



**Alluvial fan** – An alluvial fan is a fan-shaped deposit where a fast flowing stream flattens, slows, and spreads, typically at the exit of a canyon onto a flatter plain. Owing to the slowing of flow any solid material carried by the water is dropped. As this reduces the capacity of the channel the channel will change directions over time, gradually building up a slightly mounded or shallow conical fan shape.

**Anadromous** – Anadromous fishes are those that spend all or part of their adult life in salt water and return to freshwater streams and rivers to spawn (e.g., salmonids).

**Armorment** – Strengthening of the stream bank by using structures or materials such as rip rap, gabions, concrete structures, and crib walls, and may include incorporation of natural materials.

**Bankfull** – Bankfull stage of a stream is associated with the flow that just fills the channel to the top of its banks and at a point where the water begins to overflow onto a floodplain.

**Catchment** – The area drained by a stream, lake or other body of water (i.e., watershed).

**Category I wetlands (Pierce County designation)** – Documented habitat for endangered or threatened plants, fish, or animal species or for potentially extirpated plant species recognized by State or Federal agencies; or high quality native wetland communities, including documented Natural Heritage wetland sites and sites which qualify as a Natural Heritage wetland; or high quality, regionally rare wetland communities with irreplaceable ecological functions, including sphagnum bogs and fens, estuarine wetlands, or mature forested swamps; or wetlands of exceptional local significance, as designated by separate Pierce County Ordinance.

**Category II wetlands (Pierce County designation)** – Regulated wetlands that do not contain features outlined in Category I; and documented habitat for sensitive plants or fish species recognized by Federal or State agencies; or documented priority habitats and species recognized by State agencies; or regionally rare wetland communities which are not high quality but which have irreplaceable ecological functions, including sphagnum bogs and fens, estuarine wetlands, or mature forested swamps; or wetland type with significant functions which may not be adequately replicated through creation or restoration. These wetlands may be demonstrated by the following characteristics: significant peat systems; or forested swamps that have three canopy layers, excluding monotypic stands of red alder averaging eight inches diameter or less at breast height; or significant spring fed systems; or wetlands with significant habitat value based on diversity and size including wetlands which are: ten acres or greater in size and two or more wetland classes together with open water at any time during a normal year; or ten acres or greater in size, and three or more wetland classes, and five or more subclasses of vegetation in a dispersed pattern; or five acres or greater in size, and forty to sixty percent open water at any time during a normal year, and two or more subclasses of vegetation on a dispersed pattern; or regulated wetlands which are contiguous with both year-round and intermittent salmonid fish-bearing waters; or wetland with significant use by fish and wildlife.

**Category III wetlands (Pierce County designation)** – Regulated wetlands that do not contain features outlined in category I, II, or IV.

**Category IV wetlands (Pierce County designation)** – Regulated wetlands which do not meet the criteria of a category I or II wetland; and hydrologically isolated wetlands that are less than or equal to one acre in size, and have only one wetland class, and have only one dominant plant species (monotypic vegetation).

**Confinement** – The ratio of the width of the floodplain to the channel's bankfull width. Channel confinement values provide information about the ability of the channel to migrate within the floodplain under the present hydrologic regime.

**Downcutting** – Vertical incision by a stream resulting in an entrenched channel.

**Embeddedness** – Embeddedness rates the degree to which rocks (gravel, cobble and boulders) and snags are covered or sunken into the silt, sand or mud of the stream bottom. Generally, as rocks become embedded, the surface area available to macroinvertebrates and fish (shelter, spawning, and egg incubation) is decreased.

**Emergents** – Rooted plants that have parts extending above the water surface in a wetland for at least part of the year, and are intolerant of complete inundation over prolonged periods.

**Estuarine wetlands** – Estuarine wetlands contain a mixture of freshwater and ocean water. They are typically located in areas where freshwater rivers flow into the ocean. Major estuarine systems include salt marshes, brackish tidal marshes and mangrove swamps.

**Eutrophication** – A process by which an excess of plant nutrients (e.g., nitrogen and phosphorous) reduces the oxygen dissolved within a body of water, producing an environment that does not readily support aquatic life.

**Harm** – As defined by the Endangered Species Act, significant habitat modification where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

**Lacustrine wetlands** – The term "lacustrine" is related to the word "lake" - thus a lacustrine wetland is, by definition lake-associated. This category may include freshwater marshes, aquatic beds as well as lakeshores.

**Mid-successional** – Successional stage refers to the stage (early-, mid-, or late-successional) of the habitat in the local/regional habitat successional cycle. Generally, succession proceeds from barren ground/field/shrubland (early-successional) to young forest (mid-successional) to mature forest (late-successional). Early-successional habitats change rapidly, mid-successional habitats change rather slowly, and late-successional habitats change very slowly.

**Outplants** – Mature fish that are transported from a hatchery to less-populated tributaries in hopes that they will spawn and rebuild runs.

**Palustrine wetlands** – Palustrine systems include any inland wetland that lacks flowing water and contains ocean derived salts in concentrations of less than .05%.

**Recruitment** – Revegetation by natural means.

**Redd** – Shallow depression in the streambed gravel in which a female salmonid deposits her eggs.

**Riparian** – Riparian areas refer to the land on each side of a stream or river that affects that body of water. They serve many important functions, including purifying water by removing sediments and other contaminants; reducing the risk of flooding and associated damage; reducing stream channel and streambank erosion; increasing available water and stream flow duration by holding water in stream banks and aquifers; supporting a diversity of plant and wildlife species; maintaining a habitat for healthy fish populations; providing water, forage, and shade for

wildlife; and creating opportunities for recreationists to fish, camp, picnic, and enjoy other activities.

**Sinuosity** – The degree to which a stream bends. Sinuosity is defined formally as the ratio of the stream distance between two points on the channel of a stream and the straight-line distance between these same two points, taken from a topographic map.

**Tailout** – The transition between a pool and riffle in a stream system.

**Take** – As defined by the Endangered Species Act, to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct; may include significant habitat modification or degradation if it kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering