

Title 13: STORMWATER

Chapter 13.01 Ordinance Foundation

13.01.010 Authority and Title

(a) Authority.

There is hereby established within the city wastewater utility the powers, duties, and responsibility for construction, operation, and maintenance for the stormwater utility in accordance with Indiana Code 36-9-23 et seq., by “Home Rule” and further as required by Phase II of the National Pollutant Discharge Elimination System Stormwater (NPDES) program (40 CFR Parts 9, 122, 123, and 124; December 8, 1999) authorized by the 1987 amendments to the Clean Water Act, the Indiana Department of Environmental Management’s (IDEM) Municipal Separate Storm Sewer System (MS4) General Permit (MS4 GP), and the Indiana Department of Environmental Management’s Construction Stormwater General Permit (CSGP). The boundaries of the stormwater utility are that of the corporate boundaries of the City of Bloomington; said boundaries may be amended or extended with the approval of the City of Bloomington Utilities (CBU) Utilities Service Board (USB). Based on this authority and these requirements, this Ordinance regulates:

- (1) Discharges of prohibited non-stormwater flows into the stormwater system.
- (2) Stormwater drainage improvements related to development of lands located within the corporate boundaries of the City of Bloomington.
- (3) Drainage control systems installed during new construction and grading of lots and other parcels of land.
- (4) Stormwater, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with land disturbing activity.
- (5) Stormwater discharges from construction support activities directly related to construction sites subject to this Ordinance.
- (6) Erosion and sediment control systems installed during land disturbing activities including but not limited to new construction, re-development, and grading of lots and other parcels of land.
- (7) The design, construction, and maintenance of stormwater drainage facilities and systems.
- (8) The design, construction, and maintenance of stormwater quality facilities and systems.
- (9) The design, construction, and maintenance of new dams.
- (10) The development downstream of existing dams.
- (11) Development within or adjacent to floodplains, as that term is defined by the State of Indiana Department of Natural Resources, floodways, as that term is defined by the State of Indiana Department of Natural Resources, fluvial Sensitive areaerosion hazard corridors, karst buffers, steep slopes, riparian buffers, and any other hydrologically sensitive areas.

CBU shall administer, implement, and enforce the provisions of this Title. Any powers granted or duties imposed may be delegated in writing by the CBU Director or their designees.

- (b) Title. This Ordinance shall be known and may be cited as the City of Bloomington Stormwater Management Ordinance (SMO).

13.01.020 Purpose and Intent.

(a) Purpose.

The purpose of this SMO is to provide for the health, safety, and general welfare of the citizens of the City of Bloomington 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 of Bloomington. This Ordinance 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 Chapter 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 construction site runoff.
- (3) To regulate the contribution of pollutants to the storm drain system from runoff from new development and redevelopment.
- (4) To prohibit illicit discharges 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 Ordinance.
- (6) To ensure the appropriate design, construction, and maintenance of stormwater drainage facilities and systems.
- (7) To ensure the appropriate design, construction, and maintenance of stormwater quality facilities and systems.
- (8) To regulate and inspect post-construction drainage facilities.
- (9) To enforce Operation and Maintenance Plans.
- (10) To clarify stormwater development standards.
- (11) To establish a Stormwater Management Permit process.

(b) Applicability.

- (1) The effective date of this SMO is April 1, 2024.
- (2) Upon the effective date and thereafter, no development, redevelopment, or land-disturbing activities shall occur except in accordance with the provisions of the SMO and the City of Bloomington Utilities Rules, Regulations and Standards of Service.
- (3) This SMO shall read in terms of and shall be interpreted to include as an integral part thereof, any and all other provisions of the Bloomington Municipal Code which are necessary for an understanding of this SMO and the attainment of its purposes.

(c) Jurisdiction.

This SMO shall apply to all land within the incorporated City of Bloomington.

(d) Severability.

If any of the provisions of this SMO are declared invalid, the other provisions shall remain in full force and effect.

13.01.030 Interpretation and Conflicting Provisions

(a) Rules of Interpretation.

(1) Minimum Requirements.

The provisions of this SMO shall be construed to achieve the purposes for which they are adopted. In interpreting and applying the provisions of this SMO, these provisions shall be held to be the minimum requirements for the protection and the promotion of the public health, safety, morals, ecosystem, services, comfort, convenience, and general welfare.

(2) Conflicts or Inconsistency.

(A) Internal.

Unless otherwise specifically stated within this SMO, and unless the context clearly indicates the contrary, if two or more provisions of this SMO are in conflict or are inconsistent with each other, then the most restrictive provision shall apply.

(B) Federal, State and Local.

- i) Whenever a provision of this SMO imposes a greater restriction or a higher standard than is required by any state or federal law or regulation, or other county or City ordinance or regulation, the provision of this SMO shall apply.
- ii) Whenever a provision of any state or federal law or regulation, or other county or City ordinance or regulation imposes a greater restriction or a higher standard than is required by this SMO, the provision of the state or federal law or regulation, or other county or City ordinance or regulation shall apply.

(C) Other.

- i) This section shall not be interpreted to mean that the City is obligated to enforce the provisions of private covenants, contracts, commitments, agreements, or other similar restrictions; rather, the City shall make an effort to respect such agreements, and this SMO shall not have the effect of abrogating or annulling any such private restriction(s).
- ii) Where this SMO imposes a greater restriction or a higher standard than is required by a private covenant, contract, commitment, agreement, or other similar private land use restriction, the provisions of this SMO shall govern.

(3) Text to Govern.

In case of any difference of meaning or implication between the text of this SMO and any caption, illustration, figure, or illustrative table, the text shall govern.

(4) Illustrations.

All illustrations in this SMO are intended to help the reader understand terminology and concepts used in this SMO. Unless otherwise indicated, illustrations are not drawn to

scale and are not to be interpreted as examples of character or design that must be matched.

(5) Time Frames.

Any time frames stated within this SMO shall be calculated to include weekdays, weekends, and holidays, unless stated otherwise. If a time frame ends on a Saturday, Sunday, or holiday on which the City offices are closed, the time frame will be extended to the end of the next business day unless specifically stated otherwise within this SMO.

(6) Delegation of Authority.

If a provision in this SMO requires the CBU Director or other City official to perform an act or duty, that provision shall also include designated subordinates unless specified otherwise.

(7) Rules of Word Usage.

