

## APPENDIX A: GLOSSARY

<b>Adaptive Management</b>	The process of implementing policy decisions as scientifically driven management experiments that test predictions and assumptions in management plans, and using the resulting information to improve future management plans.
<b>Anadromous</b>	Species that hatch in freshwater, mature in salt water, and return to freshwater to reproduce.
<b>Aquatic insects</b>	Insects that live in water for all or a portion of their life history.
<b>Artificial production</b>	Fish production that depends on spawning, incubation, hatching, or rearing in an artificial production facility such as a hatchery or rearing pen.
<b>Bar</b>	An accumulation of sand, gravel, or other alluvial material formed at any point in a stream channel where a decrease in water velocity induces sediment deposition.
<b>Brood Stock</b>	Adult salmonids that are destined to be the parents for a particular stock or smaller group of fish.
<b>Bull Trout</b> ( <i>Salvelinus confluentus</i> )	Found in the Stillaguamish River basin in both resident and anadromous forms. Spawning areas are usually associated with cold-water springs, groundwater infiltration, and the coldest streams in a watershed. They may hybridize with Dolly Varden.
<b>Channel Morphology</b>	The form and structure of a stream channel.
<b>Chinook Salmon</b> ( <i>Oncorhynchus tshawytscha</i> )	Also known as king salmon or blackmouth salmon. Chinook are distinguished from other salmon by their large size. The species generally spawns in moderate to large streams and main channels. Chinook are classified as either stream-type or ocean-type, and typically live three to six years, but may reach eight years of age before spawning.
<b>Degradation</b>	The geologic process by which streambeds and floodplains are lowered in elevation by the hydraulic removal of material.
<b>Deposition</b>	The settlement or accumulation of suspended or bed load material out of the water column onto the stream bed or floodplain. It occurs when the energy of flowing water and channel gradient are unable to transport the sediment further.
<b>Ecosystem</b>	The biological community and its chemical and physical environment functioning as a system.

<b>Endangered Species Act</b>	A 1973 Act of Congress mandating the protection and restoration of endangered and threatened species.
<b>Escapement</b>	Fish that have survived all fisheries and natural predation to make up a spawning population.
<b>Escapement Goal</b>	A predetermined number of salmonids that are not subject to harvest and will be parent spawners for a wild or hatchery stock of fish.
<b>Estuary</b>	A partially enclosed embayment where freshwater and seawater meet and mix.
<b>Evapotranspiration</b>	Sum of the loss of moisture by evaporation from air and water surfaces and by transpiration from plants.
<b>Evolutionary Significant Unit (ESU)</b>	A population or group of populations of a species that is reproductively isolated from other population units, and represents an important component in the evolutionary legacy of the species.
<b>Fingerling</b>	A small fish, usually up to one year of age.
<b>Fishery</b>	The act, process, or occupation of attempting to catch fish, whether they are retained or released.
<b>Fitness</b>	Genetic contribution by an individual's descendents to future generations.
<b>Flooding</b>	The covering or inundation of land with water.
<b>Floodplain</b>	A low level area that may be submerged by floodwaters or an area built up by stream deposition.
<b>Fluvial</b>	Pertaining to a stream or river, or an event produced by stream action.
<b>Fry</b>	Young salmonids that have emerged from the gravel and are up to one month of age.
<b>Genetic Diversity</b>	Genetic variation within a group or population. Genetic diversity of a species includes both genetic differences between individuals within a population and between populations.
<b>Geomorphology</b>	A science that deals with the structure and origin of land and submarine features on the Earth's surface.
<b>Habitat</b>	Place where a plant or animal lives during all or part of its life cycle.
<b>Holding Area/Habitat</b>	Area used by fish for rest between periods of activity. Holding areas are generally characterized by low temperatures, cover, flow, or pools formed by rocks, fallen wood, and debris.
<b>Hydrology</b>	A science dealing with the properties, circulation, and distribution of water on the surface of the land, in the soil, and underlying rocks.
<b>Impervious Surface</b>	Surfaces that restrict or reduce the infiltration of surface water into soils (e.g. pavement, compacted soils, etc.)

