

APPENDIX A: GLOSSARY

aesthetics: an approach dealing with the beautiful and with judgements of beauty.

anoxic: a condition where there is a lack of oxygen, eg., anoxic water is water lacking enough oxygen for organisms to live.

anti-vortex trash rack: a type of trash screen that does not cause whirlpools to form in a pond or outlet.

aquatic ecosystems: an underwater community of plants and animals and their surroundings.

arid: excessively dry.

aspect: the direction a slope faces--a physiographic feature of steep slopes that influences plant growth and adaptation.

anti-vortex device: a device, usually a vertical or horizontal plane, carefully designed and placed at the entrance of a pipe to prevent the formation of a whirlpool in the water at the pipe entrance.

backfill: soil used to fill a trench or an excavation.

baseflow: The portion of water flow in a stream or gut that is due to groundwater seepage into the channel.

bearing capacity: the amount of force or pressure that a structure can withstand.

benthic community or organisms: organisms or a community of organisms that live on or in the bottom of a body of water.

berm: an earthen mound used to direct the flow of runoff around or through a structure; a shelf that breaks the continuity of a slope.

biochemical oxygen demand (BOD): the amount of oxygen used by microorganisms in water that is rich in organic matter (such as water polluted with sewage).

biodegradable: the ability to break down or decompose under natural conditions and processes.

buffer strip or zone: strips of grass or other erosion-resistant vegetation between a waterbody and an area of more intensive land use; a strip of vegetated land that separates a disturbed site from its surroundings.

channel: a natural stream that conveys water; a ditch or channel excavated for the flow of water.

chronic: long-term or recurring effects resulting from exposure to pollution or pollutants.

chute: a high velocity, open channel that conveys water to a lower level without erosion.

cluster development: the concentration of development or construction activities on a limited portion of a site, leaving the remaining portion undisturbed.

concentrated stormwater runoff: runoff collected from a large area that is diverted into a small space such as a drainage channel.

conduit: any channel or pipe for transporting the flow of water.

contamination: a state of being polluted or impure, used here to indicate chemical, sediment or bacteriological impurities in water.

contour: an imaginary line on the land connecting points of the same elevation; a line drawn on a map to show the location of points of the same elevation; a series of such contours serving to delineate the topography of the land.

contributing watershed: the area contributing stormwater runoff to a treatment practice such as a detention basin or infiltration trench.

conveyance: any natural or manmade channel or pipe in which concentrated water flows.

culvert: a covered channel or a large-diameter pipe that directs water flow below the ground level.

debris: broken remains of rocks, plants, and other objects that form trash or remains and are transportable by guts or floods.

denuded: land stripped of vegetation or land that has had vegetation worn down due to impacts from the elements or humans.

deposition: the accumulation of material dropped out of the transporting agent (water or wind) due to the slowing of the travel of that agent.

design storm: a rainfall event of specified size and return frequency (e.g., a storm that occurs only once every two years) that is used to calculate the runoff volume and peak discharge rate to a control practice.

detention: the temporary impoundment of runoff to minimize runoff speed and volume generated in a given time period and to settle and retain suspended solids and associated pollutants.

development: a tract of land with houses or a community built on it, or the process of building on a tract of land.

dike: an earthen ridge or embankment constructed to channel or confine stormwater.

discharge: a release or flow of stormwater or other substance from a conveyance or storage container (expressed as cubic feet per second, million gallons per day, gallons per minute, or cubic meters per second).

disturbed area: an area where the natural vegetative and soil cover has been removed or altered and is, therefore, susceptible to erosion.

diversion: a channel, with or without a supporting ridge on the lower side, constructed across or at the bottom of a slope to divert water runoff.

dripline: the outer limit of a tree's roots or branches.

embankment: a bank (of earth or riprap) used to keep back water.