The following rules of word usage apply to the text of this SMO:

- (A) The particular shall control the general.
- (B) The words “shall” and “must” are always mandatory and are not discretionary. The words “may” and “should” are permissive.
- (C) Unless the context clearly indicates otherwise, words used in a specific tense (past, present, or future) shall be construed to include all tenses; words used in the singular number shall include the plural, and the plural the singular; and, use of gender-specific pronouns shall be interpreted so as not to be limited to a particular gender.
- (D) A “building” or “structure” includes any part thereof unless the context clearly indicates otherwise.
- (E) Unless the context clearly indicated the contrary, where a regulation involves two or more items, conditions, provisions, or events connected by the conjunction “and,” “or,” or “either...or,” the conjunction shall be interpreted as follows:
 - i) “And” indicates that all the connected items, conditions, provisions, or events shall apply.
 - ii) “Or” indicates that the connected items, conditions, provisions, or events may apply singly or in any combination.
 - iii) “Either...or” indicates that the connected items, conditions, provisions, or events shall apply singly but not in combination.
 - iv) The word “includes” shall not limit a term to the specific examples but is intended to extend its meaning to all other instances or circumstances of like kind or character.

13.02 Stormwater Rates and Charges

13.02.010 Rates Generally.

Rates or charges shall be collected for the use of and the service rendered by the utility from the owners of each and every parcel of real estate located within the MS4 boundary.

13.02.020 Rates - Biennial review.

Not less than every two years, the USB shall review the stormwater contribution of users and user classes, the total cost of operation and maintenance of the treatment works, and its user charge system. The USB shall, subject to enactment by the common council, revise the charges for users and user classes to maintain the proportionate distribution of operation and maintenance costs among the user and user classes and to generate sufficient revenue to pay the total operation and maintenance costs necessary for proper operation and maintenance of the treatment system, bond payments, and routine improvements.

13.02.030 - Rates.

- (a) The rates and charges of the stormwater utility shall be as follows:

The stormwater system user fee is applicable to all CBU customers with accounts within the stormwater service area. All customers classified by CBU as being single-family residential (SFR) shall pay a monthly SFR base charge. All non SFR customers shall be charged based upon the amount of runoff generated by the customer or the monthly SFR base charge, whichever is greater. The amount of runoff subject to the stormwater utility rate for all non SFR customers shall be determined by a calculation based upon the following formula, minus any credits, as approved by the utilities service board:

$$\text{SFR base charge} \times \frac{\text{Runoff generated by non SFR customer}}{\text{Runoff generated by the average SFR customer}}$$

The monthly SFR base charge shall be \$7.50.

- (b) These rates and charges shall be billed monthly, and all provisions of the Indiana Code, the Bloomington Municipal Code, and the city utilities department "Rules, Regulations and Standards of Service" which apply to the payment and collection of rates and charges for wastewater services shall apply equally to the rates and charges for stormwater utility services.

13.02.040 Billing.

Rates and charges shall be billed monthly and shall be due according to the collection policy as adopted by the utility service board.

13.02.050 Delinquencies - Late payment charge.

In the event a net bill is not paid within 17 days from the mailing of the bill, it shall become a delinquent bill and a late payment charge may be added in the amount permitted by applicable state laws and regulations.

13.02.060 Liens for nonpayment.

In addition to any other method of collection of rates and charges, including the late payment charge, CBU may foreclose liens on property when rates and charges become delinquent. CBU may recover the amount due, the penalty, and reasonable attorney's fees in the manner provided by Indiana Code § 36-9-23-31.

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Chapter 13.03 Prohibited Discharges and Connections

13.03.010 - Applicability and Exemptions

- (a) Applicability. This Chapter shall apply to all discharges, including illegal discharges, entering the storm drain system under the control of the City of Bloomington, 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) Exemptions.
 - (1) Any non-stormwater discharge permitted under an NPDES permit, waiver (unless the waiver is solely based on point source considerations, still allowing non-point source discharge of a pollutant), 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 exempted from this section.
 - (2) Stormwater runoff from agricultural, timber harvesting, and mining activities is exempt from the requirements of this chapter unless determined to contain pollutants not associated with such activities or in excess of standard practices. Farm residences are not included in this exemption.

13.03.020 - Responsibility for Administration

CBU shall administer, implement, and enforce the provisions of this Chapter. Any powers granted or duties imposed may be delegated by the CBU Director to their designees.

13.03.030 - Ultimate Responsibility

The standards set forth in this chapter are minimum standards; therefore this chapter does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

13.03.040 - Prohibited Discharges and Connections

- (a) Prohibited Discharges. No person shall discharge or cause to be discharged to a MS4 conveyance, watercourse, or waterbody, directly or indirectly, knowingly or unknowingly, any substance other than stormwater or an exempted discharge. Any person discharging stormwater shall effectively minimize pollutants from also being discharged with the stormwater through the use of best management practices (BMPs).

CBU is authorized to require dischargers to implement pollution prevention measures, utilizing BMPs necessary to prevent or reduce the discharge of pollutants into the City of Bloomington stormwater drainage system.

- (b) Prohibited connections

- (1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- (2) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- (3) A person is considered to be in violation of this Chapter if the person connects a line conveying sewage to the MS4, or allows such connection to continue.

13.03.050 - Exempted Discharges and Connections

- (a) Notwithstanding other requirements of this Ordinance, the following categories of non-stormwater discharges or flows are exempted from the requirements of this section:
 - (1) Water line and hydrant flushing for maintenance;
 - (2) Irrigation water;
 - (3) Diverted streamflows;
 - (4) Rising ground waters;
 - (5) Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005 (20));
 - (6) Uncontaminated pumped groundwater, including but not limited to residential sump pumps;
 - (7) Discharges from potable water sources;
 - (8) Footing, foundation, and crawl space drains (uncontaminated);
 - (9) Storm sewer cleaning water (uncontaminated);
 - (10) Uncontaminated condensate from air conditioning units, coolers, and other compressors, and from outside storage of refrigerated gasses or liquids;
 - (11) Springs;
 - (12) Residential car washing;
 - (13) Non-commercial car washing by community organizations;
 - (14) Dechlorinated/dibrominated residential swimming pool discharges not including discharges from saltwater swimming pools;
 - (15) Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used;
 - (16) Fire suppression activities;
 - (17) Naturally introduced detritus (e.g. leaves and twigs);
 - (18) External building washdown water without detergents;
 - (19) Discharges specified in writing by CBU as being necessary to protect public health and safety;
 - (20) Dye testing shall only be permitted upon providing verbal notification to CBU prior to the time of the test;
 - (21) Any non-stormwater discharge permitted under an NPDES permit, waiver (unless the waiver is solely based on point source considerations, still allowing non-point source discharge of a pollutant), 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 exempted from this section.

13.03.060 Storage of Hazardous and/or Toxic Material.

Storage or stockpiling of hazardous or toxic material within any watercourse, or in its associated floodway or floodplain, is strictly prohibited. Storage or stockpiling of hazardous or toxic material, including sewage treatment plant stockpiles, on a property must include protection and/or containment that prevents any such materials from entering any temporary or permanent stormwater conveyance or watercourse. This includes any private easements dedicated as stormwater conveyances.

