CITY OF LAFAYETTE

WET WEATHER PROGRAM

City of Lafayette Stormwater Program

Stormwater Service Charge Policies and Procedures

Revised 6.30.10

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Purpose of Policies and Procedures Document

The purpose of this document is to establish and convey the general policies and procedures of implementation and operation of the City of Lafayette's **ORDINANCE NOS. 2009–20, 2009–28 and 2010–5** amending the city's Municipal Code providing for a stormwater service charge. This document discusses, directs and illustrates the program's responsibilities, processes and details for the determination, assessment and appeal of the stormwater service charge.

1. Program Responsibility

Section 8.08.150 of the Stormwater Code, establishes the Division of Stormwater Management within the Water Pollution Control Department (Department). Acting through the Department and under the Board of Works, the Division of Stormwater Management maintains and operates the city's stormwater system (the "System") and administers, implements, and enforces the Stormwater Code. The Department is also charged with required compliance activities for the city's National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit.

The Lafayette City Ordinance Nos. 2009-20, 2009-28 and 2010-5 (Ordinances) authorizes the establishment of the stormwater service charge as a function of the department. The City Engineer and designated representatives will coordinate the stormwater program activities with the Department. Budgets and contracts will be approved by the city Board of Works as authorized by the Lafayette City Council. Program billing activities are carried out by the city's Geographic Information System (GIS) Department (parcel database management, update and maintenance) and the city Utility Billing Office (service charge statement distribution and collections).

As approved, the Ordinances expires on October 5, 2023, terminating the stormwater service charge.

2. Stormwater Drainage System

The city's stormwater drainage system or NPDES permitted MS4, consists of inlets, catch basins, pipes, stormwater basins, swales, ditches and other watercourses within the public right-of-way that convey stormwater. Public streets and roadways are considered, by the city, as part of the city's stormwater conveyance system. Private stormwater facilities or structures are considered the responsibility of the landowner.

3. Stormwater Service Charge

Per the Ordinances the stormwater service charge is imposed on each and every lot and parcel of land within the city that directly or indirectly contributes to the city's stormwater drainage system. The property owner of public record is ultimately responsible for and is assessed the stormwater service charge and all assessed penalties, recording fees, legal fees, interest, court costs and other expenses, as applicable.

The Department is responsible for creating policies and procedures to make determinations regarding specific parcels and properties for purposes of calculating the stormwater service charge for such properties.

A. Determination of Stormwater Service Charge

Impervious Surface Area

Impervious Surface Area
Impervious surface area is defined as a surface that prevents the infiltration of stormwater into the soil. Impervious surface area allows stormwater to accumulate and run off as concentrated discharge. The city considers all developed property to contain impervious surface area. Impervious surface areas include driveways, building rooftops, parking lots, patios, sidewalks, private roadways, pavement, rooftops, compacted gravels and other structures.

Examples of Impervious and Pervious surface area
On the following page are examples of impervious and pervious surface areas. The city measures impervious areas on non-residential property but has adopted an average area of impervious surface area for residential properties.

Impervious Surfaces

What the City Measures on Non-residential Parcels

Roadways, Driveways, Parking Spaces, Aprons, Pathways

Gravel Driveways, Parking Areas, Aprons, Pathways

Roofing, Patios, Sidewalks

Pervious Surfaces

What the City Does Not Measure on Non-residential Parcels

Grass, Trees, Vegetated Areas

Wood Decking

Hardscape, Landscape Features, Stepping Stones, Rock Gardens

Equivalent Residential Unit (ERU)

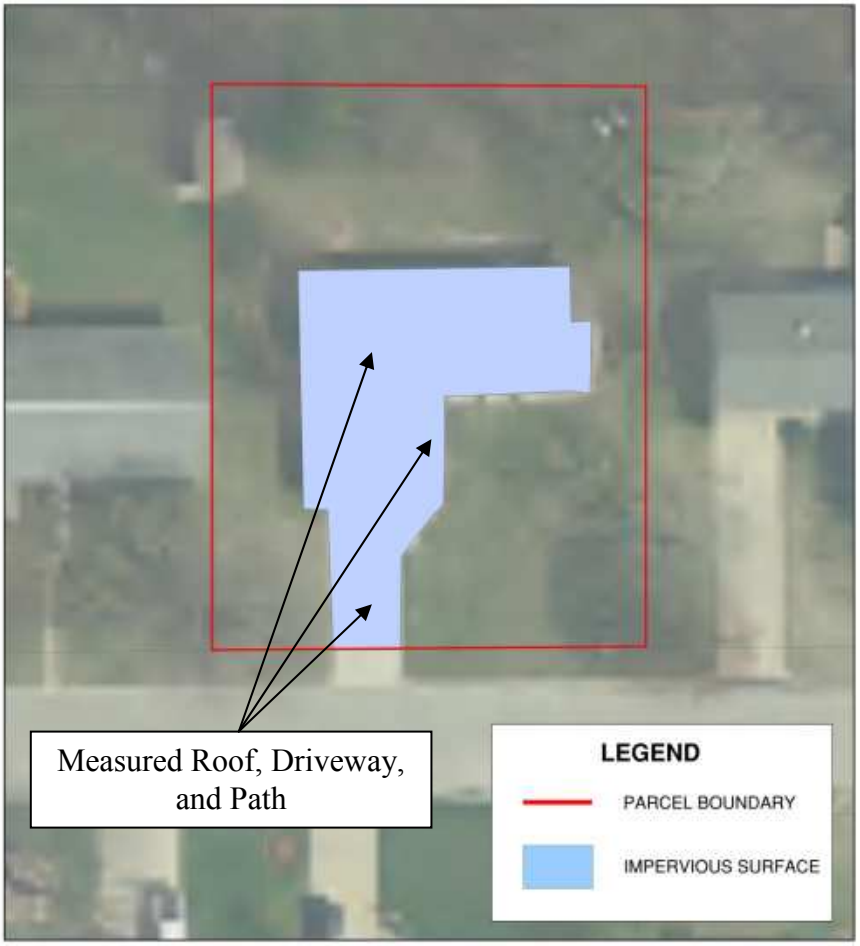
The City of Lafayette established an Equivalent Residential Unit (ERU) as the basis for determining the stormwater service charge. The ERU serves as the base billing unit for the city's service charge and is an average of impervious surface area located on a

