

# Forest Practice Guide

Non-Regulatory



# Glossary



## Glossary



**A Abutment:** A construction that supports the end of a bridge (NES-PF).

**AEP:** The annual exceedance probability, which is the chance of a flood of a given size (or larger) occurring in any one year, usually expressed as a percentage (generally used in hydrology to define rainstorm intensity and frequency). For example, a five percent AEP event has a five percent chance of being exceeded in any one year. A five percent AEP event expresses approximately the same sized event as a twenty year return period event.

**Assessment of Environmental Effects:** A process of systematically identifying elements of the environment that may be impacted on by an operation or undertaking, the estimation of the degree, certainty and longevity of any effects and the specifying of the means to avoid, remedy or mitigate these effects (E-COP).

**B Bank full channel width:** A distance across a river channel formed by the dominant channel-forming flow with a recurrence interval seldom outside a 1 20 2-year range (measured at right angle to the channel flow) (NES-PF).

**Batter:** A constructed slope of uniform gradient. (NES-PF).

**Berm:** A raised earth or engineered structure parallel to the edge of a road or track, designed to contain and direct surface water run-off and sediment to controlled discharge points (E-COP).

**Birds nest:** Accumulation of slash and waste wood material around the edge of a landing arising from harvesting operations (E-COP).

**Buffer/Buffer zone:** An area adjacent to a perennial stream, lake, wetland or other sensitive area, where special care and consideration is given to activities to minimise soil disturbance, or other adverse environmental effects (E-COP).

**Bunds/Bunding:** Secondary containment system around an operation or storage facility to contain or prevent leakage that may contaminate ground water, natural watercourses or susceptible soils. Generally either a purpose built steel or plastic tray, or placement of soil or other material to form an earth barrier (E-COP).

**C Camber:** A gradual downward slope from the centre of a road to each side of it.

**Catchment:** A geographical unit that carries surface run-off under gravity by a single drainage system to a common outlet or outlets. Also commonly referred to as a watershed or drainage basin (E-COP).

**Catchment hydrology:** Term describing the measurable patterns of water flow from a catchment including water yield, flood flows, flood response and other characteristics (E-COP).

**Check dam:** A small, sometimes temporary, dam constructed within a watertable drain to counteract erosion by reducing water flow velocity.

**Colloidal clay particles:** Fine clay particles entrained and suspended in water.

**Compaction:** To apply pressure or vibration to soil or aggregate to strengthen it (NES-PF) (Compaction is any process by which the soil grains are rearranged to decrease void space and bring them into closer contact with one another, thereby increasing the weight of solid material per unit of volume, increasing their shear and bearing strength and reducing permeability.)

**Corduroy:** A structured load-bearing surface where the logs are laid horizontally and parallel, and there are no void areas. Corduroy roads are an engineered road construction technique used in places where the substrate is very weak and where the load must be spread if the road is to be trafficable (MPI guidance).

**Culvert:**

- i. A pipe or box structure that conveys a stormwater flow, or
- ii. The entire structure used to channel a water body under a forestry road or forestry track (NES-PF).

**Cut-off or cut-out:** Shallow channels/earth mounds constructed across a road, track or firebreak and used to divert and control run-off. Cut-offs are constructed to minimise sediment movement and scouring by preventing the accumulation of sufficient flow and velocity to support erosion. Unlike water bars, cut-offs are normally used in impermeable soils and are not used for retaining run-off (E-COP).