13.03.070 Spill Notification and Reporting.

Notwithstanding any other requirements of law, as soon as any person responsible for a spill, or any person responsible for a facility or operation and/or responsible for emergency response for a facility or operation, has any information of any known or suspected release of materials which are resulting in or may result in a spill into stormwater, the storm drain system, or Waters of the United States, such person shall take all necessary steps to ensure the discovery, containment, and cleanup of such spill.

If the prohibited discharge contains hazardous material(s), the person identified above shall immediately notify emergency response agencies of the discharge via emergency dispatch services and shall immediately notify CBU and IDEM by phone. For all reportable spills of any nature, the person shall immediately notify CBU and IDEM by phone. Additionally, the person identified above shall also file a written report with CBU and IDEM within five (5) days of the prohibited discharge. The written report shall specify:

- (a) The name of the discharger;
- (b) The date, time and location of the discharge;
- (c) The composition of the discharge (including volume);
- (d) The cause of the discharge;
- (e) All measures taken to clean up the discharge, and all measures proposed to be taken to prevent any recurrence;
- (f) The name and telephone number of the person making the report, and the name and telephone number of any and all persons who may be contacted for additional information on the matter.

A properly reported prohibited discharge shall be an affirmative defense to a civil infraction proceeding brought under this Chapter against a discharger for such prohibited 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 prohibited discharge shall be considered properly reported only if the discharger complies with all requirements of this Chapter and the Indiana Spill Rule (327 IAC 2-6.1). This notification and reporting requirement does not relieve the discharger from notifying any other entities as may be required by state or federal regulations.

13.03.080 - Inspections, Sampling and Monitoring

- (a) Access to Storm Drainage Systems

CBU has the authority to periodically inspect any portion of the storm drainage system privately owned and under CBU's control, in an effort to detect and eliminate prohibited connections and discharges into the MS4 system. Inspections may include a screening of discharges from outfalls connected to the system in order to determine if prohibited discharges are being conveyed into the MS4. 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) Access to Facilities

This section applies to all facilities that have stormwater discharges, including all facilities associated with industrial activity and/or construction activity.

- (1) CBU shall be permitted to enter and inspect facilities as often as may be necessary to determine compliance with this Chapter, including the inspection of any sampling and/or monitoring equipment installed at facilities. If a discharger has security measures in place which require particular identification and clearance before entry into its premises, then the discharger shall make the necessary arrangements to allow CBU access into and/or onto the facilities in a timely manner. Under no circumstances shall any security measures delay or inhibit CBU staff from performing inspections.
- (2) Facility operators shall allow CBU ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law.
- (3) CBU has the right to set up at any facility such devices as CBU, in its sole discretion, determines to be necessary to conduct sampling and/or monitoring of the facility's stormwater discharge.
- (4) CBU has the right to require the discharger to install, at the discharger's expense, any and all devices as CBU, in its sole discretion, determines are necessary to conduct sampling and/or monitoring of the facility's stormwater discharge. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure and/or sample stormwater flow and quality shall be calibrated at a minimum in accordance with manufacturer's specifications to ensure their accuracy.
- (5) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the discharger at the written or oral request of the city and shall not be replaced. The costs of clearing such access shall be borne by the discharger.
- (6) Unreasonable delays in allowing CBU access to a permitted facility is a violation of a stormwater discharge permit and of this chapter. A person who is the operator of a facility with a NPDES permit to discharge stormwater associated with industrial activity commits an offense if the person denies CBU reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this Chapter.

(7) If CBU has been refused access to any part of the premises from which stormwater is discharged, and CBU is able to demonstrate probable cause to believe that there may be a violation of this Chapter, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this chapter or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then CBU may seek issuance of a search warrant from any court of competent jurisdiction.

(c) New Development and Redevelopment

Following the final completion of construction and the receipt and approval of as-built drawings by CBU, CBU has the authority to inspect new development and redevelopment sites to verify that all on-site stormwater conveyances and connections to the storm drainage system are in compliance with this section.

(d) Industrial Activity Discharges

Any person subject to an industrial NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the CBU prior to the allowing of discharges to the MS4.

13.03.090 Suspension of MS4 Access.

(a) Suspension due to Prohibited Discharges in Emergency Situations

CBU may, without prior notice, suspend MS4 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 MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, CBU may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

(b) Suspension due to the Detection of Prohibited Discharge

Any person discharging to the MS4 in violation of this chapter may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. CBU will notify a violator of the proposed termination of its MS4 access.

(c) A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval from CBU.

13.04 Stormwater Development Standards

13.04.010 Purpose and Applicability

(a) Purpose

The purpose of Section 13.04 is to support conscientious development that adequately manages stormwater quality and quantity, incorporates green infrastructure, and mitigates the impacts of stormwater runoff from development and increased impervious surface.

The City of Bloomington Utilities Stormwater Design Manual, referenced in this chapter, sets specific requirements for the control and conveyance of stormwater runoff, and outlines the requirements and methodology for the calculation and control of quantity and quality of runoff and its downstream impacts. Measures taken to control stormwater impacts shall assure that land disturbing activities and the addition of impervious surfaces minimizes impacts to downstream sewers, ditches, structures and receiving waters.

(b) Applicability

The requirements of this Chapter shall apply to any development, redevelopment, or land-disturbing activity which is required to obtain a Stormwater Management Permit pursuant to Section 13.09.020(b). Additional development-specific applicability is outlined in each section below, when applicable.

13.04.020 Green Infrastructure

(a) Purpose

Green infrastructure improves stormwater quality while often aiding in detention of stormwater. Green infrastructure also promotes urban cooling, provides native habitats and biodiversity, and adds aesthetic value within a city.

(b) Applicability

All projects required to obtain a Stormwater Management Permit shall comply with Section 13.04.020.

(c) Green Infrastructure Requirements

All projects, in accordance with 13.04.020(b), shall provide green infrastructure as part of their post-construction measures. All green infrastructure shall:

- (1) Make up a percentage of post-construction water quality BMP, as measured by percentage of stormwater treated, per the Stormwater Design Manual.
- (2) Comply with all requirements in the Stormwater Design Manual, this Chapter, and CBU standards.

(c) Payment-In-Lieu

- (1) A payment-in-lieu of providing green infrastructure that meets 13.04.020 requirements may be authorized by an agreement with CBU and all payments will be deposited in the Green Infrastructure Fund.
- (2) The provisions of this Section 13.04.020(c) shall become effective no later than the effective date of the SMO, by which time administrative procedures for calculating, collecting, accounting for, and spending payments-in-lieu in compliance with all applicable law shall be adopted and publicly available in the CBU Rules and Regulations. The procedures used for calculating, collecting,

accounting for, and spending shall be reviewed frequently and updated as market conditions change.

