

Glossary

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Bank: A compacted ridge of soil or other material with an upslope channel, used to intercept and divert the flow of water.

Batter: A sloping section of exposed soil, usually created through earthmoving and construction operations. May be a cut batter or fill batter.

Berm: A ledge formed at the bottom of an earth slope or at some level intermediate between the bottom and the top.

Borrow Pit: A pit from which earth has been excavated for construction operations. Also called a gravel pit.

Bridge: A structure exceeding 20 feet clear span measured along the centerline of the roadway, which carries traffic over watercourse or opening.

Capacity: The maximum number of vehicles which has a reasonable expectation of passing over a given section of lane or road during a given time period under prevailing roadway and other conditions.

Carriageway: That part of a road which carries vehicles.

Catch Drain: A diversion channel constructed above a road or batter to intercept surface water.

Catchment: That area determined by topographic features within which falling rain will contribute to runoff at a particular point under consideration.

Chemicals: Includes the range of fertilisers, insecticides, fungicides and herbicides which may be used in forest operations.

Chute (Flume): An open channel with a steep slope used to convey water to a lower level without erosion occurring.

Community Consultation: The process of seeking community views, aspirations, concerns and comment during a planning or environmental impact assessment process.

Community Participation: The process of involving representatives of stakeholder community groups in decision making (eg. through advisory committees etc.).

Conservation: The wise use of natural resources, on a sustainable basis, to meet the needs of both present and future generations.

Corridor: A tract of land through which a road passes, or a narrow tract of natural ecosystem in an area of largely modified ecosystems.

Cover Crop: A crop grown primarily for the purpose of protecting soil between periods of permanent vegetative cover.

Cross Section: The transverse profile of a road showing horizontal and vertical dimensions.

Culvert: A covered channel (usually a pipe) used to carry water under the ground surface.

Curve Widening: The widening of the travelled way on sharp curves to compensate for the fact that the rear wheels of a vehicle do not follow exactly in the track of the front wheels.

Curvilinear Alignment: A flowing alignment in which the majority of its length is composed of circular and spiral curves.

Cut: Portion of land surface from which earth has been removed by excavation; the depth below original ground surface to excavated surface.

Design Speed: A speed selected for purposes of design and correlation of the physical features of a road that influences vehicle operation. It is the maximum safe speed that can be maintained over a specified section of the road when conditions are so favourable that the design features of the road govern.

Design Volume: A volume determined for use in design, representing the traffic expected to use the road.

Design Vehicle: A selected motor vehicle, the weight, dimensions, and operating characteristics of which are used as a control in road design.

Diversion Bank: A bank used to intercept and divert large volumes of water.

Disturbed Area: An area in which the natural vegetation and/or soil cover has been removed or altered, and which is therefore susceptible to erosion.

Drop Structure: A structure which allows water to fall to a lower level without eroding the channel bed.

Ecosystem: A community of organisms interacting with one another and with the environment in which they live.

Embankment: A raised earth structure on which the roadway pavement structure is placed.

Endangered: Species in danger of extinction and unlikely to survive unless threats are removed.

Endemic: A plant or animal species or other taxonomic group restricted to a particular geographic region.

Energy Dissipators: Various devices located usually at the outlet of water-transmitting devices such as pipes, spillways or chutes for the purpose of interrupting discharged water flows and thereby dissipating their excess energy (velocity).

Environmental Management System (EMS): A comprehensive approach to environmental management which seeks to continually enhance environmental performance.

Erodability: (of soil) The susceptibility of soil material to detachment and transportation by wind or water.

Erosion: Detachment and movement of soil or rock fragments by water, wind, ice or gravity. The following terms are used to describe different types of water erosion.

Erosion Risk: The intrinsic susceptibility of a parcel of land to the prevailing agents of erosion. Land management factors are ignored, and erosion risk is dependent on climate, landform and soil factors.

Erosion Hazard: The relative susceptibility of land to the prevailing agents of erosion. Erosion hazard is dependent on climatic factors, landform, soils and land use.

Erosion Control Structure: A structure designed to control erosion. Includes banks, drop structures, culverts, inverts, stilling ponds and drains.

Fauna: All animal life.

Feral Animal: Animal other than native wildlife.

Fill: Material (usually excavated soil/rock, but may be solid waste, etc.) used to raise the surface of an area to a desired level.

Floodplain: Level or nearly level area which adjoins the channel of a natural stream and which is subject to overflow flooding.

Flora: Plant life.

Formed Road: A road which has been constructed and maintained.