residential property for the City of Lafayette. One ERU is equal to 3,200 square feet of impervious surface. Residential properties are considered to be one ERU. Non-residential properties can be assigned multiple ERUs but not less than one ERU.

Impervious Surface Area Measurement and ERU Calculation

As stated above, a residential property is assigned one ERU or base billing unit and is the average impervious surface area of a residential property or parcel. An illustration of impervious surface area located on a residential property is shown below.

Residential Impervious Surface Example



The impervious surface area of non-residential properties are individually measured by the city to determine the number of applicable billing units or ERUs. Non-residential properties or parcels will not be assessed less than one ERU.

Non-residential Impervious Surface Example

Application of Stormwater Service Charge

Exemptions

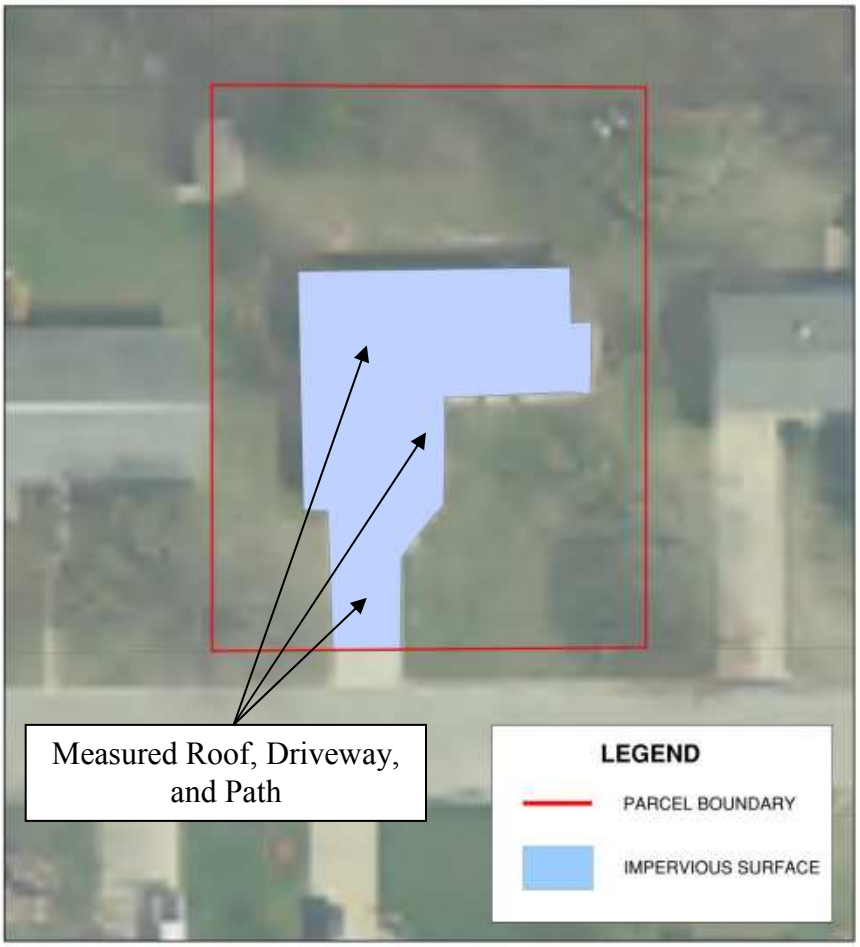
Public streets, roadways and railways are considered to be part of the stormwater conveyance system and are not assessed a stormwater service charge. Undeveloped property or those having no impervious surface are not assessed a stormwater service charge.