13.04.030 Surface Parking Lot Drainage

(a) Purpose

The purpose of this section is to mitigate the impact of stormwater runoff from parking lots. Surface parking lots expand impervious surface coverage, create water quality challenges, and increase runoff. This section's requirements counter these impacts while also incorporating green infrastructure into parking lots.

(b) Applicability

All projects which are:

- (1) Required to obtain a Stormwater Management Permit; and
- (2) Expanding a surface parking lot by 1,500 square feet or more.

(c) Exemptions

- (1) Single-family residential developments including duplexes, triplexes, and fourplexes.
- (2) The Assistant Director of the Engineering Division or their designee may determine that full compliance with 13.04.030(d) is not feasible. In such a case, compliance will be required to the extent possible as determined by the Assistant Director of the Engineering Division or their designee.

(d) Bioretention Standards in Parking Lots

- (1) Parking lots shall be constructed such that all surface water is directed into bioretention facilities located in the interior of or immediately adjacent to the parking lot.
- (2) Bioretention facilities shall be located below the grade of the parking lot to facilitate runoff to flow into the facilities.
- (3) Bioretention facilities shall be vegetated with appropriate perennials, grasses, shrubs, and/or trees that comply with Section 13.04.050.
- (4) Bioretention facilities shall comply with the City of Bloomington Stormwater Design Manual. Shrubs shall be planted at least five (5) feet from any underdrain; trees shall be planted at least 10 feet from any underdrain.

13.04.040 Regional Detention

(a) Applicability

All proposed development that spans multiple parcels or proposed parcels or multi-phased projects may provide for regional detention and water quality in lieu of detention and water quality for individual parcels or phases.

(b) Submission Requirements

All proposals for regional detention shall include the submission of a drainage plan to CBU. The drainage plan shall include, but not be limited to, the following items:

- (1) Complete grading plan showing all proposed detention, retention and water quality facilities, swales, and drainage structures;
- (2) All proposed piping including size and location of proposed stormwater lines, as well as plan and profile drawing for all improvements;

- (3) Complete and accurate stormwater calculations justifying methodology of the drainage plan in compliance with the Stormwater Design Manual, this Chapter, and CBU standards;
 - (4) The finish floor elevation of all proposed structures.
- (c) Stormwater Mitigation Requirements
- Drainage facilities shall be provided to control runoff from all upstream drainage areas and from all areas within a proposed subdivision to a location adequate to receive such runoff. Furthermore, drainage facilities shall:
- (1) Be designed and constructed in accordance with the Stormwater Design Manual, this Chapter, and CBU standards;
 - (2) Be sufficient to accept runoff from the project site after development, assuming that development occurs at the highest allowable impervious surface coverage, if applicable, and the present water runoff from all areas upstream to achieve discharge rates in compliance with the Stormwater Design Manual, this Chapter, and CBU standards.
 - (A) For work within Right-of-way where the post-construction impervious surface area is known, that impervious surface total may be used to calculate regional detention requirements.
 - (B) For trail projects, the impervious surface total of the trail improvements or additions may be used to calculate regional detention requirements.
 - (3) Provide stormwater runoff quality mitigation in compliance with the Stormwater Design Manual, this Chapter, and CBU standards.
- (d) Common Area Requirement for Regional Stormwater Management
- (1) For private development, regional stormwater management shall be located within common areas, and not within rights-of-way. Such improvements shall be constructed and maintained according to the Stormwater Design Manual, this Chapter, and CBU standards. An Operation and Maintenance (O&M) manual shall be provided and recorded in accordance with Section 13.08.010.
 - (2) For public development, regional stormwater management shall be located within common areas, rights-of-way or City owned parcels. Such improvements shall be constructed and maintained according to the Stormwater Design Manual, this Chapter, and CBU standards. An Operation and Maintenance (O&M) manual shall be provided and recorded in accordance with Section 13.08.010.
- (e) Easements
- Features and improvements shall be located within easements where required by CBU, Title 20, and by Section 13.09.020(c).
- (f) Drainage Plan Acceptance
- The drainage plan shall be approved as a condition precedent to the issuance of a stormwater drainage permit.

13.04.050 Vegetation Standards

(a) Purpose

The Vegetation Standards are intended to improve Bloomington's vegetated environment and ensure that appropriate plant types and species are selected to improve stormwater quality. Additionally, these standards are intended to provide habitat through native species plantings, improve biodiversity, and add to the aesthetics of Bloomington.

(b) Applicability

This section applies to any vegetation that is:

- (1) Within a drainage easement of which CBU is the grantee.
- (2) To be planted under the authority of a Stormwater Management Permit.

(c) Planting Requirements

Planting of vegetation may be required as part of post-construction BMP. Both BMP-specific requirements as well as general requirements can be found in the Stormwater Design Manual.

(d) Permitted Species

Applicable vegetation meeting Section 13.04.050(b) planted within construction and post construction BMP shall be subject to compliance with the Stormwater Design Manual and to CBU staff review and acceptance.

(e) Prohibited Species

Plant species prohibited by the United States Department of Agriculture, the State of Indiana, via the Indiana Department of Natural Resources, or by Section 20.04.080(e) of the Bloomington Municipal Code (BMC) shall not be planted or allowed to grow within stormwater infrastructure. Any prohibited plant species shall be removed promptly by the party responsible for the infrastructure's maintenance.

(f) Maintenance

All maintenance activities for stormwater infrastructure vegetation located on private property are the sole responsibility of the property owner. Maintenance of vegetation and control of invasive species shall be included in the O&M manual required by Section 13.08.010.

(g) Placement

Placement of vegetation shall consider the location of underground utility pipes that could be damaged by root intrusion.

13.05 Construction Site Stormwater Control

13.05.010 Applicability and Exemptions

(a) Applicability

- (1) This section applies to land disturbing activity within the City of Bloomington with a projected land disturbance of 2,500 square feet or more, 13.05.030 provides guidelines for calculating land disturbance and additional descriptions of land erosion disturbing activities.
- (2) A Stormwater Pollution Prevention Plan (SWPPP) is required for any project site which involves the disturbance of 2,500 square feet or more of ground surface. Refer to the City of Bloomington Stormwater Design Standards for Erosion and Sediment Control Plan requirements.
- (3) City-owned projects are subject to this Section 13.05, and shall be coordinated with CBU's MS4 program. If a SWPPP is to be submitted to the Monroe County Soil and Water Conservancy District (SWCD) or directly to IDEM, if directed by the SWCD, then the SWPPP shall be submitted to CBU's MS4 staff for review and a determination made as to whether the plan meets the minimum requirements of the CSGP prior to submission.

(b) Exemptions. The requirements under this Chapter do not apply to the following activities, provided other applicable State permits contain provisions requiring immediate implementation of pollution control measures.

