

CHAPTER 9: GLOSSARY OF TERMS

NORTH BRANCH CHICAGO RIVER WATERSHED-BASED PLAN

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100-Year Floodplain: Areas with a 1% annual chance of flooding.

2 Year - 100 Year Flood: For each river, engineers assign statistical probabilities to different size floods to describe a common or ordinary flood versus a less likely or a severe flood. A 100-year flood is a flood that has a 1-percent chance of being equaled or exceeded in any given year. The 100-year flood, also referred to as the “base flood”, is the standard used by the National Flood Insurance Program (NFIP) for floodplain management and is used to determine the need for flood insurance. A structure located within the 100-year special flood hazard area shown on an NFIP map has a 26 percent chance of suffering flood damage during the term of a 30-year mortgage. A two-year flood event has a 50% probability of occurring in any year; 2-year rain events are important because they form the general shape of our stream systems and are the cause for much of the pollutant loading.

303(d): A state’s list of impaired or threatened waters. The Federal Clean Water Act requires states to submit a list of impaired waters to the USEPA for review and approval using water quality assessment data from the Section 305(b) Water Quality Report. States are then required to develop total maximum daily load analyses (TMDLs) for waterbodies on the 303(d) list.

305(b): In the 305(b) report, states must also explain how they determined the resource quality of the waters of the state in terms of the degree to which predefined beneficial uses (i.e., designated uses) of those waters are attained (i.e., supported). Also in the 305(b) report, when any designated use for any waterbody is not fully supported (i.e., impaired), the state must report potential reasons (causes and sources) for the impairment.

Advance Identification Wetlands: Wetlands that were identified through the Advanced Identification (ADID) process. Completed in 1992, the ADID process sought to identify wetlands that should be protected because of their high functional value. The primary functions evaluated were ecological value based on wildlife habitat quality and plant species diversity, hydrologic functions such as stormwater storage value and/or shoreline/bank stabilization value, and water quality values such as sediment/toxicant retention and/or nutrient removal/transformation function.

Alkalinity (ALK): A measure of the buffering capacity of water.

Ammonia (NH₃-N): A form of inorganic nitrogen.

Aquatic Plant Management Plan (APMP): A plan that provides a coordinated strategy for managing aquatic plants.

Artificial Wetlands: A designed wetland, created for human use, such as wastewater or sewage treatment, habitat to attract wildlife, or land reclamation after mining or other disturbances.

Bankfull: The point at which water flow in a stream fills the channel to the top of its banks just to the point where water begins to overflow onto the adjacent floodplain.

Barrens: An area with vegetation that is scattered with stunted woody growth and an exposed infertile substrate that supports species adapted to fire and drought and occurs in areas climatically suitable for forest growth of large trees.

Baseflow: Stream discharge that is not directly attributed to direct runoff or melting snow. It is usually sustained by groundwater.

Best Management Practices (BMPs): Non-structural practices, such as site planning and design aimed to reduce stormwater runoff and avoid adverse development impacts, or structural practices that are designed to store or treat stormwater runoff to mitigate flood damage and reduce pollution. BMPs used in urban areas include stormwater detention ponds, restored wetlands, vegetative filter strips, porous pavement, silt fences and biotechnical streambank stabilization.

Biological Oxygen Demand (BOD): The amount of dissolved oxygen that is required by microscopic organisms to decompose organic matter in waterbodies.

Bioswale: Vegetated ditches that collect, convey, filter and infiltrate stormwater runoff.

Bog: A low nutrient peatland, usually in a glacial depression, that is acidic in the surface stratum and often dominated at least in part by the genus *Sphagnum*.

Catchments: Small unit of a watershed or subwatershed that is 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.

Center for Watershed Protection (CWP): Non-profit corporation that provides local government, activists, and watershed organizations with the technical tools for protecting some of the nation's natural resources such as streams, lakes, and rivers.

Certified Community: Community authorized by SMC to administer and enforce most of the provisions of the WDO. A community can be a fully certified community (delegated to review both standard general stormwater provisions and isolated waters (wetland) aspects of the WDO) or partially certified community (delegated to review either standard or isolated wetland aspects of the WDO). SMC retains certain review authorities, primarily with respect to the floodplain and floodway provisions of the WDO in certified communities.

