

## Water Festival Vocabulary

Below are examples of some of the terms that will be discussed at the Lake St. Clair Water Festival. Not all of the topics will be covered.

**Acid rain:** results from atmospheric moisture mixing with sulfur and nitrogen oxides emitted from the burning of fossil fuels; may cause damage to buildings, car finishes, crops, forests, and aquatic life

**Aquifer:** an underground layer of unconsolidated rock or soil that is saturated with usable amounts of water (a zone of saturation)

**Bacteria: single cell microorganisms,** some can be harmful to people

**Chlorine:** a chemical element used as a disinfectant in drinking and wastewater treatment processes

**Combined Sewer Overflow (CSO):** CSO's are discharges of wastewater from collection systems carrying sanitary wastewater and storm water

**Conserve:** preserve, protect, and keep safe; using a resource wisely and efficiently

**Conservation:** wise use and protection from depletion and pollution

**Contaminant:** an impurity that causes air, soil, or water to be harmful to human health or the environment

**Dissolved oxygen (DO):** oxygen gas (O<sub>2</sub>) dissolved in water

**E.coli:** these bacteria live in the digestive systems of humans and other warm-blooded animals. They are found in sewage and other wastewater. Most strains are not dangerous, but they can indicate the presence of other disease-causing bacteria

**Ecosystem:** a community of living and non-living things that interact in a specific area

**Erosion:** the wearing away of the Earth's solid surface by running water, wind, ice, or other geological agents; processes, including weathering, dissolution, abrasion, corrosion, and transportation, by which material is deposited elsewhere on the earth's surface

**Fertilizer:** any one of a large number of natural and synthetic materials, including manure and nitrogen, phosphorus, and potassium compounds, spread or worked into the soil to increase its fertility

**Groundwater:** water that infiltrates into the earth and is stored in the soil and rock below the earth's surface

**Hazardous waste:** discarded solid, liquid, or gaseous material that is dangerous or potentially harmful to humans, animals or the environment

**Illicit Connection:** an improper connection to a storm water drainage system that is not permitted by the local authority

**Illicit Discharge:** any discharge or seepage of polluting materials into a storm drainage system, river, stream or other waterway

**Impervious surface:** non-permeable surfaces, mainly artificial structures, that will not allow water to penetrate, examples are sidewalks, roadways, parking lots and buildings

**Invasive Species:** non-native (or alien) to an ecosystem and whose introduction adversely affects habitats and bioregions and causes harm to economy, environment and humans

**Landfill:** a large, outdoor area for waste disposal; landfills where waste is exposed to the atmosphere are called open dumps which are currently against the law in the United States; in sanitary landfills, waste is layered, compacted and covered with soil

**Nonpoint source pollution:** a pollution that is caused by runoff. It includes fertilizer, oil, chemicals, salt and bacteria. This pollution cannot be traced to a specific point, because it comes from many different places

**Pathogens:** disease-causing organism (e.g., bacteria, viruses, fungi, etc.)

**Permeability:** a measure of the ability of a porous material to transmit fluids through it

**Pesticide:** any chemical or biological agent that prevents or kills (plant or animal) pests; herbicides, insecticides, fungicides, rodenticides, etc., are all pesticides

**Point source pollution:** pollution that can be traced to a single identifiable point source of water pollution, such as a pipe or culvert

**Pollution:** the introduction of contaminants or excessive amounts of naturally occurring substances that cause instability, disorder, harm or discomfort to an ecosystem

**Pollution Prevention:** the use of processes, practices, or products that reduce or eliminate generation of pollutants and wastes including those which protect natural resources through conservation or more efficient utilization of resources

**Rain Garden:** A shallow, surface depressed planted area with selected native vegetations that is designed to absorb rainwater runoff from impervious services such as roofs, driveways and sidewalks.

**Recycling:** to process (and regain) used or waste material so that it can be used again

**Runoff:** the portion of rainfall, melted snow, or irrigation water that flows across the land's surface, does not soak into the ground, and eventually runs into water bodies; may pick up and carry a variety of pollutants

**Scrubbers:** pollution control equipment used to remove harmful substances and particles from industrial exhaust streams and neutralize them

**Sanitary Sewer:** is a separate type of underground pipe system for transporting sewage from houses or industry to treatment or disposal.

**Sediment:** a naturally occurring material that is transported by the action of fluids such as water or ice that consists mainly of particles derived from rocks, soil, and organic materials; a major nonpoint source pollutant that other pollutants may attach to.

**Septic system:** a wastewater treatment system into which wastes are piped directly from the home into the ground; consists of a septic tank and drain field; wastewater is exposed to bacteria that decompose the organic waste, dead bacteria and sediment settle to the bottom of the tank, and effluent flows out into the ground through drainage pipes.

**Storm Drain:** also referred to as a storm sewer, a system designed to drain excess rain and ground water from paved streets, parking lots, sidewalks and roofs. Storm drains should be separate from sanitary sewers in areas which experience heavy rainfall.

**Surface water:** precipitation which does not soak into the ground or return to the atmosphere by evaporation or transpiration, and is stored in streams, lakes, wetlands, and reservoirs

**Topographic map:** a map that shows the surface features of a region using contour lines

**Wastewater (Sewage):** liquid waste that has been discharged by domestic residences, commercial properties, industry, and/or agriculture. It can contain a broad spectrum of contaminants.

**Water cycle (Hydrologic cycle):** the continuous movement of water on, above and below the surface of the Earth through precipitation, runoff, infiltration, percolation, storage, evaporation, and transpiration

**Evaporation:** transformation from liquid bodies of water into a water vapor (gas) into the atmosphere with the application of heat (i.e. sun)

**Transpiration:** process by which water moves up through a living plant and is transferred to the atmosphere as water vapor

**Condensation:** the process of changing from a water vapor to liquid water droplets in the atmosphere

**Precipitation:** water in the form of rain, sleet, hail, or snow falls from the atmosphere (sky) onto the Earth's surface

**Infiltration:** the gradual downward flow of water from the surface of the

Earth into the soil

**Watershed:** another word for river basin. It's an area of land that drains into a common body of water (creek, stream, river or lake)

**Wetland:** areas that periodically have waterlogged soils or are covered with a shallow layer of water. Wetland areas typically support plant life that are adapted to life in wet environments, and support diverse animal life.