Gabion: A rectangular box made from steel wire mesh which is filled with quarried stone or river shingle. Gabions may be assembled into many types of structures

such as revetments, retaining walls, channel liners, and drop structures.

Geometric Design: The arrangement of the visible elements of a roads, such as alignment, grades, sight distances, widths, slopes, etc.

Gravel Outlet: Gravel placed to function as a filter-type outlet for runoff stored behind a perimeter bank or other structure which ponds sediment-laden runoff. The gravel outlet sometimes incorporates a core of hay bales.

Grade: The slope of a road, channel or the natural ground. The finished surface of a canal bed, road bed, top of embankment or bottom of excavation.

Grade Separation: A structure which provides for traffic to pass over or under another road or railroad.

Grade Stabilisation Structure: A structure usually used in a gully which slows water down and encourages the deposition of sediment. Also called a drop structure.

Graded Bank: An earthen bank built slightly off the slope to provide a fall in the channel of the diversion of water.

Gravel: A mixture of coarse mineral particles larger than sand but less than 75 mm in equivalent diameter.

Gully: An erosion channel, generally more than 30 cm deep.

Gully Erosion: The erosion process whereby water accumulates in narrow channels and, over short periods, removes the soil from this narrow area to considerable depths, ranging from 300 mm to several metres.

Horizontal Alignment: Horizontal geometric of the roadway.

Horizontal Curve: A curve or transitional zone by means of which a road can change direction to the right or left.

Hourly Volume: The number of vehicles passing over a given section of lane or roadway during one hour.

Hydromulching: Pumping of liquid rehabilitation material on to steep slopes, banks, cuts and eroded gullies to provide immediate protective cover.

Hydroseeding: Applying a seed and fertiliser mix using a hydromulcher. The mixture contains only sufficient mulch to act as a carrying agent for the seed and fertiliser.

Impact: Having an effect on the integrity of the natural, cultural or social values.

Inlet: An overfall structure in which water drops through a vertical riser connected to a discharge pipe.

Integrity: The extent to which the natural heritage values of the Area are in their natural ecological, physical and aesthetic condition and are capable of sustaining themselves in the long term.

Infiltration: (of soil) Movement of water from the ground surface into a soil.

Intersection: The general area where two or more roads joining or cross, within which are included the roadway and roadside facilities for traffic movements in that area.

Level of Service: A qualitative rating of the effectiveness of a road relative to the service it renders to its users, measured in terms of a number of factors, such as operating speed, travel time, traffic interruptions, freedom to manoeuvre and pass, driving safety, comfort, and convenience.

Management Plan: A plan for a specific issue or area within a protected area, eg. a national park or the Wet Tropics World Heritage Area.

Median: The portion of a divided roadway separating the travelled ways for traffic in opposite directions.

Merging: The converging of separate streams of traffic into a single stream.

Mulch: A natural or artificial layer of material placed on the soil surface to provide protection against erosion and to assist the establishment of vegetation. Examples include chipped vegetation, hay, bitumen and finely woven netting.

Mulching: The application of plant residues or other suitable materials to the land surface to conserve moisture, hold soil in place, aid in establishing plant cover, increase infiltration and minimise temperature fluctuations.

Netting: Wire, plastic, paper or cotton materials used to hold mulch on the soil surface.

Outlet: (hydraulics) The point at which water discharges to a stream, river, lake, tidal basin from a pipe, channel or drainage area.

New Jersey Barrier: A concrete barrier used to separate opposing traffic flows. Used in narrow medians.

Pavement Markings: Devices or paint placed on the roadway to mark pavement for vehicular and pedestrian traffic control.

Permit: A licence or authority issued for specified purposes.

Profile: A longitudinal section of a roadway, drainage course, etc.

Provenance: A geographic area in which a species has developed particular characteristics recognisably different from the characteristics of the species from other areas.

Rare: Flora and fauna with small world populations that are not a present endangered or vulnerable but are at risk. Usually localised in restricted geographical areas or habitats.

Recovery Width: The width between the edge of traffic lane and an obstruction eg., tree, that is available for vehicles to recover in before they hit the obstruction. This width is usually 9 m.

Regeneration: The renewal of a tree crop arising from planting or from seed or the young plants on a site.

Rehabilitation: Action taken to restore natural processes on disturbed land in the area.

Revegetated: Re-sown or replanted with the desired species.

Roadside: A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided road may also be considered roadside.

Review of Environmental Factors: A preliminary assessment of likely or potential environmental impacts of a proposal.

Riparian Vegetation: Vegetation occurring along the banks of a river or natural watercourse.

Rill: A small erosion channel which disappears if cultivated.

Ripping: Loosening soil without inverting it to allow improved root and water penetration.

