual quality classes based on the visual landscape inventory, number of viewers, level of concern, and in consideration of other values. (19):33 paraphrase

visual landscape inventory "The identification, classification, and recording of the location and quality of visual resources and values." (14):55 quote

visual landscape unit [term obsolete] "A landform or portion of a landform visible from one or more viewpoints identifying relatively homogeneous visual landscape features." (12):33 quote

visually sensitive area "An area that is considered to be sufficiently sensitive to visual alteration to warrant special consideration in strategic and operational planning. It is an area for which the visual landscape management process should be applied. These areas may include viewsheds that are visible from communities, public use areas, travel corridors including roadways and waterways, and any other viewpoint so identified through a referral or planning processes." (14):55 quote

visual quality [term obsolete] "The character, condition, and quality of a scenic landscape or other visual resource and how it is perceived, preferred, or otherwise valued by the public." (12):33 quote; (117) pers. comm.

visual quality class (recommended) (RVQC) "A specialist's recommendation describing the level of alteration that would be appropriate for a visual sensitivity unit; this recommendation considers visual and other values." (19):33 quote

visual quality objective (VQO) "A resource management objective established by the district manager or contained in a higher level plan; these objectives reflect the desired level of

visual quality based on the physical characteristics and social concern for the area. Five categories of VQO are commonly used: preservation, retention, partial retention, modification, and maximum modification." (19):33 quote

visual resource management The identification, assessment, design, and manipulation of the visual features or values of a landscape, and the consideration of these values in the integrated management of provincial forest and range lands. (128):198 paraphrase

visual sensitivity "A measure of the level of concern for the scenic quality of a landscape. Visual sensitivity ratings take into account the physical character of the landscape, as well as viewer-related factors such as the number of viewers and the angle, position, and distance from which the landscape is viewed." (133):12 quote

visual sensitivity class "A component of the visual landscape inventory that rates the sensitivity of the landscape to visual alteration based on biophysical characteristics, as well as viewing and viewer-related factors." (19):33 quote

visual sensitivity unit (VSU) "A distinct topographical unit as viewed from one or more viewpoints, delineated based on the homogeneity of the landform and of biophysical elements comprised in a scene." (14):55 quote

volume "The amount of wood or fibre contained in a tree, stand, or forest, or parts of these measured in cubic units (e.g., cubic metres per hectare) inside the bark." (78):328 quote

volume-based tenure Grants licensees the right to harvest a set volume (cubic metres) of timber within a specified timber supply area each year for the term of the licence; allows several licensees to operate in the same management unit. Examples include the larger and more common Forest Licence and the Timber Sale Licence. (54):3 paraphrase

volume estimates (yield projections) "Estimates of yields from forest stands over time. Yield projections can be developed for stand volume, stand diameter, or specific products, and for empirical (average stocking), normal (optimal stocking), or managed stands." (133):12 quote

volume table "A table showing the estimated average tree or stand volume based on given tree measurements, usually diameter and height." (62):15 quote

vulnerable species Particularly sensitive to human activities or natural events. (7):Section V paraphrase

W

waste Timber except timber reserved from cutting, whether standing or felled, that meets or exceeds the timber merchantability specifications, that was not removed from the cutting authority area. (51):A-7 paraphrase

waste area "A pre-approved site for disposal of excavations." (128):199 quote

waterbar "A shallow ditch excavated across a road at an angle to prevent excess surface flow down the road surface and subsequent erosion of road surface materials. A small excavation across a road to collect and divert roadway surface water flow." (128):199 quote

water bomber *See* ***airtanker***.

water bombing "The act of dropping suppressants (water or short-term retardant) on a wildfire from an aircraft in flight." (67):45 quote

watercourse "A natural stream or source or supply of water, whether usually containing water or not, such as a lake, river, creek, spring, ravine swamp, and gulch." (128):199 quote

water management "The planned development, distribution, and use of water resources." (111):Section W quote

water quality "The physical, chemical, biological, and organoleptic properties of water." (111):Section W quote

water resources "Water available, or capable of being made available, for use in sufficient quantity and quality at a location and over a period of time appropriate for an identifiable demand." (111):Section W quote

watershed "An area drained by a stream or river. A large watershed may contain several smaller watersheds." (133):13 quote

watershed assessment "A method of evaluating the present state of watersheds and the cumulative impact of proposed development on peak flows, suspended sediment, bedload, and stream channel stability." (128):199 quote

watershed integrity "Refers to a stable overall physical condition of the watershed (bedrock, landforms, soils, drainage ways) within which transfers of energy, matter and, especially of water occur. It is prerequisite for the security of forest and stream ecosystems." (70):82 quote

watershed management "Controlled use of drainage basins in accordance with predetermined objectives." (111):Section W quote

watershed restoration "Improving current conditions of watersheds to restore degraded fish habitat and provide long-term protection to aquatic and riparian resources." (78):329 quote

weeding "Generally, a cultural operation eliminating or suppressing undesirable vegetation, mainly herbaceous, during the seedling stage of a forest crop and therefore before the first cleaning, so as to reduce competition with the seedling stand." (103):Section W quote

