



GLOSSARY

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Aggraded

The filling or raising of the streambed level caused by sediment deposition.

Aquatic ecosystem

The stream channel, lake or estuary bed, water, and biotic communities, and the physical, chemical, and biological features that occur therein, forming a system that interacts with associated terrestrial ecosystems.

Bank failure

The collapse of a mass of bank material.

Bankfull

In natural streams, the discharge that fills the channel without overflowing onto the flood plain, as typically defined by the mean annual high flow.

Basal area

In a tree, the cross sectional area of a tree trunk measured in square inches, square centimeters, and so on; basal area is normally measured as 4.5 feet above ground level and is used as a measure of dominance. The most commonly used tool for measuring basal area is a diameter tape or D-tape (then converted to basal area). In a plant, the cross sectional area of the stem or stems of a plant or of all plants in a stand. Herbaceous and small woody plants are measured at or near the ground.

Benthic

Of or pertaining to animals and plants living on or within the substrate of a water body.

Bioengineering

See soil bioengineering.

Biomass

The total mass or amount of living organisms in a particular area.

Bog

Waterlogged ground or marshland (also known as a wetland).

Bole

The trunk of a tree.

Brush layering

Live branch cuttings laid in crisscrossed fashion on benches between successive lifts of soil then buried; branches act to hold the soil in place, to absorb momentum from water flowing over the area, and to trap sediment.

Canopy cover

The percentage of the ground covered by a vertical projection of the outermost perimeter of the natural spread of the foliage of the plants. Small openings within the canopy are included. It may exceed 100 percent (Society for Range Management 1999). It is expressed as a percent of the total area.

Channel

A stream, river, or artificial waterway that periodically or continuously contains moving water. It has a definite bed and banks that confine the water.

Connectivity

Unbroken linkages in a landscape, typified by streams and riparian areas.

Corridors

Linear spaces that connect the various areas of an animal's habitat; links between feeding, watering, rest, and breeding places.

Cover

Any material that provides protection for fish and/or wildlife from predators or that ameliorates adverse conditions of stream flow and/or seasonal changes in metabolic costs. It may be instream structures such as rocks or logs, turbulence, and/or overhead vegetation or any material that provides areas for escape, feeding, hiding, or resting.

Cutting

Portion of a stem, root, or leaf cut from a parent plant for the production of a new independent plant by inducing it to form roots under favorable environmental conditions.

Debris

Any material, organic or inorganic, floating or submerged, moved by a flowing stream.

Density

The number of organisms or items per unit area or volume; the number of individuals per unit area.

Dioecious

Having male and female flowers borne on separate plants.

Diversity

The distribution and abundance of different plant and animal communities.

Dominance

The spatial extent of a species; commonly the most abundant species in each vegetation layer. Dominant species: Plant species or species groups, which by means of their number, coverage, or size have considerable influence or control upon conditions of existence of associated species (Society for Range Management 1999).

Duff

A spongy layer of decaying leaves, branches, and other organic materials covering the forest floor.

Ecosystem

An ecological community considered together with nonliving factors of its environment as an environmental unit. A community of interacting animals, plants, and microorganisms and their environment.

An area of any size with an association of physical and biological components so organized that a change in any one component will bring about a change in the other components and in the operation of the whole system (Bailey 2000).

Ecosystem function

(a) The process through which the constituent living and nonliving elements of ecosystems change and interact, including biogeochemical processes and succession. (b) A role of an ecosystem that is of value to society.

Ecotone

A relatively narrow overlap zone between two ecological communities.

Erosion

Detachment and movement of soil or rock fragments by water, wind, ice, or gravity; the land surface worn away by running water, wind, ice, or other geological agents, including such processes as gravitational creep (Society of Range Management 1999).

Exotic

Not native to a given area; either intentionally transplanted from another region or introduced accidentally. Synonym: nonindigenous.

Fish habitat

The aquatic environment and the immediately surrounding terrestrial environment that meet the necessary biological and physical requirements of fish species during various life stages.

Flood plain

Any lowland that borders a stream or river and is inundated periodically by its waters.

Function

The collective interactions of the animal and plant life of a particular region. The interactions between organisms and the physical environment, such as nutrient cycling, soil development, water budgeting, and flammability.

Green waste

Compost created from yard waste by a municipality or native duff.

Habitat

A place where a biological organism lives. The organic and inorganic surroundings that provide life requirements such as food and shelter.

Herbicide

Selective or nonselective chemicals that kill plants.

Hydrology

The study of the occurrence, circulation, properties, and distribution of water and its atmosphere.

Hydroseed

To spray land with a mixture of seeds, water, a virgin wood fiber (slurry) or recycled paper mulch, and a tackifier (a binding agent made from plants so the slurry will stick to the ground).

