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GLOSSARY

The list of terms that follows is a representative sample of those used by foresters, lumbermen, loggers, soil scientists, biologists, engineers, conservationist planners, etc. The terms may not be used in the text of this document but are commonly used in conservation matters. Words designated with (COMAR) provide in whole or in part, the exact definitions as found in the Code Of Maryland Regulations. As such, references contained in certain COMAR definitions relate to the regulations, not to this document.

Access Road: A temporary or permanent access route for vehicles into forestland.

Agricultural Drainage Project (COMAR):

“Agricultural Drainage Project” means the construction, reconstruction, or repair or the straightening, widening, or deepening of any ditch, drain, canal, or other watercourse natural or manmade financed or managed by a public drainage association for the purpose of lowering the water level in the soil of adjacent lands for agricultural purposes.

Approval Authority: Means any soil conservation district, the specified agency named in a municipality not within a soil conservation district, the Washington Suburban Sanitary Commission, or the Water Management Administration. (For the purposes of an approved plan for a forest harvest operation, the approval authority typically will be the local soil conservation district.)

Barriers: Obstructions to pedestrian, horse, and/or vehicular traffic. They are intended to restrict such traffic to a specific location.

Bearing Capacity: Maximum load that a material (soil) can support before failing.

Bedding: A site preparation method in which special equipment is used to concentrate surface soil and forest litter into a ridge 6 to 10 inches high on which forest seedlings are to be planted.

Berm: A temporary ridge of soil, compacted and located in such a manner as to direct water to a desired location.

Blue Line Stream: A feature on a United States Geological Survey 7.5 Minute Series (Topographic) map representing perennial and intermittent streams. These features are shown as a solid or dotted/dashed blue lines.

Bottomlands: A term often used to define lowlands adjacent to streams.

Broad Based Dip: A surface drainage structure specifically designed to drain water from an access road while vehicles maintain normal travel speeds.

Buffer: Historical term for the relatively undisturbed area maintained on either side of

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waters of the State during a forest harvest operation. The currently used term for this area is Streamside Management Zone (*q.v.*)

Channel: A natural stream that conveys water. A ditch or channel excavated to convey the flow of water.

Check Dam: A small dam constructed in a gully or other small watercourse to decrease the stream flow velocity, minimize channel scour, flatten channel slope, and promote deposition of sediment.

Clear (COMAR):

“Clear” means any activity that removes the vegetative ground cover.

Clearcut: A harvest method where essentially all trees have been removed in one operation. Depending on management objectives, a clearcut may or may not have reserve trees left to attain goals other than regeneration.

Contamination: A general term signifying the introduction into water of microorganisms, chemical, organic or inorganic wastes or sewage, or sediment which renders the water unfit for its intended use.

Contour: An imaginary line on the surface of the earth connecting points of the same elevation. A line drawn on a map connecting points of the same elevation.

Culvert: A conduit through which surface water can flow under roads.

Custom Erosion And Sediment Control Plan: An individual plan that includes site specific attachments developed by a Maryland Licensed Forester for a timber harvest operation. Usually a Custom Erosion And Sediment Control Plan is required when site conditions prevent the provisions of the Standard Plan from being met or to authorize work in a Streamside Management Zone.

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

Cut And Fill: Process of earth moving by excavating part of an area and using the excavated material for adjacent embankments or fill areas.

Discharge (COMAR):

“Discharge” means:

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- a. the addition, introduction, leaking, spilling, or emitting of any pollutant to waters of this State; or
 - b. the placing of a pollutant in a location where the pollutant is likely to pollute.
- Sediment has been defined as a pollutant to waters of the State.

Diversion: A channel with a supporting ridge on the lower side constructed across or at the bottom of a slope for the purpose of intercepting surface runoff.

Ephemeral Channel: A ground surface configuration (such as a swale) that contains flowing water only during and shortly after a rainfall event. The duration of flow in this kind of system is too limited to establish an aquatic ecosystem.

Erosion (COMAR):

“Erosion” means the process by which the land surface is worn away by the action of wind, water, ice or gravity.

Erosion And Sediment Control Plan (COMAR):

“Erosion and Sediments Control Plan” means an erosion and sediment control strategy or plan to minimize erosion and prevent off-site sedimentation, by containing sediment on-site or passing sediment laden runoff through a sediment control measure prepared and approved in accordance with the specific requirements of an approval authority, and designed in accordance with the handbook, “1994 Maryland Standards And Specifications For Soil Erosion And Sediment Control”, which is incorporated by reference in regulation .11 of this chapter.