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- D Decommission:** The process of actively removing, deconstructing and making safe and secure, engineered structures such as roads and landings that are no longer needed after completion of operations (E-COP).
- Deposition:** The build-up of material that has settled because of reduced velocity of the transporting agent (water or wind) (E-COP).
- Earthflow terrain:** Land classified in the electronic tool referred to in item 1 of Schedule 2 (<http://www.mpi.govt.nz/growing-and-producing/forestry/overview/national-environmental-standards-for-plantation-forestry/erosion-susceptibility-classification/>), and having the dominant erosion process of earthflows and the terrain grouping as follows:
- hill country developed on crushed argillite or on tertiary-aged mudstone or sandstone, with moderate earthflow-dominated erosion; or
  - hill country developed on crushed argillite, mudstone, or greywacke, with severe earthflow-dominated erosion (NES-PF).
- E Ephemeral flow:** A flowpath that flows only briefly during and following a period of rainfall in the immediate locality.
- F Fill:** Soil or aggregate, placed to raise the land surface, normally under a strict compaction regime (NES-PF).
- Flume/Fluming:** An open channel, conduit, made from plastic, galvanised corrugated steel, and sometimes concrete, or timber, which is used to carry run-off from earthworks over loose fill or erodible material so that it can be discharged onto less erodible surfaces (E-COP).
- G Gabion:** A cage, cylinder, or box filled with rocks, concrete, or sometimes sand and soil for use in civil engineering and road building.
- H Heading up:** A hydraulic head of water above the culvert inlet at times when the culvert's nominal capacity is exceeded (NES-PF).
- I Indigenous vegetation:** Vegetation that is predominantly vegetation that occurs naturally in New Zealand or that arrived in New Zealand without human assistance (NES-PF).
- Intermittent river/stream:** A stream, or reach of a stream, that does not flow year-round (commonly dry for 3 or more months out of 12) and whose channel is generally below the local water table; it flows only when it receives a) base flow (i.e., solely during wet periods), or b) ground-water discharge or protracted contributions from melting snow or other erratic surface and shallow subsurface sources.
- L Landing (pad, skid):** An area of land where logs or tree lengths extracted from a plantation forest are accumulated, processed, and loaded for removal. (NES-PF).
- M Mineral soil:** Any soil consisting primarily of mineral (sand, silt and clay) material, rather than organic matter.
- Mulch:** Covering of loose organic or other materials applied over the surface of soil to protect it from raindrop impact and to enhance certain characteristics, such as improved water retention and seed germination (E-COP).
- O Overburden:** The overlying soil and rock that is removed to allow quarrying of the underlying material (NES-PF).
- P Perennial river/stream:** A river that is a continually or intermittently flowing body of freshwater, if the intermittent flows provide habitats for the continuation of the aquatic ecosystem (NES-PF).
- R Reno mattress:** A double twisted hexagonal woven galvanised steel wire mesh compartmented basket with a rectangular mattress shape. Even distribution of the stone fill ensures that the reno mattress maintains intimate contact with the foundation soil.
- Rill:** A shallow channel (no more than a few tens of centimetres deep) cut into soil by the erosive action of flowing water.
- Riparian zone:** That margin and bank of a water body, including the area where direct interaction occurs between land and water systems, that is important for the management of water quality and ecological values (NES-PF).

## Glossary



**River:** A continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal) (RMA).

**Road-line salvage:** Harvesting of trees from the intended route of a new road prior to its construction (E-COP).

**Rock bucket:** A specialised excavator bucket with strengthened teeth used to excavate into rock.

**Run-off:** Surface water from rainfall that flows off sloped areas (E-COP).

**Sediment:** Solid material that –

- is mineral or is mineral and organic; and
- is in suspension, is being transported, or has been moved from the site of origin by air, water, gravity, or ice and has come to rest on the earth's surface, either above or below water (NES-PF).

**S** **Setback:** The distance measured horizontally from a feature or boundary that creates a buffer within which certain activities cannot take place (NES-PF).

**Slash:** Any tree waste left behind after plantation forestry activities (NES-PF).

**Smooth glazed surface:** In conjunction with a cut batter, where an application of hydro-seeding will not adhere to the cut surface.

**Stabilisation:** Includes –

- seeding;
- vegetative cover, mulch, or slash cover;
- compacting, draining, roughening, or armouring by the placement of rock or the use of other rigid materials. (NES-PF regulation 32(2)).

**Stream:** A continually or intermittently flowing body of fresh water; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal) (RMA).

**Stumping:** The removal/excavation of tree stumps from the ground, usually associated with the construction of infrastructure.

**T** **Thatching:** A cover of loose organic or other materials applied over the surface of soil to protect it from raindrop impact and to enhance certain characteristics, such as improved water retention and seed germination.

**W** **Water body:** Fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area (RMA).

**Water run-off control measure:** Structure or measure to reduce the volume or velocity of water run-off and consequently reduce its power to entrain sediment (NES-PF).

**Water table:** A shaped or engineered depression running parallel to the edge of a road surface that is designed to catch stormwater run-off from the road surface and carry it to suitably located and constructed discharge points (E-COP).

**Wetland:** Permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions (RMA).

**Windthrow:** Trees blown down by action of wind (E-COP).