

GLOSSARY

Active Channel	The area of the stream channel that is seasonally inundated, and often scoured free of perennial vegetation.
Adjusted Potential Effective Shade	The percentage of direct beam solar radiation attenuated and scattered before reaching the stream surface by the potential vegetation conditions, reduced by 10% to account for natural disturbances such as fire, windthrow, disease, and earth movements that reduce the actual riparian vegetation below the site potential.
Aggradation	Rise of the stream bed level resulting from deposition of sediment.
Anadromous	Refers to aquatic species that migrate up rivers from the sea to breed in fresh water, undergoing a physiological change to allow them to adjust from freshwater to saltwater to freshwater conditions.
Bankfull	The discharge at which channel maintenance is most effective over time, generally with a frequency interval of once every 1.5-2.3 years. Also, the channel form that accommodates the bankfull flow.
Bankfull Channel	The stream channel that contains the bankfull flow.
Basin Plan	Water Quality Control Plan for the North Coast Region (Region 1).
Beneficial Use	Use of waters of the state designated in the Basin Plan as being beneficial. Beneficial uses that may be protected against quality degradation include, but are not limited to: domestic, municipal, agricultural, and industrial water supply; power generation; recreation; aesthetic enjoyment; navigation; and the preservation and enhancement of fish, wildlife and other aquatic resources or preserves.
Cable Yarding	Yarding of cut timber accomplished by dragging or suspending cut timber up a hillslope from the cut area to a ridgetop landing.
CDF	California Department of Forestry and Fire Protection.
CDFG	California Department of Fish and Game.
CDWR	California Department of Water Resources.
cfs	Cubic feet per second: a measure of water flow.

Compliance and Trend Monitoring	Monitoring intended to determine, on a watershed scale, if water quality standards are being met, and to track progress towards meeting water quality standards.
Decommission	To close and obliterate a road, restore the land to more resemble its natural contours, and return drainage patterns to their natural state.
Degradation	Lowering of the channel bed resulting from scour during flood flows. Also, lowering or degrading of quality.
Diversion Potential	The potential for a road to divert water from its intended drainage.
DG	Decomposed granite.
Drainage Structure	A structure or facility constructed to control road runoff, including (but not limited to) a ford, inside ditch, water bar, outslope of the road, rolling dip, culvert, or ditch drain.
Effective Shade	The percentage of direct beam solar radiation attenuated and scattered before reaching the ground or stream surface from topographic and vegetation conditions.
Electroshocking	A sampling technique for fish surveys that uses electrical current to stun fish in the water, allowing them to be measured and released.
Embeddedness	The degree to which larger streambed sediment particles (boulders, rubble, or gravel) are surrounded or covered by fine sediment. Embeddedness is usually estimated visually in classes (<25%, 25-50%, 50-75%, and >75%) according to the percentage of random large particles that is covered by finer sediment.
Encouragement	Encouragement may take several forms, including efforts by Regional Water Board staff to work with stakeholders to facilitate the planning and implementation of restoration and enhancement projects, staff providing technical assistance for landowners and stakeholders when such assistance is requested, efforts by staff to make compliance with the Nonpoint Source Policy compatible with restoration and enhancement projects, staff coordinating efforts within the Regional Water Board office to simplify and speed up the permit approval process, and formal recognition by the Regional Water Board of good works that improve water quality.
EPA	United States Environmental Protection Agency.
Erosion	The group of processes whereby sediment (rock and soil material) is loosened, dissolved, or removed from the landscape surface. It includes weathering, dissolution, and transportation.