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

Channelized stream: A stream that has been artificially straightened, deepened or widened.

Chicago Metropolitan Agency for Planning (CMAP): A regional planning agency that plans for the most effective public and private investments in northeastern Illinois region and to better integrate plans for land use and transportation. CMAP provides technical assistance and training opportunities to local governments to improve watershed management activities including watershed planning and stormwater management.

Chloride (Cl): A common non-point source pollutant, largely introduced into the environment through the use of deicing agents

Clean Water Act (CWA): The CWA is the basic framework for federal water pollution control and has been amended in subsequent years to focus on controlling toxins and improving water quality in areas where compliance with nationwide minimum discharge standards is insufficient to meet the CWA's water quality goals.

Climate Normals: 30-year averages of climatological variables including temperature and precipitation

Colony Forming Unit (CFU): A measure of viable bacterial or fungal numbers. Unlike direct microscopic counts where all cells, dead and living, are counted, CFU measures viable cells.

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Conductivity: A measure of the ability of water to pass an electrical current that is used as a proxy for the concentration of inorganic dissolved solids in water.

Conservation Easement: The transfer of land use rights without the transfer of land ownership. Conservation easements can be attractive to property owners who do not want to sell their land, but would support perpetual protection from further development. Conservation easements can be donated or purchased.

Converted Wetlands: Areas that have been drained or filled and no longer exhibit wetland or farmed wetland characteristics.

Critical Areas: Catchments in the watershed best suited to focus implementation efforts to help achieve the goals and objectives of the watershed plan. Critical areas represent catchments that likely contribute to impairments and problems in the watershed, and present opportunities where project implementation would provide the greatest value and benefit.

Defined Channel: Clearly discernable bed and banks of a flowing watercourse.

Developed Parcels: Parcels that are mostly occupied by structures and/or impervious cover.

Digital Elevation Model (DEM): A digital cartographic/geographic dataset of elevations in xyz coordinates.

Digital Terrain Models (DTM): A digital cartographic/geographic dataset of elevations in xyz coordinates that contains information on geographical elements and natural features.

Discharge Point: 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.

Dissolved Oxygen: The amount of oxygen in water, usually measured in milligrams/liter (mg/L).

Drain Tile: A drainage system that removes excess water from the soil below the surface.

Drainage Basin: Land surface region drained by a length of stream channel; usually 1,000 to 10,000 square miles in size.

Dry Detention Basin: 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.

Dry Flood Proofing: A combination of practices that are used to make a building watertight, so flood waters do not enter the structure, including the basement or crawl space.

***E. coli*:** A species of fecal coliform bacteria that is specific to fecal material from warm-blooded animals, that is used as an indicator of health risk from water contact.

Emergent Vegetation: Vegetation that is rooted in the bottom sediment of a waterbody with leaves and stems that extend out of the water.

Endangered Species: A species in danger of extinction throughout all or a substantial portion of its range.

Erosion: Displacement of soil particles on the land surface due to water or wind action.

European Settlement: A period in the early 1800's when European settlers moved across the United States. During this movement, natural plant communities were altered for farming and related development.

Event Mean Concentration (EMC): Method for characterizing pollutant concentrations in stormwater runoff. Pollutant concentrations are measured in studies and on-going research that collect and analyze runoff from various land-use practices in different geographic and climatic regions. The values are determined by compositing (in proportion to flow rate) a set of samples, taken at various points in time during a runoff event, into a single sample for analysis.

Farmed Wetlands: Agricultural cropped areas on hydric soil that have been cleared, partially drained, or filled.

Fecal Coliforms: Bacteria that is specific to fecal material from warm-blooded animals, that is used as an indicator of health risk from water contact.

Federal Emergency Management Agency (FEMA): Government agency within the Department of Homeland Security that responds to, plans for, recovers from, and mitigates against disasters/emergencies, both natural and man-made.

Fens: A peatland, herbaceous (including calcareous floating mats) or wooded, with calcareous groundwater flow.

Flared End Section (FES): A structure commonly found at the end of pipes near waterbodies. FES are used to reduce erosion from pipe discharge and minimize debris accumulation at pipe openings.

Flash Flood: A quickly rising and falling overflow of water in stream channels that is usually the result of increased amounts of impervious surface in the watershed.

