

## GLOSSARY

<b>Aesthetics</b>	The appeal or beauty of objects, scenes, natural or improved areas to the viewer.
<b>Ambient air quality</b>	Quality of the outside air.
<b>Anadromous fish</b>	Fish that ascend rivers from the sea at certain seasons for breeding (e.g., salmon).
<b>Anaerobic</b>	In the absence of oxygen.
<b>Aquatic</b>	Growing or living in or upon the water.
<b>Average dry weather flow</b>	The average non-storm flow over 24 hours during the dry months of the year (May through September). It is composed of the average sewage flow and the average dry weather inflow/infiltration.
<b>Average wet weather flow</b>	The average flow over 24 hours during the wet months of the year (October through April) on days when no rainfall occurred on that or the preceding day.
<b>Base flow</b>	Wastewater flow (including a reasonable amount of inflow and infiltration) originating from residential, commercial and industrial sources.
<b>Baseline study</b>	A study that documents the existing state of an environment to serve as a reference point against which future changes to that environment can be measured.
<b>Benthic</b>	Bottom-dwelling (e.g., plants or fish).
<b>Best Available Control Technology (BACT)</b>	Factors relating to the assessment of BACT include the age of equipment, facilities involved, process employed, engineering aspects of the application of various control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and possibly other factors. Also known as Best Available Technology (BAT).
<b>Best Management Practices (BMP)</b>	A method, activity, or procedure for reducing the amount of pollution entering a water body.
<b>Biological Oxygen Demand (BOD)</b>	A measure of the amount of oxygen consumed in the biologic process involved in the breakdown of organic matter in water.

<b>CATAD system</b>	Computer Augmented Treatment and Disposal System, which monitors flows in the wastewater conveyance system and operates regulator and pump stations to gain maximum use of pipe capacities.
<b>Clean Water Act (CWA)</b>	Also known as the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).
<b>Cohesive soils (see 4.1.4.1) Colluvium</b>	Material that has moved downhill and has accumulated on lower slopes and/or at the bottom of the hill.
<b>Combined sewer overflows (CSOs)</b>	Overflows, during wet weather, of combined wastewater and stormwater. CSOs occur when flows in the wastewater collection system exceed the capacity of that system. The term “CSO” is also sometimes used to denote a pipe that discharges those overflows.
<b>Combined sewers</b>	A sewer that carries both sewage and stormwater runoff including inflow and infiltration.
<b>Discharge, direct or indirect</b>	The release of wastewater or contaminants to the environment. A direct discharge of wastewater flows from a land surface directly into surface waters, while an indirect discharge of wastewater flows into surface waters by way of a sewer system.
<b>Disinfection</b>	A chemical or physical process that kills organisms which cause infectious disease. Chlorine is often used to disinfect treated sewage.
<b>Dredged</b>	Removing bottom sediments from a stream or the water body to deepen.
<b>Ebb tide</b>	Outgoing or falling tide.
<b>Effluent</b>	Treated water, wastewater or other liquid flowing out of a treatment facility.
<b>Environmental Assessment (EA)</b>	A written environmental analysis which is prepared pursuant to the National Environmental Policy Act to determine whether a proposed action would significantly affect the environment and thus require preparation of a more detailed environmental impact statement.
<b>Environmental Impact Statement (EIS)</b>	A document that discusses the likely significant impacts of a development project or a planning proposal, ways to lessen the impacts, and alternatives to the project or proposal. EISs may be required by national and state environmental policy acts.

<b>Environmental Protection Agency (EPA)</b>	A federal agency established in 1970 by Presidential executive order to control pollution of the environment.
<b>Epibenthic</b>	Bottom-dwelling between low tide and 600 feet from shore (e.g., plants and fish).
<b>Estuarine</b>	Pertaining to a river.
<b>Ethnographic</b>	Period of time when Indian cultures were documented by Euroamericans, roughly beginning about 1792 in Puget Sound.
<b>Fecal coliform bacteria</b>	A group of organisms common to the intestinal tracts of humans and animals. The presence of fecal coliform bacteria in water, wastewater, or biosolids is an indicator of pollution and possible contamination by pathogens.
<b>Final Design</b>	The final phase of a project's design process. During final design, contract plans and specifications necessary for bidding are prepared. These contract documents provide all the necessary information needed by suppliers and contractors to construct the facility.
<b>Flood tide</b>	Incoming or rising tide.
<b>Foraging</b>	Searching for food.
<b>Force main</b>	A pipeline leading from a pumping station that transports wastewater under pressure.
<b>Glaciolacustrine</b>	Material moved by glaciers and deposited at the bottom of lakes after the glacier melts.
<b>Groundwater infiltration</b>	Infiltration that enters the sewerage system through pipe defects located below the normal groundwater table.
<b>Haul out</b>	Area near water where an animal (e.g., seals, sea lions) can climb out of the water to rest or sunbathe.
<b>Hydraulic</b>	Pertaining to the energy, momentum, and continuity effects of liquid in motion. The term usually refers to the flow of liquids in natural environments (e.g., rivers) or man-made structures (e.g., pipes).
<b>Hydrology</b>	The science dealing with the properties, distribution and circulation of water. The term usually refers to the flow of water on or below the land surface before reaching a stream or man-made structure.

