Submitted by: Engineering Department

ORDINANCE NO. 05-2023

AN ORDINANCE AMENDING SECTIONS OF WEST LAFAYETTE CITY CODE CHAPTER 10, ARTICLE II STORMWATER DRAINAGE AND SEDIMENT CONTROL

WHEREAS, in December 2021, the Indiana Department of Environmental Management finalized two new permits, Municipal Separate Storm Sewer System (MS4) General Permit (MS4 GP) and Construction Stormwater General Permit (CSGP), which replaced IDEM's Rule 13 and Rule 5;

WHEREAS, the new IDEM permits require the City to update its Stormwater Code to incorporate new requirements contained in the 2021 permits.

NOW THEREFORE, be it ordained by the Common Council of the City of West Lafayette, Indiana that the West Lafayette Stormwater Code is hereby modified as follows (**additions** indicated in **bold,** and ~~deletions~~ indicated with ~~strike-through text~~):

Chapter 10 ENVIRONMENT[1]

ARTICLE II. STORMWATER DRAINAGE AND SEDIMENT CONTROL

DIVISION 1. GENERALLY

Sec. 10-18. Authority and title.

(a) This Code is adopted in accordance with statutory authority granted under IC chs. 36-9-23 and 36-9-**28.5**~~28.8~~ and IC 36-9-2-8**-through** 13, and the requirements of Phase II of the National Pollutant Discharge Elimination System program (FR Doc.99-29181) authorized by the 1972 amendments to the Clean Water Act, ~~and the state department environmental management's rule 13 (327 IAC 15-13-1 et seq.), and the state department environmental management's rule 5 (327 IAC 15-5-1 et seq.)~~**the Indiana Department of Environmental Management's (IDEM) Municipal Separate Storm Sewer System (MS4) General Permit (MS4 GP) and Construction Stormwater General Permit (CSGP)**. Based on this authority and requirements, this Code regulates:

(1) Discharges of prohibited non-stormwater flows into the storm drain system.

(2) Stormwater drainage improvements related to development of lands located within the city.

[1]State law reference(s)—Municipal home rule, IC 36-1-3-1 et seq.; environment generally, IC 13-11-1-1 et seq.; authority to regulate air and sound pollution, IC 36-8-2-8; air pollution control, IC 13-17-1-1 et seq.

(3) Drainage control systems installed during new construction and the grading of lots and other parcels of land.

(4) Erosion and sediment control systems installed during new construction and grading of lots and other parcels of land.

(5) The design, construction, and maintenance of stormwater facilities and systems.

(6) The design, construction, and maintenance of stormwater quality facilities and systems.

(7) The establishment and implementation of a stormwater service charge.

(b) This Code shall be known and may be cited as the "West Lafayette Stormwater Code."

(Prior Code, § 116.101; Ord. No. 27-11; Ord. No. 34-12)

Sec. 10-19. Abbreviations.

The following abbreviations, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

BMP	Best Management Practice
COE	United States Army Corps of Engineers
CWA	Clean Water Act
EPA	Environmental Protection Agency
ERU	Equivalent Residential Unit
FPG	Flood Protection Guide
GIS	Geographical Information System
IDEM	Indiana Department of Environmental Management
LAG	Lowest Adjacent Grade
MS4	Municipal Separate Storm ~~Sewers~~ **Sewer System**
NOI	Notice of Intent
NOT	Notice of Termination
NRCS	USDA-Natural Resources Conservation Service
NPDES	National Pollution 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

(Prior Code, ch. 116, app. A; Ord. No. 27-11; Ord. No. 34-12, app. A; altered in 2019 recodification)

Sec. 10-20. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Best management practices means 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.

Board means the city board of public works and safety.

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

Catch basin means 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 means 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 means a manmade shallow pool that creates growing conditions suitable for wetland vegetation and is designed to maximize pollutant removal.

Construction activity means land-disturbing activities, and land-disturbing activities associated with the construction of infrastructure and structures. The term "construction activity" does not include routine ditch or road maintenance or minor landscaping projects.

Construction site access means 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 means an imaginary line on the surface of the earth connecting points of the same elevation.

Contractor or *subcontractor* means 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 means any structural method for transferring stormwater between at least two points. The term "conveyance" includes piping, ditches, swales, curbs, gutters, catch basins, channels, storm drains, and roadways.

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

Dechlorinated swimming pool discharge means 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 0.05 milligram per liter) of chlorinated residual.

Detention means managing stormwater runoff by temporary holding and controlled release.

Detention basin means 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 means 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 means dead or decaying organic matter; generally contributed to stormwater as fallen leaves and sticks or as dead aquatic organisms.

Developer means 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.

Discharge means 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 means 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 groundwaters.

Ditch means a manmade, open drainageway in or into which excess surface water or groundwater drained from land, stormwater runoff, or floodwaters flow either continuously or intermittently.

Drain means 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 means the removal of excess surface water or groundwater from land by means of ditches or subsurface drains. Also see *Natural drainage.*

Drainage area means 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 means a natural or artificial stream, closed conduit, or depression that carries surface water. The term "drainageway" is used as a neutral term applying to all types of drains and watercourses, whether manmade or natural.

Duration means the time period of a rainfall event.

Environment means 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 or *ERU* means a unit equal to the average amount of impervious area of a residential property within the city, and is hereby established to be 3,200 square feet.

Erosion means 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:

(1) *Accelerated erosion* means erosion much more rapid than normal or geologic erosion, primarily as a result of the activities of man.

(2) *Channel erosion* means an erosion process whereby the volume and velocity of flow wears away the bed and/or banks of a well-defined channel.

(3) *Gully erosion* means 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 feet to as much as 75—100 feet.

(4) *Rill erosion* means an erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed and exposed soils.

(5) *Splash erosion* means 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.

(6) *Sheet erosion* means the gradual removal of a fairly uniform layer of soil from the land surface by runoff water.

Erosion and sediment control means 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 means usually a long, relatively narrow area (usually, 20—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 *floodwaters*) means 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.

Flood protection grade means the elevation of the regulatory or 100-year flood plus two feet at any given location in the special flood hazard area or 100-year floodplain and/or adjacent regulated areas, if applicable.

Floodplain means the channel proper and the areas adjoining the channel which have been or hereafter may be covered by the regulatory or 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 means 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 means that portion of the floodplain lying outside the floodway, which is inundated by the regulatory flood.

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

Garbage means 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 means an operating gasoline or diesel fueling facility whose primary function is the resale of fuels. The term applies to facilities that create 5,000 or more square feet of impervious surfaces, or generate an average daily traffic count of 100 vehicles per 1,000 square feet of land area.

Grade means*:*

(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 means the cutting and filling of the land surface to a desired slope or elevation.

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

Groundwater means accumulation of underground water, natural or artificial. The term "groundwater" does not include manmade underground storage or conveyance structures.

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

Highly erodible land (hel) means land that has an erodibility index of eight or more. Within the county MS4 area, the following soils are listed as highly erodible or potentially highly erodible:

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

Hydrologic unit code means 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 means 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 means any discharge to a conveyance that is not composed entirely of stormwater except naturally occurring floatables, such as leaves or tree limbs.

Impaired waters means 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 county MS4 area, the following waters are considered impaired:

(1) Anderson Creek.

(2) Buck Creek.

(3) Burnett Creek.

(4) Dry Run (and other tributaries).

(5) Elliot Ditch.

(6) Flint Creek.

(7) Hentz Ditch.

(8) Hog Run.

(9) Lauramie Creek.

(10) South Fork Wildcat Creek.

(11) Sugar Creek-Little Sugar Creek.

(12) Tippecanoe River.

(13) Wabash River.

(14) Wea Creek.

(15) Wildcat Creek.

Impervious area means real property that has been paved with concrete, asphalt, brick, stone or compacted gravel (meaning gravel containing fines that has been compacted by mechanical means), or other material and real property covered with buildings or other structures such that the natural infiltration of water into soil is prevented. Examples of impervious areas include, but are not limited to: roofs of building structures, asphalt or concrete parking areas, asphalt or concrete private drives, and concrete pads.

Impervious surface means surfaces, such as pavement and rooftops, which prevent the infiltration of stormwater into the soil.

Individual building lot means a single parcel of land within a multi-parcel development.

Individual lot operator means a contractor or subcontractor working on an individual lot.

Individual lot owner means a person who has financial control of construction activities for an individual lot.

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

Land surveyor means a person licensed under the laws of the state to practice land surveying.

Larger common plan of development or sale means 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 "larger common plan of development or sale" also includes phased or other construction activity by a single entity for its own use.

Lowest adjacent grade means the elevation of the lowest grade adjacent to a structure, where the soil meets the foundation around the outside of the structure (including structural members such as basement walkout, patios, decks, porches, ~~and~~ support posts **or piers, and rim of the window well**).

Lowest entry grade means the lowest elevation along the perimeter of a structure where overbank flooding can enter the structure.

Measurable storm event means a precipitation event that results in a total measured precipitation accumulation equal to, or greater than, one-half inch of rainfall.

MS4 operator means the person responsible for development, implementation, or enforcement of the minimum control measures, as defined ~~in 327 IAC 15-13 (Rule 13)~~**by IDEM**, for a designated MS4 area.

Mulch means 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 pollution discharge elimination system means a permit developed by the U.S. EPA through the Clean Water Act. In the state, the permitting process has been delegated to IDEM. This permit covers aspects of municipal stormwater quality.

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

Nonresidential property means all properties and parcels located within the city that are not residential property, including, but not limited to: agricultural property, apartment complexes, common area, commercial property, industrial property, institutional property, and churches.

NPDES permit means the permit required to be obtained by the city pursuant to Section 402 of the Clean Water Act.

Nutrient means:

(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 means a natural watercourse or constructed open channel that conveys drainage water.

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

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

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

Outstanding waters means waters known for their scenic beauty and recreational opportunities. Within the county MS4 area, these include:

(1) The Wabash River Heritage Corridor.

(2) Wildcat Creek.

(3) The Middle Fork of Wildcat Creek.

(4) The South Fork of Wildcat Creek.

Permanent stabilization means the establishment, at a uniform density of 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 means allowing movement of water.

Pervious area means real property that is not impervious area.

Point source means 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 may be discharged (P.L. 92-500, Section 502[14]).

Professional engineer means a person licensed under the laws of the state to practice professional engineering.

Project site means the entire area on which construction activity is to be performed.

Project site owner means the person required to submit a stormwater permit application, 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.

Property or *parcel* means real property having a legal description that is formally set forth in a document recorded in the office of the county recorder or other similar official.

Recreational waters means most recreational activities within the MS4 area revolve around six waterways:

(1) Burnett Creek.

(2) Wabash River.

(3) North Fork Wildcat Creek.

(4) South Fork Wildcat Creek.

(5) Tippecanoe River.

(6) Wildcat Creek, main stem.

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

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

Regulatory flood means the discharge or elevation associated with the 100-year flood as calculated by a method and procedure which is acceptable to and approved by the state department of natural resources and the Federal Emergency Management Agency. The term "regulatory flood" is also known as the "base flood".

Regulatory floodway. See *Floodway.*

Release rate means the amount of stormwater release from a stormwater control facility per unit of time.

Reservoir means 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 means property or parcels on which a building or mobile home is situated which building contains a group of rooms forming a single inhabitable dwelling unit with facilities which are used or are intended to be used primarily for living, sleeping, cooking and eating. This definition also includes a lot containing one individual building containing two or fewer separate or contiguous single-family dwelling units.

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

Retention basin means 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 means the average interval of time within which a given rainfall event will be equaled or exceeded once. A flood having a return period of 100 years has a one percent probability of being equaled or exceeded in any one year.

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

Riparian zone means 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.

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

Runoff coefficient means 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 50 percent of the rain falling on a given surface appears as stormwater runoff.

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

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

Slope means 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 percent are always expressed as (100*V/H); e.g., a 2:1 (1V:2H) slope is a 50 percent slope.

Soil means 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 means 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 art. 14-32.

Solid waste means any garbage, refuse, debris, or other discarded material.

Spill means 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 means 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 means an estimate of the expected amount of precipitation within a given period of time. For example, a ten-year frequency, 24-hour duration storm event is a storm that has a ten percent probability of occurring in any one year. Precipitation is measured over a 24-hour period.

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

Storm sewer conveyance system means a sewer intended or designed to convey stormwater, surface runoff, waters from streets or sidewalks, and drainage from the surface of the Earth, and not intended or designed to convey waste, sanitary sewage, and industrial wastes other than unpolluted cooling water.

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

Stormwater drainage system means all means, natural or manmade, 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 service charge means a charge imposed on owners of real property located in the city.

Stormwater pollution prevention plan means a plan developed to minimize the impact of stormwater pollutants resulting from construction activities.

Stormwater quality management plan means a comprehensive written document that addresses stormwater runoff quality.

Stormwater quality measure means a practice, or a combination of practices, to control or minimize pollutants associated with stormwater runoff.

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

Stormwater technical standards manual means a manual of technical standards and methods adopted from time to time by the city board of public works and safety upon the recommendation of the city engineer.

Strip development means a multi-lot project where building lots front on an existing road.

Subdivision means 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 means a pervious backfield trench, usually containing stone and perforated pipe, for intercepting groundwater or seepage.

Surface runoff means 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 means 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 means the covering of soil to ensure its resistance to erosion, sliding, or other movement. The term "temporary stabilization" includes vegetative cover, anchored mulch, or other non-erosive material applied at a uniform density of percent across the disturbed area.

Topographic map means a 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 means the representation of a portion of the earth's surface showing natural and manmade 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.

Trained Individual **means an individual who is trained and experienced in the principles of stormwater quality, including erosion and sediment control as may be demonstrated by state registration, professional certification (such as CESSWI and/or CPESC certification), or other documented and applicable experience or coursework as deemed sufficient by the City that enable the individual to make judgments regarding stormwater control or treatment and monitoring.**

Urbanization means 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 means the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

Water resources means the supply of groundwater and surface water in a given area.

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

Watercourse means any river, stream, creek, brook, branch, natural or manmade drainageway in or into which stormwater runoff or floodwaters flow either continuously or intermittently.