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 the FEMA to determine areas that have the highest probability for flooding.

Floodplain: 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.

Flood Problem Area (FPA): One or more structures in a geographical area that are damaged by the same primary source/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 is a threat to safety.

Flood Protection Area: Regulatory floodplains, regulatory floodways, riparian environments, wetlands, and wetland buffers.

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.

Floristic Quality Assessment (FQI): A metric that evaluates how close the flora of an area is to undisturbed conditions.

Forest Preserve District: Districts designed to protect large natural areas and provide passive recreation.

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Friends of the Chicago River (FOCR): A non-profit river advocacy organization with a mission to improve and protect the Chicago River system for people, plants, and animals.

Functional Connections: Functional connections, as defined in the GIMS, are linkages between the various hubs, or cores.

Geographic Information System (GIS): A computer-based approach to interpreting maps and images and applying them to analysis of systems and problem-solving.

Glacial Slough: Shallow, wetland-type lake that are formed during glacial retreat

Global Positioning System (GPS): Satellite mapping systems that enables locators and mapping to be created via satellite.

Goal: A clear, concise, and measurable statement or target for the watershed plan that identifies a change or outcome to be achieved.

Gray Infrastructure: A network of transportation, power, communication and other human constructed systems that are designed to connect across multiple jurisdictions and incorporate facilities that function at different scales.

Green Infrastructure: Defined by the Lake County Stormwater Management Commission as: on a local scale, municipal or neighborhood, green infrastructure consists of site-specific best management practices (such as naturalized detention facilities, vegetated swales, porous pavements, rain gardens, and green roofs) that are designed to maintain natural hydraulic functions by absorbing and infiltrating precipitation where it falls. On the regional scale, green infrastructure consists of the interconnected network of open spaces and natural areas (such as forested areas, floodplains and wetlands, greenways, parks, and forest preserves) that mitigate stormwater runoff, naturally recharge aquifers, and improve water quality while providing recreational opportunities and wildlife habitat.

Green Infrastructure Model and Strategy (GIMS): A GIS based model that provides a framework for identifying land conservation and restoration opportunities to guide regional and local green infrastructure planning.

Green Infrastructure Network: Use of vegetation, soils, and natural processes to manage water and create healthier urban environments.

Green Infrastructure Vision (GIV): A GIS based regional scale green infrastructure vision that consists of spatial data and policies that identify the most important natural areas to protect in the Chicago region.

Gully Erosion: The removal of soil along drainage lines by surface water runoff. Once started, gullies will continue to move by headward erosion or by slumping of the side walls until the disturbance is stabilized.

Homeowners Association (HOA): An organization in a subdivision, planned community or condominium that makes and enforces rules for the properties within its jurisdiction.

Hubs: Hubs, as defined in the GIMS and GIV reports, contain the following four core landscape features (core woodlands/forest, core prairies, grasslands and savannas, core wetlands, and core lakes and streams) to create an Ecological Network.

Hummocky: Extremely irregular surface.

Hydraulics: A branch of science that deals with practical applications of liquid in motion.

Hydraulic Conductivity: A measure of a material's capacity to transmit water.

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.

Hydrogeomorphic Descriptors: Characteristics that emphasize geomorphic and hydrologic attributes such as the landscape position, landform, water flow path, and waterbody type of a wetland or water body.

Hydrologic Cycle: The continuous movement of water on, above, or below the surface of the Earth.

Hydrologic Soil Groups (HSG): Soils are classified by the Natural Resource Conservation Service into four Hydrologic Soil Groups based on the soil's runoff potential. The four Hydrologic Soils Groups are A, B, C and D. A's generally have the smallest runoff potential and D's the greatest.

Hydrologic Unit Code (HUC): A hydrologic unit can accept surface water directly from upstream drainage areas, and indirectly from associated surface areas such as remnant, noncontributing, and diversions to form a drainage area with single or multiple outlet points. Hydrologic units are only synonymous with classic watersheds when their boundaries include all the source area contributing surface water to a single defined outlet point. Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to twelve digits based on the six levels of classification:

- 2-digit HUC first-level (region)
- 4-digit HUC second-level (subregion)
- 6-digit HUC third-level (accounting unit)
- 8-digit HUC fourth-level (cataloguing unit)
- 10-digit HUC fifth-level (watershed)
- 12-digit HUC sixth-level (subwatershed)

Hydrology: The scientific study of the properties, distribution, and effects of water on the earth's surface, in the soil and underlying rocks, and in the atmosphere.