Road (Highway): A general term denoting a public way for purposes of vehicular travel, including the entire area within the right of way.

Roadway: The portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

Runoff: Water from rainfall that is not absorbed or detained, and so becomes surface flow.

Sclerophyll: Hard, leathery-leaved plants (eg., eucalypts).

Scouring: Localised erosion caused by excessive slope, turbulence or flow velocity.

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

Sediment Basin: A basin used to trap sediment from runoff, often constructed as a barrier or dam on a drainage line.

Sedimentation: Deposition of detached soil particles.

Selective: (or selection) Logging - Felling and removal of a part of the forest crop.

Sheet Erosion: The removal of a fairly uniform layer of soil from the land surface.

Shoulder: The portion of the roadway contiguous with the travelled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

Sidelong: The road formation is in sidelong when the natural terrain slopes across the formation and results in transverse cut and fill at that particular location.

Sight Distance: The length of roadway ahead visible to a driver.

Silt Trap: Also called a sediment trap. A structure designed to collect and trap sediment carried in runoff.

Slash: Material left on ground after harvesting operations including tree heads, shrubs and other non-merchantable woody material.

Species: A group of plants or animals with genetic attributes and characteristics in common, which do not generally interbreed with other groups and/or produce fertile offspring.

Slope: The face of an embankment or cut section; any ground the surface of which makes an angle with the plane of the horizon.

Soil Structure: The combination or arrangement of primary soil particles (clay, silt, sand and gravel) into aggregates, and their stability. An important property with respect to the erosion resistance of soils.

Speed: The rate of movement of a vehicle, generally expressed in kilometres per hour (km/h).

Stable: (of a stream or channel) The condition of a stream, channel or other watercourse in which no erosion or deposition occurs; adequately protected from erosion.

Standard: Criteria having recognised and usually permanent values which are established formally as a model or requirement.

Super-elevation: Is where, on horizontal curves, the road crossfall is increased to provide a one way crossfall (toward the inside of the curve) and allow a higher design speed for the curve. The crossfall on the horizontal curve is called the super-elevation.

Swamp: An area of very wet ground condition generally with surface water in wet seasons carrying a distinctive vegetation type.

Table Drain: A drain running along the side of a road or track to collect runoff from the road/track surface.

Threatened: Species which, due to natural or other processes, may be in danger of extinction. This includes species of endangered, vulnerable and poorly known status.

Toe: (of slope) Point where a slope stops or levels out. Bottom of the slope.

Topdress: (of fertiliser) Apply fertiliser to established or establishing vegetation to maintain the supply of soil nutrients and to provide a continuing stimulus to plant growth.

Traffic: All types of vehicles, together with their loads, either singly or as a whole, including pedestrians, using a roadway for the purpose of transportation.

Traffic Volume: The number of vehicles passing a given point during a specified period of time.

Traffic Control Device: A sign, signal, marking or other device placed on or adjacent to a street or highway by authority of a public body or official having jurisdiction to regulate, warn or guide traffic.

Transition: A section of variable pavement width required when changing from one width of travelled way to a greater or lesser width.

Tropical Rainforest: Closed canopy forests growing in tropical areas (excluding mangroves).

Unsealed Roads: A road which is formed with a running surface, shoulders and drainage. The running surface is capped with suitable gravel.

Understorey: That part of forest vegetation growing below the forest canopy.

Understorey Vegetation: Plants that are not mature canopy trees or lianas.

Undesirable Plant: A plant listed in Appendix 4 of *Nature Conservation Act 1992*.

Undisturbed: An area in its natural state which has not been altered by human activity.

Unstable Areas: Sites susceptible to one of the forms of mass soil movement or accelerated soil erosion as a result of the interaction of such factors as steepness, soil properties, parent and surface geology

and position in the land form profile.

Vulnerable: Flora or fauna species believed likely to move closer to extinction in the near future if causal factors continue operating.

Waste: Materials or substances which are unwanted by-products of human activity.

Watercourse: A natural depression carrying perennial or intermittent flows or surface water for part or all of the year in most years. Consisting of a defined channel, with banks and a bed along which water may flow.

Wet Tropics World Heritage Area: The Wet Tropics of Queensland World Heritage Area.

Wet Tropics Region: The high rainfall tropical region of north eastern Queensland, generally between Townsville and Cooktown.

World Heritage Area: An area internationally recognised as having outstanding universal value and registered on the World Heritage list.

World Heritage Values: Natural (and cultural) heritage that is of outstanding universal value and which enables an area to meet the requirements under the guidelines for listing as a World Heritage site. ■

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