Watershed means 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 means all land and water within the confines of a drainage divide. See also *Watershed.*

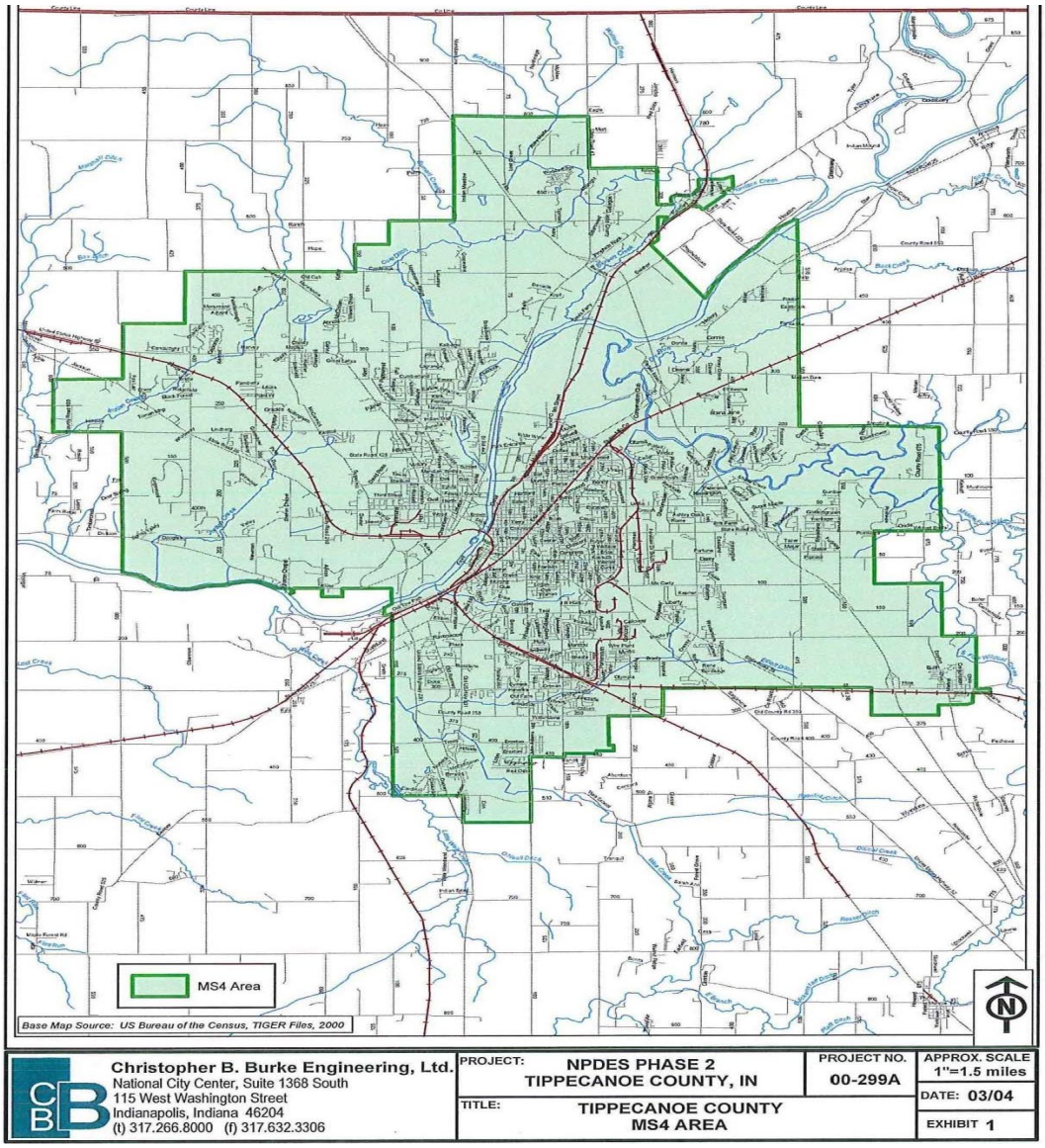
Wellhead protection area means an area of land in which human activities are regulated to prevent contamination of a well or well-field supplying a public drinking-water system.

Wetlands means 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.

(Prior Code, ch. 116, app. A; Ord. No. 27-11; Ord. No. 34-12, app. A; altered in 2019 recodification)

Sec. 10-21. Area boundary map.

The MS4 area boundary map of the city is as follows:



(Prior Code, ch. 116, app. B; Ord. No. 27-11; Ord. No. 34-12, app. B)

Sec. 10-22. Drainage Code adopted; governs stormwater runoff, erosion and sediment control; background.

(a) The common council of the city, on February 6, 1989, adopted Ordinance No. 43-88 which established "The City of West Lafayette Drainage Code," in order to govern the control of runoff of stormwater and to protect, conserve and promote the orderly development of the land in the city and its water resources. This Code was primarily targeted at stormwater discharge quantity, and erosion and sediment control.

(b) On December 8, 1999, Phase II of the National Pollutant Discharge Elimination System (NPDES) permit program was published in the Federal Register. The NPDES program, as authorized by the 1972 amendments to the Clean Water Act, controls water pollution by

regulating point sources that discharge pollutants into waters of the United States. Phase II of NPDES requires permit coverage for stormwater discharges from regulated small municipal separate storm sewer systems (MS4s) and for small construction activity that results in the disturbance of equal to or greater than one acre. This federal regulation went into effect March 10, 2003. In response to Phase II of NPDES, the state department of environmental management enacted rule 13 (327 IAC 15-13) and revised Rule 5 (327 IAC 15-5).

(c) In December 2021, IDEM finalized two new permits, Municipal Separate Storm Sewer System (MS4) General Permit (MS4 GP) and Construction Stormwater General Permit (CSGP), which replaced the previous IDEM's Rule 13 and Rule 5. These new permits require the City to update its Stormwater Management Ordinance to incorporate new requirements contained in the 2021 permits.

(~~c~~**d**) Under these new state and federal regulations, the city is required to establish a regulatory mechanism for stormwater quality management. Therefore, the "City of West Lafayette Drainage Code" was expanded to include stormwater quality in addition to quantity.

(Prior Code, § 116.102; Ord. No. 27-11)

Sec. 10-23. Findings.

The city finds that:

(1) Water bodies, roadways, structures, and other property within and downstream of the city are at times subjected to flooding;

(2) Flooding is a danger to the lives and property of the public and is also a danger to the natural resources of the region;

(3) Land development alters the hydrologic response of watersheds, resulting in increased stormwater runoff rates and volumes, increased flooding, increased stream channel erosion, and increased sediment transport and deposition;

(4) Soil erosion resulting from land-disturbing activities causes a significant amount of sediment and other pollutants to be transported off-site and deposited in ditches, streams, wetlands, lakes, and reservoirs;

(5) Increases of stormwater runoff rates, soil erosion, and non-point source pollution have occurred as a result of land development, and have resulted in a deterioration of the water resources of the city;

(6) Increased stormwater runoff rates and volumes, and the sediments and pollutants associated with stormwater runoff from future development projects within the city will, absent reasonable regulation and control, adversely affect the city's water bodies and water resources;

(7) Illicit discharges have occurred as a result of illegal dumping and direct connections of non-stormwater flows, and have resulted in a deterioration of the water resources of the city;

(8) Continued pollutant contributions from illicit discharges within the city will, absent reasonable regulation, monitoring, and enforcement, adversely affect the city's water bodies and water resources;

(9) Stormwater runoff, soil erosion, non-point source pollution, and illicit sources of pollution can be controlled and minimized by the regulation of stormwater management;

(10) Adopting the standards, criteria, and procedures contained and referenced in this Code and implementing the same will address many of the deleterious effects of stormwater runoff and illicit discharges;

(11) Adopting this Code is necessary for the preservation of the public health, safety, and welfare, and for the conservation of our natural resources.

(Prior Code, § 116.103; Ord. No. 27-11)

Sec. 10-24. Purpose.

The purpose of this Code is to provide for the health, safety, and general welfare of the citizens of the city through the regulation of stormwater and non-stormwater discharges to the storm drainage system; to enhance economic objectives; and to protect, conserve and promote the orderly development of land and water resources within the city. This Code establishes methods for managing the quantity and quality of stormwater entering into the storm drain system in order to comply with state and federal requirements. The objectives of this Code are:

(1) To reduce the hazard to public health and safety caused by excessive stormwater runoff.

(2) To regulate the contribution of pollutants to the storm drain system from active construction site runoff.

(3) To regulate the contribution of pollutants to the storm drain system from runoff from new development and re-development.

(4) To prohibit discharges of non-stormwater flow into the storm drain system.

(5) To establish legal authority to carry out all inspection, monitoring, and enforcement procedures necessary to ensure compliance with this Code.

(Prior Code, § 116.104; Ord. No. 27-11)

Sec. 10-25. Responsibility for administration.

The city shall administer, implement, and enforce the provisions of this Code. The city board of public works and safety is authorized to adopt a technical manual and standards for

use with this Code. Any powers granted or duties imposed upon the authorized enforcement agency may be exercised in writing by the city engineer, subject to review as provided herein.

(Prior Code, § 116.106; Ord. No. 27-11)

Sec. 10-26. Conflicting provisions.

The provisions of this Code shall be deemed as additional requirements to minimum standards required by the city Code, and as supplemental requirements to **Indiana's Municipal Separate Storm Sewer System (MS4) General Permit (MS4 GP) and Indiana's Construction Stormwater General Permit (CSGP)** ~~the state's rule 5 regarding stormwater discharge associated with construction activity (327 IAC 15-5), and the state's rule 13 regarding stormwater runoff associated with municipal separate storm sewer system conveyances (327 IAC 15-13)~~. In case of conflicting requirements, the most restrictive shall apply.

(Prior Code, § 116.107; Ord. No. 27-11)

Sec. 10-27. Technical standards.

The city board of public works and safety has adopted a county stormwater technical standards manual, a copy of which is incorporated herein by reference, which manual, as from time to time amended, shall contain the "technical standards" for compliance with this article (the "technical standards").

(Prior Code, § 116.108; Ord. No. 27-11)

Sec. 10-28. Interpretation.

Words and phrases in this Code shall be construed according to their common and accepted meanings, except that words and phrases defined in appendix A, shall be construed according to the respective definitions given in that section. Technical words and technical phrases that are not defined in this Code but which have acquired particular meanings in law or in technical usage shall be construed according to such meanings.

(Prior Code, § 116.109; Ord. No. 27-11)

Sec. 10-29. Disclaimer of liability.

The degree of protection required by this Code is considered reasonable for regulatory purposes and is based on historical records, engineering, and scientific methods of study. Larger storms may occur or stormwater runoff amounts may be increased by manmade or natural causes. This Code does not imply that land uses permitted will be free from stormwater damage. This Code shall not create liability on the part of the city, the city board of public works and safety or any officer, representative, or employee thereof, for any damage that may result from reliance on this Code or on any administrative decision lawfully made thereunder.

(Prior Code, § 116.111; Ord. No. 27-11)

Sec. 10-30. Fees.

(a) *Review fees.* Together with the application and accompanying materials for stormwater management permit or for stormwater review, the applicant shall also submit review fees in accordance with the schedule set forth in section 12-28(a).

(b) *Additional fees.* The applicant shall also agree to pay when applicable the additional fees set forth in section 12-28(b).

(c) *Written statement.* Upon approval of the applicant's final stormwater management plan, the city engineer will furnish a written statement to the applicant specifying the total additional fees.

(d) *Billing statement; final approval.* As a condition of approval of the final drainage plans by the city, the applicant shall pay to the city the sum set forth in the statement. The city may issue such a billing statement before the project advances to the final approval stage, and such payment is due by applicant upon receipt of the billing statement regardless of whether the project has advanced to the final approval stage.

(e) *Acceptance of drainage improvement or project advancement approval.* The city has the right to not accept the drainage improvements or to not approve the advancement of any project for which the additional fees have not been paid.

(Prior Code, § 116.801; Ord. No. 27-11; altered in 2019 recodification)

Secs. 10-31—10-48. Reserved.

DIVISION 2. ENFORCEMENT

Sec. 10-49. Compliance with this Code.

(a) In addition to the requirements of this Code, compliance with the requirements set forth in the unified zoning ordinance is also necessary. Compliance with the city Code as well as with applicable state statutes and regulations shall also be required. Unless otherwise stated, all other specifications referred to in this Code shall be the most recent edition adopted.

(b) Violations of the requirements of this Code are subject to the penalties listed in section 10-50.

(Prior Code, § 116.701; Ord. No. 27-11)

Sec. 10-50. Penalties for violations.

(a) Notice of Violation/Citation. If the county drainage board determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management design plan, a recorded stormwater management maintenance agreement, or the provisions of this ordinance, it shall issue a written Notice of Violation to such applicant or other responsible person and the owner of the property. Where a person is engaged in activity covered by this ordinance without having first secured a permit therefore, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site.

The notice of violation can be in the form of a citation ticket and/or a written letter that would contain detailed inspection findings, conclusions of law, disposition of warning or fines assessed, stipulated remedial actions as discussed with the responsible party representative, reasonable deadlines for those remedial actions, and the date of re-inspection.

(b) Compensatory Action. In lieu of enforcement proceedings, penalties, and remedies authorized by this ordinance, the designee of the Mayor of the City of West Lafayette and violator may agree to alternative compensatory actions or mitigation measures.

~~(a)~~**(c)** Any person found in violation of any provision of this Code and "technical standards" shall be responsible for a civil infraction and subject to a fine in an amount established by the city, plus damages, expenses, and costs. Each day such violation occurs or continues shall be deemed a separate offense and shall make the violator liable for the imposition of a fine for each day. The rights and remedies provided for in this section are cumulative and in addition to any other remedies provided by law. An admission or determination of responsibility shall not exempt the offender from compliance with the requirements of this Code.

~~(b)~~**(d)** Any person who aids or abets a person in a violation of this Code shall be subject to the penalties provided in this section.

~~(c)~~**(e)** For purposes of this section, the term "subsequent offense" means a violation of the provisions of this Code committed by the same person within 12 months of a previous violation of the same provision of this Code for which said person admitted responsibility or was adjudicated to be responsible.

(Prior Code, § 116.702; Ord. No. 27-11; altered in 2019 recodification)

Sec. 10-51. Stop work order.

(a) In addition to the penalties listed in section 10-50, if construction activities are conducted contrary to the provisions of this Code or approved final stormwater management plans, the city engineer may order the work stopped, by notice, in writing, served on any person

engaged in the doing or causing of such work to be done. Any such persons shall forthwith stop such work until authorized by the city engineer to proceed with the work. The city may also undertake or cause to be undertaken, any necessary or advisable protective measures to prevent violations of this Code or to avoid or reduce the effects of noncompliance herewith. The cost of any such protective measures shall be the responsibility of the owner of the property upon which the work is being done, and the responsibility of any person carrying out or participating in the work.

(b) Any person who neglects or fails to comply with a stop work order shall be responsible for a civil infraction and subject to a fine in an amount established by the city, plus damages, expenses, and costs. Each day such violation occurs or continues shall be deemed a separate offense and shall make the violator liable for the imposition of a fine for each day.

(Prior Code, § 116.703; Ord. No. 27-11; altered in 2019 recodification)

Sec. 10-52. Failure to comply or complete.

In addition to any other remedies, should any person fail to comply with the provisions of this Code, the city may, after the giving of reasonable notice and opportunity for compliance, have the necessary work done, and the owner shall be obligated to promptly reimburse the city for all costs of such work.

(Prior Code, § 116.704; Ord. No. 27-11)

Sec. 10-53. Suspension of access to the storm drain system.

(a) *Suspension due to emergency situations.* The city engineer may, without prior notice, suspend storm drain system discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the storm drain system, or to waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the city engineer may take such steps as deemed necessary to prevent or minimize damage to the storm drain system or waters of the United States, or to minimize danger to persons.