Hydrophytic Vegetation: Plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen because of excessive water content; one of the indicators of a wetland.

Illinois Department of Natural Resources (IDNR): A government agency established to manage, protect and sustain Illinois' natural and cultural resources, provide resource-compatible recreational opportunities and to promote natural resource-related issues for the public's safety and education.

Illinois Department of Transportation (IDOT): The Illinois Department of Transportation focuses primarily on the state's policies, goals and objectives for Illinois' transportation system and provides an overview of the department's direction for the future.

Illinois Environmental Protection Agency (Illinois EPA): Government agency established to safeguard environmental quality, consistent with the social and economic needs of the State, to protect health, welfare, property, and the quality of life.

Illinois Natural Areas Inventory (INAI): A survey conducted by the Illinois Department of Natural Resources to catalog high quality natural areas, threatened and endangered species and unique plant, animal and geologic communities for maintaining biodiversity.

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Impaired 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 Cover: An area covered with solid material or that is compacted to the point where water cannot infiltrate underlying soils (e.g. parking lots, roads, houses, patios, swimming pools, tennis courts, etc.). Stormwater runoff velocity and volume can increase in areas covered by impervious surfaces.

Index of Biotic Integrity (IBI): A numeric rating based on fish surveys that is dependent on the abundance and composition of the fish species in a stream. Fish communities are useful for assessing stream quality because fish represent the upper level of the aquatic food chain and therefore reflect conditions in the lower levels of the food chain. Fish population characteristics are dependent on the physical habitat, hydrologic and chemical conditions of the stream, and are considered good indicators of overall stream quality because they reflect stress from both chemical pollution and habitat perturbations. For example, the presence of fish species that are intolerant of pollution is an indicator that water quality is good. The IBI is calculated on a scale of 12 to 60, with higher scores indicating better water quality.

Infiltration: The portion of rainfall or surface runoff that moves into the subsurface soil.

Instream Habitat: The environment within a stream in which an animal normally lives or grows.

Intergovernmental Agreement (IGA): An agreement between two or more jurisdictions in cooperation to solve problems of mutual concern.

Kettle Lake: Shallow, glacial lakes that are formed when partially buried ice blocks from glaciers melt creating a depression that fills with water.

Lake County Health Department – Ecological Services (LCHD-ES): Government agency initiated to monitor the quality of Lake County’s surface water in order to maintain or improve water quality and alleviate nuisance conditions, promote healthy and safe lake conditions, and protect and improve ecological diversity.

Lake County Planning Building and Development (LC PB&D): A government agency that is responsible for land use planning and permitting in unincorporated areas, and natural resources and systems management in Lake County.

Lake County Stormwater Management Commission (SMC): The Lake County Stormwater Management Commission established and existing under state statute [55 ILCS 5/5-1062] for the purposes of developing, revising, and implementing a countywide stormwater management plan.

Lake County Watershed Development Ordinance (WDO): One part of the adopted Lake County Comprehensive Stormwater Management Plan. It sets forth the minimum requirements for the stormwater management aspects of development in Lake County.

Lakeowner Association (LA): An organization that makes and enforces rules for the lakes within its jurisdiction.

Land Cover: The physical material that covers the surface of the Earth, including forests, urban areas, water, prairies, etc.

Landform: The large-scale landscape features that affect the physical shape of a wetland or water feature (e.g., basin, flat, slope, island, or fringe).

Landscape Position: The physical setting of a wetland relative to a water body, if present (e.g., a wetland associated with a lake, a river, or a depression surrounded by uplands).

Land Use: The type of human activity that takes place on an area of land.

Lateral Recession Rate (LRR): The rate a channel or shoreline is receding due to erosion.

Lead Partners: Identify the lead public or private landowner, agency or other stakeholder with the greatest potential to implement the action.

Light Detection and Ranging (LiDAR): A remote sensing method that uses a pulsed laser to measure distances to the Earth to generate three-dimensional data of the Earth's surface.