Exemption: Freedom from a duty. A circumstance where an activity is not subject to the provisions of a law or regulation. Typically, there is an explicit statement in a law or regulation that sets the specific conditions as to when an activity becomes subject to the provisions of the law or regulation.

Fill: The portion of land surface or area onto which excavated earth has been placed or will be placed; the height above original ground to the fill surface.

Fill Slope: The surface area formed where earth is deposited to build a road or trail.

Ford: Submerged stream crossing where tread is reinforced to bear intended traffic. A place where a perennial stream may be crossed by vehicle.

Forest Land: Land bearing forest growth or land from which the forest has been removed but which shows evidence of past forest occupancy and which is not now in other use.

Forest Landowner: An individual, combination of individuals, partnership, corporation, foundation, governmental agency, or association of whatever nature that holds an ownership interest in forestland.

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Forest Practice: An activity relating to the growing, protecting, harvesting, or processing of forest tree species on forest land and to other forest management aspects such as wildlife, recreation etc.

Grade: The slope of a road or trail expressed as a percent of change in elevation per unit of distance traveled.

Grade (COMAR):

“Grade” means to cause the disturbance of the earth. This shall include but not be limited to any excavating, filling, stockpiling of earth materials, grubbing, root mat or top soil disturbance, or any combination of them.

Gully Erosion: Erosion process whereby water accumulates in narrow channels and over short periods removes soil from this narrow area to considerable depths (one foot plus).

Harvesting: The felling, loading, and transportation of forest products, roundwood or logs.

Intermittent Stream: A stream or portion of stream whose flow includes a seasonal or temporary groundwater component (i.e. the base level of the stream is at or below the local water table). Such streams flow for days, weeks, or months following the most recent rainfall event. These streams may be shown as dotted/dashed lines on United States Geological Survey 7.5 Minute Series (Topographic) maps.

Landing: A place where logs are gathered in or near the forest for further transport, sometimes called a "deck".

Logging Debris: That unwanted, unutilized, and generally unmarketable accumulation of woody material in the forest such as large limbs, tops, cull logs, and stumps, that remain as forest residue after timber harvesting.

Man-made Ditch: a conveyance primarily constructed in order to and is serving to drain surface water, groundwater, or both. These typically occur as a network of interlaced shallow channels in agricultural fields. These structures are not a straitening, widening or deepening (hydrologic modification) of perennial streams. Typically, these ditches lack perennial flow (i.e. flow only in response to a rainfall event), do not show natural stream features, and lack an aquatic community. Man-made ditches may be referred to as ephemeral channels.

Maryland Licensed Forester:

1. A person who is licensed by the Board and who for compensation applies scientific techniques to the planting, conservation, protection, and management of trees and related

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resources for their continuing use whether found in large numbers and areas commonly known as forests, woodlands, and wood lots or in small groupings and individual trees in suburban and urban settings.

2. Under COMAR 26.17.01.07 B. (3) (i), one of five professionals authorized to certify that erosion and sediment control plans for forest harvest operations have been designed in accordance with approved erosion and sediment control ordinances, regulations, standards, and criteria.

Mineral Soil: Organic free soil that contains rock less than 2 inches in maximum dimension.

Mulch: A natural or artificial layer of plant residue or other materials covering the land surface which conserves moisture, holds soil in place, aids in establishing plant cover, and minimizes temperature fluctuations.

Mulching: Covering forest soil with any loose cover of organic residues, such as grass, straw, bark or wood fibers, to check erosion and stabilize exposed soil.

Nonpoint Source Pollution: Pollution that enters a water body from a diffuse origin on the watershed and does not result from discernable, confined, or discrete conveyances. Stormwater contaminated with sediment as a result of anthropogenic activities is an example of nonpoint source pollution.

Nontidal Wetland (COMAR):

“Nontidal wetland”:

- a. Means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation...

Nontidal Wetlands Of Special State Concern (COMAR):

“Nontidal wetlands of special State concern” means the areas designated based on criteria in Regulation .04 of this chapter, and listed in COMAR 26.23.06.01 as having exceptional ecological or educational value of Statewide significance.