emergent plant: an aquatic plant that is rooted in the sediment of a wetland but whose leaves are at or above the water surface. Such wetland plants provide habitat for wildlife and waterfowl in addition to removing stormwater pollutants.

erodibility: the susceptibility of a given soil to the erosive forces of wind and water.

erosion: the wearing away of the land surface by wind or water; erosion occurs naturally from weather or runoff but can be intensified by land-clearing practices related to farming, residential or commercial development, or road building.

erosion rate: the amount of soil eroded from a parcel per unit area (measured as tons/acre or kilograms/hectare).

eutrophication: the process by which a body of water becomes rich in dissolved nutrients (specifically nitrogen and phosphorus) promoting the overgrowth of aquatic vegetation leading to a subsequent deficiency in dissolved oxygen.

excavation: the process of removing earth, stone, or other materials.

exotic plants: plant species not native to the Virgin Islands.

fertilizer: materials such as nitrogen and phosphorus that provide nutrients for plants.

filter fabric: textile of relatively small mesh or pore size that is used to (a) allow water to pass through while keeping sediment out (permeable), or (b) prevent both runoff and sediment from passing through (impermeable).

filter strip: usually long, relatively narrow area of undisturbed or planted vegetation used to retard or collect sediment to protect water bodies and adjacent properties.

filtration: treatment of stormwater runoff with either vegetation or sand or gravel to filter (or strain) pollutants out of the water.

final stabilization: the point at which all soil disturbing activities at the site have been completed, and a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as retaining walls or gabions) have been used.

flood plain: nearly level land made up of sediment deposited by rivers and subject to flooding unless artificially protected.

forb: an herb other than grass.

Gabion basket/mattress: a galvanized-wire basket filled with stone used for structural purposes. When fastened together, they are used as retaining walls and for slope protection.

geotextiles: fabric-like materials made of natural or synthetic fibers used as blankets or ground coverings to prevent surface erosion.

grade/gradient: (n) 1. the slope of a road, channel, or natural ground. 2. the finished surface of a roadbed, top of embankment, or bottom of excavation; any surface prepared for the support of construction, such as paving or laying pipe. (v) 3. To finish the surface of a roadbed, top of embankment, or bottom of excavation.

grading: the cutting and/or filling of the land surface to a desired slope or elevation.

ground cover: plants that are low growing and provide a thick growth that protects the soil as well as providing some beautification of the area occupied by the plants.

gully erosion: the eroding of a miniature valley (or gully) with steep sides by running water. A gully is deep enough that it wouldn't be eliminated by normal tillage practices.

gut: a natural drainage channel, perennial or intermittent, similar to a perennial or intermittent stream, that conveys stormwater over the land surface to the sea.

hazardous substance: 1. any material that poses a threat to human health and/or the environment. Hazardous substances can be toxic, corrosive, ignitable, explosive, or chemically reactive. 2. any substance required by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or if otherwise emitted into the environment.

head: pressure; the height of water above any plane of reference; the difference in elevation between two points in a stream, gut, drainage way, or groundwater aquifer.

herbaceous: a plant that remains succulent and does not develop woody tissue.

humus: the fraction of the soil organic matter remaining after the decomposition of plant and animal materials -- usually of a dark color.

hydraulic impacts: impacts or effects on the flow of water through a channel, drainage ditch, gut or other structure.

hydrocarbons: chemicals or material derived from petroleum-based products, such as oil, grease, cleaning agents, and other chemicals.

hydrology: the natural water movement and cycling process of a given area.

hydroseeder: a machine that mixes water and various combinations of seed, fertilizer and mulch in a tank to form a slurry that is sprayed under high pressure over the area to be seeded.

impervious: surfaces or land forms that are unable to absorb water, causing the water to run over the surface.

infiltration: 1. the penetration of water through the ground surface into sub-surface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls.

infiltration rate: a soil characteristic describing the maximum rate at which water can enter the soil under specific conditions.