Loess: A fine-grained unstratified accumulation of clay and silt deposited by wind.

Low Impact Development (LID): A development practice that retains and infiltrates rainfall on-site utilizing site design and planning techniques that mimic the natural infiltration-based, groundwater-driven hydrology of the landscape.

Low or High Flow Conditions: Typically measured as a 7-day average of the lowest or highest water flow rates annually.

Macroinvertebrates: Invertebrates that can be seen by the unaided eye. Most benthic invertebrates in flowing water are aquatic insects or the aquatic stage of insects, such as stonefly nymphs, mayfly nymphs, caddisfly larvae, dragonfly nymphs and midge larvae. They also include mussels and worms. The presence of benthic macroinvertebrates that are intolerant of pollutants is an indicator of good water quality.

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

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

McHenry-Lake Soil and Water Conservation District (MLSWCD): A government agency that assists McHenry and Lake County residents and business with conserving and protecting land, air, water and other resources.

Metropolitan Water Reclamation District of Greater Chicago (MWRD): An independent government and taxing body that treats wastewater in Cook County.

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.

Municipal Separate Storm Sewer Systems (MS4s): A water conveyance owned by a state, city, town, village, or other public entity that discharges to waters of the United States, that is designed or used to collect or convey stormwater and is not a combined with sewage infrastructure. Certain operators of MS4s are required to obtain NPDES permits and develop stormwater management programs.

Moraines: A mass of rocks and sediment transported and deposited by glaciers, typically as ridges at its edges or extremity.

National Flood Insurance Program (NFIP): Managed by the Mitigation Division within the Federal Emergency Management Agency, participants in the NFIP adopt and enforce floodplain management ordinances to reduce future flood damage and in exchange are eligible to receive federally funded flood insurance.

National Land Cover Database (NLCD): A national land cover product created by the Multi-Resolution Land Characteristics (MRLC) Consortium.

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National Pollutant Discharge Elimination System (NPDES): Clean Water Act law requiring smaller communities and public entities that own and operate an MS4 to apply and obtain an NPDES permit for stormwater discharges. Permittees at a minimum must develop, implement, and enforce a stormwater program designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable. The stormwater management program must include these six minimum control measures:

- Public education and outreach on stormwater impacts
- Public involvement/participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post-construction stormwater management in new development and redevelopment
- Pollution prevention/good housekeeping for municipal operations

Natural Community: An assemblage of plants and animals interacting with one another and their physical environment.

Natural Resource Conservation Service (NRCS): NRCS provides technical expertise and education on conservation, development, management, and wise use of natural resources to landowners and land managers. Areas of expertise include streambank stabilization and soil erosion/ sediment control, wetland and habitat restoration, agricultural conservation, water quality protection, conservation planning, and natural resource maps and reports. NRCS administers several cost-share programs targeted to water quality, wetland restoration, and other watershed priorities.

Nitrate (NO_3^-): A form of inorganic nitrogen.

Non-Point Source Pollution (NPS): Refers to pollutants that accumulate in waterbodies from a variety of sources including runoff from the land, impervious surfaces, the drainage system and deposition of air pollutants.

North American Vertical Datum of 1988 (NAVD88): The vertical control datum of orthometric height established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.

North Branch Chicago River Watershed Planning Area: The 95 square mile portion of the North Branch Chicago River watershed assessed for this watershed plan. The NBCR planning area incorporates the portion of the Chicago River watershed that includes the subwatersheds of the West Fork and Middle Fork tributaries, and Skokie River as well as a short reach of the mainstem (North Branch Chicago River) in Lake County and Cook County, Illinois.

North Branch Chicago River Watershed Workgroup (NBWW): Consortium of publicly operated treatment works and MS4s organized to improve water quality throughout the North Branch Chicago River Watershed in Lake and Cook County and remove the North Branch Chicago River waterways from the Illinois EPA 303(d) impaired waters list.

North Shore Water Reclamation District (NSWRD): A municipal body that collects and conveys wastewater from local sewer systems from 17 communities in Lake County to water reclamation facilities in Gurnee, Waukegan, and Highland Park.

Objectives: Specific, precise, measurable, attainable, relevant, and time-based steps needed to attain watershed plan goals.

