

## Glossary of Terms Used

4(d) Rule	In the federal Endangered Species Act, the protective rule promulgated by the lead federal agency at the time it makes a final decision to list a species as threatened. The 4(d) Rule can be a restatement of Section 9(a) prohibitions on take of a species, but also can specify activities which have been determined to be adequately regulated and given legal coverage for the (incidental take) of the listed species. (Draft Tri-County 4(d) Rule Proposal 5-2002)
100-Year Flood, a.k.a. Base Flood	The flood having a one-percent chance of being equaled or exceeded in any given year (PCC 18E.10.050.K)
A-Zone	The areas inundated by the 100-year flood. (Draft Definitions from Proposed PCC Title 18 ESA Amendments)
Abutting	Bordering upon, to touch upon, in physical contact with. Sites are considered abutting even though the area of contact may be only a point. (PCC 18E.10.050.K)
Action Area	The area of potential impacts to be discussed in a habitat evaluation study. The action area is usually larger than the project area or project vicinity (i.e., the river upstream & downstream from a bridge project, waterbodies receiving stormwater) and includes both direct and indirect impacts. (Draft Definitions from Proposed PCC Title 18 ESA Amendments)
Activity Center (Urban)	An area, which has at its focus a recreational, cultural, or educational activity, around which develops a concentration of commercial, office or residential development. The attraction draws people from throughout the area, not just surrounding neighborhoods or the community in which the activity is located. Encourage uses are retail trade, service, finance, insurance, real estate and multifamily developments that support, or is mutually beneficial to, the recreational, cultural, and educational attractions of the center. Community facilities are also encouraged to locate in Activity Centers. Discouraged are detached single-family residential uses, auto-oriented commercial development, and industrial, manufacturing or commercial development that is land intensive and employs a low number of employees per acre. (PCC Title 19, Comprehensive Plan for Pierce County Washington, Appendix A, Glossary)
Adaptive Management	Designing, monitoring and assessing progress toward meeting objectives and incorporating what is learned into future management decisions (from D. Renstrom)
	A process to evaluate plans, strategies or implementation actions to determine their effectiveness and then adapting the governing framework as new information or science becomes available. Adaptive management may involve reallocating funding sources, amending plans and regulations, or changing administrative processes. (Draft Definitions from Proposed PCC Title 18 ESA Amendments)
Adequate Public Facilities	Facilities that have the capacity to serve development without decreasing levels of service below locally established minimums. (WAC 365-195-210)
Adverse Stormwater Impacts	The negative effect of stormwater on the integrity of the natural aquatic ecosystem, generally due to increasing stormwater volume, concentrating runoff and otherwise altering hydrology, or the spatial and/or temporal distribution of salmon habitats, flow rate or pollutant discharge. (Draft TriCounty 4(d) Stormwater Proposal Glossary)
Aggradation	A process in which the rate of sediment deposition exceeds that of erosion and creates a persistent, long-term rise in the elevation of a streambed (Draft Clover Creek Basin Characterization Report 5/2002)
Agricultural Land	Land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, or livestock and that has long-

	term commercial significance for agricultural production(RCW 36.70A.030), including poultry raising, horse farms and ranches. (Draft Definitions from Proposed PCC Title 18 ESA Amendments)
Alluvial Geologic Unit	A geologically recent stream, lake, swamp, and beach deposits of gravel, sand, silt, and peat (PCC 18E.10.050,E)
Alternative	In the context of this document, one of a number of possible options for consideration to be used as a land treatment measure (Draft Clover Creek Basin Characterization Report 5/2002) Marsha's note: Alternatives are not just land treatment measures. We might leave this word out and rely on the common definition. SEPA defines "reasonable alternatives" as "an action that could feasibly attain or approximate a proposal's objectives. . . . Because we are responsible for analyzing the significant adverse effects of our reasonable alternatives, to provide an environmental basis for comparison, we should keep this in mind.
Ammonia-N	Ammonia-N is a reduced form of Nitrogen that is toxic to aquatic life at higher concentrations. It is typically found in waters that are contaminated with human or animal waste. It can also contribute to depletion of dissolved oxygen in surface waters. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Anadromous Fish	Fish that hatch in fresh water, migrate to the ocean, mature there, and return to fresh water to reproduce; for example, salmon and steelhead (Draft Clover Creek Basin Characterization Report 5/2002)
Aquatic	Pertaining to water (Draft Clover Creek Basin Characterization Report 5/2002)
Aquatic Ecosystem	A natural system based on a body of water (such as a stream, lake or estuary) with its aquatic organisms and non-living components (Draft Clover Creek Basin Characterization Report 5/2002)
Aquifer	Rock or rock formations (often sand, gravel, sandstone, or limestone) that contain or carry groundwater and act as water reservoirs (Draft Clover Creek Basin Characterization Report 5/2002)
Area of Shallow Flooding	A designated "AO" or "AH" zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. "AO" is characterized as sheet flow and "AH" indicates ponding. (PCC 17A.10.060 & Draft Definitions for PCC Title 18, 1-2002)
Assessment	The collection, integration, examination, and evaluation of information and values (Draft Clover Creek Basin Characterization Report 5/2002)
Associated Wetland	A wetland either (1) wholly or partially contained within the shore migration zone or channel migration zone, or (2) hydrologically connected to a Natural Water by a surface water connection or contiguous hydric soil. (Draft Definitions for PCC Title 18, 1-2002)
B-Zone	Certain areas subject to the "base flood" with contributing drainage areas of more than 100 acres and less than one square mile and all pothole areas (PCC 17A.10.060,F & Definitions for PCC Title 18, 1-2002)
Background Load	Naturally occurring levels of pollutants in a stream prior to watershed development (1991 Storm Drainage & Surface Water Management Plan)
Bankfull Discharge	Sometimes referred to as the effective flow or ordinary high water flow; it is the channel-forming flow. For most streams, the bankfull discharge is the flow that has a recurrence interval of approximately 1.5 years. Most bankfull discharges have a recurrence range between 1.3 and 1.8 years. In some areas it could be lower or higher than this range. Bankfull discharge is the flow that transports the most sediment for the least amount of energy. (Draft Clover Creek Basin Characterization Report 5/2002)
Base Flood	Flood that has a 1-percent probability of being equaled or exceeded in any given year (Draft Clover Creek Basin Characterization Report 5/2002)