- (1) Agricultural land-disturbing activities, including tillage, planting, cultivation, or harvesting operations to produce agricultural or nursery and vegetative crops, pasture renovation and establishment, the construction of agricultural conservation practices, and the installation and maintenance of agricultural drainage tile.
- (2) Silvicultural activities associated with nonpoint discharges (40 CFR 122.27).
- (3) Stormwater discharges associated with oil and gas exploration, production, processing or treatment operations, or transmission facilities (40 CFR 122.26).
- (4) Ditch maintenance for activities performed on a regulated drain by a County drainage board as defined in this Ordinance and IC 36-9-27.
- (5) The land-disturbing activities listed below, provided other applicable permits contain provisions requiring immediate implementation of erosion and sediment control measures and stormwater management measures:
 - (A) Landfills that have been issued a certification of closure under 329 IAC 10.
 - (B) Coal mining activities permitted under IC 14-34.
 - (C) Municipal solid waste landfills that are accepting waste pursuant to a permit issued by IDEM 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.
- (6) Single-family residential developments including duplexes, triplexes, and fourplexes under an acre of land disturbance.

(c) Discharges not authorized by this Chapter. The following discharges from land disturbing activities are not authorized by this Chapter.

- (1) Direct discharges into waters that are designated as an Outstanding National Resource Water (ONRW) defined at IC 13-11-2-149.5 or an Outstanding State Resource Water (OSRW) defined at IC 13-11-2-149.6 and listed at 327 IAC 2-1.3-3(d) when the commissioner determines that a discharge from the land-disturbing activity will significantly lower water quality as defined under 327 IAC 2-1.3-2(50) of such a water downstream of that discharge.
- (2) Direct discharges to a receiving stream when the discharge results in an increase in the ambient concentration of a pollutant which contributes to the impairment of the receiving stream for that pollutant as identified on the current 303(d) list of impaired waters.
- (3) Discharges of concrete or mortar wash water from concrete washout activities or release from containment systems.
- (4) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials.
- (5) Soaps, detergents, or solvents used in vehicle and equipment washing.
- (6) Other discharges, including but not limited to fuel, oil, or other pollutants used in vehicle and equipment operation and maintenance.

(d) Waivers and Special Conditions.

- (1) CBU has the authority to modify, grant exemptions, and/or waive certain requirements of this Chapter and the Stormwater Design Manual. Exceptions may be considered where standards of engineering practice cannot be substantially met because the project site constraints make it physically impossible. A pre-submittal meeting with CBU may be requested by the applicant to discuss the applicability of various provisions of the Chapter and its associated technical standards document with regards to unique or unusual circumstances relating to a project. However, any initial determination of such applicability shall not be binding on future determinations of CBU that may be based on the review of more detailed information and plans.
- (2) Discharges are conditionally authorized for land-disturbing activities that are subject to this chapter but are considered an emergency. Emergency activities include any work which requires immediate implementation to avoid imminent endangerment to human health, public safety, or the environment, or to re-establish essential public services.
- (3) Procedures for obtaining an emergency condition authorization, require the applicant to:
 - (A) Submit a preliminary notification of the emergency to IDEM and CBU within 24 hours or next business day of initiating land disturbance.
 - (B) Develop a SWPPP that specifically addresses the operations associated with the emergency. The submittal of the plan is not required.
 - (C) Submit a complete Notice of Intent (NOI) within 30 calendar days after commencing land-disturbing activities to IDEM and CBU establishing eligibility under this permit.

13.05.020 Policy on Stormwater Pollution Prevention.

- (a) Effective stormwater pollution prevention 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.
- (b) All responsible parties shall manage stormwater discharges as necessary to meet the narrative water quality criteria (327 IAC 2-1-6(a)(1)(A-D) and 327 IAC 2-1.5-8(a) and (b)(1)(A-D)) for any discharge authorized by this chapter and CSGP, with compliance required upon beginning such a discharge. For stormwater discharges, the use of stormwater management measures and planning principles is expected to achieve the control necessary to meet water quality criteria.
- (c) The SWPPP will serve as a guideline for stormwater management but should not be interpreted to be the only basis for implementation of stormwater measures for a project site. The responsible party shall implement all measures necessary to comply with the provisions of this chapter and the CSGP, if applicable.
- (d) All stormwater management measures, including erosion and sediment control measures and post-construction measures, shall be implemented in accordance with this Chapter, the Stormwater Design Standards Manual, the terms and conditions of the approved Stormwater Management Permit, and CSGP, if applicable.

13.05.030 Calculations, Design Standards, and Specifications.

- (a) In calculating the total area of land disturbance, for the purposes of determining applicability of this Chapter to the project, the following guidelines should be used:
 - (1) Off-site construction activities that provide services (for example, 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 permittee.
 - (2) Multi lot developments are considered to be one project site and must comply with this Chapter unless the total combined disturbance on all individual lots is less than 2,500 square feet 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 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, including duplexes, triplexes, and fourplexes, 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, including duplexes, triplexes, and fourplexes, 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 project sites, such as industrial and commercial projects project sites, a minimum of one (1) acre of land

disturbance must be used as the expected lot disturbance, unless the lots are less than one (1) acre in size, in which case the total lot must be calculated as being disturbed.

- (b) 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 and the City of Bloomington Stormwater Design Standards. The methods and procedures included in these two references are in keeping with the above stated policy and meet the requirements of CSGP at a minimum.
- (c) Design plans, technical information, and the construction SWPPP shall be submitted per the CBU application process. The construction SWPPP shall include the requirements identified in the Stormwater Design Standards Manual.
- (d) It shall be the responsibility of the project site owner to ensure proper construction and installation of all stormwater measures in compliance with this chapter, the Stormwater Design Standards Manual, the terms and conditions of the approved Stormwater Management Permit, and the CSGP.

13.05.040 Erosion and Pollutant Control Requirements

- (a) All project sites undergoing land disturbing activities, regardless of size, shall prevent the erosion of sediment or any other contaminant off-site or conveyed into any bodies of water, either by wind or water. All land disturbing activities shall be protected by best management practices. Best management practices may include, but are not limited to, silt or erosion-control fences, filter socks, sedimentation basins, articulated concrete blocks, mechanically stabilized earth, storm grate filters, or erosion control mats.
- (b) For land-disturbing activities that include or occur adjacent to environmentally sensitive areas, including but not limited to steep slopes, karst features, floodplain, wetlands, and riparian buffers; redundant erosion control measures, such as additional barriers and reduced timelines for soil stabilization, shall be required, as determined by the CBU Director or their designee.
- (c) Existing natural buffers that are adjacent to waters of the state must be preserved to promote infiltration and provide protection of the water resource, unless infeasible. Activities performed by a county drainage board under IC 36-9-27 are excluded.
 - (i) Natural buffers must be preserved, including the entire buffer bordering and/or surrounding the water resource. Existing buffers:
 - (1) 50 feet or more in width must be preserved to a minimum of 50 feet.
 - (2) less than 50 feet in width must be preserved in their entirety. May be enhanced with vegetation that is native and promotes ecological improvement and sustainability.
 - (ii) Runoff directed to the natural buffer must be:
 - (1) treated with appropriate erosion and sediment control measures prior to discharging to the buffer.
 - (2) managed with appropriate runoff control measures to prevent erosion from occurring within the buffer area.

