

Glossary

Anadromous fish: Fish that hatch in fresh water, migrate to ocean water to grow and mature and return to fresh waters to spawn; includes salmon, steelhead, and sea-run cutthroat trout.

Aquatic habitat: The water-based locality or geographic area in which a plant or animal species naturally lives or grows.

Average dry weather flow: The average wastewater flow during dry weather, normally during the non-rainfall period of July through September.

Basin: A portion of a watershed, delineated separately for each type of sewer: combined, sanitary, and stormwater. Basins boundaries are based on the routing of sewer flows to major trunk sewers or interceptors. Within one watershed, there may be combined sewer basins, sanitary sewer basins, stormwater basins, or a combination of each.

Benthic macroinvertebrates: Animals without backbones found on the floor of a stream or river. Benthic macroinvertebrates are a food source for fish.

Biofiltration: The use of natural materials and vegetation to trap and remove pollutants from stormwater.

Biological diversity (biodiversity): Variety of plant and animal life coexisting in a specific habitat.

Clean Water Act: A law passed by the U.S. Congress in 1972 that makes illegal the discharge of pollution into surface or ground waters without a permit, and that encourages the use of the best achievable pollution control technology to reduce the impact of discharged effluent.

Combined sewer overflows (CSOs): Overflows that contain both stormwater and sanitary sewage and are discharged to receiving waters. CSOs occur during moderate to heavy precipitation when combined sewage flows overwhelm the system, and excess (untreated) flows are released through overflow pipes (outfalls) to the Willamette River or Columbia Slough.

Combined sewer system: The network of pipelines and pump stations that collect and convey combined stormwater and wastewater.

Conduit: A restricted natural passageway such as a stream; a conduit is more limiting than a corridor.

Confluence: The junction or union of two or more streams; a body of water produced by the union of several streams.

Corridor: A linear natural area and habitats primarily reserved for wildlife needs.

Culvert: A pipe through which surface water can flow under a road fill.

Design phase: The development of engineering plans, specifications, and cost estimates with sufficient detail to enable the accurate bidding of the construction of a project.

Design storm: A theoretical storm event, of a given intensity, duration, and frequency, used in the analysis and design of a stormwater facility. For example, a 25-year design storm has a probability of occurring once in 25 years at any given time (i.e., occurs on average once every 25 years).

Detention: The temporary storage of stormwater in a facility (e.g., a pond) to control outflow and reduce peak flow rates and to provide settling of pollutants.

Ecological services: The functions that a natural resource provides to benefit the environment and human uses.

Ecosystem: The living and nonliving components of the environment that interact or function together; includes plant and animal organisms, the physical environment and the energy systems in which they exist.

Endangered Species Act: A law passed by the U.S. Congress in 1973 that established programs for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The U.S. Fish and Wildlife Service maintains the list of threatened and endangered species.

Floodplain: The area adjacent to streams that becomes inundated when water overtops the bank.

Flow: The volume of water, often measured in cubic feet per second (cfs), flowing in a stream.

Habitat: The locality or geographic area in which a plant or animal species naturally lives or grows.

Heat island: Urban areas with air temperature that can be 6-8°F warmer than air temperature in surrounding rural areas.

Impervious: Having an impenetrable or hard surface; impeding the infiltration of water (e.g., the natural infiltration of stormwater into the ground).

Impervious surface: An impermeable ground coverage or surface, such as paved roads, sidewalks and structures, that alters the natural flow and quality of water.

Infiltration: The percolation of water into the ground.

Infiltration sump: An underground vault (drywell) that is perforated or slotted to facilitate the infiltration (downward movement) of water from the ground surface to the subsoil.

Infrastructure: Physical improvements such as paved streets and utilities (water, sewer, gas, electricity, etc.) that provide the necessary services to support land development.

Inline storage: The installation of oversized pipes to provide storage capacity for high flows during storm events in order to reduce the hydraulic overload in downstream pipelines.

mgd: million gallons per day

Mitigation: The creation, restoration or enhancement of a wetland area to maintain the functional characteristics and processes of the wetland, such as its natural biological productivity, habitats and species diversity; unique water features; and water quality.

msl: mean sea level

Off-channel habitat: The physical environment necessary and natural to fish that is located adjacent to or connected to the primary in-stream flow.

Passage: The movement of migratory fishes through, around or over dams, reservoirs and other obstructions in a stream or river.

Peak wet weather flow: The instantaneous peak (maximum) flow during a storm event (wet weather) at any given point in the system.

Permeable: Having a penetrable surface; having pores or openings that allow water to pass through.

Predesign phase: The development of preliminary construction plans, specifications, and cost estimates that define general facility layouts; equivalent to a 10 percent design.

Reach: A section of stream between two specified points.

Refugia: Locations and habitats that support populations of organisms limited to small fragments of their previous geographic range.

Resident fish: Fish that do not migrate to the ocean but instead remain in freshwater for the entirety of their lives.

Riparian: Of or relating to the banks of a waterbody.

Riparian zone: The border of moist soils and plants next to a body of water.

Runoff: Precipitation that is not retained by vegetation, surface depressions, or infiltration and therefore flows over the land.

Sanitary sewer system: The network of pipelines and pump stations that collect and convey wastewater.

Sedimentation: The process of soil particles (sediment) being deposited into a river, stream, lake, or wetland and settling on the bottom.

Slough: An inlet on a river or a creek in a marsh or tide flat.

Spill: To release water through a spillway rather than through turbine units at a hydroelectric projects; water released in such a way.

Stormwater system: The swales, ponds, channels, creeks, sloughs, culverts, and pipe systems that convey and treat stormwater runoff from the land.

Stream separation: Collecting stormwater that currently enters the combined sewer system from natural areas and diverting it into either natural drainage channels or stormwater pipes for discharge to water bodies.

Swale: A natural depression or wide shallow ditch with grass or other vegetation that can be used to temporarily store, convey, and/or filter runoff.

Total maximum daily loads: A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources; the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources to ensure that the waterbody can be used for the purposes the state has designated.

Tributary: A stream feeding a larger stream or a lake.

Urban reserve areas (URA): Areas contiguous to the City of Portland's urban services boundary (USB) that may be included in the USB in the future.

Urban services boundary (USB): The boundary defining the area within which the City of Portland currently provides or is likely to provide urban services. The USB includes some areas outside the current city limits.

Watershed: A geographic area within which all surface water drains to a common point of discharge (e.g., river, stream, or slough). There are five major watersheds within the City of Portland: Fanno; Tryon; Willamette; Columbia Slough; and Johnson Creek.

Wetland: Land areas where excess water is the dominant factor determining the nature of soil development and the types of plant and animal species living at the soil surface. Wetland soils retain sufficient moisture to support aquatic or semi-aquatic plant life.