(b) *Suspension due to the detection of illicit discharge.* Any person discharging to the storm drain system in violation of this Code may have their storm drain system access terminated if such termination would abate or reduce an illicit discharge. The city will notify a violator of the proposed termination of its MS4 access. The violator may petition the city board of public works and safety for a reconsideration and hearing.

(Prior Code, § 116.705; Ord. No. 27-11)

Sec. 10-54. Corrective action.

Nothing herein contained shall prevent the city from taking such other lawful action as may be necessary to prevent or remedy any violation. All costs connected therewith shall accrue to the person or persons responsible, including the landowner of any land where such a violation occurs. Costs include, but are not limited to, repairs to the storm drain system made necessary by the violation, as well as those penalties levied by the EPA or IDEM for violation of the city's NPDES permit, attorney fees, and other costs and expenses.

(Prior Code, § 116.706; Ord. No. 27-11)

Sec. 10-55. Appeals.

Any person to whom any provision of this Code has been applied may appeal in writing, not later than 30 days after the action or decision being appealed from, to the city board of public works and safety the action or decision whereby any such provision was so applied. Such appeal shall identify the matter being appealed, and the basis for the appeal. The city board of public works and safety shall consider the appeal and make a decision whereby it affirms, rejects or modifies the action being appealed. In considering any such appeal, the city board of public works and safety may consider the recommendations of the city engineer and the comments of other persons having knowledge of the matter. In considering any such appeal, the city board of public works and safety may grant a variance from the terms of this Code to provide relief, in whole or in part, from the action being appealed, but only upon finding that the following requirements are satisfied:

(1) The application of the Code provisions being appealed will present or cause extraordinary difficulties for a development or development site; provided, however, that extraordinary difficulties shall not include the need for the developer to incur extreme expenses in order to comply with the Code; and

(2) The granting of the relief requested will not prevent the goals and purposes of this Code, nor result in less effective management of stormwater runoff.

(Prior Code, § 116.707; Ord. No. 27-11)

Secs. 10-56—10-83. Reserved.

DIVISION 3. PROHIBITED DISCHARGES AND CONNECTIONS

Sec. 10-84. Applicability and exemptions.

(a) This article shall apply to all discharges, including illegal dumping, entering the storm drain system under the control of the city, regardless of whether the discharge originates from developed or undeveloped lands, and regardless of whether the discharge is generated

from an active construction site or a stabilized site. These discharges include flows from direct connections to the storm drain system, illegal dumping, and contaminated runoff.

(b) Stormwater runoff from agricultural, timber harvesting, and mining activities is exempted from the requirements of this article unless determined to contain pollutants not associated with such activities or in excess of standard practices. Farm residences are not included in this exemption.

(c) Any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and, provided that written approval has been granted for the subject discharge to the storm drain system, is also exempted from this article.

(d) Finally, any construction project which has had its drainage plan approved by the city prior to the effective date of the ordinance from which this article is derived, shall be exempt from all requirements of this Code that are in excess of the requirements of codes in effect at the time of approval.

(Prior Code, § 116.201; Ord. No. 27-11)

Sec. 10-85. Prohibited discharges and connections.

(a) No person shall discharge to a waterbody, directly or indirectly, any substance other than stormwater or an exempted discharge. Any person discharging stormwater shall effectively prevent pollutants from also being discharged with the stormwater, through the use of best management practices (BMPs).

(b) The city is authorized to require dischargers to implement pollution prevention measures, utilizing BMPs, necessary to prevent or reduce the discharge of pollutants into the city stormwater drainage system.

(Prior Code, § 116.202; Ord. No. 27-11)

Sec. 10-86. Exempted discharges and connections.

The following categories of non-stormwater discharges or flows are exempted from the requirements of this article:

(1) Water line flushing;

(2) Landscape irrigation;

(3) Diverted stream flows;

(4) Rising groundwaters;

(5) Uncontaminated groundwater infiltration;

(6) Discharges from potable water sources;

(7) Air conditioning condensation;

(8) Irrigation water;

(9) Springs;

(10) Residential and commercial lawn watering;

(11) Individual residential car washing;

(12) Flows from riparian habitats and wetlands;

(13) Dechlorinated swimming pool discharges;

(14) Street wash water;

(15) Discharges from firefighting activities;

(16) Naturally introduced detritus (e.g., leaves and twigs).

(Prior Code, § 116.203; Ord. No. 27-11)

Sec. 10-87. Storage of hazardous or toxic material.

Storage or stockpiling of hazardous or toxic material within any drainageway, or in its associated floodway or floodplain, is strictly prohibited. Storage or stockpiling of hazardous or toxic material on active construction sites must include adequate protection and/or containment so as to prevent any such materials from entering any temporary or permanent stormwater conveyance or drainageway.

(Prior Code, § 116.204; Ord. No. 27-11)

Sec. 10-88. Private property maintenance duties.

Every person owning property through which a drainageway passes, or such person's lessee, shall keep and maintain that part of the drainageway located within their property boundaries, free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately-owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

(Prior Code, § 116.205; Ord. No. 27-11)

Sec. 10-89. Spill reporting.

(a) Any discharger who accidentally discharges into a water body any substance other than stormwater or an exempted discharge shall immediately inform the county health department and county emergency management agency concerning the discharge. A

written report concerning the discharge shall be filed with the city engineer, by the discharger, within five days. The written report shall specify:

(1) The composition of the discharge and the cause thereof;

(2) The exact date, time, and estimated volume of the discharge;

(3) All measures taken to clean up the accidental discharge, and all measures proposed to be taken to prevent any recurrence;

(4) The name and telephone number of the person making the report, and the name of a person who may be contacted for additional information on the matter.

(b) A properly reported accidental discharge shall be an affirmative defense to a civil infraction proceeding, for a first offence only, brought under this Code against a discharger for such discharge. It shall not, however, be a defense to a legal action brought to obtain an injunction, to obtain recovery of costs or to obtain other relief because of or arising out of the discharge. A discharge shall be considered properly reported only if the discharger complies with all the requirements of this section.

(Prior Code, § 116.206; Ord. No. 27-11)

Sec. 10-90. Inspections and monitoring.

(a) *Storm drainage system.* The city will periodically inspect the portion of the storm drainage system under the city's control, in an effort to detect and eliminate illicit connections and discharges into the system. This inspection will include a screening of discharges from outfalls connected to the system in order to determine if prohibited flows are being conveyed into the storm drainage system. It could also include spot testing of waters contained in the storm drainage system itself to detect the introduction of pollutants into the system by means other than a defined outfall, such as dumping or contaminated sheet runoff.

(b) *Potential polluters.* If, as a result of a storm drainage system inspection, a discharger is suspected of an illicit discharge, the city may inspect and/or obtain stormwater samples from stormwater runoff facilities of the subject discharger, to determine compliance with the requirements of this Code. Upon request, the discharger shall allow the city's properly identified representative to enter upon the premises of the discharger at all hours necessary for the purposes of such inspection or sampling. The city, or its properly identified representative, may place on the discharger's property, the equipment or devices used for such sampling or inspection. Identified illicit connections or discharges shall be subject to enforcement action as described in division 3 of this article.

(c) *New development and re-development.* Following approval of final stormwater plans by the city, new development and re-development sites shall be inspected by the city's properly-identified representative. This inspection will be to ensure all on-site stormwater conveyances and connections to the storm drainage system are in compliance with this article.

(Prior Code, § 116.207; Ord. No. 27-11)

Secs. 10-91—10-108. Reserved.

DIVISION 4. STORMWATER QUANTITY MANAGEMENT

Sec. 10-109. Applicability and exemptions.

The storage and controlled release of excess stormwater runoff shall be required for all new business, commercial and industrial developments, residential subdivisions, planned developments, rural estate subdivisions, and any redevelopment or other new construction located within the city. Possible exceptions to the requirement are minor subdivisions and parcelization as described in the unified subdivision ordinance. The city engineer, after thorough investigation and evaluation, may waive the requirement of controlled runoff for minor subdivisions and parcelization. Additional exemptions regarding the detention requirements are provided under section 10-110(a)(6).

(Prior Code, § 116.301; Ord. No. 27-11)

Sec. 10-110. Policy on stormwater quantity management.

(a) *Detention policy.* It is recognized that most streams and drainage channels serving the city do not have sufficient capacity to receive and convey stormwater runoff resulting from continued urbanization. Accordingly, except for situations provided in subsections (a)(6) and (7) of this section, the storage and controlled release of excess stormwater runoff shall be required for all developments and redevelopments located within the city.

(1) *General release rates.* In general, the post-developed release rates from development sites shall be no greater than the general release rates provided in Table 3-1. For sites where the pre-developed area has more than one outlet, the release rates should be computed based on pre-developed discharge to each outlet point.

TABLE 3-1

General Release Rates (cfs/acre) Based on Pre-Developed Condition Curve Number at Each Outlet Point		
Curve Number	10-Year	100-Year
< 65	0.07	0.23
66 - 69	0.13	0.33
70 - 73	0.20	0.43
74 - 77	0.27	0.53
78 - 81	0.34	0.63
82 - 85	0.44	0.75
> 86	0.55	0.87

(2) *Depressional storage.* For sites where depressional storage exists, the general release rates provided above may have to be further reduced. If depressional storage exists at the site, site-specific release rates must be calculated according to methodologies described in the "Stormwater Technical Standards Manual" ("technical standards"), accounting for the depressional storage by modeling it as a pond whose outlet is a weir at an elevation such that stormwater can currently overflow the depressional storage area. Post developed release rates for sites with depressional storage shall be the two-year pre-developed peak runoff rate for the post-developed ten-year storm and the ten-year pre-developed peak runoff rate for the post-developed 100-year storm. In no case shall the calculated site-specific release rates be larger than the general rates provided above.

(3) *Determination and preservation of storage.* Also, it should be noted that for determining the post-developed peak runoff rates, the depressional storage must be assumed to be filled unless the city engineer can be assured that the noted storage will be preserved in perpetuity.

(4) *Detention/retention facility; on-site/off-site runoff.*

a. Runoff from all upstream tributary areas (off-site land areas) may be bypassed around the detention/retention facility without attenuation. Such runoff may also be routed through the detention/retention facility, provided that a separate outlet system or channel is incorporated for the safe passage of such flows (i.e., not through the primary outlet of a detention facility). Unless the pond is being designed as a regional detention facility, the primary outlet structure shall be sized and the invert elevation of the emergency overflow weir determined according to the on-site runoff only. Once the size and location of the primary outlet structure as well as the invert elevation of the emergency overflow weir is determined by considering on-site runoff, the 100-year pond elevation is determined by routing the entire inflow, on-site and off-site, through the pond.

b. Note that the efficiency of the detention/retention facility in controlling the on-site runoff may be severely affected if the off-site area is considerably larger than the on-site area. As a general guidance, on-line detention may not be effective in controlling on-site runoff where the ratio of off-site area to on-site area is larger than 5:1. Additional detention (above and beyond that required for on-site area) may be required by the city when the ratio of off-site area to on-site area is larger than 5:1.

(5) *Downstream restrictions.*

a. In the event the downstream receiving channel or storm sewer system is inadequate to accommodate the post-developed release rate provided above, then the allowable release rate shall be reduced to that rate permitted by the capacity of the receiving downstream channel or storm sewer system. Additional detention, as determined by the city, shall be required to store that portion of the runoff exceeding the capacity of the receiving sewers or waterways.

b. If the proposed development makes up only a portion of the undeveloped watershed upstream of the limiting restriction, the allowable release rate for the development shall be in direct proportion to the ratio of its drainage area to the drainage area of the entire watershed upstream of the restriction.

c. In accordance with section 10-217, the allowable release rates may be further reduced by the city if on-site or off-site conditions warrant the reduction.

(6) *Exemptions for detention requirements.* Detention ~~may~~ **will** not be required for the following:

a. Land alterations where the primary basis on which a stormwater drainage permit is required is the construction, enlargement, or location (on a permanent foundation) of a one-family dwelling, two-family dwelling, or accessory structure appurtenant to either a one- or two-family dwelling.

b. Approved fill areas or one-time additions to existing commercial buildings (including multi-family residential structures) that do not increase the amount of impervious area on-site by more than a total of 0.5 acres, provided the existing runoff patterns and flow capacity of the property will not be altered by the work.

c. Notwithstanding the provisions of subsection (a)(5) of this section, those site developments where the stormwater management system has been designed such that:

1. After combining flows from both the off-site and on-site drainage areas, there will be no increase in the total peak discharge from the developed site during the two-, ten-, or 100-year storm events **(assuming the pre-developed landuse used in the analysis is based on conditions that existed, from historic aerial photographs, at least 50% of the time over the last 30 years); and**

2. The volume of runoff for each project site outlet has not been increased for the entire range of storm events, up to and including the 100-year storm event; and

3. The flow width is greater than or equal to that flow width which existed prior to the development (for the entire range of storm events, up to and including the 100-year storm event) and the velocity at the property boundary line for each sub-basin is less than or equal to that velocity which existed prior to the development (for the entire range of storm events, up to and including the 100-year storm event)~~.~~**; and**

4. **The drainage report for the proposed development includes a section that clearly indicates the upper limit of imperviousness to which the development can build and still meet the detention exemption.**

d. Where the direct release of runoff from the proposed development meets the conditions set forth in subsection (a)(7) of this section.

(7) *Direct release provisions.*

a. It is the policy of the city to allow the direct release (no detention) of runoff from a proposed development to an adjacent stream with more than 100 square miles of contributing drainage area at the direct release point. Therefore, direct release may be allowed for parcels adjacent to the following stream reaches in the city: Wabash River—The entire reach within the county.

b. Due to unknowns regarding the future development patterns and the associated proposed stormwater management systems within a watershed, it is the policy of the city to discourage direct release to a stream with less than 100 square miles of contributing drainage area at the direct release point. However, in rare circumstances, where a comprehensive watershed-wide hydrologic study or watershed plan of a major stream adopted by the city substantiates the benefits of (or allows for) direct release for a proposed development located adjacent to a major stream, the detention requirements set in subsection (a)(7)a of this section may be waived.

c. In substantiating the potential benefits of direct release, the watershed-wide hydrologic study provided by the applicant must demonstrate that the peak discharge associated with two-year, ten-year, and 100-year precipitation events would not increase along the receiving stream. At a minimum, the stream reach to be examined needs to extend from the direct release point to a point downstream with a drainage area at least ten times the drainage area of the proposed development and its off-site contributing drainage area. The required analyses must be done both for the existing land use and future potential land use (developed conditions) in the watersheds involved.

d. To be applicable to the development site, the sub-basin sizes for the watershed-wide hydrologic analyses of the major stream (including the sub-basin area containing the proposed development and its off-site contributing areas) must be generally uniform (between 0.5 and 2.0 times the average sub-basin size). Furthermore, the maximum size of the sub-basin area containing the proposed development and its off-site contributing areas should not exceed 5.0 times the area of the proposed development.