	The flood having a one percent chance of being equaled or exceeded in any given year, also referred to as the “100-year flood” (PCC 18E.10.050,K) <u>The base flood surface water elevation shall be measured in feet above mean sea level and referenced to the National Geodetic Vertical Datum of 1929 (or the most current vertical datum accepted by Pierce County.</u> (PCC 17A.10.060,F with Proposed Definitions for PCC Title 18, 1-2002)
Base Flood Elevation (BFE)	Water surface elevation of the base flood (100-year flood); the elevation which is the basis of the insurance and floodplain management requirements of the National Flood Insurance Program. (Draft Clover Creek Basin Characterization Report 5/2002)
Base Flow	The portion of the stream flow that is not due to storm runoff and is supported by groundwater seepage into a channel (1991 Storm Drainage & Surface Water Management Plan)
Bed Load	The sediment in a stream channel that mainly moves by jumping, sliding or rolling on or very near the bottom (1991 Storm Drainage & Surface Water Management Plan)
Bed Material	The material of which a streambed is composed (Draft Clover Creek Basin Characterization Report 5/2002)
Benthic Organisms	Organisms living in or on bottom substrates in aquatic habitats (1991 Storm Drainage & Surface Water Management Plan)
Best Management Plan	A plan developed for a property that specifies best management practices <u>to ensure the minimization of impacts to the environment, including for</u> the control of animal wastes, stormwater runoff, and erosion (18E10.050, L with Amendments in Proposed Definitions for PCC Title 18, 1-2002 )
Best Management Practices (BMPs)	Schedules of activities, prohibitions of practices, capital improvements, maintenance procedures and other management practices to prevent or reduce the pollution of the waters of the United States. BMPs also include, but are not limited to treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or wastewater disposal, or drainage from raw material sludge. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Best Practicable Alternative	Alternative most closely achieving the desired result and capable of being effected, done, or executed in a feasible, reasonable manner (Draft Tri-County 4(d) Rule Proposal 5-2002)
Biochemical Oxygen Demand (BOD)	The quantity of oxygen consumed during the biochemical oxidation of matter over a specified period of time. See also Chemical Oxygen Demand. (1991 Storm Drainage & Surface Water Management Plan)
Buffer	"Buffer" means a tract or strip of land that separates one type, category or use of land from another. Buffers typically serve to provide a defined area between a more intensive use of land and a land use that is less intensive. Buffers are typically referenced by the associated critical area such as wetland buffer, riparian buffer, etc. (Draft Definitions for PCC Title 18, 1-2002)
Capital Improvement Project (CIP)	A project funded by the Pierce County Surface Water Management Utility intended to improve the drainage system, the performance of that system, and/or reduce site specific or cumulative adverse stormwater impacts (Draft Tri-County 4(d) Stormwater Proposal 5/2002)
Carrying Capacity	The level of development density or use an environment is able to support without suffering undesirable or irreversible degradation (PCC Title 19, Appendix A)
Channel	The topographic feature that carries, or is capable of carrying, surface water (Draft Definitions for PCC Title 18, 1-2002)
Channel Complexity	Channel complexity describes salmon habitat. A complex channel contains a mixture of habitat types that provide areas with different velocity and depth for use by different salmon life stages. In contrast, a simple channel contains more uniform flow and few habitat types. (from D. Renstrom)

Channel Confinement	Lateral constriction of a stream channel (Draft Clover Creek Basin Characterization Report 5/2002)
Channel Erosion	The widening, deepening and headward cutting of small channels and waterways due to erosion caused by moderate to large floods (1991 Storm Drainage & Surface Water Management Plan)
Channel Migration Zone (CMZ)	<u>The lateral extent of likely movement along a watercourse with evidence of active channel movement. Channel migration commonly occurs due to bank destabilization, rapid incision, and bank erosion.</u> (Draft Definitions for PCC Title 18, 1-2002)
Channelization	<u>The straightening, deepening, or widening of a stream channel for the purpose of increasing the stream's carrying capacity</u> (Draft Definitions for PCC Title 18, 1-2002)
Char	Char are close relatives to trout and salmon. Bull trout are a species of char. (from D. Renstrom)
Check Valve	Valve that allow water to flow in one direction but automatically closes when the direction of flow is reversed (Draft Clover Creek Basin Characterization Report 5/2002)
Chemical Oxygen Demand (COD)	A monitoring test that measures all the oxidizable matter found in a runoff sample, a portion of which could deplete oxygen in receiving waters (1991 Storm Drainage & Surface Water Management Plan)
Clay Lens	A naturally occurring, localized area of clay that acts as an impermeable layer to runoff infiltration (1991 Storm Drainage & Surface Water Management Plan)
Clearing	1. The act of destroying or removing vegetation by any means, including chemical, mechanical, or by hand. 2. The cutting, killing, grubbing or removing of vegetation or other organic plant material by physical, mechanical, chemical or any other similar means. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Closure	Shield made of strong material, such as metal or wood, used to temporarily close openings in levees, floodwalls, and dry flood proofed buildings (Draft Clover Creek Basin Characterization Report 5/2002)
Compensatory Mitigation	Mitigation to compensate for loss of wetland <u>function or value</u> due to filling of wetlands or other regulated activities in wetlands. (PCC 18E.10.050,T with Proposed Amendments for PCC Title 18, 1-2002)
Concurrency	<u>Having adequate public facilities, improvements or strategies in place at the time of development, which achieve the established minimum level(s) of service</u> (PCC Title 19, Appendix A with Edits Proposed by Marsh)
Connectivity	The physical connection among and between tributaries and a river, between surface water and groundwater, and between wetlands and these water sources (from D. Renstrom)
Conservation	Includes protection, maintenance and restoration of habitat characteristics to support the species of interest (from D. Renstrom)
Conservation Easement	<u>A recorded deed restriction, or covenant, that runs in perpetuity on a parcel of land restricting the use of the property by preventing future real estate development such as residential, industrial, or commercial use. The conservation easement may allow continued current uses, including for example, residential, recreational, agriculture, forestry, or ranching, however the easement most often restricts both the current use as well as future uses of the land to some important conservation quality such as habitat preservation, open space or scenic views. Conservation easements are typically held by a Land Trust or governmental entity that manage these properties for long-term goals.</u> (Draft Definitions for PCC Title 18 Amendment)
Consistency	No feature of a plan or regulation in incompatible with any other feature of a plan or regulation (WAC 365-195-210)
Constructed Wetlands	Wetlands that are intentionally created on sites that are not wetlands for the

