

# Educator's Guide

## Glossary

- Aquatic Invertebrates** small animals, such as insects, crustaceans, mollusks, and worms that live in water. Most invertebrates are found living in the stream bottom among the rocks and gravel.
- Aquifer** underground area that becomes saturated with water within the local watershed.
- Contaminants** a polluting or poisonous substance that makes something impure, or alters it from its healthy, natural state.
- Contour lines and intervals** a contour line is a line drawn on a topographic map to indicate ground elevation or depression. Contour lines never cross. A contour interval is the vertical distance or difference in elevation between contour lines.
- Culverts** a tunnel (with or without a pipe) carrying a waterway (stream or ditch) under a road or railroad.
- Decontamination** the process of removing or neutralizing contaminants that have accumulated somewhere.
- Deforestation** the action of clearing a wide area of trees.
- Dikes** a long wall or embankment built to prevent flooding from the sea or another body of water.
- Ditches** a narrow channel dug in the ground, typically used for water drainage alongside a road or the edge of a field.
- Ecological restoration** the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.
- Ecosystem map** a map that represents ecosystem characteristics and relationships of a given area.
- Elevation** distance in height above sea level of a specific location.

- Ground water** a watershed flow that has infiltrated the ground, has entered the area below the water table or has been discharged into a stream channel, or springs and seepage water. Groundwater is stored in, and moves slowly through, the layers of soil, sand, and rocks in aquifers.
- Gully** a deep and narrow water-worn ravine often with water flowing through as a stream or river.
- Hand-pruners** hand-held cutting tool used for pruning and taking cuttings.
- Impervious or Impermeable** a surface or substrate that does not allow fluid to pass through.
- Indigenous** People, plants, and other biological species originating, occurring naturally, or for a long time (beyond human memory or recorded history) in a specific place.
- Indigenous knowledge** refers to the local understandings and philosophies developed by societies with long histories of interaction with their natural surroundings.
- Indigenous technology** living-skills, tools, devices, and methods that were developed by local Indigenous cultures based on their Indigenous knowledge systems.
- Interconnectedness** the idea that all living and non-living things in the world are connected and affect each other.
- Invasive species** a plant, animal, or insect species that is not native to a specific location (an introduced species), and that tends to spread to a degree believed to cause damage to the environment, human economy or human health.
- Live-staking** staking a long (2m) cutting of plant material into the soil where it will root and grow.
- Loppers** a long-handled cutting tool used for pruning and taking cuttings.
- Mitigate** taking action to make something less harmful.
- Natural succession species** Indigenous species and communities of plants, animals, and insects that occur and evolve over time in an ecosystem.
- Nitrates (NO<sub>3</sub>)** a source of Nitrogen (an essential chemical element) for plants. When nitrogen fertilizers are used to enrich soils, excess nitrates are carried by rain, irrigation, and other surface waters through the soil into groundwater. Human and animal wastes can also contribute to nitrate contamination of water.

- Perimeter drain** drainage system designed to collect the water that accumulates next to the foundation wall of a home. The drain is installed around the exterior or interior of a home to divert water away from the foundation and into the surrounding environment.
- Pervious or Permeable** a surface or substrate that does allow fluid to pass through.
- Phosphorus (P)** a very reactive chemical element required in small amounts by both plants and animals. Excess phosphorus from fertilizer and other human use (soaps) is carried through the watershed and is very disruptive to the chemical balance of aquatic and riparian ecosystems.
- Physiography** collective physical features such as slope, shape, and elevation of an area.
- Plant cuttings** cuttings of plant material taken from well-established sources.
- Planting bar** a long heavy metal bar used to make deep, narrow holes for planting.
- Pruning saw** a small hand-held saw used for pruning trees, or taking cuttings.
- Rain garden** a garden of native shrubs, perennials, and flowers planted in a small depression, which is generally formed on a natural slope. It is designed to temporarily hold and soak in rainwater run-off that flows from roofs, driveways, patios, or lawns.
- Reciprocity** the concept of mutual exchange and shared benefit within relationships between people, and between people and nature. One way of putting it is “the fair balance of giving and taking in any relationship”.
- Riparian** the land, habitats, and ecosystems that are associated with, adjacent to, and interdependent on bodies of water (streams, rivers, ponds, lakes, and shorelines).
- Salmonids** a family of ray-finned fish which includes salmon, trout, chars, freshwater whitefishes, and graylings, which collectively are known as the salmonids. All salmonids spawn in freshwater, but in many cases, the fish spend most of their lives at sea, returning to the rivers only to reproduce. This lifecycle is described as anadromous. They are predators, feeding on small crustaceans, aquatic insects, and smaller fish.
- Selective forestry** the logging of selected trees in a forest so that growth of other trees and the dynamics of the surrounding natural ecosystems are not affected.

- Slope** how steep the land is; how much vertical rise in elevation there is for a certain horizontal distance. Rise over run.
- Soil Bioengineering** the use of living plant materials to perform an engineering function such as erosion control, drain-ways, or slope stabilization.
- Solubility** the ability for a given substance, the solute, to dissolve in a solvent (water or other fluid).
- Storm drains** infrastructure designed to drain excess rain and groundwater from impervious surfaces such as paved streets, car parks, parking lots, footpaths, sidewalks, and roofs.
- Surface Run-off** (also known as overland flow) the flow of water that occurs when excess stormwater, meltwater, or other sources flows exceed the capacity of the natural waterways and flow over the land surface. Repeated surface run-off impacts vegetation, and causes flooding and soil and land erosion.
- Surface water** any water that collects on the surface of the Earth. This includes oceans, seas, lakes, rivers, or wetlands.
- Topographic map** a type of map showing natural and/or physical features of a landscape, including contours and elevation.
- Traditional Indigenous language** the language of the Indigenous nation within the local area.
- Tributary** a river or stream flowing into a larger river, lake, or water body.
- Valley** a stretched-out groove in the land. It has higher ground on three sides and usually has water flowing through the center. Usually V- or U-shaped.
- Water table** the upper-most level of an underground area (aquifer) that is saturated (filled) with water.
- Watershed** an area of land that catches and collects rain and snow, draining and seeping it through a network of marshes, creeks, streams, and groundwater into a common body of water (such as a river, lake, or ocean).
- Watershed boundary** the line that divides the watershed and where water will flow. A raindrop that lands on one side of the boundary will flow into one body of water, and a drop that lands on the other side will flow into a different body of water.