infrastructure: the installations and framework necessary for communities to function properly, including power and water lines, sewage system, roads, and stormwater drainage system.

inlet: an entrance into a ditch, storm sewer, basin, or other structure or waterbody.

invertebrate: an animal or organism that does not have a spinal column.

jute: a plant fiber used to make rope, mulch, netting, or matting.

landscape: the image or picture that the sum of the landforms, vegetation, water, and structures in a given area produces.

load: the forces that a structure is subjected to by a weight or mass (of earth or water) or to wind pressure on the vertical surfaces.

microclimate: the essentially uniform local climate of a small site or habitat (such as a rainforest, wetland, etc.).

microorganisms: an organism or animal that is of minute or microscopic size.

mulch: a natural or artificial layer of plant residue or other materials covering the land surface to conserve moisture, hold soils in place, aid in establishing plant cover, and minimize temperature fluctuations.

nonpoint source pollution: pollution that results from land runoff, drainage or seepage during and following a rainfall event. This type of pollution generally does not come from one particular source, or point (such as a pipe) but results from the action of rainfall running over and through the land picking up pollutants and carrying them to receiving waters.

nutrients: a substance that nourishes or promotes growth of a plant or animal (typical nutrients that can become pollutants are nitrogen and phosphorus).

oil and grease traps: devices that collect oil and grease, removing them from stormwater.

orifice: an opening in a pipe or structure through which water and associated substances passes.

organic pollutants: substances that contain carbon that can cause pollution problems in receiving waters.

outfall: the mouth of a channel, drain, sewer or other structure; the point, location, or structure where stormwater discharges from a pipe ditch, or the conveyance to a receiving water.

outlet: the point where stormwater runoff can be released into a gut, drainage channel, or other artificial drain of adequate capacity without causing scour or erosion.

pathogen: a harmful organism, such as a bacteria or virus.

peak runoff discharge: the maximum volume of water flowing out of a channel, structure or gut into any other receiving water or area.

permeability: the ability of a soil or other material (such as concrete or gravel) to transmit water through it.

pervious: permeable.

photodegradable: a product or object that can be broken down by the energy of sunlight.

plunge pool: a basin used to slow flowing water either at the inlet to or outlet from a control practice; the pool may be protected from erosion by various lining materials.

point source pollution: pollution that comes from a particular source or point (as in a stormwater drainage pipe, a sewage outfall pipe, or an industrial outfall pipe).

pollutant export: the transport of pollutants from one site to another, usually by stormwater runoff or groundwater flow.

porosity: the amount of space in a soil profile not occupied by soil particles or other material. Or the percentage of pore space in a material (soil or filter fabric) that can pass through air or water.

rainfall intensity: the amount of rainfall that falls in a given time period (as in inches per hour or centimeters per hour) that measure the amount of force or energy of the rain.

receiving waters: the waterbodies that stormwater runoff flows into, such as guts, salt ponds, bays, lagoons and other coastal areas.

retention: the holding of runoff in a basin without release except by evaporation, infiltration or emergency bypass.

rhizome: an underground, horizontal stem of a plant, by which that plant spreads across the land surface.

ripable rock: rock that is easily broken.

riser: a vertical water pipe.

runoff: the part of rainfall that runs off the land into guts or other surface waters. it can carry pollutants from the air and land into the receiving waters.

runoff velocity: the speed at which stormwater runoff flows (measured as cubic feet per second or cubic meters per second).

safety factor: the ratio of the ultimate load that a structure can withstand to the strength required to withstand a specific load. A safety factor is used to over-design a structure so that it will not fail even if loads somewhat exceed its design capacity.

scour: the clearing and digging action of flowing water, especially the downward erosion caused by running water in sweeping away mud and silt from the channel bed and outside bank of a curved channel.

sedimentation: the process by which sediment particles carried in stormwater runoff are deposited onto the land surface or into waterbodies and settling to the bottom of those waterbodies.