(b) *Grading and building pad elevation policy.*

(1) In addition to all floodplain requirements noted in the local zoning ordinance, flood protection grade (FPG) applicable to all buildings located within special flood hazard area (SFHA) or **an Indiana Department of Natural Resources (IDNR) designated best available data floodplain or** regulated adjacent areas (if applicable and if such buildings are allowed under the local zoning ordinance) shall be shown on the final plat.

(2) For all structures located outside ~~Federal Emergency Management Agency (FEMA)~~ **SFHA** or **an** ~~Indiana Department of Natural Resources (~~IDNR~~)~~ designated ~~floodplains~~ **100-year floodplain** that are subject to flooding from **a stream or** an open ditch **(an**

area along a stream with no floodplain designation or an area adjacent to a designated floodplain with ground elevation below 100-year flood elevation plus 2 feet), the lowest adjacent grade (LAG) of all residential, commercial or industrial buildings shall have a minimum of two feet of freeboard above the 100-year flood elevation.

(3) For all structures fronting a flooding source other than a swale or an emergency flood route, the floor of any basements or crawl spaces (if provided) shall be a minimum of one foot above the normal pool level (if pond) or the two-year flood level (if a stream or an open ditch). In addition, special considerations, based on detailed geotechnical analyses, should be made prior to considering placement of any basement below the 100-year flood elevation of an adjacent flooding source or pond.

(4) For all structures located outside FEMA or IDNR designated floodplains that are subject to flooding from a detention/retention pond, the LAG of all residential, commercial or industrial buildings shall have a minimum of two feet of freeboard above the 100-year flood elevation or the emergency overflow weir elevation, whichever is higher.

(5) For all structures, the building's lowest entry elevation shall be constructed such that drainage is not directed against the building and shall be in accordance with applicable local building codes. There shall be a positive slope drainage away from the ~~builing~~ **building** with maximum yard slopes that are 3:1 where soil has been disturbed during construction processes.

(6) Overflow paths throughout the development resulting from a 100-year storm event shall be determined, clearly shown on the plans, and contained in permanent drainage easements along the centerline of the flow path. No fences or landscaping shall be constructed within the easement areas that may impede the free flow of stormwater. For all structures adjacent to a overflow path, the minimum adjacent grade of the portion of the structure (the ground elevation next to the building after construction is completed that sits adjacent to the overflow path or may be subject to flooding by the overflow path) shall be a minimum of one foot above the estimated 100-year elevation of the overflow path using methodologies described in the "technical standards."

(7) In addition to the policies described in this section, potential flooding that would impact the site due to the minimum overtopping elevation of adjacent roads shall be considered.

(8) It shall be the property owner's responsibility to maintain the natural features on their lots and to take preventive measures against any and all erosion and/or deterioration of natural or manmade features on their lots.

(c) *Adjoining property impacts policy.*

(1) Design and construction of the stormwater facility shall provide for the discharge of the stormwater runoff from off-site land areas as well as the stormwater from the

area being developed (on-site land areas) to an acceptable outlet (as determined by the city engineer) having capacity to receive upstream (off-site) and on-site drainage. The flow path from the development outfall to a regulated drain or natural waterway (as determined by the city engineer) shall be provided on an exhibit that includes topographic information. Any existing field tile encountered during the construction shall also be incorporated into the proposed stormwater drainage system or tied to an acceptable outlet. In addition, no activities conducted as part of the development shall be allowed to obstruct the free flow of floodwaters from an upstream property.

(2) Where the outfall from a stormwater drainage system of any developer flows through real estate not owned by the developer prior to reaching a regulated drain or natural waterway (as determined by the city engineer), no approval shall be granted for the stormwater drainage system until all owners of real estate crossed by the outfall either consent in writing to the use of their real estate or are notified in writing of a hearing before the city board of public works and safety with respect to the proposed use. Written notice of the time and place of the hearing shall be made by: 1) mailing a copy of the notice by registered or certified mail, return receipt requested to such person's residence, place of business or employment with return receipt requested and returned showing receipt of such notice; 2) delivering a copy of such notice to the owner; and/or such tenant personally. Such notice shall be personally delivered or mailed not less than seven, nor more than 14 days prior to the hearing. Proof of delivery of notice to each landowner shall be filed by affidavit with the city engineer prior to the hearing.

(3) If an adequate outlet is not located on site, then off-site drainage improvements may be required. Those improvements may include, but are not limited to: extending storm sewers, clearing, dredging and/or removal of obstructions to open drains or natural water courses, and the removal or replacement of undersized culvert pipes as required by the city engineer.

(4) If, during design of a development, downstream landowners request access to a storm sewer that is proposed to be extended through their property prior to reaching a regulated drain or natural waterway (so that the downstream landowner can outlet agricultural field tiles), the construction plans must indicate that only proposed and/or future agricultural pattern field tiles may access the off-site storm sewer, the location of proposed and/or future pattern field tile access points, and details of the proposed and/or future connections to the off-site storm sewer. The drainage report must include calculations to show that the off-site storm sewer has been increased in size to accommodate the proposed and/or future additional flow.

(d) *No net loss floodplain storage policy.*

(1) Floodplains exist adjacent to all natural and manmade streams, regardless of contributing drainage area or whether they have been previously identified or mapped. Due to potential impacts of floodplain loss on peak flows in streams and on the environment, **floodplains are considered Impact Drainage Areas and** disturbance to **these areas** ~~floodplains~~ should be avoided. When the avoidance of floodplain

disturbance is not practical, the natural functions of **the** floodplain should be preserved to the extent possible.

(2) In an attempt to strike a balance between the legitimate need for economic development within the city and the **ever-increasing importance of and the** need to preserve the natural functions of floodplains to the extent possible **(especially given ongoing and projected climate change impacts)**, compensatory excavation equivalent to the floodplain storage lost shall be required for all activities within **the area inundated by the 100-year flood elevation along the** floodplain of streams located in the city where drainage area of the stream is equal **to** or larger than one square mile. **The designee of the Mayor of the City of West Lafayette may alter the compensation ratio, based on extenuating circumstances, for a specific project.** ~~This requirement shall be considered to be above and beyond the minimum requirements provided in the unified zoning ordinance in the city~~ **Detailed requirements regarding the location and methods of calculations are provided in the Technical Standards**.

~~(3) Computations must show no net loss of floodplain storage for ten-year, 50-year, and 100-year storm events. That is, the post-development ten-year floodplain storage along a stream shall be the same as the ten-year pre-development floodplain storage along the stream within the property limits or at a location approved by the city. The post-development 50-year floodplain storage along a stream shall be the same as the 50-year pre-development floodplain storage along the stream within the property limits or at a location approved by the city, and the post-development 100-year floodplain storage along the stream shall be the same as the 100-year pre-development floodplain storage along the stream within the property limits or at a location approved by the city.~~

(Prior Code, § 116.302; Ord. No. 27-11; altered in 2019 recodification)

Sec. 10-111. Calculations, design standards and specifications.

The calculation methods as well as the type, sizing, and placement of all stormwater facilities shall meet the design criteria, standards, and specifications outlined in the "technical standards." The methods and procedures in the "technical standards" are consistent with the policy stated in section 10-110.

(Prior Code, § 116.303; Ord. No. 27-11)

Sec. 10-112. Placement of utilities.

No utility company may disturb existing storm drainage facilities without the consent of the city engineer, whose decision may be appealed to the city board of public works and safety. All existing drainage facilities shall have senior rights and damage to the facilities shall result in penalties as prescribed in division 2 of this article.

(Prior Code, § 116.304; Ord. No. 27-11)

Sec. 10-113. Structures near county-regulated drains.

For regulated drains not located in platted subdivisions, unless otherwise approved by the county drainage board, no permanent structure (including fences) shall be erected within the legal drain easement, as determined by the county drainage board.

(Prior Code, § 116.305; Ord. No. 27-11)

Sec. 10-114. Inspection, maintenance, record keeping, and reporting.

(a) After the approval of the stormwater management permit by the city engineer and the commencement of construction activities, the city engineer has the authority to conduct inspections of the work being done to ensure full compliance with the provisions of this article, the "technical standards," and the terms and conditions of the approved permit.

(b) Long-term inspection and maintenance of stormwater quantity facilities shall be the responsibility of the city. All public and privately owned stormwater quantity facilities will be inspected no less than once each year. The inspection will cover physical conditions, available storage capacity and the operational condition of key facility elements. Stormwater quantity facilities shall be maintained in good condition, in accordance with the terms and conditions of the approved stormwater management permit, and shall not be subsequently altered, revised or replaced except in accordance with the approved stormwater permit, or in accordance with approved amendments or revisions to the permit. If deficiencies are found during the inspection, the owner of the facility will be required to take all necessary measures to correct such deficiencies within 180 days. If the owner fails to correct the deficiencies within the allowed time period, the city will undertake the work and collect from the owner using lien rights if necessary.

(c) Assignment of responsibility for maintaining facilities serving more than one lot or holding shall be documented by appropriate covenants to property deeds, unless responsibility is formally accepted by a public body, and determined before the final stormwater permit is approved. Stormwater detention/retention basins may be donated to the city or other unit of government designated by the city, for ownership and permanent maintenance only if the city or the other governmental unit has expressly accepted responsibility.

(Prior Code, § 116.306; Ord. No. 27-11)

Sec. 10-115. Location of existing sanitary sewer laterals of buildings to be wrecked; inspection, special sealing permit required.

All existing sanitary sewer laterals to buildings being wrecked or demolished shall be located by the demolition contractor and properly sealed off two feet behind the street right-of-way line. This work shall be done in accordance with requirements of and shall be inspected by the wastewater department. A special sewer sealing permit will be required for the wrecking

of buildings that have or are likely to have sanitary sewer laterals. There shall be a sanitary sewer sealing permit fee as established by the city.

(Added in 2019 recodification)

Secs. 10-116—10-141. Reserved.

DIVISION 5. STORMWATER POLLUTION PREVENTION FOR CONSTRUCTION SITES

Sec. 10-142. Applicability and exemptions.

(a) The city will require a stormwater pollution prevention plan (SWPPP), which includes erosion and sediment control measures and materials handling procedures, to be submitted as part of the construction plans and specifications. Any project located within the city that includes clearing, grading, excavation, and other land-disturbing activities, resulting in the disturbance of one-half acre or more of total land area, is subject to the requirements of this article. This includes both new development and re-development. This article also applies to disturbances of less than one-half acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one-half or more acres of land, within the MS4 area. Section 10-144 provides guidelines for calculating land disturbance.

(b) The requirements under this article do not apply to the following activities:

  (1) Agricultural land-disturbing activities; or

  (2) Forest harvesting activities.

(c) The requirements under this article do not apply to the following activities, provided other applicable state permits contain provisions requiring immediate implementation of soil erosion control measures:

  (1) Landfills that have been issued a certification of closure under 329 IAC 10.

  (2) Coal mining activities permitted under IC art. 14-34.

  (3) Municipal solid waste landfills that are accepting waste pursuant to a permit issued by the state department of environmental management under 329 IAC 10 that contains equivalent stormwater requirements, including the expansion of landfill boundaries and construction of new cells either within or outside the original solid waste permit boundary.

(d) For an individual lot where land disturbance is expected to be one-half acre or more, the individual lot owner must complete their own notice of intent letter, apply for a stormwater permit from the city, and ensure that a sufficient construction and stormwater pollution prevention plan is completed and submitted in accordance with division 7 of this article, regardless of whether the individual lot is part of a larger permitted project site.

(e) An individual lot with land disturbance less than one-half acre, located within a larger permitted project site, is considered part of the larger permitted project site, and the individual lot operator must comply with the terms and conditions of the stormwater permit approved for the larger project site. The stormwater permit application for the larger project site must include detailed erosion and sediment control measures for individual lots. These individual lots are not required to submit their own stormwater permit application, but must obtain a stormwater review approval prior to receiving a building permit. Details of the permitting process are contained in division 7 of this article.

(f) It will be the responsibility of the project site owner to complete a stormwater permit application and ensure that a sufficient construction plan is completed and submitted to the city engineer in accordance with division 7 of this article. It will be the responsibility of the project site owner to ensure compliance with this Code during the construction activity and implementation of the construction plan, until the city receives and approves a notice of termination. However, all persons engaging in construction and land-disturbing activities on a permitted project site meeting the applicability requirements must comply with the requirements of this article and this Code and the approved permit and plan.

(Prior Code, § 116.401; Ord. No. 27-11)

Sec. 10-143. Policy on stormwater pollution prevention.

Effective stormwater pollution prevention on construction sites is dependent on a combination of preventing movement of soil from its original position (erosion control), intercepting displaced soil prior to entering a waterbody (sediment control), and proper on-site materials handling. The developer must submit to the city, a Stormwater Pollution Prevention Plan (SWPPP) with detailed erosion and sediment control plans as well as a narrative describing materials handling and storage, and construction sequencing. **The SWPPP and the project management log must be retained for at least three (3) years from the date the project permit is terminated.**

Detailed requirements for stormwater pollution prevention on construction sites within the City, which are consistent with IDEM minimum requirements and apply to all land-disturbing activities, are contained in the Stormwater Technical Standards Manual.

~~The following principles apply to all land-disturbing activities and should be considered in the preparation of a SWPPP within the city.~~

~~(1) Minimize the potential for soil erosion by designing a development that fits the topography and soils of the site. Deep cuts and fills in areas with steep slopes should be avoided wherever possible, and natural contours should be followed as closely as possible.~~

~~(2) Existing natural vegetation shall be retained and protected wherever possible. Areas immediately adjacent (within 35 feet of top of bank) to watercourses and lakes also should be left undisturbed wherever possible. Unvegetated areas or vegetated areas~~

~~with less than 70 percent cover that are scheduled or likely to be left inactive for 15 days or more must be temporarily or permanently stabilized with measures appropriate for the season to reduce erosion potential. Alternative measures to site stabilization may be acceptable if the project site owner or their representative can demonstrate they have implemented and maintained erosion and sediment control measures adequate to prevent sediment discharge from the inactive area.~~

~~(3) All activities on a site should be conducted in a logical sequence so that the smallest practical area of land will be exposed for the shortest practical period of time during development.~~

~~(4) The length and steepness of designed slopes should be minimized to reduce erosion potential. Drainage channels and swales must be designed and adequately protected so that their final gradients and resultant velocities will not cause erosion in the receiving channel or at the outlet. Methods for determining acceptable velocities are included in the "City Stormwater Technical Standards."~~

~~(5) Sediment-laden water which otherwise would flow from the project site shall be treated by erosion and sediment control measures appropriate to minimize sedimentation. A stable construction site access shall be provided at all points of construction traffic ingress and egress to the project site.~~

~~(6) Appropriate measures shall be implemented to prevent wastes or unused building materials, including garbage, debris, packaging material, fuels and petroleum products, hazardous materials or wastes, cleaning wastes, wastewater, concrete truck washout, and other substances from being carried from a project site by runoff or wind. Identification of areas where concrete truck washout is permissible must be clearly posted at appropriate areas of the site. Wastes and unused building materials shall be managed and disposed of in accordance with all applicable state statutes and regulations. Proper storage and handling of materials such as fuels or hazardous wastes, and spill prevention and cleanup measures shall be implemented to minimize the potential for pollutants to contaminate surface water or groundwater or degrade soil quality.~~

~~(7) Public or private roadways shall be kept cleared of accumulated sediment that is a result of runoff or tracking. Bulk clearing of accumulated sediment shall not include flushing the area with water. Cleared sediment shall be redistributed or disposed of in a manner that is in accordance with all applicable statutes and regulations.~~

~~(8) Collected runoff leaving a project site must be either discharged directly into a well-defined, stable receiving channel, or diffused and released to adjacent property without causing an erosion or pollutant problem to the adjacent property owner.~~

~~(9) Natural features, including wetlands, shall be protected from pollutants associated with stormwater runoff.~~

~~(10)~~ The SWPPP shall designate a paved or stoned area for parking during construction to prevent site disturbance and the permittee shall require all contractors,

subcontractors, material suppliers, and deliveries to use only the designated parking area.