Incised

A stream that through degradation (lowering of the streambed) is cutting its channel into the bed of the valley.

Indigenous

The plant and animal species native (as opposed to exotic) to a site.

Keystone species

A keystone is the stone at the top of an arch that supports the other stones and keeps the whole arch from falling. A keystone species is a species on which the existence of a large number of other species in the ecosystem depends.

Large woody debris (LWD)

Any large piece of woody material, several inches in diameter and equal to or greater in length than the average bankfull width, that intrudes into or is embedded in the stream channel.

Litter

The uppermost layer of undecomposed and decomposing plant and animal material found above the duff layer on a forest floor.

Macroinvertebrate

An invertebrate large enough to be seen with the naked eye; for example, most aquatic insects, snails, and amphipods.

Mowing

The cutting of grasses and forbs mechanically or manually.

Mycorrhizal

The symbiotic relationship between the mycelium (mass of interwoven hyphae) of a fungus with the roots of a higher plant in which the hyphae (threads growing from the fungus) form an interwoven mass at the root tips or penetrate the parenchyma (thin-walled living cells) of the root.

Organic matter

Living plant tissue and decomposed or partially decomposed material from living organisms.

Overland flow

Water flowing over the surface of the land, as in runoff or overbank flows.

Pattern

The plan view of the various patterns a stream or river might take—straight, meandering, braided, and so on.

Plant community

Any assemblage of populations of plants in a common special arrangement.

Pollutant

Something that is harmful, destructive, or deadly.

Pool

A topographical low in the stream that is produced by scour or cleared by flushing that generally contains fine-grained sediments.

Profile

Slope of water surface and dominant channel features, e.g., riffle, pool, or rapids (Rosgen 1996).

Proper functioning condition

“A riparian-wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to:

- ◆ dissipate stream energy associated with high waterflow, thereby reducing erosion and improving water quality;
- ◆ filter sediment, capture bedload, and aid flood plain development;
- ◆ improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action;
- ◆ develop diverse ponding and channel characteristics to provide the habitat and water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses;
- ◆ support greater biodiversity” (Prichard 1998).

Pure live seed (PLS)

Pure live seed has no incidental debris or weed seed mixed with it.

Regrade

To intentionally reconfigure the elevations and slopes on a parcel of land by means of surveying technology and construction equipment.

Riparian vegetation

Vegetation specifically adapted to grow along banks of streams, rivers, and other water bodies tolerant to or more dependent on water than plants further upslope.

Scarification

The act of breaking up and loosening the soil surface.

Sediment

Soil particles that have been transported and/or deposited by wind or water action.

Sediment load

The sediment transported through a channel by stream flow.

Seedling

Young plant, grown from a seed.

Site

The spatial confines of a particular project.

Soil amendment

Organic matter made of decaying plants. Used to improve or maintain a soil's texture and encourage healthy root growth.

Soil bioengineering

An applied science that combines structural, biological, and ecological concepts to construct living structures for erosion, sediment, and flood control. It is always based on sound engineering practices integrated with ecological principles.

Soil survey

The systematic examination, description, classification, and mapping of soils in an area. Soil surveys are classified according to the kind and intensity of field examination (Soil Science 1997).

Species composition

The proportions of various plant species in relation to the total on a given area. It may be expressed in terms of cover, density, weight, and so on (Society of Range Management 1999).

Streambank

The sideslopes of a channel between which the stream flow is normally confined.

Stream channel

A body of running water moving over the Earth's surface in a channel or bed (also river).

Structure

The spatial arrangement of the living and nonliving elements of an ecosystem.

Succession

The development of a plant community from its initial stage to its climax stage.

Terrace

Abandoned flood plain that marks where a stream once existed.

Transect

Specifically shaped sample units. Items with a transect may be counted, cataloged, and so on.

Transition

A shift in plant composition as reflected in composition and structure. A shift can occur naturally or as a result of human actions.

Tree dripline

The outer edge of a tree's growth. An imaginary vertical line from the farthest reaching horizontal branch to the ground delineates a dripline.

Undercut bank

A bank that has had its base cut away by water action causing the bank to overhang the stream.

Watershed

An area of land surface defined by a topographic divide that collects precipitation into a stream. Sometimes referred to as a drainage basin.

Water table

The depth or level below which the ground is saturated with water.

Wetland

An area of land that is saturated at least part of the year by water. Usually found in depressions, low-lying areas or along flood plains, or in coastal areas.

Wildlife habitat

An area that provides a water supply and vegetative habitat for wildlife.

Woody debris

Coarse woody material, such as twigs, branches, logs, trees, and roots, that falls into streams.

