

## SECTION 12: GLOSSARY OF TERMS, UNITS AND ACRONYMS

**Aquifer:** Rock or sediment in a formation, group of formations, or part of a formation which is saturated and sufficiently permeable to transmit economic quantities of water to wells and springs. They can be *confined* (overlain by a confining layer) or *unconfined* (no confining layers between the saturated zone and the surface).

**Acre Foot:** 325,861 gallons, enough water to serve a family of five for one year.

**Alevin:** Early life stage of a steelhead trout.

**Bimodal:** having or relating to two modes, in this case two peaks in a hydrograph.

**Embeddedness:** The degree to which a rock is covered by other smaller sediment. Usually measured in percent covered and can be estimated by the “scum” line on the rock.

**Embryonic:** Early life stage of a steelhead trout

**Environmentally Sensitive Habitat (ESH):** Area with environmentally sensitive habitat that requires special care and permitting if alteration is desired.

**Hydrograph:** A graph representing stream discharge (flow) verses time that can be expressed in time intervals over a storm, a season or a year.

**hydrophobic** soil conditions: Water repelling. Waxes and oils can coat soil particles, especially under hot conditions such as forest fires. Water will not enter such soils but will runoff and potentially cause soil erosion.

**Impervious surfaces:** Land surface that has limited or no infiltration capacity, leading to rapid lateral runoff, a common phenomena in urban environments with extended areas of hardened surfaces.

**Infiltration:** The process by which water percolates into the soil surface as soil moisture. Infiltrated surface water that reaches the groundwater table serves to recharge the aquifer below.

**Isohyets:** Lines of equal precipitation.

**“K” Factor:** Soil erosivity factor. The larger the K factor is, then the more erosive that the soil will be.

**Nuisance flows:** Any form of contaminated discharge that causes stream water quality degradation.

**Orographic precipitation:** Precipitation caused by the forced ascent of air over high ground. Uplift of air leads to cooling which, if the air is moist, may lead to condensation and eventually precipitation.

**Photosynthesis:** The conversion of energy from the sun and carbon dioxide from the atmosphere into carbohydrates in the leaf of a growing plant. This reaction is chemically the reverse of plant respiration.

**Pressure Head:** Weight of the water above a datum or measuring device such as a pressure transducer, a term usually used with stream stage or groundwater elevation.

**Pressure Transducer:** A device used to measure the weight of the water column above the transducer plus atmospheric pressure. It is often associated with a data logger to record the measurements. Stream stage is determined by subtracting the local atmospheric pressure at corresponding times, which is recorded by an adjacent barometric pressure gauge placed in close proximity to the stream gauge (Robinson et al., 2003). There are two common types.

**Pressure Transducer (strain gauge):** Measures strain as weight, which is measured by the change in electrical resistance across a circuit.

**Pressure Transducer (bubbler):** The device releases a small amount of gas (usually nitrogen gas) through an access pipe to the channel bottom with a tiny orifice at the zero stream stage level. As stage increases, the back pressure of the slowly escaping gas is equivalent to the pressure head due to the depth of the water over the orifice (Hewlett, 1982).

**Rill Erosion:** removal and transporting of soil by concentrated water, where there are well defined indentations or gullies formed in the soil, which are less than or equal to about 3 inches in cross-sectional width. Rills can easily be removed by plowing.

**Respiration:** The conversion of carbohydrates in a plant into carbon dioxide and water, which are released into the atmosphere. This reaction is chemically the reverse of photosynthesis.

**Sheet Erosion:** removal and transporting of soil by sheets of water, where there is not any well defined indentations or gullies formed in the soil.

**Stream Discharge:** Stream flow, usually recorded in cubic feet per second (cfs) or cubic meters per second (cms).

**Stream Rating Curves:** A graph or relationship of stage versus discharge, and is commonly used to convert observed stage data to flow. They are developed by in field measurements of stream flow or by surveying channel geometry, recording channel and floodplain morphology (Manning's n), applying established formulas, and calibrating with actual flow measurements at varying stages.