Preserving The Environment • Improving Water Quality

DEFINITIONS

Acceptable Analysis Techniques. Those methods and procedures that are approved by the District and regulatory agencies.

Backwater. The increase in stage, or elevation of the water surface, on the upstream side of a bridge or culvert above that which would occur in the absence of the structure.

Basin Divide (or Watershed Divide). A line dividing land whose drainage flows toward a given stream from the land whose drainage flows away from that stream.

Best Management Practices (BMPs). A set of guidelines established to be followed during construction or design of any development.

Channel. A natural or manmade course or pathway where surface water is conveyed.

Conservation Easement. A legal agreement between a landowner and a land trust or government agency that permanently protects the environmentally valuable aspects of a piece of land, while maintaining the landowner's restricted use of the land as defined by the agreement.

Critical Time Period. A measure of the time it takes a flood peak to reach the outlet of a watershed, critical time period is the time from the peak rainfall rate to the peak flow of the outlet hydrograph.

Detention. A dry basin or pond designed to temporarily hold (detain) storm water runoff during and immediately after a rainfall or snowmelt event.

Development. Construction of buildings, roads, parking lots, and paved or unpaved storage areas.

Drainage Area. A geographical area draining to a specific location.

Floodplain. The normally dry land adjoining rivers, streams and lakes that is inundated during flood events.

Floodproofing. Modifications to an existing or new structure or facility to minimize flood damage.

Floodwall. A wall built along a shore or bank to prevent an area from flooding.

Freeboard. A vertical distance between a set high water level and the top of a structure provided as a factor of safety. For example, it is the distance between the design maximum water level in a river or pond and the top of a bank, berm, levee or floodwall.

Emergency Action Plan. A proactive way to mitigate the flood damage and pollution typically accompanying inevitable heavy rainfalls and large snowfalls.

Hydrologic Cycle. Continuous circulation of water from the atmosphere onto, over, through and under the land surface; into creeks, rivers, ponds, and lakes; and back into the atmosphere.

Hydrology. Analysis of the physical behavior of water from its occurrence as precipitation through its movement on or beneath the earth's surface; to its entry into sewers, streams, lakes, and the ocean; and its return to the atmosphere. Simply stated, hydrology is the study of spatial and temporal changes inwater volumes and discharge rates.

Hydrograph. A graph or table of the flow in a channel or river versus time.

Impervious Surface. Any pavement or structural element that prevents rain, surface runoff, or melting snow from infiltrating into ground below, including, but not limited to, roofs and paved roads, driveways and parking lots.

Infiltration Trench. A storm water storage facility intended to serve a small area, such as a parking lot, in contrast with much larger areas typically served by detention/retention facilities.

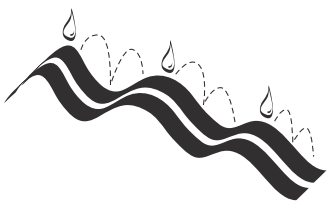
Levee. An embankment raised to prevent a river from overflowing.

Low Impact Development. A land development approach that combines a hydrologically functional site design with pollution prevention measures to reduce impacts and compensate for development impacts on hydrology and water quality.

Natural Storage. The natural areas adjacent to a river or stream where water is stored during a flooding event. Typical areas included lowlands, floodplains, and wetlands.

Pervious Surface. A surface that readily and quickly allows water to pass through and penetrate it.

Primary Environmental Corridor. Linear areas in the landscape consisting of at least 400 acres, with a minimum length of two miles and a minimum width of 200 feet and that contain substantial concentrations of natural resource and natural resource-related amenities such as wetlands, woodlands, wildlife habitat areas, major bodies of surface water and delineated flood-lands and shorelands. An area must exhibit a point value of 10 or more on a SEWPRC-designed system in order to be designated as a primary environmental corridor in southeastern Wisconsin.



Redevelopment. New development that replaces older development.

Regional Flood. The peak flow and peak elevation of water with a 1% probability of occurring during any one year, considering rainfall time and intensity patterns, rainfall duration, area distribution, antecedent moisture, and snow melt.

Retention. A normally wet basin designed to temporarily hold (retain) storm water runoff, above a normal water level, during and immediately after a rainfall or snowmelt event.

Riparian Areas. An area of land directly influenced by water. An ecosystem that is transitional between land and water ecosystems. Riparian areas usually have visible vegetative or physical characteristics reflecting the influence of water. River sides, lake borders, and marshes are typical riparian areas.

Sedimentation Basin. A surface water storage facility intended to trap suspended solids, suspended and buoyant debris, and absorbed or absorbed potential pollutants that are carried by surface water runoff. The sedimentation basin may be part of a multipurpose storm water facility.

Site. The place where a structure or group of structures was, is, or is to be located: a good site for the development. The place or setting of something: a historic site; a development site.

Storm Water Management (SWM). Everything done to remedy existing storm water related flooding and pollution problems and to prevent the occurrence of new problems. From a functional perspective, SWM involves planning, design, construction and operation.

Storm Water Management Measures. The tools used in storm water management. The actions taken and facilities that are built to prevent flooding and pollution.

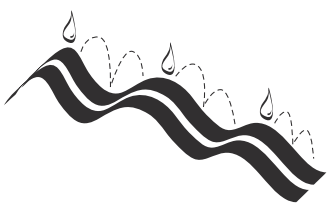
Storm Water Management Plan/program. A document describing existing storm water conditions and proposed actions to manage future flows and water levels for a site, community or watershed.

Surface Water. Water stored on the land in lakes, pond or wetlands or flowing in rivers, channels or overland flow.

Subbasin. A portion of land, which a watershed is divided into to better define the watershed in modeling. Typically, subbasins are drained by a single river system.

Time of Concentration. The time it takes water to flow from the hydraulically most remote point in a basin to the basin outlet.

Unit Release Rate. Flow rate discharging from a specified area expressed in measurement units of flow per unit area, often in cubic feet per second per acre (cfs/acre).



Unit Release Rate Method. Procedure for determine detention storage based on limiting outflow from an area to a specified maximum allowable release rate

Volumetric Design Procedure (VDP). Procedure for determining detention storage based on controlling the volume of outflow over time.

Watershed. The area of land draining to a stream at a given location.

Watershed Divide (or Basin Divide). A line dividing land whose drainage flows toward a given stream from the land whose drainage flows away from that stream.

Watershed Planning Analysis. Engineering methods used to evaluate surface water flows and elevations at various locations in a watershed for the purpose of determining appropriate management measures.

Wetland. Areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation, and which have soils indicative of wet conditions.

100-yr recurrence interval or 1 percent probability event. A statistical value that represents the one in 100 chance of an event occurring.

50-yr recurrence interval or 2 percent probability event. A statistical value that represents the two in 100 chance of an event occurring.

2-yr recurrence interval or 50 percent probability event. A statistical value that represents the 50 in 100 chance of an event occurring.

Source Documents:

1. Milwaukee Metropolitan Sewerage District, 2001.
2. Walesh, 1989.
3. Watercourse Policy Advisory Group, 1999.
4. Prince George's County, 1997.
5. Design Hydrology and Sedimentology for Small Catchments, 1994.
6. Chow, Maidment and Mays, Applied Hydrology, McGraw Hill, 1998.