wetland A swamp, marsh, or other similar area that supports natural vegetation that is distinct from adjacent upland areas. (86):Section 1(1) paraphrase

wicked problem A problem that cannot be easily defined because different stakeholders have different ideas of what the problem is. The views of stakeholders are often extremely polarized—what is good for one group is drastically bad for another. These types of problems have no solutions, just good or bad outcomes depending on one's point of view. (69) paraphrase

wilderness "An area of land generally greater than 1000 ha that predominantly retains its natural character and on which the impact of man is transitory and, in the long run, substantially unnoticeable." (128):199 quote

wilderness area "A part of the provincial forest designated by order-in-council as a wilderness area." (128):199 quote

wildfire "An unplanned or unwanted natural or human-caused fire, or a prescribed fire that threatens to escape its bounds." (128):199 quote

wildland urban interface "Used to describe an area where various structures (most notably private homes) and other human developments meet or are intermingled with forest and other vegetative fuel types." (67):46 quote

wildlife Includes: (a) vertebrates that are mammals, birds, reptiles, or amphibians and are prescribed as wildlife under the *Wildlife Act;* (b) fish from or in the non-tidal waters of British Columbia (including lampreys, bony fishes, crustaceans, and mollusks); and (c) invertebrates or plants listed by the Minister of Environment as endangered, threatened, or vulnerable species; also includes the eggs and juvenile stages of these vertebrates, invertebrates, and plants. (84):Section 1(1) paraphrase

wildlife habitat "Areas of land and water that support specific wildlife or groups of wildlife." (12):34 quote

Wildlife Habitat Areas (WHAs) "Mapped areas of Crown land containing critical habitat, such as breeding, feeding, and denning habitat, crucial to identified wildlife. WHAs help protect species and plant communities at risk by specifying mandatory practices called general wildlife measures." (8):76 quote

wildlife habitat feature Includes fisheries-sensitive features; marine-sensitive features; significant mineral licks or wallows; nests of bald eagles, ospreys, great blue herons, or other species (birds) at risk; and any other localized features that the minister responsible for the *Wildlife Act* considers to be a wildlife habitat feature. (89):Section 11(1) paraphrase

wildlife management The application of scientific and technical principles to wildlife populations and habitats to maintain such populations (particularly mammals, birds, and fish) essentially for recreational and (or) scientific purposes. (1):673 paraphrase

wildlife tree A tree or group of trees that provide wildlife habitat, and assist in the conservation of stand-level biodiversity. (86):Section 1(1) paraphrase

wildlife tree retention area An area occupied by wildlife trees that is located in a cutblock, or in an area that is contiguous to a cutblock, or in an area that is close enough to the cutblock so that the trees could directly affect, or be directly affected by, a forest practice carried out in the cutblock. (86):Section 1(1) paraphrase

wildling "A seedling naturally reproduced outside of a nursery, used in reforestation." (62):17 quote

windfirm Of trees, able to withstand strong winds (i.e., to resist windthrow, windrocking, and major breakage). (106):199 paraphrase

windrow "The machine piling of slash and logging debris into lines with cleared ground in between. Windrows may be burned or just left to decay." (78):333 quote

windthrow (blowdown) "Tree or trees felled or broken off by the wind." *See* ***blowdown***. (106):18 quote

winter range The geographical and (or) vertical range where a species (deer, elk, caribou, moose, etc.) occurs after both the reproductive and migratory phases of the year are completed. (78):333 paraphrase

wolf tree "A generally predominant or dominant tree with a broad, spreading crown, that occupies more growing space than its more desirable neighbours." (106):200 quote

woodlot "The wooded portion of a private property upon which small-scale forestry operations are carried out." (18):Section W quote

woodlot licence "An area-based agreement entered into under the *Forest Act* (Part 3, Division 8). It is similar to a tree farm licence, but on a smaller scale, and allows for small-scale forestry to be practised in a described area (Crown and private) on a sustained or perpetual yield basis." (115) pers. comm.

wood residue "Wood chips, slabs, edgings, sawdust, shavings, and hog fuel." (80):Section 1(1) quote

X

xylem "The woody part of the tree (heartwood and sapwood) that functions chiefly in conduction, but also in support and storage." (52):G-17 quote

Y

yarding (yarding systems) "In logging, the hauling of felled timber to the landing or temporary storage site from where trucks (usually) transport it to the mill site. Yarding methods include cable yarding, ground skidding, and aerial methods such as helicopter and balloon yarding." (128):199 quote

Yellow List "List of ecological communities and indigenous species that are not at risk in British Columbia." (7):Section Y quote

yield analysis "The study and interpretation of forest yield over time typically through the use of mathematical models and inventory data." (102) pers. comm.

yield curve "A representation of stand volume, usually as a function of stand age, in graphical or tabular form." (18):Section Y quote

Z

zonal Within the biogeoclimatic classification system, zonal sites are those that are the most common or average within a single zone; also referred to as mesic. (22):99 paraphrase

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