	primary purpose of wastewater or stormwater treatment. Constructed wetlands are normally considered as part of the stormwater/wastewater collection and treatment system and must be maintained. (These wetlands are not the same as wetlands created for mitigation purposes, which are typically viewed in the same manner as natural, regulated wetlands.) (Draft Definitions from Proposed PCC Title 18 ESA Amendments)
Contaminant	Any chemical, physical, biological, or radiological substance that does not occur naturally or occurs at concentrations and duration as to be injurious to human health or welfare or shown to be ecologically damaging (PCC 18E.10.050,U)
Conveyance Capacity	A term generally referring to the maximum capability of the physical drainage system to safely transport water (from a hydraulic perspective) (Draft Tri-County 4(d) Rule Proposal 5-2002)
Corridor (Landscape)	Landscape elements that connect similar patches of habitat through an area with different characteristics; for example, streamside vegetation may create a corridor of willows and hardwoods between meadows or through a forest. (Draft Clover Creek Basin Characterization Report 5/2002)
Critical Areas	Wetlands, flood hazard areas, fish and wildlife habitat areas, aquifer recharge areas, and geologically hazardous areas (PCC 18E.10.050,W)
Dead Storage	The portion of a pond or infiltration BMP which is below the elevation of the lowest outlet of the structure (1991 Storm Drainage & Surface Water Management Plan)
Degradation	The lowering of the streambed or widening of the stream channel by erosion. The breakdown and removal of soil, rock and organic debris. (from D. Renstrom)
Design Capacity	Volume of water that a channel, pipe, or other drainage lines is designed to convey (Draft Clover Creek Basin Characterization Report 5/2002)
Detention	Temporary storage of surface runoff either on, below or above the ground surface accompanied by controlled release of the stored water (1991 Storm Drainage & Surface Water Management Plan)
Developed Site	A site in which the land cover has been converted or substantially altered (through the addition of impervious surface and/or clearing and grading activities) from its original natural condition (Draft Tri-County 4(d) Rule Proposal 5-2002)
Development	Any land altering activity creating impervious surfaces or otherwise modifying site hydrologic response, generally requiring a permit or approval. . . . (Draft Tri-County 4(d) Rule Proposal 5-2002)
Development Regulations	Any controls placed on development or land use activities by a county or city, including, but not limited to, zoning ordinances, subdivision ordinances, and binding site plan ordinances (RCW 36.70.030)
Direct Stormwater Conveyance Connections	[Marsha note: This term was in one of the draft basin plans. I don't remember which one. I have not found a definition. Either the term should be defined or another way of expressing the idea should be found.]
Dissolved Oxygen (DO)	DO is oxygen that is freely available in water. Adequate DO is necessary for the life of fish and other aquatic organisms. (Washington State Section 303(b) Report, 9-2001)
Disturbance	Events that affect landscapes, from regions (and watersheds) to sites. They include floods, wildfires, landslides and volcanoes. They may vary in intensity from small-scale to catastrophic and in frequency from a few years to many decades or hundreds of years. Natural disturbance regime is the regime that occurred historically. (from D. Renstrom)
Dry Flood Proofing	Protecting a building by sealing its exterior walls to prevent the entry of floodwaters (Draft Clover Creek Basin Characterization Report 5/2002)
Dry Well	An open cell (usually cylindrical) formed below the ground surface surrounded by and having a bed of granular material for infiltration and disposal of

	collected runoff into the ground (1991 Storm Drainage & Surface Water Management Plan)
Duration Control Standard	A flow control facility design standard which seeks to match the discharge durations for peak discharge rates ranging from 50% of the 2-year rate to 100% of the 50-year rate for the site condition that existed prior to any development in the Puget Sound region. . . (Draft Tri-County 4(d) Rule Proposal 5-2002)
Ecosystem	A community of living organisms interacting with each other and their physical environment (a stream ecosystem, for instance) (Draft Tri-County 4(d) Rule Proposal 5-2002)
Ecosystem Diagnosis & Treatment (EDT)	A method that uses a “rule-based” system that focuses on habitat as the unit of analysis and estimates salmon performance by using an analytical model that predicts the numbers of fish supported by the habitat over the salmon’s life history. It is an “expert system” that captures the state of existing knowledge including areas of incomplete or missing data. (from D. Renstrom)
Ecosystem Management	Management that integrates ecological relationships with sociopolitical values toward the general goal of protecting or returning ecosystem integrity over the long term (from D. Renstrom citing WRIA 10 LFA)
Effective Impervious Surface	Any impervious surface that is connected or has the effect of being connected directly to the downstream drainage system (Draft Tri-County 4(d) Rule Proposal 5-2002)
Effectiveness Monitoring	The evaluation of whether an action achieved the desired effect. For example, in a sediment reduction project, effectiveness monitoring would determine whether sediment supply was actually reduced. (from D. Renstrom)
Erosion	"Erosion" means the wearing away of the earth's surface as a result of the movement of wind, water, or ice. (Pierce County Code)
Estuarine	A partly enclosed coastal body of water that has free connection to open sea and within which seawater is measurably diluted by fresh river water (from D. Renstrom)
Elevation	In retrofitting, the process of raising a house or other building so that it is above the height of a given flood (Draft Clover Creek Basin Characterization Report 5/2002)
Eutrophication	The process of over-enrichment of water bodies by nutrients often typified by the presence of algal blooms (1991 Storm Drainage & Surface Water Management Plan)
Fecal Coliform	Organisms common to the intestinal tract of man and of animals that are used as an indirect indicator of the presence of other disease-causing bacteria in water. The presence of pathogen indicators, including such bacteria as fecal coliform and e-coli, can affect drinking water use, curtail shellfish harvesting, and restrict recreational use. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Federal Emergency Management Agency (FEMA)	Independent agency created in 1978 to provide a single point of accountability for all federal activities related to disaster mitigation and emergency preparedness, response and recovery (Draft Clover Creek Basin Characterization Report 5/2002)
Federal Insurance Administration (FIA)	A division of FEMA directly responsible for administering the flood insurance aspects of the National Flood Insurance Program (Draft Clover Creek Basin Characterization Report 5/2002)
Fill	(1) Earth, sand, gravel, rock, asphalt, or other solid material used to increase the ground surface elevation or to replace excavated material (2) A deposit of any rock; natural soil; organic material; recycled or waste materials made of non-noxious, nonflammable, noncombustible and non-putrescible solids; or any combination thereof placed by mechanical means (Draft Tri-County 4(d) Rule Proposal 5-2002)
Filling	Any act by which earth, sand, gravel, rock, asphalt, or other solid material is deposited or placed to raise the ground elevation or to replace excavated