(Prior Code, § 116.402; Ord. No. 27-11)

Sec. 10-144. Calculations, design standards and specifications.

In calculating the total area of land disturbance, for the purposes of determining applicability of this article to the project, the following guidelines shall be used:

(1) Off-site construction activities that provide services (e.g., road extensions, sewer, water, and other utilities) to a land-disturbing project site, must be considered as a part of the total land disturbance calculation for the project site, when the activity is under the control of the project site owner.

(2) Strip developments will be considered as one project site and must comply with this article unless the total combined disturbance on all individual lots is less than one-half acre and is not part of a larger common plan of development or sale.

(3) To determine if multi-lot project sites are regulated by ~~this rule~~**the permit**, the area of land disturbance shall be calculated by adding the total area of land disturbance for improvements, such as, roads, utilities, or common areas, and the expected total disturbance on each individual lot, as determined by the following:

a. For a single-family residential project site where the lots are one-half acre or more, one-half acre of land disturbance must be used as the expected lot disturbance.

b. For a single-family residential project site where the lots are less than one-half acre in size, the total lot must be calculated as being disturbed.

c. To calculate lot disturbance on all other types of ~~projects~~ **project** sites, such as industrial and commercial projects project sites, a minimum of one-half acre of land disturbance must be used as the expected lot disturbance, unless the lots are less than one-half acre in size, in which case the total lot must be calculated as being disturbed.

The calculation methods as well as the type, sizing, and placement of all stormwater pollution prevention measures for construction sites shall meet the design criteria, standards, and specifications outlined in the "Indiana Stormwater Quality Manual" or the "technical standards." The methods and procedures included in these two references are in keeping with the policy stated in section 10-143 and meet the requirements of **the IDEM's CSGP. A Copy of the Indiana Stormwater Quality Manual may be obtained online through IDEM.** ~~IDEM's Rule 5~~.

The design requirements that would apply to all land-disturbing activities and shall be considered in the selection, design, and implementation of all stormwater

quality and management measures contained in the SWPPP are contained in the technical standards.

(Prior Code, § 116.403; Ord. No. 27-11)

Sec. 10-145. Inspection, maintenance, record keeping, and reporting.

(a) Following approval of the stormwater management permit by the city and commencement of construction activities, the city engineer has the authority to conduct inspections of the site to ensure full compliance with the provisions of this article, **the approved Stormwater Pollution Prevention Plan,** the "Indiana Stormwater Quality Manual," and the terms and conditions of the approved permit.

(b) A self-monitoring program must be implemented by the project site owner to ensure the stormwater pollution prevention plan is working effectively. A trained individual, as defined in the technical standards, shall perform a written evaluation of the project site by the end of the next business day following each measurable storm event. If there are no measurable storm events within a given week, the site should be monitored at least once in that week. Weekly inspections shall continue until the entire site has been stabilized and a notice of termination has been issued. The inspector should look at the maintenance of existing stormwater pollution prevention measures, including erosion and sediment control measures, drainage structures, and construction materials storage/containment facilities, to ensure they are functioning properly. The inspector shall also identify additional measures, beyond those originally identified in the stormwater pollution prevention plan, necessary to remain in compliance with all applicable statutes and regulations.

(c) The resulting evaluation reports must include the name of the individual performing the evaluation, the date of the evaluation, problems identified at the project site, and details of maintenance, additional measures, and corrective actions recommended and completed. A form for documenting these inspections can be found in appendix B of the technical standard.

(d) The stormwater pollution prevention plan shall serve as a guideline for stormwater quality, but should not be interpreted to be the only basis for implementation of stormwater quality measures for a project site. The project site owner is responsible for implementing, in accordance with this article, all measures necessary to adequately prevent polluted stormwater runoff. Recommendations by the inspector for modified stormwater quality measures should be implemented.

(e) Although self-monitoring reports do not need to be submitted to the city engineer, the city engineer has the right to request complete records of maintenance and monitoring activities involving stormwater pollution prevention measures. All evaluation reports for the project site must be made available to the city engineer, in an organized fashion, within 48 hours of a request.

(Prior Code, § 116.404; Ord. No. 27-11)

Secs. 10-146—10-173. Reserved.

DIVISION 6. STORMWATER QUALITY MANAGEMENT FOR POST CONSTRUCTION

Sec. 10-174. Applicability and exemptions.

(a) In addition to the requirements of division 5 of this article, the stormwater pollution prevention plan, which is to be submitted to the city engineer as part of the stormwater management permit application, must also include post-construction stormwater quality measures. These measures are incorporated as a permanent feature into the site plan and are left in place following completion of construction activities to continuously filter stormwater runoff from the stabilized site. Any project located within the city that includes clearing, grading, excavation, and other land-disturbing activities, resulting in the disturbance of one-half acre or more of total land area, is subject to the requirements of this article. This includes both new development and re-development, and disturbances of less than one-half acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one-half or more acres of land, within the MS4 area. **In addition, regardless of the amount of disturbance, Tippecanoe County reserves the right to require pre-treatment BMPs for proposed hot spot developments in accordance with provisions contained in the "technical standards".**

(b) The requirements under this article do not apply to the following activities:

(1) Agricultural land-disturbing activities;

(2) Forest harvesting activities;

(3) Construction activities associated with a single-family residential dwelling disturbing less than five acres, when the dwelling is not part of a larger common plan of development or sale;

(4) Single-family residential developments consisting of four or less lots;

(5) A single-family residential strip development where the developer offers for sale or lease without land improvements and the project is not part of a larger common plan of development of sale; or

(6) Individual building lots within a larger permitted project.

(c) The requirements under this article do not apply to the following activities, provided other applicable state permits contain provisions requiring immediate implementation of soil erosion control measures:

(1) Landfills that have been issued a certification of closure under 329 IAC 10.

(2) Coal mining activities permitted under IC art. 14-34.

(3) Municipal solid waste landfills that are accepting waste pursuant to a permit issued by the state department of environmental management under 329 IAC 10 that contains equivalent stormwater requirements, including the expansion of landfill boundaries and construction of new cells either within or outside the original solid waste permit boundary.

(d) It will be the responsibility of the project site owner to complete a stormwater permit application and ensure that a sufficient construction plan is completed and submitted to the city engineer in accordance with division 7 of this article. It will be the responsibility of the project site owner to ensure proper construction and installation of all stormwater **Best Management Practices (**BMPs**)** in compliance with this Code and with the approved stormwater management permit, and to notify the city engineer with a sufficient notice of termination upon completion of the project and stabilization of the site. However, all eventual property owners of stormwater quality facilities meeting the applicability requirements must comply with the requirements of this article and this Code.

(Prior Code, § 116.501; Ord. No. 27-11)

Sec. 10-175. Policy on stormwater quality management.

(a) It is recognized that developed areas, as compared to undeveloped areas, generally have increased imperviousness, decreased infiltration rates, increased runoff rates, and increased concentrations of pollutants such as fertilizers, herbicides, greases, oil, salts and other pollutants. As new development and re-development continues in the city, measures must be taken to intercept and filter pollutants from stormwater runoff prior to reaching regional creeks, streams, and rivers in order to preserve fishable and swimmable conditions. Through the use of Best Management Practices (BMP), stormwater runoff will be filtered and harmful amounts of sediment, nutrients and contaminants will be removed.

(b) It is also recognized that another major source of pollution in many Indiana streams, including those within the corporate boundaries of the City, is the streambank erosion associated with urbanizing watersheds. Stream channels develop their shape in response to the volume and rate of runoff that they receive from their contributing watersheds. Research has shown that in hydrologically stable watersheds, the stream flow responsible for most of the shaping of the channel (called the bankfull flow) occurs between every one to two years. When land is developed, the volume and rate of runoff from that land increases for these comparatively small flooding events that are not normally addressed by the detention practices and the stream channel will adapt by changing its shape. As the stream channel works to reach a new stable shape, excess erosion occurs. As new development and re-development continues within the corporate boundaries of the City, measures must be taken to minimize the impact of such development or re-development on streambank erosion. Through the use of appropriate Best Management Practices (BMP's), the volume and rate of runoff for

channel forming flows will be reduced in an attempt to minimize increased streambank erosion in the receiving streams and channels.

(~~b~~**c**) The project site owner must submit to the city engineer a stormwater pollution prevention plan (SWPPP) which shows placement of appropriate BMP from a pre-approved list of BMPs specified in the "Indiana Stormwater Quality Manual" or the "technical standards." **The SWPPP submittal shall include an Operation and Maintenance Manual for all post-construction BMP(s) included in the project and a notarized Maintenance Agreement, consistent with the sample agreement provided in the "technical standards", providing for the long-term maintenance of those BMPs, both of which shall be recorded with the deed for the property on which the project is located.** The noted BMPs must be designed, constructed, and maintained according to guidelines provided or referenced in the "Indiana Stormwater Quality Manual" or the "technical standards." Practices other than those specified in the pre-approved list may be utilized. However, the burden of proof as to whether the performance and ease of maintenance of such practices will be according to guidelines provided in the "Indiana Stormwater Quality Manual" or the "technical standards," shall be placed with the applicant. Details regarding the procedures and criteria for consideration of approval of such BMPs are provided in the "technical standards."

(~~c~~**d**) Requirements of this Code and the "technical standards" with regard to post-construction stormwater quality management can be satisfied through a variety of methods broadly categorized under two general approaches:

(1) Conventional approach.

(2) Low impact development (LID) approach.

(~~d~~**e**) The site developer and designer are encouraged to review the LID discussion in the technical standards prior to site design.

~~(e)~~**(f)** Gasoline outlets and refueling areas must install appropriate practices **(as noted under "Hot Spots" provision in the Technical Standards)** to reduce lead, copper, zinc, and polyaromatic hydrocarbons in stormwater runoff. These requirements will apply to all new facilities and existing facilities that replace their tanks**, regardless of the size of the facility.**

(Prior Code, § 116.502; Ord. No. 27-11)

Sec. 10-176. Calculations, design standards and specifications.

(a) Calculation of land disturbance shall follow the guidelines discussed in section 10-144.

(b) The calculation methods as well as the type, sizing, and placement of all stormwater quality management measures, or BMPs shall meet the design criteria, standards, and specifications outlined in the "Indiana Stormwater Quality Manual" or the "Technical Standards." The methods and procedures included in these two references are in keeping

with the policy stated in section 10-175 and meet the requirements of IDEM's **MS4 GP**~~Rule 13~~.

(Prior Code, § 116.503; Ord. No. 27-11)

Sec. 10-177. Easement requirements.

All stormwater quality management systems, including detention or retention basins, filter strips, pocket wetlands, in-line filters, infiltration systems, conveyance systems, structures and appurtenances located outside of the right-of-way shall be incorporated into permanent easements or included in a master covenant and agreement.

(Prior Code, § 116.504; Ord. No. 27-11)

Sec. 10-178. Inspection, maintenance, record keeping, and reporting.

(a) After the approval of the stormwater management permit by the city and the commencement of construction activities, the city engineer has the authority to conduct inspections of the work being done to ensure full compliance with the provisions of this article, the Technical Standards or "Indiana Stormwater Quality Manual" and the terms and conditions of the approved permit. The inspections will cover physical conditions, available water quality volume capacity, and the operational condition of key facility elements.

(b) Stormwater quality facilities shall be maintained in good condition, in accordance with the "Operation and Maintenance Manual." This manual shall not be subsequently altered, revised or replaced except in accordance with the approved stormwater permit, or in accordance with approved amendments or revisions in the permit.

(c) Following completion of construction and formal acceptance, inspection and maintenance of publicly owned stormwater quality facilities shall be the responsibility of the city. Inspection and maintenance of privately owned stormwater quality facilities shall be the responsibility of the owner.

(d) Details regarding the required stormwater BMP Maintenance Agreement, O&M Maintenance Manual and their transfer to other parties or subsequent owners prior to release of the maintenance bond discussed in Section 10-213 is provided in the "technical standards".

(~~c~~**e**) All stormwater quality facilities will be inspected by representatives of the project site owner until the project is complete and a notice of termination has been approved. Inspection frequency shall follow specifications included in the "Operation and Maintenance Manual" submitted as part of the permit application. ~~Optional inspection checklists for some of the more common BMPs can be found in appendix B of the technical standards.~~ Following project completion, the owner is responsible for inspection and maintenance of the stormwater quality facilities. The city has the authority to conduct inspections following project completion to ensure full compliance with the provisions of

this article. Noted deficiencies and recommended corrective action will be included in an inspection report. If deficiencies are found during the inspection, the owner of the stormwater quality facility will be notified by the city engineer and will be required to take all necessary measures to correct such deficiencies. If the owner fails to correct the deficiencies within the allowed time period, as specified in the notification letter, the city will undertake the work and collect from the owner using lien rights if necessary.

(Prior Code, § 116.505; Ord. No. 27-11)

Secs. 10-179—10-209. Reserved.

DIVISION 7. PERMITS

Sec. 10-210. Preliminary drainage approvals.

In order to gain an understanding of the drainage requirements for a specific project, a developer may submit preliminary drainage plans and calculations, certified by a licensed professional engineer or a licensed land surveyor registered in the state, for review by the city engineer. A preliminary drainage approval may be obtained prior to preliminary plat approval for subdivisions. The direction provided by the city engineer during such a review is based on preliminary data and shall not be construed as an approval or binding on either party. The following is a general listing of minimum data requirements for the review of preliminary drainage plans:

(1) Two complete sets of plans.

(2) Drainage narrative.

(3) Watershed boundaries with USGS contours or best information possible.

(4) Existing regulated drains.

(5) Drainage calculations to support narrative:

   a. Existing and proposed runoff.

   b. Existing and proposed curve number.

   c. Existing and proposed time of concentration.

   d. Upstream and downstream restrictions.

(6) Proof of notification for obtaining any needed consents, off-site easements, or right-of-way, if required.

(7) Topographic map of the project with layout.

(8) A copy of the foregoing information in digital format acceptable to the city engineer.

(Prior Code, § 116.601; Ord. No. 27-11)

Sec. 10-211. Permit procedures.