Residential Property

A residential property is defined per the Ordinances as, "A parcel or property containing a single building or structure intended for sleeping purposes and containing not more than two (2) dwelling units." A dwelling unit is defined as, "A building or structure, or portion thereof, that contains living facilities, including provisions for sleeping, eating, cooking and sanitation, as required by local, state and federal code, for not more than one (1) family or congregate resident for sixteen (16) or fewer persons."

Owners of residential properties are assessed monthly one base billing unit or ERU multiplied by the applicable monthly rate. To calculate the monthly stormwater service charge for a residential property, the following formula is used.

Example Residential Service Charge Calculation



1 ERU	X	$4.00	=	$4.00/MONTH

**Rate = $4.00 in 2010*
Rate = $5.00 in 2011 through October 5, 2023

For a newly constructed single family home on a site that was not previously developed, the residential parcels are considered responsible for the stormwater service charge beginning the month following the issuance of the Certificate of Occupancy per the Lafayette City Code for structure(s) located on the property.

Non-residential Property

A non-residential property is defined per Ordinance No. 2009-20 as, "A parcel or property that is not a residential property."

Owners of non-residential properties are assessed monthly per the number of billing units or ERUs of impervious surface area located on the property multiplied by the applicable monthly rate. To calculate the monthly stormwater service charge for a non-residential property, the following formula is used:

30,516 Square Feet Impervious Area / 3,200 Square Feet (1 ERU)	X	$4.00*	=	$38.15/Month

Example Non-Residential Service Charge Calculation

* *Rate = $4.00 in 2010*
Rate = $5.00 in 2011 through October 5, 2023

For a newly constructed non-residential site, that was not previously developed, non-residential parcels are considered responsible for the stormwater service charge beginning the month following the issuance of the Certificate of Occupancy or use per the Lafayette City Code for structure(s) located on the property.

Alternate Rate Classes for Non-residential Property

The Ordinances create two (2) additional alternate rate classes for specific Non-residential properties or parcels which hold valid NPDES stormwater discharge permits issued by the Indiana Department of Environmental Management (IDEM). Qualifying NPDES permits include discharges exposed to industrial activities (Rule 6), runoff associated with MS4 conveyances (Rule 13) and or other related NPDES permits. The alternative rate classes are applicable as listed below.

- Alternate Rate A – For stormwater discharges made directly into a watercourse within the City of Lafayette, the monthly stormwater service charge shall be calculated by multiplying the ERU by $2.50.

- Alternate Rate B – For stormwater discharges made directly into a watercourse outside of the City of Lafayette, the monthly stormwater service charge shall be calculated by multiplying the ERU by $1.54.

The above alternate rate applies only to the portion of ERUs and/or property specifically covered by an active permit and that discharges into a watercourse. The standard monthly rate applies to all other impervious surface area or ERUs.

To qualify for an alternate rate, the applicant is required to submit the following information to the city:

1. Completed Alternate Rate Class Application and Discharge Information Sheets
2. Specific NPDES permit certifications
3. Current annual permit compliance reporting indicating that the applicant is in full compliance with all permit conditions and requirements
4. A map of the facility illustrating parcel and impervious surface area information, permitted discharge point and contributing drainage areas

Subsequent NPDES permit compliance reports and continued permit compliance is required for qualification for an alternate monthly stormwater service charge. Applicants for alternate rate classes A or B should contact the City Engineer's office at (765) 807-1036 to inquire about application forms and alternate rate class requirements. Alternate Rate Class application materials and documents can be found at http://lafayette.in.gov on the Engineering page, or by contacting the Engineering Department at (765) 807-1036.

The city will track applicants' permit compliance through the IDEM public notice process. Alternate Rate Class applications are renewed on an annual basis.

B. Issuing Stormwater Service Charges

Property Ownership

The Ordinances establish that the property owner is ultimately responsible for the assessed monthly stormwater service charge. The City of Lafayette has implemented and manages a property owner's database for the purpose of issuing stormwater service

charges. The property owner's database is constructed by the city with data from Tippecanoe County property tax records and maintained by the city's GIS Department. City of Lafayette water utility will carry out periodic maintenance of the database as new or updated information is provided by the county or through the city's permitting, inspection and/or certification procedures.

Billing Process

Issuing a Stormwater Service Charge
The city's utility billing office issues the stormwater service charges. The charges are issued from a property owner database developed and maintained for the utility billing office for the purpose of issuing stormwater service charges. The city establishes the process for issuance of stormwater service charges.

Rounding
Per the Ordinances, ERU multiples are rounded to the nearest tenth. The stormwater service charge will be rounded to the nearest whole cent.

Payment and Collection
As set forth by the Ordinances, the assessed stormwater service charge payments are due on the payment date set on the statement. When paying the stormwater user fee, these customers will have a choice of two payment options: single payment or multiple payments. When choosing the single payment option, customers can submit a lump sum payment for the full six months of stormwater service any time before the date due. If the multiple payments option is selected, the stormwater bill may be divided into six monthly payments of 1/6 each with each payment due on the designated due date.

Bills for stormwater services not paid on or before the due date are subject to a collection or deferred payment charge of 10 percent on the outstanding balance. Moving or relocation does not absolve the user from the responsibility of unpaid charges from a previous location.