	material (Draft Tri-County 4(d) Rule Proposal 5-2002)
Fine Sediment	Sediment is typically fine particles of soil carried in suspension by flowing water that ultimately settles to the bottom. Sediment is usually caused by erosion and can impair fish spawning areas. (Glossary of Parameters Washington State Section 303(b) Report, 9-2001)
Fish & Wildlife Habitat Areas	The areas identified as being of critical importance to maintenance of fish, wildlife, and plant species, including: areas with which endangered, threatened, and sensitive species have a primary association; habitats and species of local importance; commercial and recreational shellfish areas; kelp and eelgrass beds, herring and smelt spawning areas; naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat; waters of the state; lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity, or private organization; state natural area preserves and natural resource conservation areas. (Pierce County Code)
Fishway	A passageway, often an ascending series of pools, designed to permit passage of salmon over dams, diversions or other obstructions (from D. Renstrom)
Flood Control	Physically controlling a river or stream by structural means such as dikes and levees, which separate people and property from damaging floodwater (Draft Clover Creek Basin Characterization Report 5/2002)
	Preventing the entry of stormwater into an area from another area, or from a stream or other water body (1991 Storm Drainage & Surface Water Management Plan)
Flood Depth	Height of flood waters above the surface of the ground at a given point (Draft Clover Creek Basin Characterization Report 5/2002)
Flood Duration	Amount of time between the initial rise of floodwaters, including freeboard and their recession (Draft Clover Creek Basin Characterization Report 5/2002)
Flood Elevation	Height of flood waters above an elevation datum plane (Draft Clover Creek Basin Characterization Report 5/2002)
Flood Frequency	Probability expressed as a percentage, that a flood of a given size would be equaled or exceeded in any given year. The 100-year flood has a 1-percent probability (1 in 100) of being equaled or exceeded in any given year. Floods that have a 2-percent probability (1 in 50) of being equaled or exceeded within one year are known as 50-year floods. Floods that have a 0.2 percent probability (1 in 500) of being equaled or exceeded within one year are referred to as 500-year floods (Draft Clover Creek Basin Characterization Report 5/2002)
Flood Hazard Management	A comprehensive approach to flood control issues that encompasses both flood control management and floodplain management and uses both structural and nonstructural methods of reducing flood hazards. Flood hazard management is not limited to areas within the floodplain but can extend to the entire watershed. Stormwater management is also included because the control of the quantity and quality (sediment load) of stormwater runoff into streams and rivers can have significant impacts on stream and river flooding. (Draft Clover Creek Basin Characterization Report 5/2002)
Flood Insurance Rate Map (FIRM)	<u>"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to Pierce County.</u> (Draft Definitions for PCC Title 18, 1-2002)
Flood Velocity	The speed at which water moves during a flood. Velocities usually vary across the floodplain. They are usually greatest near the channel and lowest near the edges of the floodplain. (Draft Clover Creek Basin Characterization Report 5/2002)
Flooding or Erosion Impacts	Impacts such as flooding of septic systems, crawl spaces, living areas, outbuildings, etc.; increased ice or algal growth on sidewalks/roadways; earth

	movement/settlement; increased landslide potential; erosion and other potential damage (Draft Tri-County 4(d) Rule Proposal 5-2002)
Floodplain	The land area along the sides of a river that becomes inundated with water during a flood. Floodplains are often defined by the level of intensity of the flood. The 100-year floodplain, for example, is the area likely to be inundated once, on average every 100 years, based on hydraulic modeling. (Draft Clover Creek Basin Characterization Report 5/2002)
Floodplain Management	Management of areas within the floodplain, which includes resource protection, environmental enhancement, flood damage protection and land use regulations (Draft Clover Creek Basin Characterization Report 5/2002)
Floodprone Area	Generally includes the active floodplain and the low terrace. The elevation of the floodprone area is qualitatively defined as 2 times the bankfull depth. (Draft Clover Creek Basin Characterization Report 5/2002)
Floodproofing	Structural and nonstructural changes or adjustments included in the design, construction, and alteration of a building that reduce damage to the building and its contents from flooding and erosion. See “Dry Flood Proofing” and “Wet proofing.” (Draft Clover Creek Basin Characterization Report 5/2002)
Floodwall	A flood barrier constructed of manmade materials, such as concrete or masonry (Draft Clover Creek Basin Characterization Report 5/2002)
Floodway	"Floodway" means the channel of a river, marine water, or other watercourse, and the adjacent land areas that must be reserved in order to convey and discharge the base flood without cumulatively increasing the water surface elevation by more than one foot, and those areas designated as deep and/or fast-flowing water. The floodway is the portion of the regulatory floodplain that must be kept free of development so that flood elevations will not increase beyond a set limit, a maximum of 1 foot under the National Flood Insurance Program (NFIP). The floodway usually consists of the stream channel and land along its sides. (Draft Clover Creek Basin Characterization Report 5/2002)
Freeboard	Additional height above the base flood elevation incorporated into facilities in flood areas to account for uncertainties in the determination of flood elevations. (Draft Clover Creek Basin Characterization Report 5/2002)
Geographic Information System (GIS)	An information processing technology to enter, store, manipulate, analyze, and display data; a system of computer maps with corresponding site-specific information that can be combined electronically to provide reports and maps (Draft Clover Creek Basin Characterization Report 5/2002)
Geologic & Geomorphic Processes	The actions or events that shape and control the distribution of materials, their states and their morphology within the interior and on the surface of the earth (Draft Clover Creek Basin Characterization Report 5/2002)
Geomorphology	The geologic study of the shape and evolution of the earth's landforms (Draft Clover Creek Basin Characterization Report 5/2002)
Glacial Till	Mixed rock and clay, sand, gravel and boulders transported and deposited by glaciers (Draft Clover Creek Basin Characterization Report 5/2002)
Gradient (of stream)	Degree of inclination of a stream channel parallel to stream flow; it may be represented as a ratio, fraction, percentage or angle. (Draft Clover Creek Basin Characterization Report 5/2002)
Greenbelt	"Greenbelt" means a linear corridor of open space which often provides passive recreational and non-motorized transportation opportunities, serves as a buffer between developments and varying land uses, or creates a sense of visual relief from dense urban landscapes. (Pierce County Code)
Groundwater	All water found beneath the ground surface, including slowly-moving subsurface water present in aquifers and recharge areas. (Pierce County Code)
Groundwater Flooding	<u>The occurrence of surface and subsurface water resulting in flood inundation, due to the fluctuation of the water table. It encompasses depth, frequency, and duration and is usually seasonal by characteristic.</u> (Draft Definitions for PCC Title 18, 1-2002)