(a) *Applicability.* This section applies to all development or re-development of land. Individual lots in residential subdivisions with land disturbance less than one-half acre, which are developed within a larger permitted project site, should refer to section 10-**214**~~213~~ for plan review requirements and procedures.

(b) *Within unincorporated areas of the county.*

(1) For projects located within unincorporated areas of the county, the project site owner shall submit an application for a stormwater management permit to the county drainage board. The application will include ~~a notice of intent letter (NOI), proof of public notice~~ **a completed application checklist**, construction plan sheets, stormwater drainage technical report, a stormwater pollution prevention plan, and any other necessary support information. Specific information to be included in the application can be found in ~~subsection (b)(3) of this~~ section **10-213**. Two copies of each application must be submitted to the county drainage board. Additionally, a digital copy of the construction plans is required in a format approved by the county drainage board.

(2) If the project must go through a scheduled meeting, all information must be submitted at least 30 days prior to the regularly scheduled meeting. The county drainage board shall furnish the applicant a written list of objections to the plans and supporting data submitted by the applicant. A resubmittal from the applicant addressing the list of objections shall be provided to the county drainage board at least ten days prior to the scheduled meeting. Plans in substantial compliance with the requirements of this article and the technical standards that need to go through a scheduled meeting shall be placed on the agenda with a recommendation for conditional approval or construction approval. If the county drainage board approves the project, the plans will be signed by the county surveyor's office after construction approval has been granted.

(3) If the project does not require county drainage board approval at a scheduled meeting, the county surveyor's office will provide written comments and sign the plans after construction approval has been granted. Once the plans have been signed, and after a preconstruction meeting has been held, construction can commence. **If the project is a commercial or industrial lot, or a residential development section or phase, that is part of a previously approved development masterplan, the project must be submitted for review to ensure compliance with the previously approved masterplan but does not require approval at a Drainage Board meeting.**

(4) The project site owner must notify the county drainage board and Indiana Department of Environmental Management (IDEM) ~~48 hours~~ before beginning construction. **Notification to the county drainage board shall be in the form of an email while** ~~N~~**n**otification **to IDEM** shall be in the form of an ~~updated~~ **online IDEM** NOI **submittal**. Once construction starts, the project owner shall monitor construction

activities and inspect all stormwater pollution prevention measures in compliance with this article and the terms and conditions of the approved permit. Upon completion of construction activities, **a Certification of Completion and Compliance and** as-built plans must be submitted to the county drainage board. **Once the construction site has been stabilized and all temporary erosion and sediment control measures have been removed, a notification shall be sent to the Tippecanoe County Drainage Board, requesting a termination inspection.** ~~A notice of termination (NOT) shall be sent to the county drainage board once the construction site has been stabilized and all temporary erosion and sediment control measures have been removed.~~ The county drainage board, or representative, shall inspect the construction site to verify **that the completed project is fully stabilized and meets the requirements of Tippecanoe County stormwater Ordinance and its technical standards as well as the terms and conditions of the permit. Once the applicant receives a signed copy of the Termination Inspection Checklist confirming compliance, they must forward a copy to IDEM along with the required IDEM NOT form. Permits issued under this scenario will expire 5 years from the date of issuance. If construction is not completed within 5 years, an updated permit application must be submitted to the county drainage board and an updated NOI must be resubmitted to IDEM at least 90 days prior to expiration.** ~~the requirements for an NOT have been met. Once the applicant receives a "verified" copy of the NOT, they must forward a copy to the IDEM. Permits issued under this scenario will expire five years from the date of issuance. If construction is not completed within five years, the NOI must be resubmitted at least 90 days prior to expiration. No additional Rule 5 (327 IAC 15-5) permit is required from the IDEM for projects within the unincorporated areas of the county since the county drainage board is mandated to serve as a quality local program, which is viewed by the IDEM as the equivalent to Rule 5.~~

(c) *Within other jurisdictional areas.* For projects located within other jurisdictional areas, but impacting county-regulated drains, the project site owner must submit two copies of the construction plans (which include drainage plans), erosion and sediment control plans, and a stormwater drainage technical report to the county drainage board. Additionally, a digital copy of the construction plans is required in a format approved by the county drainage board. If the project must go through a scheduled meeting, all information must be submitted at least 30 days prior to its regularly scheduled meeting. The county drainage board shall furnish the applicant a written list of objections to the plans and supporting data submitted by the applicant. This list of objections, if any, will be related only to the project's impact on county-regulated drains. A resubmittal from the applicant addressing the list of objections shall be provided to the county drainage board at least ten days prior to the scheduled meeting. Plans in substantial compliance with the requirements of this article and the technical standards that need to go through a scheduled meeting shall be placed on the agenda with a recommendation for conditional approval or construction approval. If the county drainage board approves the project, the applicant must satisfactorily address all issues listed in the conditional approval to obtain construction

approval. This approval does not alleviate the applicant's responsibility to comply with the article, policy, or resolution requirements of the local jurisdictional entity. **If the project is a commercial or industrial lot, or a residential development section or phase, that is part of a previously approved development masterplan, no permit application is required by the county drainage board, as the development masterplan impacts to the regulated drain would already have been approved. In this case, the project site owner shall submit a copy of the project construction plans to the county Surveyor's office for their records.**

(Prior Code, § 116.602; Ord. No. 27-11; altered in 2019 recodification)

10-212. SWPPP Review Time Limits

Pursuant to IC 13-18-27, an MS4-designated entity or other review authority such as SWCD must make a preliminary determination as to whether the construction plan associated with SWPPP is substantially complete before the end of the tenth (10th) working day (for sites with less than 5 acres of land disturbance) after the day on which the SWPPP is submitted to the review authority or the fourteenth (14th) working day (for sites with 5 acres or larger of land disturbance) after the day on which the SWPPP is submitted to the review authority. Depending on the outcome of the SWPPP review, the following scenarios may play out:

(1) No SWPPP review notification received: If the review authority does not notify the applicant of its preliminary determination as to whether the construction plan is substantially complete within either 10 or 14 days as noted above, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the "technical standards", and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project.

(2) SWPPP not substantially complete: If the review authority notifies the applicant that the construction plan is not substantially complete, the project site owner may not submit a notice of intent letter to IDEM until the review authority makes a conclusive favorable determination concerning the construction plan under the IDEM rule/permit, or this Ordinance and the "technical standards".

(3) Unfavorable SWPPP: If the review authority notifies the applicant that the construction plan is substantially complete; and makes a conclusive unfavorable determination concerning the construction plan under IDEM rule/permit, or this Ordinance and the "technical standards", the project site owner may not submit a notice of intent letter to IDEM.

(4) Preliminary SWPPP review: If the review authority notifies the applicant that the construction plan is substantially complete and a preliminary review has been completed, the project site owner may submit a notice of intent letter to IDEM

including the information required by IDEM, or this Ordinance and the "technical standards", and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project. The plan review authority reserves the right to perform a comprehensive review at a later date, and revisions may be required at that time.

(5) Conditional SWPPP review: If the review authority notifies the applicant that the construction plan is substantially complete and a conditional review has been completed, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the "technical standards", and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project provided that the requirements included in the conditional review are fulfilled.

(6) Favorable SWPPP review: If the review authority notifies the applicant that the construction plan is substantially complete and a preliminary review has been completed, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the "technical standards", and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project.

Note that the above time limits only apply to the SWPPP portion of the overall stormwater permit submittal and does not affect any official or non-official permit review timelines set by the county drainage board for other aspects of the stormwater permit application.

Sec. 10-**213**~~212~~. Information requirements.

(a) *Exemption.* Specific projects or activities may be exempt from all or part of the informational requirements listed below. Exemptions are detailed in the "Applicability and Exemptions" sections of articles II through V of this chapter. If a project or activity is exempt from any or all requirements of this Code, an application should be filed listing the exemption criteria met, in lieu of the information requirements listed below. This level of detailed information is not required from individual lots, in residential subdivisions with land disturbance less than one-half acre of land, which are developed within a larger permitted project site. Review and approval of such lots is covered under section **10-214**~~10-145~~.

(b) *Permit submittal*~~*.; optional application.*~~ The different elements of a permit submittal include **an application checklist,** ~~a notice of intent (NOI), proof of publication of a public notice,~~ construction plans, a stormwater drainage technical report, a stormwater pollution prevention plan for active construction sites, a post-construction stormwater pollution prevention plan, and any other necessary supporting information. ~~An optional application form~~ **The application checklist** can be found in appendix B of the technical standards. **All**

plans, reports, calculations, and narratives shall be signed and sealed by a professional engineer or a licensed surveyor, registered in the State of Indiana who also meets the definition of a Trained Individual found in Appendix A.

(1) ~~*Notice of intent*~~***Application Checklist****.*

a. **As part of the permit application package, the application checklist provided in the Stormwater Technical Standards Manual must be completed by the applicant and provided along with other required supporting material.**~~The NOI is a standard form developed by the state department of environmental management (IDEM) which requires general project information. A blank copy of the NOI can be found in appendix B of the Technical Standards, or on IDEM's webpage. The NOI shall be completed in full and accompanied by proof of publication in a newspaper of general circulation, in the affected area, that notifies the public that a construction activity is to commence. The publication must include the following language:~~

~~"(Company name, address) is submitting an NOI letter to notify the city and the state department of environmental management of our intent to comply with the requirements of the city drainage code, as well as the requirements of 327 IAC 15-5 and 15-13, to discharge stormwater from construction activities for the following project: (name of the construction project, address of the location of the construction project). Run-off from the project site will discharge to (stream receiving the discharge)."~~

~~b. During construction, a copy of the completed NOI shall be posted by the project site owner near the main entrance of the project site.~~

(2) *Construction plans.* Construction plan sheets **(larger than 11" by 17", but not to exceed 24" by 36" in size)** and an accompanying narrative report shall describe and depict the existing and proposed conditions. **Note that in order to gain an understanding of and to evaluate the relationship between the proposed improvements for a specific project section/phase and the proposed improvements for an overall multi-section (phased) project, the detailed information requested herein for the first section/phase being permitted must be accompanied by an overall project plan that includes the location, dimensions, and supporting analyses of all detention/retention facilities, primary conveyance facilities, and outlet conditions.** Construction plans need to include~~ the following detailed items~~ **items listed in the application checklist provided in the Stormwater Technical Standards Manual.**~~:~~

~~a. Project narrative and supporting documents, including the following information:~~

~~1. An index indicating the location, in the construction plans, of all information required by this subsection.~~

~~2. Description of the nature and purpose of the project.~~

3. Legal description of the project site. The description should be to the nearest quarter section, township, and range, and include the civil township.

4. Soil properties, characteristics, limitations, and hazards associated with the project site and the measures that will be integrated into the project to overcome or minimize adverse soil conditions.

5. General construction sequence of how the project site will be built, including phases of construction.

6. 14-digit watershed hydrologic unit code.

7. A reduced plat or project site map showing the lot numbers, lot boundaries, and road layout and names. The reduced map must be legible and submitted on a sheet or sheets no larger than 11 inches by 17 inches for all phases or sections of the project site.

8. A general site plan exhibit with the proposed construction area superimposed on a county GIS ortho-aerial map at a scale of 1 inch=100 feet. The exhibit should provide two-foot contour information and include all roads and buildings within a minimum 500-foot radius beyond the project boundaries.

9. Identification of any other state or federal water quality permits that are required for construction activities associated with the owner's project site.

b. Vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads, such as a USGS topographic quadrangle map, or county or municipal road map.

c. An existing project site layout that must include the following information:

1. Location, name, and normal water level of all wetlands, lakes, ponds, and water courses on, or adjacent to, the project site.

2. Location of all existing structures on the project site.

3. 100-year floodplains, floodway fringes, and floodways. Please note if none exists.

4. Soil map of the predominant soil types, as determined by the United States Department of Agriculture (USDA), Natural Resources Conservation Services (NRCS) Soil Survey, or as determined by a soil scientist. Hydrologic classification for soils should be shown when hydrologic methods requiring soils information are used. A soil legend must be included with the soil map.

5. Identification and delineation of vegetative cover such as grass, weeds, brush, and trees on the project site.

6. Location of storm, sanitary, combined sewer, and septic tank systems and outfalls.

7. Land use of all adjacent properties.

8. Identification and delineation of sensitive areas.

9. Existing topography at a contour interval appropriate to indicate drainage patterns.

10. The location of regulated drains, farm drains, inlets and outfalls, if any of record.

d. Final project site layout, including the following information:

1. Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas.

2. 100-year floodplains, floodway fringes, and floodways. Please note if none exists.

3. Proposed final topography at a contour interval appropriate to indicate drainage patterns.

e. A grading plan, including the following information:

1. Delineation of all proposed land-disturbing activities, including off-site activities that will provide services to the project site.

2. Location of all soil stockpiles and borrow areas.

3. Information regarding any off-site borrow, stockpile, or disposal areas that are associated with a project site, and under the control of the project site owner.

4. Existing and proposed topographic information.

f. A drainage plan, including the following information:

1. An estimate of the peak discharge, based on the ten year storm 24-hour event, of the project site for both pre-construction and post-construction conditions.

2. Calculation showing peak runoff rate after development for the ten-year and 100-year return period storms of critical duration do not exceed the two-year and ten-year return period pre-development peak runoff rates, respectively.

3. Location, size, and dimensions of all existing streams to be maintained, and new drainage systems such as culverts, bridges, storm sewers, and conveyance channels, along with all associated easements.

4. Locations where stormwater may be directly discharged into groundwater, such as abandoned wells or sinkholes. Please note if none exists.

