

# CHAPTER NINE: GLOSSARY OF TERMS

## LAKE MICHIGAN WATERSHED-BASED PLAN

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## 9 GLOSSARY OF TERMS

**ADID SITES:** Aquatic sites that have been determined to provide biological value by the USACE, Chicago District and the USEPA.

**BASE FLOOD ELEVATION (BFE):** The elevation of surface water resulting from the flood having a one percent (1%) probability of being equaled or exceeded in any given year.

**BEACH RIDGE:** Wave-deposited or wave swept ridge running parallel to the shoreline.

**CATCHMENTS:** Small unit of a watershed or subwatershed delineated and used in watershed planning efforts because the effects of impervious cover are easily measured, there is less chance for confounding pollutant sources, boundaries have fewer political jurisdictions, and monitoring/mapping assessments can be done in a relatively short amount of time.

**CHANNEL:** Any river, stream, creek, brook, ditch, gully, ravine, swale or wash, into which surface or groundwater flows, either perennially or intermittently.

**CLIMATE NORMALS:** 30-year averages of climatological variables including temperature and precipitation.

**DEFINED CHANNEL:** Clearly discernable bed and banks of a flowing watercourse.

**DENDRITIC STREAM SYSTEMS:** In a dendritic system, there are many contributing streams (similar appearance to the branches of a tree), which are then joined together into the tributaries of the main river. They develop where the river channel follows the slope of the terrain.

**DIGITAL ELEVATION MODELS (DEMS):** A digital cartographic/geographic dataset of elevations in x, y, z coordinates. DEMs are derived from hypsographic data (contour lines) and/or photogrammetric methods using USGS 7.5-minute, 15-minute, 2-arc-second (30- by 60-minute), and 1-degree (1:250,000-scale) topographic quadrangle maps.

**DISCHARGE POINTS:** The location where all sanitary, storm sewer and agricultural drainpipes surface or stormwater flows back into a lake or stream channel. Discharge points also include open channels, swales, gullies and other significant tributaries.

**DRAINAGE BASIN:** Synonymous with “watershed,” though often used to describe the watersheds of larger rivers or hydrologic systems (e.g., the “Mississippi River drainage basin” or “Great Lakes drainage basin”).

**DRY DETENTION BASINS:** Basins that temporarily stores water before discharging to river or lake and usually dry up following large rainstorms or snow melt events. Typically, not effective at removing pollutants.

**ENDANGERED SPECIES:** A species in danger of extinction throughout all or a substantial portion of its range.

**EROSION:** The process by which the surface of the earth is worn away by the action of water, glaciers, winds, waves.

**FARMED WETLANDS:** Agricultural cropped areas on hydric soil that have been cleared, partially drained, or filled.

**FLOOD INSURANCE RATE MAP (FIRM):** A map prepared by FEMA that depicts the SFHA within a community. The FIRM includes zones for the 100-year and 500-year floodplains and may or may not depict Regulatory Floodways.

**FLOOD INSURANCE STUDY (FIS):** Studies conducted by FEMA to determine areas that have the highest probability for flooding.

**FLOOD PROBLEM AREA (FPA):** One or more structures in a geographical area that are damaged by the same primary source or cause of flooding. Structures include transportation, utility infrastructure, buildings, and well and septic failure caused by flooding. Areas also include locations where road flooding results in damage to infrastructure, loss of critical access, or threatens safety.

**FLOOD PROTECTION AREA:** Regulatory floodplains, regulatory floodways, riparian environments, wetlands, and wetland buffers in Cook County.

**FLOODPLAINS:** Floodplains are lowlands, adjacent to rivers, streams and creeks that are subject to recurring floods. Mapped regulatory floodplains are defined as the area of land, which is inundated with water during 100-year flood events.

**FLOODWAY:** A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

**GEOGRAPHIC INFORMATION SYSTEM (GIS):** A computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface.

**GLOBAL POSITIONING SYSTEM (GPS):** A system of earth-orbiting satellites, transmitting signals continuously towards the earth that enables the position of a receiving device on or near the earth's surface to be accurately estimated from the difference in arrival times of the signals.

**HUMMOCKY:** Extremely irregular surface.

**HYDRAULICS:** Hydraulics is the study of how water flows over the land surface. This includes flows within sewers, culverts, stream channels, wetlands, lakes, impoundments, etc.

**HYDRAULIC STRUCTURES:** Bridges, culverts, dams, weirs, or other structures spanning or crossing the stream channel.

**HYDRIC SOILS:** A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. These conditions alter the physical, biological and chemical characteristics of the soil, thereby influencing the species composition or growth, or both, of plants on those soils.

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**HYDROLOGY:** Hydrology is the study of the occurrence, circulation, distribution, and properties (e.g., quality) of Earth's water.