seep: a spot where water oozes slowly to the ground surface to form a wet area, pool or stream.

serration: notches dug into a slope or grade to lessen erosion. The profile of the grade should resemble the teeth of a saw.

setback: a strip of vegetated land that separates a disturbed site from its surroundings. The amount of space that must be left undisturbed between a construction activity and an adjacent feature (such as a roadway, gut, wetland, coastline, cistern, etc.).

shallow slope failure: landslide or slippage. the downward sliding or falling of either a dry or wet mass of earth, rock or a mixture of the two.

shrink-swell potential: susceptibility to volume change due to loss or gain in moisture content (usually refers to clay soils).

site fingerprinting: placing a development away from environmentally-sensitive areas and limiting ground disturbance to those areas where structures or roads will exist at the completion of construction.

slippage: landslide or shallow slope failure. the downward sliding or falling of either a dry or wet mass of earth, rock or a mixture of the two.

sloughing: the moving of unstabilized soil layers down a slope due to excess water in the soils.

soil: the consolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.

soil texture: the limits of the amounts of sand, silt and clay contained in a soil.

soil bioengineering: the combination of mechanical, biological and ecological concepts to stop and/or prevent landslides and erosion.

soluble pollutants: pollutants that dissolve in water or other liquids.

spillway: a passage for surplus water to run over or around an obstruction.

storm drain: a slotted opening leading to an underground pipe or an open ditch for carrying stormwater runoff.

stormwater runoff: the amount of rainwater not absorbed into the ground that runs over the land surface to receiving waters.

subsidence: a lowering of the land elevation caused by solution and collapse of underlying soluble deposits, settling of underlying soil materials, reduction of fluid pressures in a groundwater aquifer, or decomposition of organic soils.

subsoil: the bed or layer of earth lying below the surface soil.

sump: a pit or tank that catches liquid runoff for drainage or disposal.

surface water: all water naturally open to the atmosphere (streams, guts, ponds, estuaries, bays, etc.).

suspended sediment: soil or sediment particles suspended in stormwater runoff or in the waters of a gut, pond, estuary, bay or other waterbody.

swale: a grassed or otherwise stabilized ditch designed to carry stormwater runoff away from a site.

tarp: a sheet of waterproof canvas or other material used to cover and protect materials, equipment or vehicles.

terrestrial: living on or in or growing from land. of or relating to land.

toe (of slope): where the slope stops or levels out; the bottom of a slope.

topography: the physical features of a surface area including its relief (or slope), relative elevations, and the position of natural and manmade features.

trash rack: a grill, grate or other device at the intake of a channel, pipe, drain or spillway that prevents oversize debris from entering the structure.

turbidity: the cloudiness of water used as a measure of the amount of particles (suspended sediment and other particles) in that waterbody.

urbanization: the conversion of rural areas or open spaces to suburban, commercial, industrial or urban land uses.

visual resource: the appearance of a landscape.

visual resource quality: how appealing a given landscape is to an observer.

waterbody: any body of water on the surface of the earth: gut, stream, pond, bay, lagoon, ocean, etc.

watershed: the area of land that drains water, sediment, and dissolved materials to a common outlet along the coastline (bay, lagoon, salt pond, or other coastal area).

watershed management plan: a comprehensive approach or plan to address the needs of a watershed, including land use; stormwater runoff, erosion, and sediment control practices; pollutant reduction strategies; and pollution prevention techniques.

wetland: an area or parcel of land that possesses three essential characteristics: (1) hydrophytic vegetation--plant life that grows in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; (2) hydric soils--soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper layer; and (3) wetland hydrology--permanent or periodic inundation, or soil saturation to the surface, at least seasonally. The presence of water for a week or more during the growing season. examples include: swamps, bogs, fens, marshes, mangrove lagoons, and estuaries.

xeriscaping: a landscaping method that maximizes water conservation by using drought-tolerant native plant species.