5. Locations of specific points where stormwater discharge will leave the project site.

~~6. Name of all receiving waters. If the discharge is to a separate municipal storm sewer, identify the name of the municipal operator and the ultimate receiving water.~~

~~7. Location, size, and dimensions of features such as permanent retention or detention facilities, including natural or constructed wetlands, used for the purpose of stormwater management. Include existing retention or detention facilities that will be maintained, enlarged, or otherwise altered and new ponds or basins to be built and the basis of their design.~~

~~8. The estimated depth and amount of storage required by design of the new ponds or basins.~~

~~9. One or more typical cross sections of all existing and proposed channels or other open drainage facilities carried to a point above the 100-year high water and showing the elevation of the existing land and the proposed changes, together with the high water elevations expected from the 100-year storm under the controlled conditions called for by this Code, and the relationship of structures, streets, and other facilities.~~

(3) *Stormwater drainage technical report.* A written stormwater drainage technical report must contain a discussion of the steps taken in the design of the stormwater drainage system. **Note that in order to gain an understanding of and to evaluate the relationship between the proposed improvements for a specific project section/phase and the proposed improvements for an overall multi-section (phased) project, the detailed information requested herein for the first section/phase being permitted must be accompanied by an overall project plan that includes the location, dimensions, and supporting analyses of all detention/retention facilities, primary conveyance facilities, and outlet conditions. The technical report needs to include items listed in the application checklist provided in the Stormwater Technical Standards Manual**. ~~The technical report needs to include the following detailed items:~~

~~a. A summary report, including the following information:~~

~~1. The significant drainage problems associated with the project;~~

~~2. The analysis procedure used to evaluate these problems and to propose solutions;~~

~~3. Any assumptions or special conditions associated with the use of these procedures, especially the hydrologic or hydraulic methods;~~

~~4. The proposed design of the drainage control system; and~~

~~5. The results of the analysis of the proposed drainage control system showing that it does solve the project's drainage problems. Any hydrologic or hydraulic calculations or modeling results must be adequately cited and described in the summary description. If hydrologic or hydraulic models are used, the input and output files for all necessary runs must be included in~~

~~the appendices. A map showing any drainage area subdivisions used in the analysis must accompany the report.~~

~~b. A hydrologic/hydraulic analysis, consistent with the methodologies and calculation included in the Technical Standards, and including the following information:~~

~~1. A hydraulic report detailing existing and proposed drainage patterns on the subject site. The report shall include a description of present land use and proposed land use. Any off-site drainage entering the site should be addressed as well. This report should be comprehensive and detail all of the steps the engineer took during the design process.~~

~~2. All hydrologic and hydraulic computations should be included in the submittal. These calculations shall include but are not limited to runoff curve numbers and runoff coefficients, runoff calculations, stage-discharge relationships, times-of-concentration and storage volumes.~~

~~3. Copies of all computer runs. These computer runs should include both the input and the outputs. Electronic copies of the computer runs with input files will expedite the review process.~~

~~4. A set of exhibits should be included showing the drainage sub-areas and a schematic detailing of how the computer models were set up.~~

~~5. A conclusion which summarizes the hydraulic design and details how this design satisfies this Code.~~

(4) *Stormwater pollution prevention plan for construction sites.* A stormwater pollution prevention plan **(SWPPP)** associated with construction activities must be designed to, at least, meet the requirements of this Code and technical standards**. The SWPPP must include items listed in the application checklist provided in the technical standards.** ~~, and must be provided on the construction plans with the following information:~~

~~a. Location, dimensions, detailed specifications, and construction details of all temporary and permanent stormwater quality measures.~~

~~b. Temporary stabilization plans and sequence of implementation.~~

~~c. Permanent stabilization plans and sequence of implementation.~~

~~d. Temporary and permanent stabilization plans shall include the following:~~

~~1. Specifications and application rates for soil amendments and seed mixtures.~~

~~2. The type and application rate for anchored mulch.~~

~~e. Construction sequence describing the relationship between implementation of stormwater quality measures and stages of construction activities.~~

~~f. A typical erosion and sediment control plan for individual lot development.~~

~~g. Self-monitoring program including plan and procedures.~~

~~h. A description of potential pollutant sources associated with the construction activities, which may reasonably be expected to add a significant amount of pollutants to stormwater discharges.~~

~~i. Material handling and storage associated with construction activity shall meet the spill prevention and spill response requirements in 327 IAC 2-6.1.~~

(5) *Post-construction stormwater pollution prevention plan.* The post-construction stormwater pollution prevention plan **must be designed to, at least, meet the requirements of this Code and must include the information provided in the technical standards. The post-construction stormwater pollution prevention plan must include items listed in the application checklist provided in the technical standards.** ~~must be provided on the construction plan and include the following information:~~

~~a. A description of potential pollutant sources from the proposed land use, which may reasonably be expected to add a significant amount of pollutants to stormwater discharges.~~

~~b. Location, dimensions, detailed specifications, and construction details of all post-construction stormwater quality measures.~~

~~c. A description of measures that will be installed to control pollutants in stormwater discharges that will occur after construction activities have been completed. Such practices include infiltration of run-off, flow reduction by use of open vegetated swales and natural depressions, buffer strip and riparian zone preservation, filter strip creation, minimization of land disturbance and surface imperviousness, maximization of open space, and stormwater retention and detention ponds.~~

~~d. A sequence describing when each post-construction stormwater quality measure will be installed.~~

~~e. Stormwater quality measures that will remove or minimize pollutants from stormwater run-off.~~

~~f. Stormwater quality measures that will be implemented to prevent or minimize adverse impacts to stream and riparian habitat.~~

~~g. A narrative description of the maintenance guidelines for all post-construction stormwater quality measures to facilitate their proper long-term function.~~

(6) *Operation and maintenance manual.*

a. This operation and maintenance manual will be kept on file by the city for use during inspections. A copy will also be provided to the landowner for inspection and maintenance purposes.

b. Suggested inspection and maintenance guidelines to be used in the manual for various post-construction stormwater quality measures can be found in the technical standards appendices.

(7) ***Maintenance Agreement.***

A formal BMP maintenance agreement will need to be prepared and notarized consistent with the sample agreement provided in the technical standards, providing for the long-term maintenance of those BMPs. This maintenance agreement shall be recorded with the deed for the property on which the project is located.

(Prior Code, § 116.603; Ord. No. 27-11)

Sec. 10-**214**~~213~~. Review of individual lots within a permitted project.

(a) Although no permit is required for individual lots that disturb less than one-half acre in residential subdivisions, a formal stormwater review will be required before a building permit can be issued. All stormwater management measures necessary to comply with this Code must be implemented in accordance with the permitted plan for the larger project.

(b) The following information must be submitted for review and approval, to the city, by the individual lot operator, whether owning the property or acting as the agent of the property owner, prior to the issuance of a building permit.

(1) A site layout for the subject lot and all adjacent lots showing building pad location, dimensions, and elevations, and the drainage patterns and swales.

(2) Erosion and sediment control plan that, at a minimum, includes the following measures:

a. Installation and maintenance of a stable construction site access.

b. Installation and maintenance of appropriate perimeter erosion and sediment control measures prior to land disturbance.

c. Minimization of sediment discharge and tracking from the lot with designation of paved or stoned parking for contractors and subcontractors.

d. Clean-up of sediment that is either tracked or washed onto roads. Bulk clearing of sediment shall not include flushing the area with water. Cleared sediment must be redistributed or disposed of in a manner that is in compliance with all applicable statutes and rules.

e. Adjacent lots disturbed by an individual lot operator must be repaired and stabilized with temporary or permanent surface stabilization.

f. Self-monitoring program including plan and procedures.

(3) Certification stating that the individual lot plan is consistent with the stormwater management permit, as approved by the city, for the larger project.

(c) The individual lot operator is responsible for installation and maintenance of all erosion and sediment control measures until the site is stabilized. A typical erosion and sediment control plan for individual lots can be found in the city standard drawings. The form for certifying compliance with the stormwater management plan for the larger project can be found in appendix B of the technical standards.

(Prior Code, § 116.604; Ord. No. 27-11)

Sec. 10-**215**~~214~~. Changes to plans.

(a) Any significant change or deviation in the detailed plans and specifications after approval of the stormwater management permit shall be filed in duplicate with, and approved by, the city engineer prior to the land development involving the change. Copies of the changes, if approved, shall be attached to the original plans and specifications.

(b) If, during construction, field conditions warrant changes to the stormwater pollution prevention plan associated with construction activities, these changes must be included as handwritten notes and drawings on the on-site field office construction plans within seven days of the respective changes.

(Prior Code, § 116.605; Ord. No. 27-11)

Sec. 10-**216**~~215~~. Fee structure.

(a) *Fee amount.* As a condition of the submittal and the review of development plans by the city engineer, the applicant shall agree to pay the city the actual costs incurred by the city with respect to the review of all drainage submittals, preliminary plans, final plans, and/or construction plans and accompanying information and data. The applicant shall also agree to pre-pay the city for inspection services provided for post construction BMPs. The amount shall be sufficient to conduct inspections for a period of three years following the notice of termination.

(b) *Time of payment.*

(1) Upon approval of the applicant's final stormwater management plan, the city engineer will furnish a written statement to the applicant specifying the total cost of professional engineering fees incurred by the city in connection with the review of the applicant's submittals, plans and accompanying information and data, including the total hours expended by such professional engineer and support staff, and the amount required to be paid by applicant.

(2) As a condition of approval of final drainage plans by the city, applicant shall pay to the city the sum set forth in the statement. The city may issue such a billing statement before the project advances to the final approval stage, and such payment is due by applicant upon receipt of said billing statement regardless of whether the project is advanced to the final approval stage.

(3) The city shall have the right to not accept the drainage improvements or to not approve the advancement of any project for which the professional engineering fees have not been paid.

(c) *Method of payment.*

(1) Fees shall be paid by one of the following methods:

a. Certified check.

b. Cashier's check.

c. Money order.

(2) All checks shall be made payable to the: City of West Lafayette, 609 West Navajo Street, West Lafayette, IN 47906.

(d) *Refund of payment.* Fees are refundable only if the city determines that compliance with this Code is not necessary.

(Prior Code, § 116.606; Ord. No. 27-11)

Sec. 10-**217**~~216~~. Required assurances.

(a) As a condition of approval and issuance of the permit, the city shall require the applicant to provide assurance in form of a performance bond, certified check, irrevocable letters of credit, or certificate of deposit before construction begins. If posting an assurance in accordance with the unified subdivision ordinance, section 101.04.1(2), the amount of the assurance must be made out to the area plan commission, and it must include 150 percent of the estimated cost of implementing measures required divisions 4, 5, and 6 of this article. If no assurance is required under the unified subdivision ordinance, section 101.04.1, this Code still requires an assurance, made out to the city, for an amount equal to 150 percent of the total costs of implementing measures required by divisions 4, 5, and 6 of this article. If, following assurance made to the city, the area plan commission determines assurance is required by the subdivision ordinance, the assurance is transferable.

(b) The assurance will guarantee a good faith execution of the stormwater drainage plan, the stormwater pollution prevention plan, the stormwater quality management plan, and any permit conditions. The costs shall be for the installation and continuous monitoring and maintenance of erosion control measures and the construction and continuous monitoring and maintenance of storm drainage infrastructure, detention/retention facilities, and stormwater quality BMPs, as regulated under this Code. Local governmental jurisdictions may require additional performance and/or maintenance assurances. The intent of this assurance is not only to complete the installation of storm drain infrastructure for the project, but also to ensure that adequate stormwater pollution prevention measures are properly installed and maintained.

(Prior Code, § 116.607; Ord. No. 27-11)

Sec. 10-**218**~~217~~. Terms and conditions of permits.

(a) *Imposed by city engineer; compliance versus noncompliance.* In granting a stormwater management permit, the city engineer may impose such terms and conditions as are reasonably necessary to meet the purposes of this Code. The project site owner shall ensure compliance with such terms and conditions. Non-compliance with the terms and conditions of permits will be subject to enforcement as described in division 2 of this article.

(b) *Project site owner to inform participating contractors on proposed implementation.* The project site owner shall inform all general contractors, construction management firms, grading or excavating contractors, utility contractors, and the contractors that have primary oversight on individual building lots of the terms and conditions of the stormwater management permit and the schedule for proposed implementation.

(c) *Project site sensitive areas and impact drainage areas.* In the event that a project site is determined to impact or discharge to a sensitive area or is located in an impact drainage area, the city engineer may require more stringent stormwater quantity and quality measures than detailed in this Code or in the "Indiana Stormwater Quality Manual."

(1) *Determination of sensitive areas.* Sensitive areas include, but are not limited to, highly erodible land, wetlands, threatened or endangered species habitat, outstanding waters, impaired waters, recreational waters, wellhead protection areas, and surface drinking water sources. A listing of highly erodible land, outstanding waters, impaired water, and recreation waters, can be found in the glossary in appendix A. There are no surface drinking water sources in the county. If wetlands are suspected on a site, a wetland delineation shall be completed in accordance with the methodology established by the U.S. Army Corps of Engineers (COE). The presence of threatened or endangered species habitat will be determined by the city engineer during the permit review process. Special terms and conditions for development determined to impact or discharge to any sensitive area shall be included in the stormwater management permit.

(2) *Determination of impact drainage areas.*

a. The city engineer is authorized, but is not required, to classify certain geographical areas as impact drainage areas. In determining impact drainage areas, the city engineer shall consider such factors as topography, soil type, capacity of existing drains, and distance from adequate drainage facility. The following areas shall be designated as impact drainage areas, unless good reason for not including them is presented to the city engineer:

1. A floodway or floodplain as designated by the most updated unified zoning ordinance dealing with floodplain regulation **and/or by the Best Available Data through IDNR**.

2. Land within 75 feet of each bank of any ditch within the city engineer's system of regulated drains.

3. Land within 75 feet of the centerline of any drain tile or enclosed conduit within the city engineer's system of regulated drains.

4. Land within the Fluvial Erosion Hazard (FEH) corridor and/or in a Bluff Impact Zone.

5. Land downstream of existing or proposed new dams and land protected from flooding by existing or proposed new levees.

6~~5~~. Land that does not have an adequate outlet, taking into consideration the capacity and depth of the outlet, may be designated as an impact drainage area by the city engineer. Specific requirements for development within impact drainage areas are contained within the county stormwater technical standards manual. Special terms and conditions for development within any impact drainage area shall be included in the stormwater management permit.

b. The city engineer is authorized to review permit applications and, based upon the same, grant exemptions from any and all requirements of this article and/or waive any requirements of this article. Any applicant may appeal the decision of the city engineer to the city board of public works which shall also be authorized to grant exemptions from any and all requirements of this article and/or waive any requirements of this article in its discretion.