- (iii) Further information regarding buffer requirements is contained in IDEM's "Implementation of Buffers" guidance document.
- (d) Waste and unused building materials (e.g. garbage, debris, cleaning wastes, concrete waste, wastewater, toxic materials, or hazardous materials) shall be properly disposed of in facilities labeled and designed for the containment of those materials while minimizing air, soil, and water pollution to the maximum degree practicable.
- (e) Proper storage and handling of materials, such as fuels or hazardous wastes, and spill prevention and clean-up measures shall be implemented to minimize the potential for pollutants to contaminate surface or groundwater or degrade soil quality. To meet this requirement:
 - (i) Proper project management and the utilization of appropriate measures including, but not limited to, eliminating a source or the exposure of materials must be completed.
 - (ii) Manage the following activities:
 - (1) Fueling and maintenance of equipment.
 - (2) Washing of equipment and vehicles.
 - (3) Storage, handling, and disposal of construction materials, products, and wastes.
 - (4) Application of pesticides, herbicides, insecticides, and fertilizers
 - (5) Dispensing and utilization of diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals.
 - (6) Handling and disposal of hazardous wastes, including, but not limited to paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.
 - (7) Washing of applicators and containers used for paint, grout, or other materials.
- (f) Appropriate measures must be implemented to eliminate wastes or unused building materials including, but not limited to garbage, debris, cleaning wastes, wastewater, concrete or cementitious washout water, mortar/masonry products, soil stabilizers, lime stabilization materials, and other substances from being carried from a project site by run-off or wind.
- (g) Construction and domestic waste must be managed to prevent the discharge of pollutants and windblown debris. Surplus plastic or hardened concrete/cementitious materials are not required to be placed in trash receptacles and are considered clean fill that may be reused, disposed of on-site, or recycled in accordance with applicable state and federal regulations. Management of waste materials may include, but are not limited to:
 - (i) Waste containers, when selected to manage waste, must be managed to reduce the discharge of pollutants and blowing of debris. Receptacles that are not appropriately managed will require alternatives that include but are not limited to:
 - (1) A cover to minimize exposure of wastes to precipitation or
 - (2) A similarly effective method designed to minimize the discharge of pollutants.
 - (3) Waste that is not disposed of in trash receptacles must be protected from exposure to the weather and/or removed at the end of the day from the project site and disposed of properly.

- (h) Concrete or cementitious washout areas, where washout is permissible, must be identified for the project site and the locations clearly posted. Wash water must be directed into leak-proof containers or leak-proof containment areas which are located and designed to divert run-off away from the measure and sized to prevent the discharge and/or overflow of the wash water.
- (i) Public roadways and roadways not exclusive to construction traffic must be kept cleared of accumulated sediment that is a result of run-off or tracking. Any sediment that leaves the project site is a violation of this SMO. The following minimum conditions are applicable:
 - (i) Clearing of sediment must not include the utilization of mechanical methods that will result in mobilization of dust off the project site or flushing the area with water unless the flushed water is directed to an appropriate sediment control measure.
 - (ii) Cleared sediment must be redistributed or disposed of in a manner that is in accordance with all applicable statutes and regulations.
 - (iii) Sediment discharged or tracked onto roadways that are open to traffic must be removed as directed by a regulatory authority or at a minimum, removed by the end of the same day.
- (j) Stable construction site access measures must be provided at all points of construction traffic ingress and egress to the project site. Where the selected measure is not effective, an alternative measure or additional controls must be utilized to minimize tracking.
- (k) Minimize the generation of dust through dust suppression techniques to prevent deposition into waters of the state and areas located beyond the permitted boundaries of the project site.
- (l) All storm inlets shall be protected with best management practices meeting accepted design criteria, standards and specifications in the Stormwater Design Manual.
- (m) Sediment shall be controlled and contained on-site, and control measures shall prevent damage to existing vegetation, environmentally-sensitive areas, and/or pavement.
- (n) The project site owner shall post a notice near the main entrance of the project site. For linear project sites, such as a pipeline or highway, the notice must be placed in a publicly accessible location near the project field office. The notice must be maintained in a legible condition and contain the following information:
 - (i) Copy of the completed NOI letter, public notification documentation, and the NPDES permit number, where applicable;
 - (ii) Name, company name, telephone number, e-mail address (if available), and address of the project site owner or a local contact person;
 - (iii) Location of the construction plan if the project site does not have an on-site location to store the plan.
- (o) Disturbed areas that are at finished grade with installed utilities shall be permanently stabilized with mulched seeding within seven days.
- (p) Un-vegetated areas that are left idle or scheduled to be left inactive must be temporarily or permanently stabilized with measures appropriate for the season to minimize erosion

potential. To meet this requirement, the following apply:

(1) Stabilization must be initiated by the end of the seventh day the area is left idle. The stabilization activity must be completed within fourteen (14) days after initiation. Initiation of stabilization includes, but is not limited to, the seeding and/or planting of the exposed area and applying mulch or other temporary surface stabilization methods where appropriate. Areas that are not accessible due to an unexpected and disruptive event that prevents construction activities are not considered idle.

(2) Areas that have been compacted may be excluded from the stabilization requirement when the areas are intended to be impervious surfaces associated with the final land use, provided run-off from the area is directed to appropriate sediment control measures.

- (q) All soil stockpiles shall be protected by erosion control barriers and areas that remain inactive for seven days or more shall be seeded, covered, or protected.
- (r) Channelized runoff from off-site areas passing through a construction site shall be diverted around disturbed areas. Sheet flow runoff from off-site areas shall also be diverted around disturbed areas. Diverted runoff shall be conveyed in a manner that will not erode the conveyance and receiving channels.
- (s) Land-disturbing activity shall be performed in a construction sequence that minimizes the area of bare soil exposed at any one time. Construction sequencing associated with land disturbance shall be subject to the approval of the MS4 Program Coordinator or their designee.
- (t) Topsoil shall be preserved, unless infeasible.
- (u) During the period of construction activities, all stormwater quality measures necessary to meet the requirements of this rule shall be maintained in working order. Alternative measures must be selected and implemented, as necessary.
- (v) Fertilizer applications associated with the stabilization plan for the project must meet the following requirements:
 - (i) Apply fertilizer at a rate and amount as determined by a soil analysis or in accordance with the Indiana Stormwater Quality Manual or similar guidance documents.
 - (ii) Apply fertilizer at an appropriate time of year for the project location, taking into consideration proximity to a waterbody, and preferably timed to coincide with the period of maximum vegetative uptake and growth.
 - (iii) Avoid applying fertilizer immediately prior to precipitation events that are anticipated to result in stormwater run-off from the application area.
- (w) Cationic polymers are not authorized for use in the State of Indiana. The use of anionic polymers on the project site for sediment control shall be in accordance with current State of Indiana standards and specifications and the use shall be approved by IDEM and CBU.