ESU	Evolutionarily Significant Unit, used by NMFS to identify a distinctive group of Pacific salmon or steelhead for purposes of the federal Endangered Species Act.
Flooding	Overflowing of water onto land that is dry most of the time.
FPR	Forest Practice Rules, defined by the Z'berg-Nejedly Forest Practice Act of 1973, as amended.
FWS	United States Fish and Wildlife Service
Fry	A young juvenile salmon after it has absorbed its egg sac and emerged from the redd. Word is singular or plural.
GIS	Geographic Information System.
Groundwater Accretion	The gradual increase in surface flow in a stream resulting from the influx of groundwater.
GSS	Granitic Sediment Study of Sommarstrom and others (1990)
Headwall Swale	Topographic depression in the headwaters area of a watercourse or head of a landslide area; often a potentially unstable area where moisture tends to collect.
Hydrologically Closed Road	Generally refers to a road that is closed to further use and has natural flow conditions restored (e.g., stream crossing fill removed), although the road itself may not be revegetated or obliterated.
Hydrologically Connected Road	Road with drainage that is collected and directed toward a watercourse.
Hydrologically	A road constructed so that drainage of the road is self-maintaining..
ICE	Information Center for the Environment at UC Davis.
Implementation Monitoring	Monitoring used to assess whether activities and control practices were carried out as planned. This type of monitoring can be as simple as photographic documentation, provided that the photographs are adequate to represent and substantiate the implementation of control practices.
Inner gorge	A geomorphic feature; generally a steep-walled inner part of a valley immediately adjacent to the stream, having a slope generally over 65%, and lying below less steep upper valley sides.

Inside ditch	Ditch on the side of the road toward the hill slope, usually at the foot of the cutbank.
Instream Effectiveness Monitoring	Monitoring of instream conditions to assess whether sediment control practices are effective at keeping waste sediment from being discharged to a water body. Instream effectiveness monitoring may be conducted upstream and downstream of the discharge point or before, during, and after the implementation of sediment control practices.
Key Piece of LWD	As a narrative, a key piece of LWD is a log or root wad that (1) is independently stable in the stream bankfull width and not functionally held by another factor (e.g., not pinned by another log, buried, or trapped against a rock, etc) and (2) is retaining, or has the potential to retain, other pieces of organic debris that are likely to become mobilized in a high flow without the key piece. Numerically, key pieces are logs with a minimum diameter of twelve inches and minimum length 1.5 times the mean bankfull width of the stream channel type reach and the deployment site. Root wad key pieces have a minimum root bole diameter of five feet and minimum length of fifteen feet and minimum width at least half the channel type bankfull width. Key pieces of LWD are also those pieces that meet the following criteria found in Table G.1.
Landslide	Any mass movement process characterized by downslope transport of soil and rock under gravitational stress, generally by sliding over a discrete failure surface or combination of surfaces -- or the resultant landform.
Large Woody Debris	Woody material generally having a diameter greater than 30 cm (12 inches) and a length greater than 2 m (6 feet) located in watercourse or in a position where it may enter a watercourse.
Low-Flow Channel	The part of a stream that is occupied by water during the periods of lowest flow, generally in late summer or early fall.
Mass Wasting	Downslope movement of soil mass under force of gravity, often used synonymously with "landslide." Common types of mass movement include rockfall, soil creep, slump, earthflow, debris avalanche, and debris slide.
Natural Receiving Water Temperatures	The water temperatures that result when the environmental factors that influence stream temperature have not be altered by human activities.
NCRWQCB	North Coast Regional Water Quality Control Board. Also known as: Regional Board; Regional Water Board; and California Regional Water Quality Control Board, North Coast Region.

Table G.1
LWD Key Piece Volume Criteria
 (taken from Schuett-Hames et al., 1999b; modified with results from Fox, 2001)

Min. Diameter in meters	Minimum Length of LWD in meters			
	BFW > 0 to < 5	BFW 5 to < 10	BFW 10 to < 15	BFW 15 to < 20
0.20	32			
0.25	21			
0.30	15	36		
0.35	11	26		
0.40	8	20		
0.45	7	16	38	
0.50	6	13	31	
0.55	5	11	26	
0.60	4	9	22	32
0.65	3	8	19	28
0.70	3	7	19	24
0.75	3	6	14	21
0.80	2	5	12	18
0.85	2	5	11	16
0.90	2	4	10	15
0.95	2	4	9	13
1.00	2	4	8	12
1.05	2	3	7	11
1.10	2	3	7	10
1.15	1	3	6	9
1.20		3	6	8
1.25		3	5	8
1.30		2	5	7
1.40		2	4	6
1.55		2	4	5
1.60		2	3	5
1.70		2	3	4
1.80		1	3	4
2.00			2	3
2.40			2	2
2.80			1	2
3.40				1

Minimum LWD Volume to Qualify as a Key Piece	
BFW (m)	Volume (m ³)
0 to < 5	1
5 to < 10	2.5
10 to < 15	6
15 to < 20	9
20 to < 30	9.75
30 to < 50	10.5*
50 to 100	10.75*

* Wood piece must have an attached root wad.

