

APPENDIX O: GLOSSARY

AEM – Agricultural Environmental Management, a process of evaluating and correcting environmental problems originating on farms beginning with a self-inventory and leading to the implementation of conservation measures

Aerobic – life or processes which require the presence of oxygen

Algae – nonvascular plants, usually single-celled, aquatic and capable of photosynthesis

Alkalinity – a measure of the capacity of solutes (usually carbonate, bicarbonate and hydroxide) in water to neutralize acid

Alluvial – deposit of partially sorted material carried by a stream or river in a river valley

Alum – a chemical substance, usually aluminum sulfate commonly used to settle out small particles in the treatment of drinking water. Also used in lake management to control algae

Anaerobic – life or processes that occur in the absence of oxygen

Anoxic – a condition in which no oxygen is present

BMP – Best Management Practices are structural, nonstructural and managerial techniques that are recognized to be the most effective and practical means to control nonpoint sources of pollution

Blue – green algae- simple, usually one-celled photosynthetic organisms that lack a membrane-bound nucleus (also called cyanobacteria)

Buffer strips – strips of grass or other close-growing vegetation that separate a waterway from an area of intensive land use such as a subdivision or a farm

Chlorophyll-a – a type of green pigment necessary to photosynthesis present in all kinds of algae and usually directly proportional to the biomass of the algae

Coliform bacteria – bacteria which customarily inhabit the intestines of warm-blooded animals; used as an indicator of human influence on water quality

Comprehensive Plan – a land-use planning document that details existing conditions in a community, clarifies community goals, and specifies actions and policies for meeting these goals

Conductivity – a measure of water's ability to conduct an electric current, directly related to the total dissolved inorganic chemicals in the water

Cover types – the dominant vegetation of areas

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Cyanobacteria – simple, usually one-celled photosynthetic organisms that lack a membrane-bound nucleus (also called blue-green algae)

Diamictic – the mixing of lake water occurring twice a year (spring and fall) due to temperature induced density differences

DO – Dissolved Oxygen is the molecular oxygen (gas) dissolved in water and readily available to fish and other aquatic organisms

Epilimnion – uppermost, warmest layer of a lake during summer thermal stratification, extending from the surface to the thermocline

Eutrophication – the natural aging process of surface waters through enrichment by nutrients that stimulate the growth of aquatic plant life usually resulting in the depletion of dissolved oxygen

Eutrophic-mesotrophic-oligotrophic – continuum of lake conditions ranging from high photosynthetic activity and low transparency through medium activity and transparency to low productivity and high transparency, respectively

Evapotranspiration – loss of water from the earth’s surface to the atmosphere through evaporation or the transpiration of plants

GWLF – Generalized Watershed Loading Function, a watershed model in which precipitation and land use characteristics are used to simulate flows and loading

Hydraulic retention time – the period of time required to completely replace the lake’s current volume of water with “new” water

Hypolimnion – lower, cooler layer of a lake formed during summer thermal stratification

Hypoxic – a condition in which very little oxygen is present

IPM – Integrated Pest Management is the control of pests by methods that minimize harmful effects, including testing, identification and targeting

Internal nutrient cycling – transformation of nutrients such as nitrogen or phosphorus from biological to inorganic forms through decomposition occurring within the lake itself

Leachate – water containing dissolved substances moving through soil, such as landfill leachate (subsurface drainage from a landfill)

Leachfield – the final treatment area of a septic system, after the tank and distribution box, where the wastewater is degraded by oxygen-using bacteria and filtration through soil

Limnology – scientific study of freshwaters

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Littoral zone – the shallow water of a lake where light penetrates to the bottom

Macroinvertebrates, aquatic – animals without backbones living in water and visible to the unaided eye, such as insects, worms, crayfish, clams and snails

Macrophytes, aquatic – rooted and floating plants living in water and visible to the unaided eye

Marsh – a wetland dominated by emergent herbaceous plants (often cattails locally)

Monomictic – the mixing of lake water occurring once year (spring) due to temperature induced density differences