Checks returned for insufficient funds are subject to reimbursement of the fee the banking institution charges the city and an administrative charge to be determined by the department. A customer submitting a bad check can be prohibited from making future stormwater service charge payments by check.

Delinquent stormwater service charge payments constitute a lien against the property and may be collected, along with applied penalties, recording fees and service charges, in accordance with the provisions of IC 36-9-23-32 and -33, or as amended. Delinquent stormwater service charges may also be collected in a civil action along with reasonable attorneys' fees and court costs.

4. Account Review and Appeals

The department does provide for the review and/or appeal of a non-residential property account. Reviews and appeals should be based on evidence or opinion that the multiple

ERU assigned to the property is inaccurate. The non-residential property owner is responsible for payment of the assessed stormwater service charges prior to and during review and appeal proceedings.

Any non-residential property owner aggrieved by a determination of multiple ERU's assigned to their property may seek a review of that determination by the City Engineer or her/his designee by calling the City Engineering Office at 765-807-1036 and providing the account number, the property address or the parcel identification, a description of the account dispute and the property owner's contact information. The account review will be conducted and a determination together with supportive documentation will be provided to the property owner.

If the property owner is still aggrieved by the decision of the City Engineer, the property owner may file a written appeal summarizing their objection to the decision, with the Lafayette City Clerk's Office on or before 10 days after determination by the City Engineer.

The Clerk's Office will place said written appeal on the Board of Works agenda and said appeal will be considered at the next regular Board of Public Works and Safety Meeting. The Appeal may be heard at that regular Board of Public Works and Safety Meeting or the Board may schedule a special meeting for a hearing. At said Hearing both the property owner and the City shall present their evidence for a final binding determination by the Board of Public Works and Safety.

Stormwater Account Considerations

Tax exempt property owners are responsible for payment of the Stormwater Service Charges if impervious surface area is present on the property in question.

Property adjoining a residential property of the same account containing a garage not being used for commercial purposes will not be assessed a residential service charge.

Adjoining properties of the same account qualifying as residential and containing one common structure extending across the adjoining properties may be assessed a single ERU.

An agricultural property/parcel containing a dwelling unit such that it qualifies as a residential property will be assessed not less than one ERU.

Agricultural property containing structures considered impervious surface area are measured and assessed as non-residential property.

A property/parcel containing both residential and commercial structures and uses will be considered a non-residential property for assessment purposes.

Trails established and maintained by the City of Lafayette on or across private non-residential property will not be assessed to the private property owner.

Impervious surface area calculations for cemeteries will not include grave markers.

Non-maintained gravel parking areas or driveways on non-residential properties are subject to measurement as impervious surface area.

Stormwater management facilities such as ponds, retention and detention basins are not assessed to the property owner as impervious surface area.

Property annexed by the City of Lafayette meeting the definition of residential or non-residential property is subject to the stormwater service charges as of the date of annexation.

For contiguous non-residential properties within the same account and having the same owner, the total ERUs for the contiguous parcels will be determined by adding the total measured impervious surface and dividing the total by 3,200 sq. ft. Rounding of the ERU shall be per the ordinance.

Property owners demolishing structures and eliminating, removing or reducing impervious surface area on either non-residential property should contact the City Engineering Department at (765) 807-1036.

5. Public Information and Customer Service

A. Public Information

The city's NPDES MS4 permit requires the city to provide outreach and education to the community regarding stormwater permit requirements and ongoing activities. Annual activities may include stormwater public information meetings, stormwater quality workshops and other stormwater awareness programs. The city will utilize various types of media to communicate information to the public regarding important program messages and upcoming activities. Sources for program information include the city's web site (http://www.lafayette.in.gov/department/index.php?fDD=5-0), utility billing statements, local newspapers and periodic public service announcements on local television and radio.

Important information regarding the stormwater service charge will be found on the service charge statement and/or other utility billing statements.

B. Customer Service

Customer questions pertaining to the stormwater service charge should be directed as follows:

Questions about a specific statement and/or account status should be directed to the Utility Department: (765) 807-1100.

General questions about stormwater program or the service charge should be directed to the Engineering Department: (765) 807-1036.

Questions can also be sent to the city's action center at the following email address: https://www.lafayette.in.gov/egov/apps/action/center.egov?action=form&item=5.

6. Application of Stormwater Funds

Per the ordinance, collected stormwater program funds are deposited in the City of Lafayette Stormwater Revenue Fund. Use of the funds is authorized by the Board of Works. The board will approve the use of funds for the operation, maintenance and improvement of the city's stormwater system, many of which are critical MS4 permit compliance activities. Stormwater revenue funds will not revert to any other city utility or to the general fund.