Habitat	"Habitat" means the sum total of all the environmental factors of a specific place that is occupied by an organism, a population or a community. (Pierce County Code)
Habitat Capacity	The maximum average number or biomass of salmon that can be sustained in a habitat over the long term (from D. Renstrom)
Habitat Protection	Preservation of ecosystems with relatively natural habitat conditions by preventing future impacts from unnatural disturbance and maintaining natural landscape processes and functions (from D. Renstrom)
Habitat Preservation	Conservation of existing habitat, generally through acquisition of existing habitat (adapted from definition provided by D. Renstrom)
Hazard Mitigation	Action taken to reduce or eliminate long-term risk to people and property from hazards such as floods, earthquakes and fires (Draft Clover Creek Basin Characterization Report 5/2002)
Headcut	A stream segment that is actively incising and shows an evident, abrupt change in bed elevation and/or the bank-height ratio. The upstream end of the headcut is the "nick-Point", which could be a permanent structure such as bedrock or a culvert, or could be temporary such as an embedded logjam. (Draft Clover Creek Basin Characterization Report 5/2002)
Hydrodynamic Force	Force exerted by moving water (Draft Clover Creek Basin Characterization Report 5/2002)
Hydrograph	A graph showing variation in the water depth or discharge in a stream or channel, over time, at a specified point of interest (1991 Storm Drainage & Surface Water Management Plan)
Hydrologically Isolated Wetland	"Hydrologically isolated wetland" means a wetland which: (1) Is not contiguous to any 100-year floodplain of any water type a lake, river, or stream; and (2) Has no contiguous surface hydrology, hydric soil, or hydrophytic vegetation between the wetland and any other wetland or stream system. (Draft Definitions for PCC Title 18, 1-2002)
Hydrostatic Force	Force exerted by water at rest, including lateral pressure on walls and uplift (buoyancy) on floors (Draft Clover Creek Basin Characterization Report 5/2002)
Hyporheic Zone	<u>The region beneath the streambed and floodplain where ground water interacts and mixes with surface water generally associated with streams. These zones support a complex microfaunal community and are important to fish spawning success. Water in the hyporheic fluctuates between the stream channel and subsurface and, unless detailed studies have been conducted, shall be defined as: all lands within the 100 year flood plain and all lands perpendicular from the stream that are at or below the bankfull elevation of the stream.</u> (Draft Definitions for PCC Title 18, 1-2002)
Impervious Surface	A hard surface, which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development, and/or a hard surface area, which causes water to run off the surface in greater quantities or at an increased rate of flow than the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, gravel parking lots, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Incised Channel	A stream channel in which the bed has dropped and as a result, the stream is disconnected from its floodplain (Draft Clover Creek Basin Characterization Report 5/2002)
Infiltration	The downward movement of water from the surface to the subsoil. The infiltration capacity is expressed in terms of inches per hour (1991 Storm Drainage & Surface Water Management Plan)
Instream Detention	Temporary storage of runoff within a principal drainage system; i.e., in

	receiving streams or conduits (1991 Storm Drainage & Surface Water Management Plan)
Instream Flow	Instream flow is the amount of water in a stream required to support or protect existing uses of fish and fish habitat. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Interception	Rainfall that is caught by foliage, branches, leaves and other above ground objects (1991 Storm Drainage & Surface Water Management Plan)
Lag	The time interval from the center of the mass of excess rainfall to the peak rate of runoff (1991 Storm Drainage & Surface Water Management Plan)
Landscape	All the natural features such as grasslands, hills, forest and water, which distinguish one part of the earth's surface from another part; usually that portion of land that the eye can comprehend in a single view, including all its natural characteristics (Draft Clover Creek Basin Characterization Report 5/2002)
Large woody debris (LWD)	Any piece of woody material 12 inches or larger in diameter that intrudes into a stream channel or nearby (e.g., logs, stumps or root wads) and that functions to form pools, regulate sediments, disperse stream energy, create channel complexity, stabilize channels, provide instream organic matter, and provide cover for fish. (from D. Renstrom, citing JNRC, 2001 Guidance on Watershed Assessment for Salmon)
Levee	Flood barrier constructed of compacted soil (Draft Clover Creek Basin Characterization Report 5/2002) A broad embankment of earth built parallel with the river channel to contain overbank flow. (Pierce County Code)
Level-Spreader	A device used to spread out stormwater runoff uniformly over the ground surface as sheet flow (i.e., not through channels). The purpose of level spreader are to prevent concentrated, erosive flows from occurring, and to enhance infiltration. (1991 Storm Drainage & Surface Water Management Plan)
Limiting Factors	Conditions that limit the ability of habitat to fully sustain populations of salmon (from D. Renstrom, citing the Washington State Salmon Recovery Act)
Live Storage	<u>The amount of storage in a watercourse and/or water body that is intended to completely drain after a storm event.</u> (Draft Definitions for PCC Title 18, 1-2002)
Low Impact Development	The use of designs which incorporate low impact BMPs into site development with the goal of alleviating both specific and cumulative hydrologic impacts from changes in land use (Draft Tri-County 4(d) Rule Proposal 5-2002)
Low-Impact Development BMPs	A category of BMPs designed to incorporate open space preservation techniques, such as cluster residential developments or rooftop runoff management, foundation design, vegetation enhancement, etc., that reduce hydrological impacts of development, as compared to more traditional practices (Draft Tri-County 4(d) Rule Proposal 5-2002)
Lowest Adjacent Grade (LAG)	Elevation of the lowest ground surface that touches any of the exterior walls of a building (Draft Clover Creek Basin Characterization Report 5/2002)
Lowest Floor	Floor of the lowest enclosed area within the building, including the basement (Draft Clover Creek Basin Characterization Report 5/2002)
Masonry Veneer	Nonstructural, decorative, exterior layer of brick, stone or concrete block added to the walls of a building (Draft Clover Creek Basin Characterization Report 5/2002)
Mass Wasting	Down-slope transport of soil and rocks due to gravitational stress (from D. Renstrom)
Meander Pattern	A series of sinuous curves or loops in the course of a stream that are produced as a stream swings from side to side in flowing across its floodplain (Draft Clover Creek Basin Characterization Report 5/2002)

Metals	Metals can cause human health concerns when contaminated water and/or contaminated aquatic organisms are ingested. They can accumulate in the environment, can be highly toxic if breathed or swallowed, and can damage living organisms at low concentrations. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Minimum Threshold	Generally used in reference to the point at which a development is considered to have an adverse impact. The minimum threshold triggers mitigation action. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Minor Drainage System	The convenience drainage system consisting of street gutters, storm sewer, small open channels, and swales, etc. (1991 Storm Drainage & Surface Water Management Plan)
Mitigation	<ol style="list-style-type: none"> <li>(1) Avoiding the impact altogether by not taking a certain action or parts of an action;</li> <li>(2) Minimizing impacts by limiting the degree of magnitude of the action and its implementation;</li> <li>(3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;</li> <li>(4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or</li> <li>(5) Compensating for the impact by replacing or providing substitute resources or environments. (Draft Tri-County 4(d) Rule Proposal 5-2002)</li> </ol>
Model	Models are conceptual and mathematical descriptions or analogies used to help visualize something that cannot be directly observed. Models provide frameworks that organize concepts, data and information into a system of inferences that can be presented as mathematical descriptions of situations or state of affairs. (from D. Renstrom)
NMFS	National Marine Fisheries Service
Native	Occurring naturally in a habitat or region; not introduced by humans (from D. Renstrom)
Native Species	Species that normally live and thrive in a particular ecosystem (Draft Clover Creek Basin Characterization Report 5/2002)
Off-Channel Habitat	Ponds, oxbows, sloughs and other backwater areas with cover that provide high-quality rearing habitat for juvenile salmon (from D. Renstrom)
On-Site Detention	Temporary storage of runoff on the same land development site where the runoff is generate, frequently as a condition for subdivision plat approval (1991 Storm Drainage & Surface Water Management Plan)
Open Space	<u>A landscape which is primarily unimproved. Open space areas may include: critical areas, wooded areas, and parks, trails, privately owned natural reserves, abandoned railroad lines, utility corridors, and other vacant rights-of-way. Permanent dedications, designation, or reservation of open space for public or private use may occur in accordance with Comprehensive Plan policies. Open space may include Natural Open Space, Natural Buffer Areas, Buffers, and Screening.</u> (Draft Definitions for PCC Title 18, 1-2002)
Organics	Organics is a collective term for any number of carbon-based substances that are toxic to aquatic life or can accumulate in fish tissue to levels that are unsafe for human consumption. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
pH	pH is a measure of the intensity of the acidic or basic character of water. pH is an important factor in the chemical and biological system of water. If these systems are unbalanced and the resulting pH is high or low, it can kill fish and other organisms. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Passive Recreation	An outdoor leisure time activity which usually occurs in a setting that has been preserved, as nearly as possible, in the original or natural condition. Passive recreation may occur in common open lawn areas and, where determined