- (x) Discharge water from dewatering of ground water from excavations, trenches, foundations, etc. must not be discharged when:
 - (i) Sediment-laden water is not first directed to an appropriate sediment control measure or a series of control measures that minimizes the discharge of the sediment.
 - (ii) A visible sheen and/or pollutants are present at a level that requires additional treatment and/or an alternate permit.
- (y) Sediment basins, where feasible, shall withdraw water from the surface of the water column unless equivalent sediment reduction can be achieved by use of alternative measures.
- (z) Personnel associated with the project must be informed of the terms and conditions of the CSGP and the requirements within the SWPPP. The permittee is required to document this process. Information must be provided through written notification, contracts, or other means that effectively communicates the provisions and requirements of the permit and SWPPP. Personnel may include, but are not limited to:
 - (i) General contractors, construction management firms, grading or excavating contractors, and trade industry representatives associated with the overall project.
 - (ii) Contractors or individual lot operators that have primary oversight on individual building lots.
 - (iii) Those responsible for the implementation of the SWPPP, and the installation, repair, and maintenance of stormwater measures.
 - (iv) Those responsible for the application and storage of treatment chemicals.
 - (v) Those responsible for administering the self-monitoring program.

13.05.050 Inspection, Maintenance, Record Keeping, and Reporting.

- (a) Following approval of the Stormwater Management Permit and commencement of construction activities, CBU has the authority to conduct inspections in accordance with Section 13.09.040(a) of the project site to ensure full compliance with this chapter, the City of Bloomington Stormwater Design Standards Manual, the terms and conditions of the approved Stormwater Management Permit, and the CSGP, if applicable.
- (b) All erosion control measures shall be installed by the parties which have been identified as being responsible for site erosion control and inspected by CBU before land-disturbing activity may take place. Any deficiencies noted by CBU during the initial inspection shall be remedied prior to land-disturbing activity commencing.
- (c) Throughout construction, a self-monitoring program shall be implemented by the responsible parties to ensure the stormwater pollution prevention plan is working effectively. Responsible parties shall follow their self-monitoring inspection program throughout construction, which shall consist of:
 - (1) A trained individual shall perform a written evaluation of the project site:
 - (A) By the end of the next business day following each rain event of one-half inch of rain or more (as measured by the National Oceanic and Atmospheric Administration) in a twenty four hour period; and
 - (B) At a minimum of one time per week.

- (2) The evaluation must:
 - (A) Address the maintenance of existing stormwater quality measures to ensure they are functioning properly; and
 - (B) Identify additional measures necessary to remain in compliance with all applicable laws and ordinances.
- (3) Written evaluation reports must include:
 - (A) The name of the individual performing the evaluation;
 - (B) The date of the evaluation;
 - (C) Problems identified at the project site; and
 - (D) Details of corrective actions recommended and completed.
- (4) CBU 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 CBU, in an organized fashion, within 48 hours upon request.
- (d) A self-monitoring program shall be implemented by the responsible parties for the site to ensure the stormwater pollution prevention plan is working effectively in accordance with the CSGP. At a minimum, the self-monitoring program shall meet the requirements in the City of Bloomington Stormwater Design Standards.

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13.06 Post-Construction Stormwater Control

13.06.010 Applicability and Exemptions.

(a) Applicability

Projects receiving a Stormwater Management Permit pursuant to Section 13.09.020(b) are subject to this section.

(b) Exemptions

- (1) Single-family residential strip multi-lot development offered for sale or lease without land improvements and the project is not part of a larger common plan of development or sale, as required by the Construction Stormwater General Permit issued by IDEM.
- (2) Residential developments consisting of four (4) or fewer lot developments where the proposed impervious surfaces are 10% or less of the project acreage, as required by the Construction Stormwater General Permit issued by IDEM.

13.06.020 Policy on Post-Construction Stormwater Management.

- (a) 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 Bloomington, measures must be taken to promote runoff volume reduction, infiltrate stormwater into the ground, and intercept and filter pollutants from stormwater runoff prior to reaching regional creeks, streams, rivers and wetlands. Through the use of BMPs, harmful amounts of sediment, nutrients, and contaminants will be removed from stormwater runoff.
- (b) Post-construction stormwater quality measures are incorporated as a permanent feature into construction projects and are left in place following completion of construction activities to continuously treat stormwater runoff from the stabilized site. The following will be implemented as a minimum:
 - (1) Stormwater detention and quantity control as required by the Stormwater Design Manual.
 - (2) The control of stormwater quality will be based on pollutant removal required by the City's Stormwater Design Standards and more than 1 BMP must be implemented as part of a treatment train, unless determined infeasible by the Assistant Director of the Engineering Division of CBU.
 - (3) A minimum of one low impact development (LID) BMP shall be included as part of the stormwater management plan. Storm water runoff from parking lots shall include a LID practice within or near parking lot islands in compliance with 13.07.
 - (4) New retail gasoline outlets and refueling areas or those that replace their existing tank systems, regardless of size of disturbance, are required to install appropriate measures to reduce lead, copper, zinc, and polyaromatic hydrocarbons in stormwater

runoff.

- (5) Infiltration practices will not be allowed in wellhead protection areas as the primary water quality treatment measure, unless the measure is designed to treat the pollutant(s) of concern that originate in the drainage area of the measure.
- (6) Discharges from new development and redevelopment sites will not be allowed directly into karst features without pre-treatment.
- (7) Outfalls must be designed to reduce outfall scouring, bank erosion, and head-cutting.

13.06.30 Calculations, Design Standards and Specifications.

- (a) Stormwater management planning shall follow the guidelines discussed in the City of Bloomington Stormwater Design Manual.
- (b) The Indiana Stormwater Quality Manual may also be used for guidance.
- (c) BMP must be designed, constructed, and maintained according to established guidelines. Practices other than those specified may be utilized as approved by the CBU Director or their designee.

13.06.040 Inspection, Maintenance, Record Keeping and Reporting.

(a) Inspection by CBU.