Nutrients: Mineral elements in the forest ecosystem such as nitrogen, phosphorus, or potassium, that are naturally present or may be added to the forest environment by forest practices such as fertilizer or fire retardant applications. Substances necessary for the growth and reproduction of organisms. In water, those substances that promote growth of algae and bacteria are chiefly nitrates and phosphates.

Organics: Particles of vegetation, other biologic material, or organic compounds that can degrade water quality by decreasing dissolved oxygen and by releasing organic solutes during leaching.

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Perennial Stream: A stream whose flow includes a permanent groundwater component (i.e. the base level of the stream is at or below the local water table). Such streams flow year round. These streams may be shown as solid blue lines on United States Geological Survey 7.5 Minute Series (Topographic) maps.

Permeability Of Soil: The capacity of a soil to move or transmit water or air through it. The permeability of a soil may be limited by the presence of one nearly impermeable soil horizon even though the others are permeable.

Pollutant (COMAR):

“Pollutant” means:

- (a) Any waste or wastewater that is discharged from:
 - (i) Any publicly owned treatment works, or
 - (ii) An industrial source; or
- (b) Any other liquid, gaseous, solid, or other substance that will pollute any waters of the State.

Pollution (COMAR):

“Pollution” means the contamination or other alteration of the physical, chemical, or biological properties of any waters of this State, including change in temperature, taste, color, turbidity, or odor of the waters, or the discharge or deposit of any organic matter, harmful organisms, or liquid, gaseous, solid, radioactive, or other substance into any waters of the State that will render the waters harmful, or detrimental, or injurious to:

- (a) Public health, safety or welfare;
- (b) Domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or
- (c) Livestock, wild animals, birds, fish or other aquatic life.

Pollution Prevention For Forest Harvest Operations: An auditing method applied to harvest operations that is intended to identify, isolate, reduce and eliminate or otherwise mediate sources of pollution found in that process. The implementation of these procedures within the harvesting process is intended to avoid or minimize the creation of undesirable by products, pollutants and waste.

This goal is accomplished by examining the waste stream(s) produced by the process. At each input to the waste stream the circumstances are analyzed to determine if the waste can be:

- reduced through:
 - o increasing efficiency,
 - o recycling in-process,
 - o altering the process, or
- eliminated through use of:
 - o an alternate, less hazardous product,
 - o improved technologies.

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This process has the potential to reduce the cost of environmental compliance by reducing or eliminating the costs associated with purchasing, managing, treating and disposing of waste materials. The overall reduction of the amount of pollution created within the process reduces the permitting requirements on the timber harvest industry.

Public Drainage Association: An independent political subdivision; an organization established to locate, construct, or reconstruct, operate and maintain ditches, drains, and channels to provide agricultural drainage under Article 25 §52 Annotated Code Of Maryland.

Public Drainage Association Ditch: any of the 800 miles of drainage ditches in the coastal zone mostly on the Eastern Shore that have operation and maintenance plans which address sediment control and water quality protection.

Regeneration: The young tree crop replacing older trees removed by harvest or disaster; the process of replacing old trees with young.

Residual Trees: Live trees left standing after the completion of harvesting.

Rill Erosion: An erosion process in which numerous small channels only several inches deep are formed. Occurs mainly on disturbed and exposed soils.

Riprap: Aggregate placed on erodible sites to reduce the impact of rain or surface runoff on these areas.

Rolling Dip: A shallow depression built diagonally across a light duty road or trail for the purpose of diverting surface water runoff from the road or trail.

Runoff: In forest areas, that portion of precipitation that flows from a drainage area on the land surface or in open channels.

Ruts: A depression in access roads made by continuous passage of logging vehicles.

Sediment (COMAR):

“Sediment” means soils or other surficial materials transported or deposited by the action of wind, water, ice, gravity, or by other artificial means.

Seedbed: The soil prepared by natural or artificial means to promote the germination of seed and the growth of seedlings.

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

Sheet Flow: The passage of water over plane surfaces. Usually occurs in the headwaters of a stream’s drainage area. Flow has shallow depth and is broad. The velocity of rainfall runoff moving in sheet flow condition is very low. According to NRCS, sheet flow changes to shallow concentrated flow after 100 to 300 feet.

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Silvicultural Activities: All forest management activities, including logging, log transport, and forest roads (EPA interpretation).

Site Preparation: A forest activity to remove unwanted vegetation and other material, and to cultivate or prepare the soil for reforestation.

Skid Trails: A temporary pathway over forest soil to drag felled trees or logs to a landing.