(Prior Code, § 116.608; Ord. No. 27-11; altered in 2019 recodification)

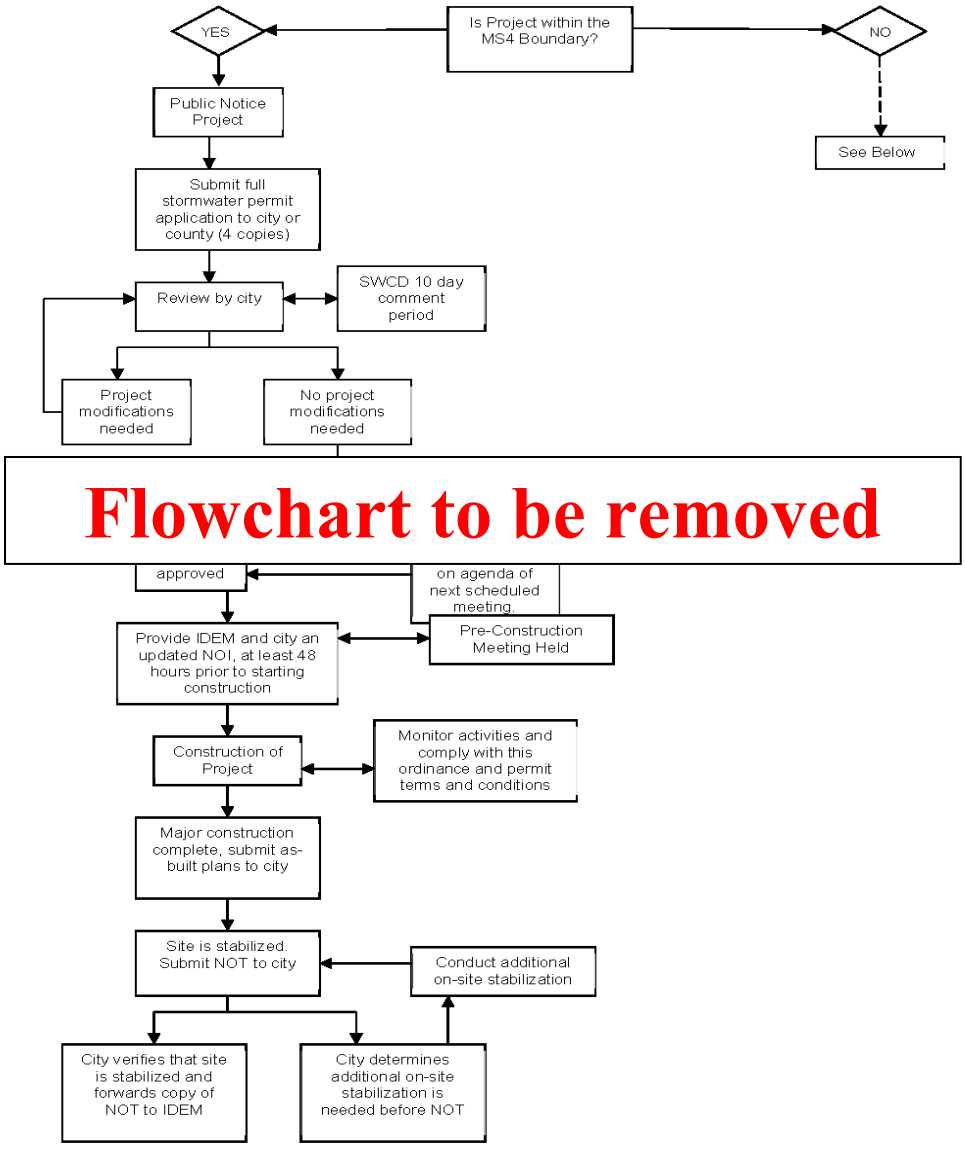
Sec. 10-**219**~~218~~. Certification of as-built plans.

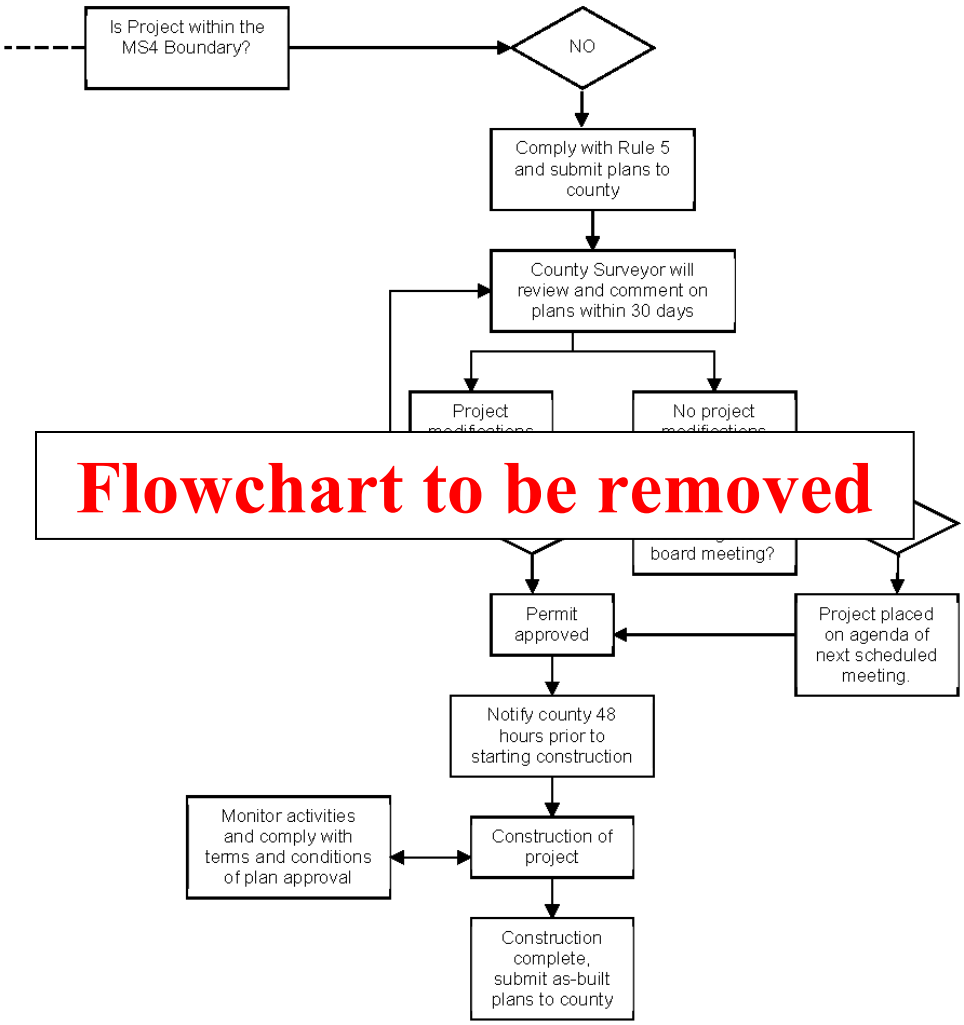
(a) After completion of construction of the project and before final approval of the stormwater management plan, a professionally prepared and certified "as-built" set of plans shall be submitted to the city engineer for review. A checklist detailing the required as-built data is included in the "Technical Standards" appendices. Additionally, a digital copy of the "as-built" plans is required in a format approved by the city engineer.

(b) The property owner, developer, or contractor shall be required to file a three-year maintenance bond or other acceptable guarantee with the city, prior to final approval, in an amount not to exceed ten percent of the cost of the stormwater drainage system located outside the public road right-of-ways, and in a form satisfactory to the city's corporation counsel in order to ensure that such stormwater system installation was done according to standards of good workmanship, that the materials used in the construction and installation were of good quality and construction, and that such project was done in accordance with the approved plans, and this Code. The bond or other acceptable guarantee shall be in effect for a period of three years after the date of the final project approval by the city.

(c) The maintenance bond or other acceptable guarantee shall further be conditioned upon owner or developer or contractor satisfactorily completing, within three years following final approval of the stormwater plans, such corrective actions as the city may determine

are reasonably necessary to remedy any damages to upstream or downstream channels or storm sewers resulting from the as-built development of the project.





(Prior Code, § 116.609; Ord. No. 27-11)

Secs. 10-219—10-244. Reserved.

DIVISION 8. STORMWATER SERVICE CHARGE

Sec. 10-245. Service charge imposed; sunset provision.

(a) A stormwater service charge shall be imposed on each and every lot and parcel of land within the city which directly or indirectly contributes to the stormwater system of the city, which charge shall be assessed against the owner, who shall be considered the user and ultimately responsible for the service charge for the purposes of this article.

(b) This charge is deemed reasonable and is the minimum necessary to pay for the repair, replacement, planning, improvement, operation, regulation and maintenance of the

existing and future city stormwater system and for compliance with the city NPDES stormwater discharge permit.

(c) The stormwater service charge shall, unless extended by common council action, expire and cease to be collected on December 31, 2040.

(Prior Code, § 116.901; Ord. No. 34-12)

Sec. 10-246. Stormwater rate and fee establishment procedures.

(a) Each parcel of property within the city shall be individually subject to a stormwater service charge.

(b) For each parcel that directly or indirectly contributes to the stormwater system of the city, the stormwater service charge shall be based on the presence of and/or measure of impervious surface area on the parcel or property.

(c) Each parcel of property shall be classified as residential or nonresidential. The board is authorized to establish the classification of an individual parcel or property based upon its primary use.

(d) This stormwater rate is designed to recover the cost of rendering stormwater service to the users of the stormwater system and shall be the basis for assessment of the city's stormwater service charge. This rate is further designed to maintain adequate reserves to provide for reasonably expected variations in the cost of providing services, as well as variations in the demand for services.

(e) This rate shall be evaluated annually as to its sufficiency and an evaluation report shall be provided to the board no later than April 30 of each year.

(Prior Code, § 116.902; Ord. No. 34-12)

Sec. 10-247. Rate structure and calculations.

(a) For the purposes stated in section 10-245, there is hereby assessed a stormwater service charge to each user in the city who contributes directly or indirectly to the stormwater system of the city, in an amount defined below.

(b) It is hereby established that an equivalent residential unit ("ERU") shall be based upon 3,200 square feet of impervious surface area.

(c) All properties having impervious surface area within the city shall be assigned an ERU, or multiple thereof, with all properties having impervious area assigned at least one ERU.

(d) The stormwater service charge for one ERU is an amount established by the city. The total service charge for a particular property shall be determined by taking the number of ERUs assigned to a particular property and multiplying it by the established rate.

(e) Residential properties. Residential properties shall be assessed a monthly service charge for stormwater service of one ERU. This flat fee shall apply to all residential properties as defined herein.

(1) Contiguous residential properties having common ownership and sharing a single structure containing two or less dwelling units shall be assigned one ERU.

(2) However, there shall be a 50 percent reduction in the monthly service charge for a resident of residential property who is entitled to low-income relief under section 10-253.

(f) Nonresidential properties. The total impervious surface area of each nonresidential property shall be individually calculated. Nonresidential properties shall be assessed a monthly service charge for stormwater service based upon the total number of ERUs that encompasses the measured impervious surface area on the individual property. The calculation to determine the total number of ERUs for a nonresidential property shall be completed by dividing the total square footage of measured impervious surface area for a property by 3,200 square feet. The division shall be calculated to the first decimal place. Total ERUs shall not be less than one for any nonresidential property containing measurable surface area.

(g) ERU assignment to property. Only whole ERUs shall be used in determining the assignment of gross ERUs to a property. All rounding necessary to reach the appropriate whole ERU shall be done according to mathematical convention (0 - 0.4 rounded down to the nearest whole ERU; 0.5 - 0.9 rounded up to the nearest whole ERU).

(Prior Code, § 116.903; Ord. No. 34-12; altered in 2019 recodification)

Sec. 10-248. Billing; collection.

(a) Stormwater service charge levied pursuant to this chapter shall be in effect from January 1, 2014, and shall be due and payable on or before the due dates shown on the billing statement.

(b) Any stormwater service charge not paid by the due date shall be considered delinquent. The delinquent charge shall be ten percent of the billed amount and shall be added to the next statement rendered.

(c) Delinquent stormwater service charges constitute a lien against a 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 36-9-23-33, as amended from time to time. Delinquent stormwater service charges together with delinquent penalties, cost of collection, legal fees and other expenses of collection may be collected by any lawful remedy.

(Prior Code, § 116.905; Ord. No. 34-12)

Sec. 10-249. Appeals.

A user liable for payment of a stormwater service charge may appeal any billing dispute to the city engineer's office. Such appeal shall be filed in writing on forms prescribed by the board together with supporting evidence no later than 30 days after the action or decision being appealed from. The city engineer's office shall consider the appeal and make a decision within 60 days from the date the appeal was filed. If a decision is not rendered within the 60-day period, or if the user disagrees with the decision rendered, the user may make a written request for a hearing before the board no later than 90 days from the date the appeal was filed. The board will render a final decision within 30 days thereafter. During the appeal period, the user will continue to pay the stormwater service charge and any other charges hereunder, which charges will be subject to rebate if required by the final decision of the board.

(Prior Code, § 116.906; Ord. No. 34-12)

Sec. 10-250. Stormwater revenue fund.

All revenues earned and stormwater service charges collected for stormwater service, including, but not limited to, drainage service charges, permit and inspection fees, direct charges and interest earnings on any unused funds shall be deposited in an account entitled "City of West Lafayette Stormwater Revenue Fund" and shall be subject to the provisions of IC ch. 36-9-23, as amended from time to time. Disbursements from the stormwater revenue fund shall be authorized by the board and, as required by law, by the common council. Such disbursements shall be used exclusively for the operation, maintenance and improvement of the city's stormwater system. Funds from this account shall not revert to any other city utilities or the general fund of the city and may not be transferred for any other purpose. To the extent that there are outstanding revenue bonds of the city issued pursuant to the provisions of IC ch. 36-9-23, as amended from time to time, revenues deposited in the stormwater revenue fund shall be subject to the covenants contained in the ordinance or ordinances authorizing such outstanding bonds.

(Prior Code, § 116.907; Ord. No. 34-12)

Sec. 10-251. Exemptions.

The following areas shall not be considered impervious surface area for the purpose of calculating the stormwater service charge.

(1) Roadways including federal, state, county, city and those serving only residential property;

(2) Railway beds, ties and rails; and

(3) Open water.

(Prior Code, § 116.908; Ord. No. 34-12)

Sec. 10-252. Credit program developed.

The city engineer shall develop for approval by the board a stormwater service charge credit program to be implemented following the effective billing date of the stormwater service charge. The credit program shall include alternatives which provide direct benefit to the city's stormwater regulatory nonstructural compliance effort and conveyance and/or water quality treatment facilities.

(Prior Code, § 116.909; Ord. No. 34-12)

Sec. 10-253. Entitlement to low-income relief.

For the purposes of sections 10-247, 32-53 and 40-253, a resident is entitled to low-income relief upon application to and verification by the city controller that the resident is the head of the household and:

(1) Is permanently and totally disabled as determined by the U.S. Social Security Administration; or

(2) Has a total annual household income that is at or below 150 percent of the poverty guidelines issued by the U.S. Department of Health and Human Services.

(Added in 2019 recodification)

Secs. 10-254—10-282. Reserved.

INTRODUCED ON FIRST READING ON THE 3 DAY OF April, 2023.

MOTION TO ADOPT MADE BY COUNCILOR DeBoer, AND SECONDED BY COUNCILOR Parker.

DULY ORDAINED, PASSED, AND ADOPTED BY THE COMMON COUNCIL OF THE CITY OF WEST LAFAYETTE, INDIANA, ON THE 1 DAY OF May, 2023, HAVING BEEN PASSED BY A VOTE OF 8 IN FAVOR AND Ø OPPOSED, THE ROLL CALL VOTE BEING:

	AYE	NAY	ABSENT	ABSTAIN
Blanco	✓			
Brown	✓			
Bunder	✓			
DeBoer	✓			
Hardesty	✓			
Leverenz	✓			
Parker	✓			
Sanders	✓			
Thomas			✓	

Peter Bunder, Presiding Officer

Attest:

Sana G. Booker, Clerk

CITY OF WEST LAFAYETTE SEAL Clerk INDIANA

PRESENTED BY ME TO THE MAYOR OF THE CITY OF WEST LAFAYETTE, INDIANA ON THE 2 DAY OF May, 2023.

Sana G. Booker, Clerk

THIS ORDINANCE APPROVED AND SIGNED BY ME ON THE 3 DAY OF May, 2023.

John R. Dennis, Mayor

Attest:

Sana G. Booker, Clerk

CITY OF WEST LAFAYETTE SEAL Clerk INDIANA