**HYDROPHYTIC VEGETATION:** Plants that tolerate or require saturated soil or standing water.

**IMPARIED WATERS:** The Clean Water Act requires states to identify waters that do not or are not expected to meet applicable water quality standards with current pollution control technologies alone.

**IMPERVIOUS SURFACES:** A surface that does not allow water to infiltrate to the soil layer, including pavement, rooftops, and roads.

**INFILTRATION:** That portion of rainfall or surface runoff that moves downward into the subsurface soil.

**INSTREAM HABITAT:** Within a stream, the environment in which an animal or plant normally lives or grows.

**LEAD PARTNERS:** Identify the lead public or private landowner, agency or other stakeholder with the greatest potential to implement the action.

**LOW OR HIGH FLOW CONDITIONS:** Typically measured as a 7-day average of the lowest or highest water flow rates annually.

**MARL:** A loose or crumbling earthy deposit that contains a substantial amount of calcium carbonate.

**MARSH:** Low-lying land area that is usually saturated or inundated with surface or ground water that is dominated by herbaceous plants.

**MITIGATION BANKING:** A system of credits and debits to offset environmental impacts associated with site development and achieve no net loss, typically accomplished via restoration, creation, enhancement, or preservation of similar wetland, stream, or natural habitats near the area of impact with the specific goal of compensating for unavoidable impacts to aquatic resources.

**MORAINE:** Low ridge formed by till deposited at the margin of a stagnant or retreating glacier.

**NATURAL COMMUNITY:** An assemblage of plants and animals interacting with one another and their physical environment.

**NONPOINT SOURCE POLLUTION:** The cumulative effect of rainfall runoff that flows over or through the land and collects pollutants and nutrients prior to entering waterways. The cumulative effect of this pollution throughout the watershed represents the contribution of nonpoint source pollution.

**OUTWASH:** Deposits of sand and gravel carried by running water from the melting ice of a glacier and laid down in stratified deposits.

**POST- AND PROGLACIAL LAKE DEPOSITS:** Layers of silt and clay deposited on the beds of lakes that formed along the retreating face of the ice sheet or within landforms left by its retreat.

**PRAIRIE:** An extensive flat or rolling area dominated by grasses. Prairie grasslands once covered much of central North America.

**SAVANNA:** A type of woodland characterized by open spacing between trees and intervening grassland.

**SEDIMENT DEPOSITION:** The geological process in which sediments, soil and rocks are added to a landform or land mass.

**SOIL PHASE:** A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

**STORMSEWERSHED:** The land area drained by a stormsewer or stormsewer network.

**SUBWATERSHED:** The area within a larger watershed that drains to a single point, such as a tributary stream or lake. Large watersheds are comprised of smaller subwatersheds.

**SUPPORT PARTNERS:** Include parties that could be involved in assisting in the action implementation related to regulation, permitting, coordination, technical needs and funding assistance.

**THALWEG:** the line of lowest elevation within a valley or watercourse.

**THREATENED SPECIES:** A species likely to become endangered in the near future.

**TILL:** Unsorted glacial sediment.

**TOTAL MAXIMUM DAILY LOAD (TMDL):** An estimation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. It assesses contributing point and nonpoint sources and identifies pollution reductions necessary for designated use attainment. **WATERSHED:** Land area that drains water to a given point, usually a river, stream or lake. The land area above a given point on a waterbody (river, stream, lake, wetland) that contributes runoff to that point is considered the watershed.

**WATERSHED PLANNING COMMITTEE:** A committee comprised of SMC staff and watershed stakeholders with a goal of creating an umbrella watershed-based plan for the Lake Michigan Watershed planning area and reducing nonpoint source pollution.

**WET DETENTION BASINS:** A stormwater control structure that provides both retention and treatment of contaminated stormwater runoff. It contains a perennial pool of water, which holds runoff from one rainfall event until displaced by a new rainfall event. **WETLAND:** Areas with a high potential for exhibiting hydric soil, hydrophytic vegetation, and required hydrologic conditions, often low-lying land that is saturated or inundated with water to an extent that plants that are adapted to living in wet conditions grow there. Marshes, swamps, bogs, sloughs, wet prairie, rivers, streams, ponds and the edges of lakes are typically classified as wetlands.

**WETLAND ENHANCEMENT:** Augmenting wetland functions beyond the current conditions; enhancement of one function sometimes can occur at the expense of other functions.

**WETLAND PRESERVATION:** Actions taken to maintain the size and functions of an existing wetland or water body.

**WETLAND RESTORATION:** The re-establishment of wetlands in areas where they previously existed and were altered by drainage activities or landscape modifications.

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**WOODLANDS:** Land that is mostly covered with trees and shrubs.