Procedure:

1. Select segment bankfull width (BFW) category.
2. Measure diameter of candidate pieces and round to nearest 0.05 m (5 cm)
3. Follow matrix across to find the minimum length requirement.

Key Log Example:

1. Segment has an average BFW of 12 m (use BFW column of 10 to < 15 m).
2. Candidate log diameter is measured/estimated to be 0.53 m (round to 0.55 m).
3. Log must be a minimum of 26 m long (measure/estimate log length to assess if it is a key piece).

Key Rootwad Example:

1. Segment has an average BFW of 4 m (use BFW column of 0 to < 5 m).
2. A rootwad Key Piece must have a minimum diameter of 1.15 m and length of 1 m.

Meter/Feet conversion: meters x 3.281 = feet

NMFS	National Marine Fisheries Service.
NTU	Nephelometric Turbidity Units, a standard measure of turbidity.
Periodicity	The presence of salmonids at varying life stages throughout the year.
Pool Tail-out	The downstream end of a pool, where the main current narrows, forming a “tail.” aka riffle head.
Potential Vegetation Conditions	The most advanced seral stage that nature is capable of developing and making actual at a site in the absence of human interference. Seral stages are the series of plant communities that develop during ecological succession from bare ground to the climax community (e.g., fully mature, old-growth).
Primary Pool	A pool that is at least as long as the low-flow channel width, and occupies at least half the width of the low-flow channel and, for 1 st and 2 nd order streams, is at least 2 ft or more in depth; and for 3 rd order and higher streams, is at least 3 ft or more in depth. (Flosi et al. 1998).
PW	Planning Watershed.
Reach	Limited stretch of a stream considered for a specific purpose.
Redd	A gravel nest or depression in the stream substrate, created by a female salmonid, in which eggs are laid, fertilized, and covered with gravel for a period of incubation.
Refugia	Habitat areas that allow refuge from poor habitat conditions.
Regional Water Board	California Regional Water Quality Control Board, North Coast Region.
Riffle	A reach of stream characterized by an increased water velocity resulting from a drop in elevation, usually shallow..
Riffle Head	The beginning (i.e., upstream end) of a riffle (aka pool tail-out).
Road	Any vehicle pathway, including, but not limited to: paved roads, dirt roads, gravel roads, public roads and highways, private roads, rural residential roads and driveways, permanent roads, temporary roads, seasonal roads, inactive roads, trunk roads, spur roads, ranch roads, timber roads, skid trails, and landings which are located on or adjacent to a road.
Salmonids	Fish species in the family Salmonidae, including but not limited to, salmon, trout, and char.

Sediment	Any inorganic or organic earthen material, including, but not limited to: soil, silt, clay, and rock. Fragmental material that originates from weathering of rocks and decomposed organic material that is transported by water, as bedload, suspended load, or dissolved load, and eventually deposited.
Sediment Delivery	Sediment delivered to a watercourse.
Sediment Source	The physical location on the landscape where earth material has or may have the ability to discharge into a watercourse.
Sediment Yield	The quantity of sediment, expressed by weight or volume, produced from a unit area in a unit time.
Sediment Waste	Sediment that is generated directly or indirectly by anthropogenic activities or projects.
Sediment Waste Discharge Site	An individual, anthropogenic erosion site that is currently discharging or has the potential to discharge sediment waste to waters of the State.
Sidecast	Fill from road construction or grading that is deposited to a hillside below a road.
Skid Trail	Constructed trail or established path used by tractors or other vehicles for skidding logs. Also known as tractor road.
Smolt	A young salmon at the stage intermediate between the parr and the grilse, when it becomes covered with silvery scales and first migrates from fresh water to the sea.
Smoltification	Suite of physiological, morphological, biochemical and behavioral changes, including development of the silvery color of adults and a tolerance for seawater, that take place in salmonid parr as they migrate downstream and enter the sea
Stream	See watercourse.
Stream order	The designation (1,2,3, etc.) of the relative position of stream segments in the drainage basin network. For example, a first order stream is the smallest, unbranched, perennial tributary which terminates at the upper point. A second order stream is formed when two first order streams join. A third order stream is designated where two 2 nd - order streams join.
SW	Sub-watershed

