APPENDIX



Glossary

Aerial:	Above ground. In CCMP, refers to images taken from an airplane.
Agronomic:	Pertaining to the scientifically based management of land for field crop production or nutrient assimilation.
Algal bloom:	A dramatic increase in the number and volume of planktonic species as a result of favorable environmental conditions, $e.g.$, temperature, nutrient availability, etc.
Alluvial:	Soils composed of sediment transported and deposited by a flowing stream or river water.
Anadromous:	Fish that typically are born in freshwater streams, mature in the sea, and return to streams to spawn.
Aquaculture :	Raising of fish or shellfish for human use. Also referred to as <i>fish farming</i> , <i>oyster farming</i> , <i>and mariculture</i> .
Assemblage:	The total number or range of species present in a given area.
Bay:	A semi-enclosed body of water partly or mostly surrounded by land, and connected to a larger body of water.
Benthic :	Existing on or in the bottom of a water body (<i>"benthic invertebrates"</i> : invertebrates living on or in the <i>benthos</i>).
Benthos :	The flora, fauna, and sediment at the bottom of a water body.
Best management Practices (BMPs):	Agricultural, industrial, or business management practices developed with the goal of minimizing environmental impacts.
Biotechnical:	Utilizing biologically sound methods to physically modify the natural environment.
Bog:	A type of wetland characterized by wet, acid soil and distinctive plant communities.
BMP:	See Best management practices.
Brackish:	Water with salinities between 0.5 and 30 ppt (less saline than seawater, and more saline than fresh water).

Burrowing shrimp:	Benthic shrimp that burrow into intertidal and subtidal substrate and filter feed by pumping water through their burrows. Includes two species present in Tillamook Bay: <i>Neotrypaea californiensis</i> (ghost shrimp), and <i>Upogebia pugettensis</i> (mud shrimp).
CAFO:	See Confined Animal Feeding Operation.
Channel morphology:	The three dimensional shape of a stream channel. Natural stream conditions include variable channel morphology.
Cilia:	Tiny, hair-like projections found on some cells; used for movement and to manipulate food particles, mucus, etc.
Confined Animal Feeding Operation:	A confined area in which livestock are fed (and where a large portion of waste is generated).
Conifers :	Needle-leafed, cone-bearing gymnosperms such as pines, spruces, and yews.
Cryptogenic:	Of unknown origin.
Deciduous :	Broad-leafed trees that lose their leaves annually. Includes maples, alders, and ash.
Decommission:	In this document, to physically alter unused and abandoned roads in an attempt to restore the area to its natural state. Usually includes removing culverts and bridges, breaking up the road surface, and encouraging re-vegetation of the road surface.
Detritus :	Material resulting from the decomposition of dead organic remains of plants, animals, or excrement, or small particles from weathered rock, such as sand or silt.
Dike:	Walls or mounds built around a low-lying area to prevent flooding or intrusion by river or estuarine water.
Dissolved oxygen, DO:	Oxygen molecules that are dissolved in water. The concentration of DO is an important environmental parameter contributing to water quality. Higher DO concentrations are generally better for aquatic animals.
Diversity:	Can refer to biological, genetic, ecological, species, or habitat diversity. Generally refers to the variability within and among a given parameter. For example, high diversity in upland stream habitat would include pools, riffles, glides, gravel, boulders, bedrock, and cobble.
Ecosystem:	A community of interdependent species together with their nonliving environment.

Effluent:	Domestic, industrial, or agricultural waste discharged into the environment, usually in fluid form.
Ephemeral:	Periodic; not permanent or perennial. See intermittent.
Epibenthic :	Flora and fauna occurring on the surface of the benthos.
Estuarine:	Of or residing in an estuary.
Estuary:	A coastal water body where fresh water from a river or stream mixes with salt water from the sea. Estuaries are highly productive areas that harbor many forms and life phases of aquatic plants, fish, shellfish, and other animals, and are often heavily utilized by humans.
Exotic species:	Any species that is introduced and not native to the area of introduction.
Fauna:	Animal life. Contrast with <i>flora</i> (plant life).
Fecal coliform bacteria (fcb):	Bacteria residing naturally in the intestinal tract of mammals. Some fcb are harmful if ingested by humans.
Fen:	A type of wetland characterized by tall herbaceous plants and alkaline, neutral, or slightly acid soil.
Flora:	Plant life. Contrast with fauna (animal life).
Food web:	A complex system of energy and food transfer between organisms in an ecosystem. Refers to the way that organic matter is transferred from the primary producers (plants) to primary consumers (herbivores), and through higher trophic levels.
Geographic Information System (GIS):	A computer-based system in which information is referenced and stored geospatially.
Geomorphology:	The study of the forms, characteristics, and processes related to the landforms on Earth.
GIS:	See Geographic Information System.
Glide :	A calm stretch of relatively shallow water flowing smoothly and gently.
Herbivore :	Any organism that consumes exclusively plants. Opposite of carnivore.
Hydraulic:	Relating to the flow of fluids, or driven by fluids under pressure.
Hydrodynamic	A model of fluid flow that can account for changes in elevation, channel