Onstream (or Online) Basins: Basins that are connected to a “natural” surface waterway (creek, stream, river etc.), whether that waterway flows in and/or out of the pond.

Outwash: Sand and gravel deposits removed or washed out from a glacier.

Pesticides General Permit (PGP): A permit issued under the Clean Water Act’s National Pollutant Discharge Elimination System, that regulates point source discharges of biological and chemical pesticides that leave a residue.

pH: A measure of the concentration of the hydrogen ion in water, which affects multiple chemical processes within a lake such as the carbonate equilibrium cycle.

Point Source Pollution: Discharges from a single source such as an outfall pipe conveying wastewater from an industrial plant or wastewater treatment facility.

Polychlorinated biphenyl (PCB): An organic compound that was banned in the United States in 1979 because it is hazardous to human and environmental health. PCBs do not easily break down or degrade and are persistent in the environment.

Polycyclic Aromatic Hydrocarbons (PAH): A class of chemicals commonly present in urban and suburban non-point source pollution. PAH’s are naturally formed in coal, crude oil, and gasoline, and can be formed when coal, oil gas, wood, garbage, or tobacco is burned.

Potentially Restorable Wetlands: Areas with predominantly hydric soils that are not mapped as wetlands on the LCWI and have not been converted to urban land use.

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

Probable Effect Concentration: A consensus based sediment quality guideline. Concentrations of a substance higher than the PEC are expected to frequently cause adverse effects to biota.

Problem Hydraulic Structures: Structures that may require further inspection or repairs.

Publicly Owned Treatment Works (POTWs): A sewage treatment plant that is owned by a government agency.

Rainwater Harvesting: Onsite collection, storage, and reuse of rainwater.

Rapid Assessment Point Method (RAP-M): A method used to capture erosion and sediment information on a watershed scale.

Riparian: The riverside or riverine environment next to the stream channel, e.g., riparian, or streamside, vegetation.

River Watch: A volunteer stream monitoring program that seeks to engage Illinois adults by training them as Citizen Scientists to collect consistent, high-quality data on the conditions of local streams.

Runoff: The portion of rain or snow that does not infiltrate into the ground and is discharged into streams by flowing over the ground instead.

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

Secchi Disk: A circular disk with an alternating black and white pattern used to measure water transparency or turbidity.

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

Sedimentation: The process that deposits soils, debris and other materials on ground surfaces or in bodies of water or watercourses.

Seep: A wetland, herbaceous or wooded, with saturated soil or inundation resulting from the diffuse flow of groundwater to the surface stratum.

Shoreline Erosion: Shoreline erosion is a natural process which results in the loss of sediment from a shoreline.

Slough: A swamp or shallow lake system, usually a backwater to a larger body of water.

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

Soil Series: A level of classification in the USDA Soil Taxonomy classification system hierarchy.

Soil Survey Geographic Database (SSURGO): A database that contains information about soil that was collected by the National Cooperative Soil Survey.

Solid Waste Agency of Lake County (SWALCO): An agency in Lake County that implements a regional approach to solid waste management.

Spatial Watershed Assessment and Management Model (SWAMM™): A spatially based GIS model and management system for estimating non-point source pollution loading and identifying locations for BMP implementation.

Spreadsheet Tool for Estimating Pollutant Load (STEPL): A spreadsheet that employs simple algorithms to calculate nutrient and sediment loads from different land uses and the load reductions that would result from the implementation of various BMPs.

Stormsewershed: The land area drained by a stormsewer or stormsewer network.

Subwatershed: A smaller basin within a larger drainage area that all drains to a central point of the larger watershed.

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: A line connecting the lowest points of successive cross-sections along the course of a valley or river.

Threatened Species: A species likely to become endangered.

Threshold Effect Concentration (TEC): A consensus based sediment quality guideline. Concentrations of a substance lower than the TEC are not expected to cause adverse effects to biota.

Till: A heterogeneous mixture of clay, silt, sand, gravel, stones, and boulders deposited directly by and underneath a glacier without stratification.

Total Maximum Daily Load (TMDL): The maximum amount of point and non-point source pollutants a stream can take in during a single day and still support its designated uses.

Total Dissolved Solids (TDS): A measure of the dissolved solids in a water sample.