	appropriate, critical area buffers, aquifer recharge, and flood water storage areas. Activities may include: picnicking, sight-seeing, walking, hiking, biking, horseback riding, and nature walks. Accessory structures associated with passive recreation include: playground equipment, picnic shelters and tables, barbecue pits, exercise stations, restroom facilities, benches, directory signs, garbage containers, and landscaped areas. (PCC Title 19, Appendix A)
Peak Discharge	The maximum instantaneous rate of flow during a storm, usually in reference to a specific design storm event (1991 Storm Drainage & Surface Water Management Plan)
Pervious	<u>A solid surface that contains a sufficient amount of void space to allow water to infiltrate through it.</u> (Draft Definitions for PCC Title 18, 1-2002)
Pesticides	Pesticides are agents (usually chemicals) that are used to destroy pest (insects). Pesticides can be present in surface waters as a result of direct application, runoff, or manufacturing discharge, and can have adverse effects on water quality. Careless use of pesticides may result in fish kills. . . (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001) Marsha note: There is more to this definition in the report, but the subject is DDT and begs the question of whether it is a definition or a sermon.
Petroleum Hydrocarbons	Petroleum hydrocarbons is a collective term for motor vehicle fuels, lubricating oils and greases, tars, and asphalts (defined in the State Water Quality Standards as oil and grease). The sources of petroleum hydrocarbons in urban runoff include partially-burned fuels in motor vehicle exhausts, leakage from motor vehicle engines and drive lines, improper disposal of waste crankcase oil in gutters and storm drains, and accidental spillage. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Pollutant Loading	The arithmetic product of the pollutant concentration and the runoff time (1991 Storm Drainage & Surface Water Management Plan)
Pollution-Generating Impervious Surfaces	Impervious surfaces considered to be a significant source of pollutants in surface and storm water runoff.. Such surfaces include those subject to vehicular use or storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall. Thus, a covered parking area would be included if runoff from uphill could regularly run through it or if rainfall could regularly blow in and wet the pavement surface. Metal roofs are also considered pollution-generating impervious surface unless they are treated to prevent leaching. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Pollution-Generating Pervious Surfaces	Non-impervious surfaces with vegetative ground cover subject to use of pesticides and fertilizers or loss of soil. Such surfaces include, but are not limited to, the lawn and landscaped areas of residential or commercial sites, golf courses, parks, and sports fields. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Polynuclear Aromatic Hydrocarbons (PAHs)	Polynuclear aromatic hydrocarbons are a class of complex organic compounds, having more than one benzene ring, some of which are persistent and cancer-causing. These compounds are formed from the combustion of organic material and are everywhere in the environment. PAHs are commonly formed by the combustion of gasoline and by forest fires. They often reach the environment through atmospheric fallout and highway runoff. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Priority Habitat	<u>A seasonal range or habitat element with which a given species has a primary association and which, if altered, may reduce the likelihood that the species will maintain or increase population over the long term. These might include areas of high relative density, breeding habitat, winter range, and movement corridors. Priority habitats might also include areas that are of limited availability or high vulnerability to alteration, such as cliffs, talus, wetlands, etc.</u> (Draft Definitions for PCC Title 18, 1-2002)

Priority Species	<u>An animal species of concern due to their population status and their sensitivity to habitat manipulation. Priority species include species of concern, monitor species, candidate species, priority game species, as well as other game and non-game species.</u> (Draft Definitions for PCC Title 18, 1-2002)
Private Stormwater Facility	Any stormwater system or portion thereof held in private ownership, or the responsibility for operation of which resides with a private entity (Draft Tri-County 4(d) Rule Proposal 5-2002)
Productivity	The ability of a biological system or a given area to produce biological matter (e.g., salmon); it refers the efficiency with which a biological system converts energy into growth and reproduction (from D. Renstrom)
Public Stormwater Facility	Any stormwater system or portion thereof that is owned or operated by a public entity (Draft Tri-County 4(d) Rule Proposal 5-2002)
Purchase of Development Rights	<u>The act of buying the development rights of a parcel. The development rights of a parcel are based upon the type of uses that could be expected to occur pursuant to the Comprehensive Plan Designation and Zoning Classification of the land. Development rights are typically purchased to retain the land as it currently exists (such as forest land or agricultural land) or to acquire and preserve the environmentally sensitive or unique lands (such as wetlands, steams and marine shorelines) for future generations.</u> (Draft Definitions for PCC Title 18, 1-2002)
Rates of Rise & Fall	How rapidly the elevation of the water rises and falls during a flood (Draft Clover Creek Basin Characterization Report 5/2002)
Reach	A defined section of a river or stream channel (from D. Renstrom)
Receiving Waters	Streams, lakes, bays, etc., into which stormwaters are discharged (1991 Storm Drainage & Surface Water Management Plan)
Redd	Spawning nest made by salmonid fish (Draft Clover Creek Basin Characterization Report 5/2002)
Spawning Redds	Spawning nest made by salmon or steelhead in the gravel bed of a river (Draft Clover Creek Basin Characterization Report 5/2002)
Reference Site (Stream Geomorphology Context)	The stable morphological stream type in the system. The type may, or may not, be in a pristine state. The majority of time, it is not pristine, however, the important geomorphologic and most likely vegetative components are there to sustain a long-term stable stream type. The reference site would fall within the range of natural variability for geomorphic type and bedload transport. (Draft Clover Creek Basin Characterization Report 5/2002)
Regulatory Floodplain	Flood hazard area within which a community regulates development, including new construction, repair of substantially damaged buildings and substantial improvements to existing buildings. In communities participating in the NFIP, the regulatory floodplain must include at least the area inundated by the base flood, also referred to as the Special Flood Hazard Area (SFHA). See "Floodplain." (Draft Clover Creek Basin Characterization Report 5/2002)
Relocation	In retrofitting the process of moving a house or other building to protect it from flooding or other hazards. (Draft Clover Creek Basin Characterization Report 5/2002)
Restoration	Holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume acting or continue to act following disturbances as if the disturbances were absent. Restoration management activities can be either active or passive. (Draft Clover Creek Basin Characterization Report