Tail-out	Lower end of a pool where flow from the pool, in low flow conditions, discharges into the next habitat unit, usually a riffle. Location where spawning generally occurs.
Thalweg	The deepest part of a stream channel at any given cross section.
Thalweg profile	Elevation profile surveyed along the length of the stream and centered on the water surface over the deepest part of the stream.
Thermal Refugia	Colder areas within a water body that provide cold water refuge from unsuitably warm water.
THP	Timber Harvest Plan
Timber Harvest Activities	Commercial and non-commercial activities relating to forest management and timberland conversions. These activities include the cutting or removal of both timber and other solid wood forest products, including Christmas trees. These activities include, but not limited to, construction, reconstruction and maintenance of roads, fuel breaks, firebreaks, watercourse crossings, landings, skid trails, or beds for the falling of trees; fire hazard abatement and fuel reduction activities; burned area rehabilitation; and site preparation that involves disturbance of soil or burning of vegetation following timber harvesting activities; but excluding preparatory tree marking, surveying, or road flagging.
TMDL	Total Maximum Daily Load, as defined under section 303(d) of the Clean Water Act, and regulations at 40 CFR §130.
Tractor Yarding	Yarding of cut timber using a tractor.
Turbidity	A measure of the degree to which water obstructs the passage of light. High turbidity (low light transmissivity) can be caused by suspended fine sediments or organic material.
Unstable area	Location on the landscape that has a higher than average potential to erode or otherwise fail and discharge sediment to a watercourse. Includes slide areas, gullies, eroding stream banks, and unstable soils. Slide areas include landslides of all sizes and depths, debris flows, debris slides, earthflows, inner gorges, and hummocky ground. Unstable soils include unconsolidated, non-cohesive soils and colluvial debris.
Upslope Effectiveness Monitoring	Monitoring intended to determine, by assessing upslope conditions, if sediment control practices are effective at keeping waste sediment from being discharged to a water body. This type of monitoring can be as simple as photographic documentation, provided that the photographs are adequate to represent and substantiate that the sediment control practices are effective.

V*	A numerical value that represents the proportion of fine sediment that occupies the scoured residual volume of a pool, as described by Lisle and Hilton (1992). Pronounced "Vee-star."
Watercourse	Any well-defined channel having a distinguishable bed and bank and showing evidence of having contained flowing water as indicated by deposit of rock, sand, gravel, or soil.
Waters of the State	All ground and surface waters, including saline waters, within the boundaries of the state.
Watershed	Total land area draining to any point in a watercourse, as measured on a map, aerial photo or other horizontal plane. Also called a basin, drainage area, or catchment area.
Water Quality Criteria	Numeric or narrative criteria established under the Clean Water Act to protect the designated uses of a water body.
Water Quality Indicator	Factor or condition that determines or expresses the quality of water in terms of the instream or watershed environment. For each pollutant or stressor addressed in the problem statement, an indicator and target value of that indicator is developed.
Water Quality Objectives	A State Basin Plan term equivalent to the Clean Water Act's water quality criteria. Water quality criteria are limits or levels of water quality constituents or characteristics established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.
Water Quality Standard	A Clean Water Act term which includes the designated uses of a water, the water quality criteria established to protect the designated uses, and an anti-degradation policy.
Yarding	Collecting of cut timber at a landing area.
Yearling	Fish that hatched during the previous year (i.e., one-year-old).
Young-of-Year	Fish that hatched in the current season.
WY	Water Year. October 1 - September 30. E.g., WY2006 = October 1, 2006 through September 30, 2006.