7. Program Abbreviations and Definitions

A. Abbreviations

BMP	Best Management Practice
COE	United States Army Corps of Engineers
CWA	Clean Water Act
EPA	Environmental Protection Agency
ERU	Equivalent Residential Unit
GIS	Geographical Information System
IDEM	Indiana Department of Environmental Management
MS4	Municipal Separate Storm Sewer System
NRCS	USDA-Natural Resources Conservation Service
NPDES	National Pollutant Discharge Elimination System
POTW	Publicly Owned Treatment Works
SWCD	Soil and Water Conservation District
SWPPP	Stormwater Pollution Prevention Plan
USDA	United States Department of Agriculture

B. Definitions

Best Management Practices. Design, construction, and maintenance practices and criteria for stormwater facilities that minimize the impact of stormwater runoff rates and volumes, prevent erosion, and capture pollutants.

Buffer Strip. An existing, variable width strip of vegetated land intended to protect water quality and habitat.

Catch Basin. A chamber usually built at the curb line of a street for the admission of surface water to a storm drain or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.

Channel. A portion of a natural or artificial watercourse which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. It has a defined bed and banks which serve to confine the water.

Constructed Wetland. A manmade shallow pool that creates growing conditions suitable for wetland vegetation and is designed to maximize pollutant removal.

Construction Activity. Land disturbing activities, and land disturbing activities associated with the construction of infrastructure and structures. This term does not include routine ditch or road maintenance or minor landscaping projects.

Construction Site Access. A stabilized stone surface at all points of ingress or egress to a project site, for the purpose of capturing and detaining sediment carried by tires of vehicles or other equipment entering or exiting the project site.

Contour. An imaginary line on the surface of the earth connecting points of the same elevation.

Contractor or Subcontractor. An individual or company hired by the project site or individual lot owner, their agent, or the individual lot operator to perform services on the project site.

Conveyance. Any structural method for transferring stormwater between at least two points. The term includes piping, ditches, swales, curbs, gutters, catch basins, channels, storm drains, and roadways.

Cross Section. A graph or plot of ground elevation across a stream valley or a portion of it, usually along a line perpendicular to the stream or direction of flow.

Culvert. A closed conduit used for the conveyance of surface drainage water under a roadway, railroad, canal or other impediment.

Dechlorinated Swimming Pool Discharge. Chlorinated water that has either sat idle for seven days following chlorination prior to discharge to the MS4 conveyance, or, by analysis, does not contain detectable concentrations (less than five-hundredths (0.05) milligram per liter) of chlorinated residual.

Detention. Managing stormwater runoff by temporary holding and controlled release.

Detention Basin. A facility constructed or modified to restrict the flow of stormwater to a prescribed maximum rate, and to detain concurrently the excess waters that accumulate behind the outlet.

Detention Storage. The temporary detaining of storage of stormwater in storage facilities, on rooftops, in streets, parking lots, school yards, parks, open spaces or other areas under predetermined and controlled conditions, with the rate of release regulated by appropriately installed devices.

Detritus. Dead or decaying organic matter; generally contributed to stormwater as fallen leaves and sticks or as dead aquatic organisms.

Developer. Any person financially responsible for construction activity, or an owner of property who sells or leases, or offers for sale or lease, any lots in a subdivision.

Development. Any improvement or change to a property brought about by human activity, including but not limited to: buildings and other structures, mining, dredging, grading, paving, excavation or drilling operations. The term does not include public roads.

Discharge. Usually the rate of water flow. A volume of fluid passing a point per unit time commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, or millions of gallons per day.

Disposal. The discharge, deposit, injection, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that the solid waste or hazardous waste, or any constituent of the waste, may enter the environment, be emitted into the air, or be discharged into any waters, including ground waters.

Ditch. A man-made, open drainageway in or into which excess surface water or groundwater drained from land, stormwater runoff, or floodwaters flow either continuously or intermittently.

Drain. A buried slotted or perforated pipe or other conduit (subsurface drain) or a ditch (open drain) for carrying off surplus groundwater or surface water.

Drainage. The removal of excess surface water or groundwater from land by means of ditches or subsurface drains. Also see natural drainage.

Drainage Area. The area draining into a stream at a given point. It may be of different sizes for surface runoff, subsurface flow and base flow, but generally the surface runoff area is considered as the drainage area.

Drainageway. A natural or artificial stream, closed conduit, or depression that carries surface water. This term is used as a neutral term applying to all types of drains and watercourses, whether man-made or natural.

Duration. The time period of a rainfall event.

Dwelling Unit. A building or structure, or portion thereof, that contains living facilities, including provisions for sleeping, eating, cooking and sanitation, as required by local, state and federal code, for not more than one (1) family or congregate resident for sixteen (16) or fewer persons.

Environment. The sum total of all the external conditions that may act upon a living organism or community to influence its development or existence.

Equivalent Residential Unit. One (1) equivalent residential unit shall equal 3,200 square feet of impervious surface area, which shall be considered the average impervious surface area for a Residential Property.