	5/2002)
Retention	The holding of runoff in a basin without release except by means of evaporation, infiltration or emergency bypass (1991 Storm Drainage & Surface Water Management Plan)
Retrofitting	Making changes to an existing house or other building to protect it from flooding or other hazards (Draft Clover Creek Basin Characterization Report 5/2002)
Right-Of-Way (ROW)	A strip of land held in an easement or separate tract which is occupied or dedicated to be occupied by a publicly or privately dedicated street or railroad, together with property reserved for utilities, transmission lines and extensions, walkways, sidewalks, bikeways, equestrian trails, and other similar uses.
Riparian Area	"Riparian area" means land areas directly influenced by a body of water. Usually such areas have visible vegetation or physical characteristics showing this water influence. Stream sides, lake borders, and marshes are typical riparian areas. Generally refers to such areas along flowing bodies of water. The term Littoral is generally used to denote such areas along non-flowing bodies of water. (Draft Definitions for PCC Title 18, 1-2002) Area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland, including wetlands and those portions of floodplains and valley bottoms that support riparian vegetation (Draft Clover Creek Basin Characterization Report 5/2002)
Riparian Corridor	A perennial or intermittent water body, its lower banks and upper banks, and the vegetation that stabilizes the slopes, protects the waterway from erosion and sedimentation, provides cover and shade, and maintains the fish and wildlife habitat (Draft Tri-County 4(d) Rule Proposal 5-2002)
Riparian Vegetation	Vegetation adapted to moist growing conditions found along waterways and shorelines. (Draft Clover Creek Basin Characterization Report 5/2002)
Riprap	Pieces of rock added to the surface of a fill slopes (such as the side of a levee) to prevent erosion (Draft Clover Creek Basin Characterization Report 5/2002)
Runoff	Water originating from rainfall and other precipitation that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes, and wetlands as well as shallow groundwater. It also means the portion of rainfall or other precipitation that becomes surface flow and interflow. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Rural Lands	Lands, which are not within an urban growth area and are not designated as natural resource lands having long term commercial significance for production of agricultural products, timber, or the extraction of minerals. (PCC 18A.10.050 and Draft Definitions for PCC Title 18, 1-2002)
SEPA	State Environmental Policy Act (RCW)
Salmon	All species of salmon, steelhead, trout and char native to Washington (from D. Renstrom)
Salmonids	Any member of the taxonomic family Salmonidae, which includes all species of salmon, trout, char, whitefish and grayling [Salmon and Steelhead Stock Inventory] (Draft Tri-County 4(d) Rule Proposal 5-2002) (Draft Clover Creek Basin Characterization Report 5/2002)
Scour	Process by which floodwaters remove soil around objects that obstructs flow, such as the foundation wall of a house (Draft Clover Creek Basin Characterization Report 5/2002)
Sealant	In retrofitting, a waterproofing material or substance used to prevent the infiltration of floodwater (Draft Clover Creek Basin Characterization Report 5/2002)
Sheet Flow	Runoff which flows over the ground surface as a thin, even layer, not concentrated in a channel (1991 Storm Drainage & Surface Water Management Plan)
Significant Erosion	The removal and transport of sediment, generally by the action of water, in a

	manner that causes damage to property, aquatic ecosystems, aquatic habitats, salmonids or other aquatic resources (Draft Tri-County 4(d) Rule Proposal 5-2002)
Sinuosity	The ratio of stream channel length (measured in the thalweg) to the down-valley distance, or is also the ratio of the valley slope to the channel slope. When measured accurately from aerial photos, channel sinuosity is also used to estimate channel slope (valley slope/sinuosity). Sometimes sinuosity is referred to as the meander of a stream. (Draft Clover Creek Basin Characterization Report 5/2002)
Site Development Standards	A variety of standards applied to site development that can include, among others, principles for placement of buildings on site, provision of open space, access roads, drainage facilities, lighting, parking and landscaping. (PCC Title 19, Appendix A)
Small Works Projects	Improvement projects whose costs do not exceed \$25,000 and do not require formal bidding. [Marsha note: This was all I could scrape together. Let me know if a formal definition exists somewhere.]
Soft Armoring Techniques	<u>The use of woody plants and limited structural-mechanical systems that are integrated in a structurally and environmentally sound manner to repair and protect slopes against shallow mass wasting and surface erosion. Measures such as live stake, live fascine, brushlayer, live cribwall, vegetated geogrid, branchpacking, and live slope grating are examples of soft armoring techniques.</u> (Draft Definitions for PCC Title 18, 1-2002)
Soil Group, Hydrologic	A classification of soils by the Soil Conservation Service into four runoff potential groups. The groups range from A soils, which are very permeable and produce little runoff, to D soils, which are not very permeable and produce much more runoff. (1991 Storm Drainage & Surface Water Management Plan)
Sorption	The physical or chemical binding of pollutants to sediment or organic particles (1991 Storm Drainage & Surface Water Management Plan)
Spawning Habitat	Areas used by adult fish for laying and fertilizing eggs (Draft Clover Creek Basin Characterization Report 5/2002)
Special Flood Hazard Area (SFHA)	Portion of the floodplain subject to inundation by the based flood, designated Zone A, AE, A1 – A30, AH, AO, V, VE, V1 – V30, or M on a Flood Insurance Rate Map (FIRM) (Draft Clover Creek Basin Characterization Report 5/2002)
Stormflow	The portion of flow which reaches the stream shortly after a storm event (1991 Storm Drainage & Surface Water Management Plan)
Storm Pulse	A high concentration of urban pollutants found in a stream for a short period of time, following a rainstorm (1991 Storm Drainage & Surface Water Management Plan)
Storm Sewer	Usually, enclosed conduits that transport excess stormwater runoff toward points of discharge (sometimes called “storm drains”) (1991 Storm Drainage & Surface Water Management Plan)
Stormwater Management	Management of the quantity, quality and conveyance of surface water runoff from precipitation (Draft Clover Creek Basin Characterization Report 5/2002). Encompasses both “control” and “developmental” activities in which there is physical interaction with stormwater (a broader interpretation includes activities of an institutional nature – financing, staffing, etc.) (1991 Storm Drainage & Surface Water Management Plan)
Stormwater Multiple Use Facilities	Stormwater pond facilities that are also developed to allow uses such as parks, recreational, educational and research structures, and activities. (Draft Definitions for PCC Title 18, 1-2002)
Stream	A channel of perennial or intermittent flowing water (Draft Clover Creek Basin Characterization Report 5/2002)
Stream Geomorphology	The study of the riparian landscape and its affect on stream flow patterns. The landscape tends toward a dynamic equilibrium state where stream flow patterns are affected by the landscapes (or streambeds) ability to erode or resist erosion.