<b>Impervious</b>	Areas of ground (e.g., pavement, buildings) which rain and snow cannot penetrate.
<b>Infiltration</b>	The penetration of water from the land surface into the soil, or the penetration of water from the soil into a sewer system by such means as defective pipes, pipe joints or connections, or manhole walls.
<b>Inflow</b>	Flows of extraneous water into a wastewater conveyance system from sources other than a sanitary sewer connections, such as roof leaders, basement drains, manhole covers, cross-connections from storm sewers, and street washing.
<b>Influent</b>	Water, wastewater or other liquid flowing into a reservoir, basin or treatment plant.
<b>Influent pump station</b>	A pump station that pumps flow from an interceptor sewer into a treatment plant.
<b>Infrastructure</b>	Streets, water, sewer lines, and other public facilities basic and necessary to the functioning of an urban area.
<b>Interceptor sewers</b>	The portion of a collection system that connects main and trunk sewers with the wastewater treatment plant, thereby controlling the flow into the plant.
<b>Laminated</b>	Composed of thin sheets or layers that have been bonded together under heat or pressure.
<b>Lateral sewers</b>	Pipes that receive sewage from homes and businesses and transport that sewage to trunks and mains.
<b>Liquefaction</b>	A temporary transformation of moist soils into a fluid mass usually caused by earthquakes.
<b>Littoral</b>	Shallow-water habitat.
<b>Macrophyte</b>	Any plant that can be seen with the unaided eye (e.g., milfoil).
<b>Mesotrophic (lake)</b>	Moderately-enriched.
<b>MG</b>	Million gallons, a measure of liquid volume.
<b>mgd</b>	Million gallons per day, a rate of liquid flow.

<b>Monitor</b>	To systematically and repeatedly measure conditions in order to track changes. For example, dissolved oxygen in a bay might be monitored over a period of several years in order to identify trends in concentration.
<b>National Pollutant Discharge Elimination System (NPDES)</b>	Section 402 of the federal Clean Water Act authorizing discharge of wastewater subject to permit issued by EPA, a state, or a tribal government(where delegated).
<b>Neap tides</b>	The tide occurring just after the first and third quarters of the lunar month; at these times, the difference between high and low tides is smallest.
<b>Nonpoint source discharge</b>	Discharge from dispersed and uncontrolled sources (such as surface runoff) rather than through pipes. Nonpoint sources (e.g., stormwater runoff from agricultural or forest operations, on-site sewage disposal systems, and discharge from boats) may contribute pathogens, suspended solids, and toxicants. The cumulative effects of nonpoint source pollution can be significant.
<b>NPDES Permit</b>	Permit issued under the National Pollutant Discharge Elimination System, which establishes effluent limitations, reporting requirements and other conditions for discharge of pollutants to receiving waters.
<b>Outfall</b>	The exit point, usually a pipe or pipes where effluent is discharged from the wastewater collection system into receiving water and which is engineered to ensure dispersion and dilution of the effluent in the receiving waters.
<b>Outwash (glacial)</b>	Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice.
<b>Pathogens</b>	Microorganisms that can cause disease in other organisms or humans, animals, and plants. Pathogens include bacteria, viruses, fungi, or parasites found in sewage, in runoff from farms or city streets, and in water used for swimming. Pathogens can be present in municipal, industrial, and nonpoint source discharges.
<b>Peak flow</b>	The maximum flow expected to enter a facility.
<b>Peat</b>	Unconsolidated soil material consisting largely of undecomposed or only slightly decomposed organic matter (e.g., leaves) under conditions of excessive moisture.
<b>Pelagic biota</b>	Plants and animals within the water column.

<b>Plume (river)</b>	Pattern from sediment-laden river water flowing into a clearer water body.
<b>PM10</b>	Federal standard for the total suspended particulates defined as the fraction of total particulates less than 10 microns in diameter.
<b>Point source discharge</b>	Discharge to water from a well-defined origin such as a discharge from a stormwater pipe or CSO outfall.
<b>Pre-design</b>	The initial phase of a project's design process. The results of this initial phase are generally limited to determination of the alignment, layout and technology for the project.
<b>Primary treatment</b>	The first stage of wastewater treatment involving removal of floating debris and solids by screening and/or settling. Any process which removes at least fifty percent of the total suspended solids from the waste stream and discharges less than 0.3 mL/l/hr of settleable solids.
<b>Pump Station</b>	A structure used to move wastewater uphill, against gravity.
<b>Raw sewage</b>	Untreated wastewater.
<b>Regulator</b>	A structure that controls the flow of wastewater from two or more input pipes to a single output. Regulators can be used to restrict or halt flow, thus causing wastewater to be stored in the conveyance system until it can be handled by the treatment plant.
<b>Riprap</b>	A layer of broken rock placed on the shore to resist erosion from wave action.
<b>Salmonids</b>	Suborder that includes salmon, whitefish, etc.
<b>Saltwater intrusion</b>	Movement of saltwater into fresh water.
<b>Sediments</b>	Mineral and organic solid materials (e.g., soils) that are in suspension, being transported, or have been moved from the place of origin by air, water, gravity or ice and is now resting on the surface of the earth above or below sea level. Sediments make up much of the shorelines and bottom of Puget Sound. WAC 173-204 discusses sediments in and under the water column.
<b>Sediment quality standards</b>	Standards which identify chemical concentration and biological toxicity limits allowed in sediments which correspond to no observable acute or chronic adverse effects on biological resources and which do not pose a significant health threat to humans.