model	morphology, and other variables; a non-steady state fluid model.
Hydrogeomorphic:	Relating to the earth's shape and how water is affected by and affects it.
Hydrologic:	Relating to the patterns of water runoff, evaporation, and rainfall.
Hydromodification:	The physical alteration of land, river channels, or riverbanks to alter drainage patterns, water storage, or to minimize flood impacts.
Igneous rock	Rock formed by solidification of molten magma.
Intertidal:	Occurring between mean high and mean low water levels. In Tillamook Bay, intertidal areas are fully or partially exposed twice daily during low tides.
Invertebrate:	Any animal that lacks a backbone, for example worms, crabs, or clams.
Larva, larvae :	An immature form of an organism that will undergo metamorphosis to become a juvenile and then an adult.
Levee:	Artificial or natural banks confining a stream to its channel or limiting the area of flooding.
Macroinvertebrate:	In this document, refers to any invertebrate that is visible to the naked eye and lives on a stream bottom or submerged surface such as woody debris or rocks.
Nutrient:	Any of a necessary compliment of organic or inorganic elements or compounds that contribute to the biological growth of an organism.
Paralytic shellfish poisoning, PSP:	A syndrome resulting from the ingestion of shellfish that harbor one of a variety of planktonically-produced toxins. Symptoms include tingling and numbress of the mouth, lips and fingers, as well as general muscular weakness, and respiratory problems. Can be fatal.
Patchiness:	Refers to the uneven spatial distribution of organisms. Plankton tends to exhibit patchiness in the water column, grouping together in "patches."
Pathogen:	Any microorganism or other agent that can cause disease.
Perennial:	Permanent; exists all year long.
Phytoplankton:	Small aquatic plants that are capable of photosynthesis.
Plankton:	A broad group of aquatic microorganisms that drift or move slowly in the water column. Made up of phytoplankton (plants) and zooplankton (animals).
Pool:	A quiet place in a stream characterized by slower, deeper water.

Primary Production:	The creation of organic matter from inorganic nutrients utilizing sunlight and photosynthesis.
Relative abundance:	The number of individual organisms of a given species or group relative to the total number of organisms in question.
Remote sensing:	Collecting information without having direct contact with the entity being studied. Utilizes techniques such as satellite sensing, radar, aerial photography, and infrared photography.
Riffle :	A shallow stretch of stream where water flows swiftly enough that the water is broken into waves.
Riparian:	Pertaining to the area adjacent to a stream or river.
Riprap:	Boulders or other large objects placed to prevent erosion of a bank or shoreline.
Rock barbs:	Linear structures made of boulders that protrude perpendicularly into a stream to create an eddy, or to change the prevailing erosional pattern of the stream.
Salinity:	The concentration of salt in water. Salinity in the Pacific is normally 34 parts per thousand (ppt). Estuaries vary in salinity from 0 ppt to 34 ppt, depending on the relative input of fresh and seawater.
Salmonid:	Any member of the family <i>Salmonidae</i> , including Chinook, coho, and chum salmon, steelhead, and cutthroat trout.
Saltmarsh	Intertidal mudflat colonized by characteristic salt-tolerant flora and fauna.
Sediment:	Soil, rock, or organic particles transported and deposited by rivers and streams.
Sedimentation:	The deposition of sediment that has been transported via rivers and streams.
Seine:	A type of net used to capture or collect marine fish.
Slough:	A side channel or inlet (as from a river); a sluggish channel or small backwater. In this document, refers to former river channels which now receive mostly tidal water.
Smolt:	A salmonid that is undergoing physiologic changes preparing it for its ocean life stage.
Stream shading:	The shade cast by riparian vegetation (mainly trees) upon a stream. Stream shading keeps stream temperature down and provides cover and a food source for salmonids and other aquatic organisms.

Subsidence:	The progressive depression of a land surface due to natural or artificial causes.
Substrate:	The base on which flora or fauna exists. In this document, substrate usually refers to the rocks, mud, sand, or other material forming the boundary layer between water and solid.
Suspended solids:	Solid material that is temporarily suspended within the water column or a river, stream, or estuary. Excessive suspended solids contribute to sedimentation and negatively impact fish function.
Temporal:	Referring to changes (or lack of changes) over time.
Thalweg:	The deepest part of the active channel in a stream or river.
Tidal:	Any area affected by tidal changes.
Tide gate:	Large valves installed on culverts through dikes or levees. The gate permits water to flow downstream, but not back to the upland side of the tide gate.
Trawl:	A fishing net towed behind a boat.
Trophic level:	A stage in a food web occupied by organisms that feed on the same type of food. For example, most species of clams occupy the same trophic level because they feed on the same category of organisms.
Turbidity:	The lack of clarity in water. Increased turbidity can result from suspended silt or sediment, or high planktonic production.
Vernal pool:	A pond or wetland that exists only during spring as a result of runoff. Vernal pools usually appear in the same location as the previous year, and typically develop a characteristic plant and animal community during their existence.
Water quality parameters:	Includes any of the measurable qualities or contents of water. Includes temperature, salinity, turbidity, nutrients, dissolved oxygen content, and others.
Watershed	The entire surface drainage area that contributes water to a lake, river, or estuary.
Wetland:	An area that is covered by water for at least part of the year, and has characteristic soils and vegetation. Wetlands serve important functions including filtering and purifying water, and providing habitat for a variety of animals and plants.
Zooplankton:	Aquatic microorganisms that are free-floating or capable of minimal movement. Zooplankton feed primarily on phytoplankton and bacteria, and can be either adult microorganisms, or larval forms of fish or shellfish.