Morphology – a scientific study of form and structure

Nonpoint Source Pollution – pollution of water resources originating from land use activities and/or the atmosphere but having no well-defined point of entry or source

Open Space Plan – a plan often related to a Comprehensive Plan prepared by a municipality that specifies areas that should be kept open for natural, scenic, or recreational use

Organic chemicals – synthetic chemical compounds containing carbon

PCB – Polychlorinated biphenyl, organic compounds used in the production of plastics and fire retardants; now banned but once widely used; toxic, persistent and biologically accumulative

Pathogens – any microorganism that can cause disease

Pesticide – a substance intended to limit the growth or kill certain species of plants or animals defined as pests, generally divided into herbicides (plants), fungicides (fungus), insecticides (insects) and rodenticides (rodents).

pH – a measure indicating an acid or basic condition (hydrogen-ion activity). pH measurements use a logarithmic scale from 0-14 with a pH of 7 being neutral.

Phytoplankton – microscopic algae and microbes that float freely in open water bodies

Photosynthetic process – the ability of plants with chlorophyll to turn light, water and carbon dioxide into sugar and oxygen

Polymictic – the mixing of lake water many times during the year due to thermal stratification lasting for only short periods due to wind mixing (a typical situation in Honeoye in the summer)

Point source pollution – pollution of water resources originating at a well-defined location, such as a pipe, and often of industrial origin

Reducing condition or agent – removing oxygen, de-oxidizing

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Riparian rights – the rights of any land owner whose property borders on a waterbody to the use of that waterbody

Runoff – the portion of precipitation or other water source that flows over the soil and eventually into a stream or river, as distinguished from water that infiltrates the soil to become groundwater or that which evaporates

SEQRA (SEQR) – the State Environmental Quality Review Act requires assessment and review of certain actions to lessen adverse environmental impacts; in important cases SEQRA requires the preparation of a Final Environmental Impact Statement (FEIS)

SPDES – State Pollution Discharge Elimination System, a permitting system for regulation of certain discharges to the environment; administered by the NYSDEC

Secchi disk – a black and white, 8-inch diameter disk used to measure water clarity

Second growth forest – a forest which has been logged and re-grown

Sediment – eroded soil material, including rock particles and organic matter, transported and deposited by runoff

Septic system – a private system designed to treat domestic sewage consisting of plumbing, a septic tank with baffles, a distribution box and a system of pipes called the leach field

Sewer, sanitary – an underground system of pipes usually operated by a municipality to collect and transport wastewater; some operate by gravity and others use pumping to deliver the wastewater to a central treatment plant

Stream, ephemeral – a natural channel that carries water after a storm but is otherwise dry

Suspended solids – a measure of the particulate matter suspended in and carried by water

Swamp – a wooded wetland

Thermal stratification – the separation of layers in lake water due to density differences caused by temperature differences

Thermocline – a horizontal layer of water in a stratified lake where temperature and density change most rapidly and separate layers of warmer and colder water

Till – glacial un-stratified glacial deposits of sand, silt and clay

TDS – total dissolved solids are all materials in water that passes through a certain sized filter

TSS – total suspended solids is one of the standard tests characterizing urban runoff, generally visible particles

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Trophic indicators – a measure of the nutrient level in a body of water indicated by its transparency, chlorophyll-a levels, phosphorus concentrations and quantity of dissolved oxygen in the hypolimnion

Turbidity – a hazy condition of water caused by the presence of suspended material that scatters or absorbs light

Variance – an exception or delay in the application of a law, ordinance or regulation granted by a governing body, such as a zoning variance for area or use

Watershed – an area of land that contributes runoff to a waterbody such as a lake or stream.

Water table – the uppermost part of the soils saturated zone, sometimes the boundary of an aquifer, into which wells are dug or drilled

Zoning – the division of land through legal means into discrete areas where certain uses are acceptable, acceptable with conditions, or prohibited

Zooplankton – microscopic or barely visible animals living in water and eating algae, bacteria and detritus that are in turn consumed by fish