Total Kjeldahl Nitrogen (TKN): A measure of organic nitrogen and ammonia in a water sample.

Total Phosphorus: A measure of all organic and inorganic phosphorus in a water sample.

Total Solids (TS): A measure of all suspended and dissolved solids in a water sample.

Total Suspended Solids (TSS): A measure of organic and inorganic material greater than 0.45 microns in size that are suspended in the water column.

Total Volatile Solids (TVS): A measure of organic solids in the water column, including algae, plant material, and zooplankton.

Unified Development Ordinance (UDO): Ordinance that regulates zoning, subdivision, signs and site development in unincorporated Lake County.

United States Environmental Protection Agency (USEPA): A federal government agency created to protect human and environmental health by writing and enforcing regulations.

United States Army Corps of Engineers (USACE): Federal group of civilian and military engineers and scientists that provide services to the nation including planning, designing, building and operating water resources and other Civil Works projects. These also include navigation, flood control, environmental protection, and disaster response.

United States Geological Survey (USGS): Government agency established in 1879 with the responsibility to serve the Nation by providing reliable scientific information to describe and understand the Earth, minimize the loss of life and property from natural disasters, manage water, biological, energy, and mineral resources, and enhance and protect our quality of life.

Universal Soil Loss Equation (USLE): A mathematical model commonly used to estimate yearly soil loss.

University of Illinois Extension: The University of Illinois Urbana-Champaign outreach effort that provides technical assistance and educational outreach relating to energy and environmental stewardship, food safety and security, economic development and workforce preparedness, family health financial security and wellness, and youth development.

Waterbody Type: A distinction in the underlying nature of the wetland based on size and shape of the associated water component: Lake, Pond, River, or Stream.

Water Clarity: A measure of the depth that light penetrates through the water column.

Water Flow Path: Descriptors that characterize the direction of water flow (inflow, outflow, throughflow, bidirectional flow, etc.).

Watershed: Land area that drains to a given stream or river. 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 Development Ordinance (WDO): One part of the adopted Lake County Comprehensive Stormwater Management Plan. It sets forth the minimum requirements for the stormwater management aspects of development in Lake County.

Watershed Management Ordinance (WMO): Ordinance that establishes uniform, minimum, and comprehensive countywide stormwater management regulations for Cook County.

NORTH BRANCH CHICAGO RIVER WATERSHED-BASED PLAN – 2022

Watershed Planning Committee: A committee comprised of SMC staff and watershed stakeholders, with a goal of updating the watershed-based plan for the North Branch Chicago River watershed and reducing nonpoint source pollution.

Wastewater Treatment Plant (WWTP): A facility that treats sewage and wastewater prior to discharging it into the environment.

Wet Detention Basin: A permanent pool of water with designed dimensions, inlets, outlets and storage capacity, constructed to collect, detain, treat and release stormwater runoff.

Wet Flood Proofing: Wet flood-proofing allows water to enter the structure, but minimizes the damage to the structure and its contents.

Wetland: Land that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, under normal conditions, a prevalence of vegetation adapted for life in saturated soil conditions. A wetland is identified based on hydrology, soils, and vegetation as mandated by the current Federal wetland determination methodology.

Wet Meadows: A type of wetland away from stream or river influence with water made available by general drainage and consisting of non-woody vegetation growing in saturated or occasionally flooded soils.

Waters of the United States (WOUS): For the purpose of the Watershed Development Ordinance the term Waters of the United States refers to those water bodies and wetland areas that are under the U.S. Army Corps of Engineers jurisdiction.

Wetland Creation: Development of a wetland in an area that was not previously a wetland (i.e., not in a drained or otherwise modified hydric soil).

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.

Wetlands Restoration and Preservation Plan (WRAPP): A plan, developed by SMC in 2018, with input from a technical advisory group. The WRAPP estimates functions of mapped wetlands and water resources for existing and pre-European settlement conditions within Lake County. The WRAPP will include an on-line decision support tool to help users prioritize restoration and preservation opportunities based on acreage, wetland function or functional loss. (<https://www.lakecountyil.gov/2531/Wetland-Restoration-Preservation-Plan>)

Woodland: An area that is mostly covered with trees and shrubs.