Erosion. The wearing away of the land surface by water, wind, ice, gravity, or other geological agents. The following terms are used to describe different types of water erosion:

- *Accelerated Erosion* --Erosion much more rapid than normal or geologic erosion, primarily as a result of the activities of man;
- *Channel Erosion* --An erosion process whereby the volume and velocity of flow wears away the bed and/or banks of a well-defined channel;
- *Gully Erosion* --An erosion process whereby runoff water accumulates in narrow channels and, over relatively short periods, removes the soil to considerable depths, ranging from one to two ft. to as much as seventy-five (75) to one hundred (100) ft;
- *Rill Erosion* --An erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed and exposed soils (see rill);
- *Splash Erosion* --The spattering of small soil particles caused by the impact of raindrops on wet soils; the loosened and spattered particles may or may not be subsequently removed by surface runoff;
- *Sheet Erosion* --The gradual removal of a fairly uniform layer of soil from the land surface by runoff water.

Erosion and Sediment Control. A practice, or a combination of practices, to minimize sedimentation by first reducing or eliminating erosion at the source and then as necessary, trapping sediment to prevent it from being discharged from or within a project site.

Filter Strip. Usually a long, relatively narrow area (usually, twenty (20) to seventy-five (75) feet wide) of undisturbed or planted vegetation used near disturbed or impervious surfaces to filter stormwater pollutants for the protection of watercourses, reservoirs, or adjacent properties.

Flood (or Flood Waters). A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

Floodplain. The channel proper and the areas adjoining the channel which have been or hereafter may be covered by the regulatory or one hundred (100) year flood. Any normally dry land area that is susceptible to being inundated by water from any natural source. The floodplain includes both the floodway and the floodway fringe districts.

Floodway. The channel of a river or stream and those portions of the floodplains adjoining the channel which are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood of any river or stream.

Floodway Fringe. That portion of the flood plain lying outside the floodway, which is inundated by the regulatory flood.

Footing Drain. A drain pipe installed around the exterior of a basement wall foundation to relieve water pressure caused by high groundwater elevation.

Garbage. All putrescible animal solid, vegetable solid, and semisolid wastes resulting from the processing, handling, preparation, cooking, serving, or consumption of food or food materials.

Gasoline Outlet. An operating gasoline or diesel fueling facility whose primary function is the resale of fuels. The term applies to facilities that create five thousand (5,000) or more square feet of impervious surfaces, or generate an average daily traffic count of one hundred (100) vehicles per one thousand (1,000) square feet of land area.

Grade. (1) The inclination or slope of a channel, canal, conduit, etc., or natural ground surface usually expressed in terms of the percentage the vertical rise (or fall) bears to the corresponding horizontal distance; (2) The finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared to a design elevation for the support of construction, such as paving or the laying of a conduit; (3) To finish the surface of a canal bed, roadbed, top of embankment, or bottom of excavation, or other land area to a smooth, even condition.

Grading. The cutting and filling of the land surface to a desired slope or elevation.

Grass. A member of the botanical family Graminae, characterized by blade-like leaves that originate as a sheath wrapped around the stem.

Groundwater. Accumulation of underground water, natural or artificial. The term does not include manmade underground storage or conveyance structures.

Habitat. The environment in which the life needs of a plant or animal are supplied.

Highly Erodible Land (HEL). Land that has an erodibility index of eight or more. Within the Tippecanoe MS4 area, the following soils are listed as highly erodible or potentially highly erodible.

- Coloma (CrC)
- Crosby (CwB2)
- Desker (DmC2, DoC2, DpD2)
- Kalamazoo (KaB2, KbB2, KcB2, KcC2)
- Kosciusko (KoD2, KpC3)
- Lauramie (LnB2)
- Longlois (LvB2, LwB2)
- Miami (MsC2, MsD2, MtC3, MtD3)
- Octagon (OmB2, OmC2, OpC3)
- Rainsville (RaB2)
- Richardville (RdB2, RdC2)
- Rodman (RsF)
- Spinks (StC)
- Strawn (SyF)
- Toronto (TnB2)

Hydrologic Unit Code. A numeric United States Geologic Survey code that corresponds to a watershed area. Each area also has a text description associated with the numeric code.

Hydrology. The science of the behavior of water in the atmosphere, on the surface of the earth, and underground. A typical hydrologic study is undertaken to compute flow rates associated with specified flood events.

Illicit Discharge. Any discharge, excluding water discharged for firefighting and fire protection, to a conveyance that is not composed entirely of stormwater except naturally occurring floatables, such as leaves or tree limbs.

Impaired Waters. Waters that do not or are not expected to meet applicable water quality standards, as included on IDEM's CWA Section 303(d) List of Impaired Waters. Within the Tippecanoe MS4 area, the following waters are considered impaired:

- Elliot Ditch;
- Wabash River;
- Wea Creek;
- Wildcat Creek;
- South Fork Wildcat Creek.

Impervious Surface. A surface, such as pavement, rooftops, compacted gravels and other structures, which prevents the infiltration of stormwater into the soil.

Individual Building Lot. A single parcel of land within a multi-parcel development.

Individual Lot Operator. A contractor or subcontractor working on an individual lot.

Individual Lot Owner. A person who has financial control of construction activities for an individual lot.

Infiltration. Passage or movement of water into the soil. Infiltration practices include any structural BMP designed to facilitate the percolation of run-off through the soil to groundwater. Examples include infiltration basins or trenches, dry wells, and porous pavement.