Slope: Degree of deviation of a surface from the horizontal, measured as a numerical ratio, percent, or in degrees. Expressed as a ratio, the first number is the horizontal distance (run) and the second is the vertical distance (rise), as 2:1. A 2:1 slope is a 50 percent slope. Expressed in degrees, the slope is the angle from the horizontal plane, with a 90 degree slope being vertical (maximum) and 45 degree being a 1:1 slope.

Soil: The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

Soil Conservation: Using the soil within the limits of its physical characteristics and protecting it from unalterable limitations of climate and topography.

Soil Productivity: The output or productive capability of a forest soil to grow timber crops.

Stream: A permanently or intermittently flowing body of water that follows a defined course.

Stream Banks: The usual boundaries, not the flood boundaries, of a stream channel. Right and left banks are named facing downstream.

Streamside Management Zone (SMZ): An area of 50 feet or more, based on steepness of adjacent slopes, on both banks of waters of the State. Provides extra precautions that are needed when carrying out forest harvests and protects stream banks and water quality. This designation was formerly known as buffer zone.

Streamside Management Zone Plan: An erosion and sediment control plan, prepared by a Maryland Licensed Forester, that upon approval by the appropriate plan approval authority (the SCD) allows harvesting within the Streamside Management Zone. The plan includes the harvest method, the square footage of basal area to be removed and retained, provisions for removing and restocking the cut trees, the erosion and sediment control measures to be implemented and maintained during the harvest, the location of skid trails and any other criteria required by the plan approval authority (the SCD). Used in conjunction with the Standard Erosion And Sediment Control Plan or incorporated into the Custom Erosion And Sediment Control Plan.

Switchback: A 180 degree direction change in a trail or road used to climb steep slopes.

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Thermal Pollution: A temperature rise in a body of water sufficient to be harmful to aquatic life.

Tread: Load bearing surface of a trail or road.

Turnout: 1. A drainage ditch which drains water away from roads. 2. A widened space in a road to allow vehicles to pass one another.

Variance: Official authorization to depart from a law. A stipulation in law, regulation, or agency policy that releases a person from the obligation to comply with the provisions of the law, regulation, or policy when it is determined that strict adherence to the requirements would result in undue hardship and not fulfill the intent of the law, regulation or policy. A hardship as a result of compliance is not by itself grounds for the issuance of a variance.

Waste: Materials and substances usually discarded as worthless to the user.

Water Bar: A diversion ditch and/or hump across a trail or road tied into the uphill side for the purpose of carrying water runoff into the vegetation, duff, ditch, or dispersion area so that it does not gain the volume and velocity which causes soil movement and erosion of the road or trail.

Water Body: An area where water stands with relatively little or slow movement (ponds, lakes, bays).

Water Pollution: Any introduction of foreign material into water or other impingement upon water which produces undesirable changes in the physical, biological, or chemical characteristics of that water.

Water Quality: A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

Water Quality Standards: Minimum requirements of purity of water for various uses; for example, water for agricultural use in irrigation systems should not exceed specific levels of sodium bicarbonate, pH, total dissolved salts, etc.

Waters Of The State (COMAR):

“Waters of the State” includes both surface and underground waters within the boundaries of the State subject to its jurisdiction, including that portion of the Atlantic Ocean within the boundaries of the State, the Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, public ditches, tax ditches, and public drainage systems within the State, other than those designated and used to collect, convey, or dispose of sanitary sewage. The floodplain of free-flowing waters determined by the Department on the basis of the 100-year flood frequency is included as waters of the State.

This is the definition of waters of the State used to identify locations on forest harvest operations that must have streamside management zones established or erosion and sediment

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control measures installed and maintained in order to protect water quality.

For the purposes of defining where on a forest harvest operation a streamside management zone must be established, waters of the State does not include the floodplain based on the 100 year flood frequency, man-made ditches created and managed under a public drainage association, natural and man-made systems that convey stormwater runoff only in direct response to precipitation events, and certain other man-made ditches specifically granted a variance and are located in Dorchester, Somerset, Wicomico, or Worcester counties, and approved by the appropriate plan approval authority (the SCD).

Watercourse: A definite channel with bed and banks within which concentrated water flows continuously or intermittently.

Watershed Area: All land and water within the confines of a drainage divide.

Wetlands: Geographic areas characteristically supporting hydrophytes, hydric soils and some saturation or flooding during the growing season.