<b>Large Woody Debris (LWD)</b>	Large logs (generally 30 cm or 12 inches in diameter, or larger) and root wads that fall or are placed in or near a stream and become part of the riparian or aquatic habitat.
<b>Life History</b>	A history of the changes through which an organism passes in its development from the primary stage to its natural death.
<b>Log Jams</b>	Accumulation of large woody debris within a stream, which over time can increase in size creating holding areas for salmonid species.
<b>Mainstem</b>	The principal stream or channel for any drainage basin.
<b>Mass Wasting</b>	Landslide processes including debris falls, debris slides, avalanches, debris flows, rockslides, slumps, and collapse of road cuts and fills.
<b>Meander</b>	The turning or winding of a stream.
<b>Mixed Stock</b>	A stock whose individuals originated from commingled native and non-native parents, or a previously native stock that has undergone substantial genetic alteration.
<b>Natural Production</b>	Fish production that is sustained by natural spawning and rearing in natural habitat.
<b>Ocean-type</b>	The portion of a Chinook salmon population that migrates out to sea during the first year of life and spend a considerable longer period of time in estuary habitat than stream-type Chinook.
<b>Off-channel Habitat</b>	A relatively calm portion of a stream outside of the main flow such as a side channel, slough, dead-end channel, or wetland.
<b>Outmigration</b>	Movement of young salmonids from freshwater spawning and rearing habitat to estuary and marine waters.
<b>Outplanting</b>	Placement of typically juvenile fish from a hatchery or other watershed into an area where they were not naturally produced. Outplanting can alter the genetic diversity of a stock.
<b>Population</b>	A group of fish that is genetically self-sustaining and isolated geographically or temporally during reproduction.
<b>Rain-on-Snow Event</b>	Occurs when warm, moisture-laden air masses pass over snow, causing condensation of water on the snow surface; this process releases large amounts of latent energy, facilitating the rapid melting of substantial volumes of snow
<b>Reach</b>	Any specific section of a stream's length that is usually identified by geographic barriers or unique characteristics.
<b>Rearing Habitat</b>	Habitat favored by juvenile salmonids for growth and development before migrating to sea. Generally characterized by shady pools and quiet water, ponds, and sloughs.
<b>Recruitment</b>	Addition or reproduction of new individuals to a population.

<b>Redd</b>	Fish nests made in gravel (particularly by salmonids) consisting of a depression that is created and then covered once eggs are deposited.
<b>Resident Salmonid Species</b>	Salmonid species that spend their entire lives in freshwater with no migration to marine waters.
<b>Riffles</b>	A shallow area extending across a streambed causing broken water, often with a fast moving current.
<b>Riparian Habitat</b>	Area along the banks of rivers and streams, provides a transition zone between river and upland habitat.
<b>Rip-rap</b>	Large rocks, broken concrete, or other structure used to stabilize stream banks and other slopes.
<b>River Mile</b>	Distance of a given point (in miles) from the mouth of the river.
<b>Riverine</b>	Pertaining to river or stream systems.
<b>Run</b>	The sum of stocks of a single salmonid species that migrate to a particular region, river, or stream of origin at a particular season.
<b>Salmonid</b>	Any fish of the taxonomic family Salmonidae, including salmon, trout, char, whitefish, and grayling.
<b>Scour</b>	The removal of material by erosion due to moving water.
<b>Sedimentation</b>	The action or process of forming or depositing sediment.
<b>Side Channel</b>	A channel that typically runs parallel to the main channel, but is still connected. Characterized by lower flows than the main channel.
<b>Site Potential Tree Height</b>	The average maximum height of the tallest dominant trees (200 years or more) on a given site, depending on soil type.
<b>Slough</b>	A place of deep mud, usually an inlet from a river; a section of abandoned stream channel containing water during all or part of the year. Often a creek in a marsh or tide flat.
<b>Smolt</b>	Young salmon that is about two years old and at the stage of development when it assumes the appearance of the adult; undergoing physiological changes allowing for a shift in lifestyle from freshwater to marine water.
<b>Smoltification</b>	The process that occurs in young salmonids as they prepare to migrate downstream from a fresh water life stage to a marine life stage.
<b>Spawning</b>	The production and deposition of eggs by aquatic animals. May also include the act of nest (redd) construction and egg fertilization.
<b>Spawning Grounds</b>	Specific stream reaches where spawning occurs.
<b>Spawning Habitat</b>	Area favored by salmonids (in particular) for spawning. Generally characterized by cool flowing water, clean gravel, and a low percentage of fine sediment.

<b>Stakeholder</b>	Active member/group of a process or interested party.
<b>Stream-type</b>	Chinook salmon that rear for one year in freshwater habitats before outmigration.
<b>Substrate</b>	Mineral and organic material that forms a streambed. Surface upon which an organism lives.
<b>Suspended Solids</b>	Suspended mineral and organic material suspended, but not dissolved by the energy of moving water.
<b>Tributary</b>	A stream feeding a larger stream or lake.
<b>Turbidity</b>	Relative water clarity measured by the extent which light passing through water is reduced by suspended and dissolved materials.
<b>Watershed</b>	The total land area that drains to any single river or stream. Also known as a basin or catchment.
<b>Weir</b>	A device placed across a stream to divert fish into a trap, to raise the water level, or to divert its flow. Also, a notch or depression in a dam or other water barrier through which the flow of water is measured or regulated.
<b>Wetland</b>	Areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.
<b>Yearling</b>	A fish that has lived more than one year and is in its second year of life.