	(Draft Clover Creek Basin Characterization Report 5/2002)
Subbasin	A drainage area which drains to a watercourse or water body named and noted on common maps and which is contained within a basin. A basin or area which is part of a larger drainage basin or area. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Substantial Damage	Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred (Draft Clover Creek Basin Characterization Report 5/2002)
Substantial Improvement	Any reconstruction, rehabilitation, addition and other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of the construction of the improvement. This term applies to structures that have incurred substantial damage, regardless of the actual repair work performed. (Draft Clover Creek Basin Characterization Report 5/2002)
Surface Water	<u>"Surface water" means an open body of water that flows or is collected on the earth's surface such as rivers, lakes, reservoirs, ponds, streams, seas, estuaries, etc., and all springs, wells, or other collectors directly influenced by surface water.</u> (Draft Definitions for PCC Title 18, 1-2002)
Sub-Watershed	A geographic drainage unit that combines with other sub-watersheds to form a watershed (from D. Renstrom)
Swale	A natural depression or wide shallow ditch used to temporarily store, route or filter runoff (1991 Storm Drainage & Surface Water Management Plan)
Temperature	Elevated water body temperatures can destroy fish resources by reducing dissolved oxygen in the water. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Terrestrial	Pertaining to land (Draft Clover Creek Basin Characterization Report 5/2002)
Total Dissolved Gas	Total dissolved gas is formed when water spills over a dam and plunges deep into a pool on the other side, taking excess air with it. The air dissolves in the water and forms high concentrations of total dissolved gas. Fish in waters with high concentrations then ingest gas bubbles in their tissue and blood vessels. This has the same effect on fish as when a diver gets the bends. The result can cause illness or death in fish. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Total Maximum Daily Load (TMDL)	A water quality planning and implementation tool required under Section 303(d) of the Clean Water Act. This measure specifies, through the use of a scientifically-based process, the amount of a pollutant that can be discharged to a water body without affecting beneficial uses and mechanisms for ensuring discharges do not exceed that amount. TMDLs can focus on both point and nonpoint sources of pollution, and one watershed may have a TMDL developed for both simultaneously. (Draft Tri-County 4(d) Rule Proposal 5-2002)
Total Nitrogen	Total nitrogen is the amount of nitrogen in the water that is available for plant growth or exceeds the necessary amount. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Total Phosphorus	Total phosphorus (in the form of phosphate) is a major source of nutrients for plant life. Too much phosphorus in water increases algae growth. Increased plant growth can then use up available oxygen in the water. A plentiful oxygen supply is necessary for the survival of fish and other inhabitants of fresh and marine waters. Phosphates can come from human and animal wastes, detergent, industrial processing, some vegetation, and even from atmospheric fallout. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Travel Time	The sum of the time intervals for overland flow, sewer or gutter flow, and pipe and channel flow from the hydraulically most remote point in the tributary to

	the discharge point of interest (1991 Storm Drainage & Surface Water Management Plan)
Turbidity	Turbidity is suspended sediment that clouds the water. Too much turbidity blocks sunlight needed for aquatic life and clogs industrial filters which can be disastrous for sensitive processes. Turbidity is also aesthetically unattractive in drinking water. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Undercutting	<u>The removal of material at the base of a steep slope or cliff by the erosive action of waves, running or seeping water, or windblown sand.</u> (Draft Definitions for PCC Title 18, 1-2002)
Undeveloped	A property in a state generally approaching being native or natural covered with living, mature vegetation (Draft Tri-County 4(d) Rule Proposal 5-2002)
Urban Growth	The growth that makes intensive use of land for the location of buildings, structures, and impermeable surfaces to such a degree as to be incompatible with the primary use of such land for the production of food, other agricultural products, or fiber, or the extraction of mineral resources. When allowed to spread over wide areas, urban growth typically requires urban governmental services. "Characterized by urban growth" refers to land having urban growth located on it, or to land located in relationship to an area with urban growth on it as to be appropriate for urban growth. (PCC Title 19, Appendix A)
Urban Growth Area	Those areas established through the designation of a boundary which separates existing and future urban areas from rural and resource areas. An urban growth area defines where developments will be directed and supported with historical and typical urban governmental services and facilities, such as storm and sanitary sewer systems, domestic water systems, street cleaning services, fire protection services, and public transit services. <u>Urban Growth Areas are established by the Pierce County Comprehensive Plan.</u> (Draft Definitions for PCC Title 18, 1-2002)
WDFW	Washington State Department of Fish and Wildlife
Water Body	<u>Surface waters including rivers, streams, lakes, ponds, marine waters, estuaries, and wetlands</u> (Draft Definitions for PCC Title 18, 1-2002)
Water Column Bioassay	The water column bioassay is a test procedure that measures the effects of ambient water on living plants or animals. (Glossary of Parameters, Washington State Section 303(b) Report, 9-2001)
Watercourse Alternation	<u>Any man-made change in the alignment, geometric cross-section, channel capacity, or channel efficiency of a watercourse</u> (Draft Definitions for PCC Title 18, 1-2002)
Watershed	The region drained by or contributing water to a stream, lake, or other body of water. (PCC Title 19, Appendix A)
Watershed/Drainage Basin	The area within which all surface water (whether from rainfall, snow melt, springs, or other sources) flows to a single water body or watercourse. The boundary of a watershed is defined by natural topography (Draft Clover Creek Basin Characterization Report 5/2002)
Water Table	<u>The upper level of groundwater or the zone of saturation for underground water. It is an irregular surface with a slope or shape determined by the quantity of ground water and the permeability of the earth material. In general, it is highest beneath hills and mountains and lowest beneath valleys. Also referred to as Ground Water Table.</u> (Draft Definitions for PCC Title 18, 1-2002)
Wet Proofing	Protecting a building by allowing floodwaters to enter so that internal and external hydrostatic pressures are equalized. Usually only enclosed areas used for parking, storage or building access are wet proofed. (Draft Clover Creek Basin Characterization Report 5/2002)

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Wetland	<p>Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Federal agencies define wetlands as possessing three essential characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. These three features must all be met before an area is identified as a wetland. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands generally do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities; or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands, if permitted by Pierce County. (RCW 36.70A.030 &amp; PCC Title 19, Appendix A)</p>
Zero-Rise	<p><u>No measurable rise in the base flood elevation (i.e. less than .01 foot) resulting from a comparison of existing conditions and proposed conditions which is directly attributable to development in the floodplain but not attributable to manipulation of mathematical variables such as roughness factors, expansion and contraction coefficients and discharge</u> (Draft Tri-County 4(d) Rule Proposal 5-2002)</p>
Zoning	<p>The process by which a county or a municipality legally controls the use of property and physical configuration of development upon tracts of land within its jurisdiction. Zoning is an exercise of the police power, and as such must be enacted for the protection of public health, safety and welfare. (PCC Title 19, Appendix A)</p>

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