Inlet. An opening into a storm drain system for the entrance of surface stormwater runoff, more completely described as a storm drain inlet.

Land Surveyor. A person licensed under the laws of the state of Indiana to practice land surveying.

Larger Common Plan of Development or Sale. A plan, undertaken by a single project site owner or a group of project site owners acting in concert, to offer lots for sale or lease; where such land is contiguous, or is known, designated, purchased or advertised as a common unit or by a common name, such land shall be presumed as being offered for sale or lease as part of a larger common plan. The term also includes phased or other construction activity by a single entity for its own use.

Measurable Storm Event. A precipitation event that results in a total measured precipitation accumulation equal to, or greater than, one-half (0.5) inch of rainfall.

Mulch. A natural or artificial layer of plant residue or other materials covering the land surface which conserves moisture, holds soil in place, aids in establishing plant cover, and minimizes temperature fluctuations.

Municipal Separate Storm Sewers. An MS4 meets all the following criteria: (1) is a conveyance or system of conveyances owned by the state, county, city, town, or other public entity; (2) discharges to waters of the U.S.; (3) is designed or used for collecting or conveying stormwater; (4) is not a combined sewer; and (5) is not part of a publicly owned treatment works (POTW).

National Pollutant Discharge Elimination System. A permit developed by the U.S. EPA through the Clean Water Act. In Indiana, the permitting process has been delegated to IDEM. This permit covers aspects of municipal stormwater quality.

Natural Drainage. The flow patterns of stormwater run-off over the land in its pre-development state.

Non-Residential Property. A parcel or property that is not a Residential Property.

Nutrient(s). (1) A substance necessary for the growth and reproduction of organisms;

(2) In water, those substances (chiefly nitrates and phosphates) that promote growth of algae and bacteria.

Open Drain. A natural watercourse or constructed open channel that conveys drainage water.

Open Space. Any land area devoid of any disturbed or impervious surfaces created by industrial, commercial, residential, agricultural, or other manmade activities.

Outfall. The point, location, or structure where a pipe or open drain discharges to a receiving body of water.

Outlet. The point of water disposal from a stream, river, lake, tidewater, or artificial drain.

Outstanding Waters. Waters known for their scenic beauty and recreational opportunities. Within the Tippecanoe MS4 area, these include:

- The Wabash River Heritage Corridor;
- Wildcat Creek;
- The Middle Fork of Wildcat Creek;
- The South Fork of Wildcat.

Permanent Stabilization. The establishment, at a uniform density of seventy (70) percent across the disturbed area, of vegetative cover or permanent non-erosive material that will ensure the resistance of the soil to erosion, sliding, or other movement.

Pervious. Allowing infiltration of water.

Point Source. Any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or maybe discharged (P.L. 92-500, Section 502[14]).

Professional Engineer. A person licensed under the laws of the state of Indiana to practice professional engineering.

Project Site. The entire area on which construction activity is to be performed.

Project Site Owner. The person required to submit a stormwater permit application associated with land disturbing activities, and required to comply with the terms of this code, including a developer or a person who has financial and operational control of construction activities, and project plans and specifications, including the ability to make modifications to those plans and specifications.

Recreational Waters. Most recreational activities within the MS4 area revolve around five waterways:

- Burnett Creek;

- Wabash River;
- North Fork Wildcat Creek;
- South Fork Wildcat Creek;
- Wildcat Creek, mainstem.

Redevelopment. Alterations of a property that change a site or building in such a way that there is disturbances of one acre or more of land. The term does not include such activities as exterior remodeling.

Refueling Area. An operating gasoline or diesel fueling area whose primary function is to provide fuel to equipment or vehicles.

Regulatory Flood. The discharge or elevation associated with the one hundred (100) year flood as calculated by a method and procedure which is acceptable to and approved by the Indiana Department of Natural Resources and the Federal Emergency Management Agency. The "regulatory flood" is also known as the "base flood."

Regulatory Floodway. See floodway.

Release Rate. The amount of stormwater released from a stormwater control facility per unit of time.

Reservoir. A natural or artificially created pond, lake or other space used for storage, regulation or control of water. May be either permanent or temporary. The term is also used in the hydrologic modeling of storage facilities.

Residential Property. A parcel or property containing a single building or structure intended for sleeping purposes and containing not more than two (2) Dwelling Units.

Retention. The storage of stormwater to prevent it from leaving the development site. May be temporary or permanent.

Retention Basin. A type of storage practice, that has no positive outlet, used to retain stormwater run-off for an indefinite amount of time. Runoff from this type of basin is removed only by infiltration through a porous bottom or by evaporation.

Return Period. The average interval of time within which a given rainfall event will be equaled or exceeded once. A flood having a return period of one hundred (100) years has a one percent probability of being equaled or exceeded in any one year.

Riparian Zone. Areas on and adjacent to the banks of a stream, river, or pond, through which surface and subsurface hydrology connect waterbodies with their adjacent uplands.

Riparian Habitat. A land area adjacent to a waterbody that supports animal and plant life associated with that waterbody.