<b>Sedimentation tanks</b>	Tanks for holding wastewater where floating wastes are skimmed off and solids settle by gravity. Settled solid, called “sludge,” are pumped out for treatment. Sedimentation tanks are also referred to as clarifiers.
<b>Seismic</b>	Caused by an earthquake.
<b>Semi-diurnal tidal exchange</b>	Rise and fall of the surface of the ocean that occurs twice in each 24-hour period.
<b>Separation, total or partial</b>	A method for controlling combined sewer overflow whereby the combined sewer is separated into both a sanitary sewer and a storm drain, as is the practice in new development. Separation may be total, in which case no stormwater is diverted to the sanitary sewer, or it may be partial, involving only the removal of runoff from streets and parking lots from the sanitary system.
<b>Sessile organisms</b>	Organisms that are attached to a substrate and not free to move about (e.g., barnacle).
<b>Setpoint</b>	A defined indicator point in an electronic or mechanical control system where an action takes place. In a sewage conveyance system, a setpoint is generally the liquid level or flow rate which causes a valve to be opened or closed or a pump to be activated.
<b>Sewage</b>	Total organic waste and wastewater generated by residential and commercial establishments.
<b>Sewer</b>	A channel or conduit that carries wastewater or stormwater runoff from the source to a treatment plant or receiving stream. Sanitary sewers carry household, industrial, and commercial wastewater. Storm sewers carry runoff from rain or snow. Combined sewers carry both kinds of water.
<b>Soils</b>	Unconsolidated mineral and organic material on the surface of the earth which has been subjected to and influenced by environmental factors.
<b>Spawning</b>	Producing or depositing eggs.
<b>State Environmental Policy Act (SEPA)</b>	A state law (Chapter 43.21C RCW) which requires that state agencies and local governments consider environmental impacts when making decisions regarding certain activities, such as development proposals over a certain size, and comprehensive plans. As part of this process, environmental impacts are documented and opportunities for public comment are provided.

<b>Storage</b>	A method for controlling combined sewer overflows by storing the combined sewage until the rain storm subsides, then releasing it back into the conveyance system to be treated at the normal treatment plant.
<b>Storm drain</b>	A system of gutters, pipes, or ditches used to collect and carry stormwater from buildings or land surfaces to streams, lakes, or other receiving waters. In practice storm drains carry a variety of substances such as sediments, metals, bacteria, oil, and antifreeze which enter the system through runoff, deliberate dumping, or spills. This term also refers to the end of the pipe where the stormwater is discharged.
<b>Storm sewer</b>	A system of pipes (separate from sanitary sewers) that carry only water runoff from building and land surfaces.
<b>Stormwater</b>	Water that is generated by rainfall and is often routed into drain systems in order to prevent flooding
<b>Stratified</b>	Layered.
<b>Suspended solids</b>	Small particles of organic or inorganic materials that float on the surface of, or are suspended in, sewage or other liquids and which cloud the water. The term may include sand, mud, and clay particles as well as waste materials.
<b>Till (glacial)</b>	Unstratified material deposited by the glacial ice and consisting of clay, sand, gravel and boulders.
<b>Total Suspended Solids (TSS)</b>	Total amount of pollutants floating in sewage that cloud the water and require special treatment to remove.
<b>Toxic</b>	Causing death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformations in any organism or its offspring upon exposure, ingestion, inhalation, or assimilation.
<b>Treatment</b>	Chemical, biological, or mechanical procedures applied to industrial or municipal wastewater or to other sources of contamination to remove, reduce, or neutralize contaminants.
<b>Washington Administrative Code (WAC)</b>	The codified regulations adopted by various Washington state agencies through the rulemaking process.
<b>Wastewater</b>	Total flow within a sewerage system. In separated systems, it includes sewage and infiltration/inflow. In combined systems, it includes sewage and stormwater.

<b>Water pollution</b>	The addition of harmful or objectionable material to water in concentrations or sufficient quantities to adversely affect its usefulness or quality.
<b>Water quality criteria</b>	The levels of pollutants that affect use of water for drinking, swimming, raising fish, farming or industrial use.
<b>Weir</b>	An overflow section of a pipe.
<b>Zooplankton</b>	Unattached microscopic animals of planktons having minimal capability for locomotion.