Runoff. That portion of precipitation that flows from a drainage area on the land surface, in open channels, or in stormwater conveyance systems.

Runoff Coefficient. A decimal fraction relating the amount of rain which appears as runoff and reaches the storm drain system to the total amount of rain falling. A coefficient of 0.5 implies that fifty (50) percent of the rain falling on a given surface appears as stormwater runoff.

Sediment. Solid material (both mineral and organic) that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface.

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

Site. The entire area included in the legal description of the land on which land disturbing activity is to be performed.

Slope. Degree of deviation of a surface from the horizontal, measured as a numerical ratio or percent. Expressed as a ratio, the first number is commonly the horizontal distance (run) and the second is the vertical distance (rise)--e.g., 2:1. However, the preferred method for designation of slopes is to clearly identify the horizontal (H) and vertical (V) components (length (L) and width (W) components for horizontal angles). Also note that according to international standards (metric), the slopes are presented as the vertical or width component shown on the numerator--e.g., 1V:2H. Slope expressions in this code follow the common presentation of slopes--e.g., 2:1 with the metric presentation shown in parenthesis--e.g., (1V:2H). Slopes can also be expressed in "percents". Slopes given in percents are always expressed as (100*V/H) --e.g., a 2:1 (1V:2H) slope is a fifty (50) percent slope.

Soil. The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

Soil and Water Conservation District. A public organization created under state law as a special-purpose district to develop and carry out a program of soil, water, and related resource conservation, use, and development within its boundaries. A subdivision of state government with a local governing body, established under IC 14-32.

Solid Waste. Any garbage, refuse, debris, or other discarded material.

Spill. The unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge, or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impervious surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.

Storm Duration. The length of time that water may be stored in any stormwater control facility, computed from the time water first begins to be stored.

Storm Event. An estimate of the expected amount of precipitation within a given period of time. For example, a ten (10) yr. frequency, twenty-four (24) hr. duration storm event is a storm that has a ten (10) percent probability of occurring in any one year. Precipitation is measured over a twenty-four hr. period.

Storm Sewer. A closed conduit for conveying collected stormwater, while excluding sewage and industrial wastes. Also called a storm drain.

Stormwater. Water resulting from rain, melting or melted snow, hail, or sleet.

Stormwater Drainage System. All natural or man-made, used for conducting stormwater to, through or from a drainage area to any of the following: conduits and appurtenant features, canals, channels, ditches, storage facilities, swales, streams, culverts, streets and pumping stations.

Stormwater Pollution Prevention Plan. A plan developed to minimize the impact of stormwater pollutants resulting from construction activities.

Stormwater Quality Management Plan. A comprehensive written document that addresses stormwater runoff quality.

Stormwater Quality Measure. A practice, or a combination of practices, to control or minimize pollutants associated with stormwater runoff.

Stormwater Runoff. The water derived from rains falling within a tributary basin, flowing over the surface of the ground or collected in channels or conduits.

Stormwater Service Charge. The charge imposed by Section 8.08.800.

Strip Development. A multi-lot project where building lots front on an existing road.

Subdivision. Any land that is divided or proposed to be divided into lots, whether contiguous or subject to zoning requirements, for the purpose of sale or lease as part of a larger common plan of development or sale.

Subsurface Drain. A pervious backfield trench, usually containing stone and perforated pipe, for intercepting groundwater or seepage.

Surface Runoff. Precipitation that flows onto the surfaces of roofs, streets, the ground, etc., and is not absorbed or retained by that surface but collects and runs off.

Swale. An elongated depression in the land surface that is at least seasonally wet, is usually heavily vegetated, and is normally without flowing water. Swales conduct stormwater into primary drainage channels and may provide some groundwater recharge.

Temporary Stabilization. The covering of soil to ensure its resistance to erosion, sliding, or other movement. The term includes vegetative cover, anchored mulch, or other non-erosive material applied at a uniform density of seventy (70) percent across the disturbed area.

Topographic Map. Graphical portrayal of the topographic features of a land area, showing both the horizontal distances between the features and their elevations above a given datum.

Topography. The representation of a portion of the earth's surface showing natural and man-made features of a give locality such as rivers, streams, ditches, lakes, roads, buildings and most importantly, variations in ground elevations for the terrain of the area.

Urbanization. The development, change or improvement of any parcel of land consisting of one or more lots for residential, commercial, industrial, institutional, recreational or public utility purposes.

Water Quality. A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

Water Resources. The supply of groundwater and surface water in a given area.

Waterbody. Any accumulation of water, surface, or underground, natural or artificial, excluding water features designed and designated as water pollution control facilities.

Watercourse. Any river, stream, creek, brook, branch, natural or man-made drainageway in or into which stormwater runoff or floodwaters flow either continuously or intermittently.

Watershed. The region drained by or contributing water to a specific point that could be along a stream, lake or other stormwater facilities. Watersheds are often broken down into subareas for the purpose of hydrologic modeling.

Watershed Area. All land and water within the confines of a drainage divide. See also watershed.

Wetlands. Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.