- (1) After the approval of the Stormwater Management Permit by CBU and the commencement of land disturbing activities, CBU has the authority to conduct inspections of the work being done to ensure full compliance with the provisions of this chapter, the Stormwater Design Standards, and the terms and conditions of the CSGP.
- (2) CBU has the authority to perform or require inspections of all public or privately owned stormwater facilities.

(b) Owner operation and maintenance.

- (1) An O&M Manual shall be prepared and submitted for approval in accordance with 13.08.010 of this chapter and must include the information in the Standards.
- (2) Following construction completion, the operation, maintenance, and inspection of stormwater quality BMPs shall be the long-term responsibility of the owner of the stormwater quality BMP.
- (3) Stormwater quality BMPs shall be maintained in good condition, in accordance with operation and maintenance manual approved under the Stormwater Management Permit, and shall not be subsequently altered, revised or replaced without the approval of the CBU.
- (4) The owner of stormwater quality BMP(s) shall be responsible for inspections that evaluate physical conditions, available treatment capacity, and the operational condition of the stormwater quality BMP(s) in accordance with the O&M Manual. Requirements of the O&M Manual shall not be altered without approval from the CBU.
- (5) If deficiencies are found during an inspection by CBU, the owner of the facility will be notified by CBU 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, CBU may 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 Certificate of Completion is issued.
- (d) Inspection reports and documentation records must be maintained by the owner for a period of 5 years and produced upon request by CBU personnel within forty-eight (48) hours of the request.

13.06.050 - Private Property Maintenance Duties

Every person or entity owning real property through which a watercourse passes shall keep and maintain that part of the watercourse located within their real property boundaries free of debris, excessive vegetation, and other obstacles that would pollute, contaminate, or interfere with the flow of water through the watercourse. In addition, the owner 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.

13.07 Low Impact Development

Requirements of the Chapter and the Stormwater Design Standards Manual, with regards to water quality and water quantity, can be satisfied through a variety of methods that can be broadly categorized under two general approaches: Conventional Approach and Low Impact Development (LID) Approach.

Low Impact Development (LID) stormwater management design approaches are fundamentally different from conventional design approaches and challenge traditional thinking regarding development standards, watershed protection, and public participation. LID combines fundamental hydrologic concepts with many of today's common stormwater strategies, practices and techniques to reshape development patterns in a way that maintains natural watershed hydrologic functions. The five principles of LID are:

- (a) Conservation of existing natural and topographic features;
- (b) Minimization of land clearing and impervious surfaces;
- (c) Maintain or lengthen the pre-developed time of concentration;
- (d) Installation of integrated structural best management practices; and
- (e) Use of pollution prevention measures and practices.

Methods for achieving the above principles are included in the Stormwater Design Standards Manual, the Indiana Stormwater Manual, or other approved guidance from the state or EPA.

13.08 Stormwater Management Facilities Post-Construction Maintenance and Inspection

13.08.010 Operation and Maintenance

- (a) Stormwater management facilities including pipes, structures, ponds, detention/retention facilities, swales, open channels, subsurface drains, water quality BMPs, and low impact development practices shall have an O&M manual.
- (b) Owners of BMPs will be responsible for all maintenance including but not limited to pond banks, erosion control measures, riprap, vegetation, outfall protection and all periodic cleanout and dredging. It is the designer's responsibility to determine which operation and maintenance measures are necessary to prolong the optimal function of the facility.
- (c) The approved O&M manual shall be signed by the owner and notarized.
 - (1) If the project is not a City-owned project located in the right-of-way, the document(s), in a form acceptable to CBU and City Legal, shall then be recorded at the Monroe County Recorder's Office. A copy of the recorded O&M document(s) shall be provided to CBU.
 - (2) If the O&M document(s) relate to a City-owned project located in the right-of-way, then the document(s), in a form acceptable to CBU and City Legal, shall be kept on file with the City Department that owns and/or maintains the stormwater facilities associated with the project. A copy of the O&M document(s) shall be provided to CBU.
- (d) All O&M manuals shall include the following information, at a minimum:
 - (1) Owner Information. The first section of the manual shall contain information about all people involved with the operations and maintenance of the facility. This section shall list the names and contact information of all responsible parties, including property owner(s), maintenance staff, and person(s) responsible for performing inspections. The responsibilities of each individual shall be clearly defined. Contact information shall include business or mobile phone number, address for giving notice, and email address (if available).
 - (2) Site Map. The O&M manual shall include a site map and exhibits drawn to a legible scale on 8.5"x11" or 11x17" sized paper that clearly indicates the following:
 - a. The location of the stormwater management facility or BMP.
 - b. Plan and cross-section details, showing applicable features.
 - c. The flow of stormwater through the site, including an overview of the stormwater's path through the onsite stormwater facilities and BMPs.
 - d. Dimensions, easements, outlets/discharge points and outfall locations, drainage patterns, stormwater runoff flow directions, the extent and depth (elevation) of high water levels, flood, as that term is defined by the State of Indiana Department of Natural Resources, routing path, signage, connecting structures, weirs, invert elevations, structural controls used to control stormwater flows, and other relevant features.
- (e) O&M Practices. Each stormwater management facility and BMP shall require specific inspection and maintenance procedures.
 - (1) Guidance shall be written in simple, layperson's terms, including:
 - a. Guidance on owner-required periodic inspections and inspections to be performed

- by CBU.
 - b. Guidance on routine maintenance to be performed by the owner including but not limited to mowing and removal of debris.
 - c. Guidance on remedial maintenance such as inlet replacement, outlet work, etc. to be performed by the owner.
 - d. Guidance on sediment removal, both narrative and graphical, describing when sediment removal shall occur in order to ensure that the stormwater management facility or BMP remains effective as a stormwater management device. Guidance shall include instructions as to how the depth of sediment shall be measured and at what measurement removal will be required.
 - e. Instructions on inspection and clean-out of BMPs, sumps, trash screens, settling pits, and oil/grease collection chambers.
 - f. Instructions on proper disposal of removed sediments, trash, debris, and other substances.
 - g. Guidance and methods for preventing water stagnation and all recommended maintenance.
- (2) The minimum requirements below shall also be incorporated into the inspection and maintenance regimen and clearly documented in the O&M manual.
- a. Operation and maintenance procedures and practices shall be reviewed and assessed annually.
 - b. Access routes, including roadways and sidewalks, shall be inspected annually and maintained as needed.
 - c. Drainage structures and flow restrictors shall be inspected and cleaned semi-annually or per the manufacturer's recommendations, whichever is more stringent.
 - d. Volume control facilities and BMPs shall be inspected semi-annually and after significant rainfall events exceeding one and one-half (1.5) inches (as measured by the National Oceanic and Atmospheric Administration) within a 24-hour period, or per the manufacturer's recommendations, whichever is more stringent.
 - e. The owner shall keep an updated log book or inspection worksheets documenting the performance of the required operation and maintenance activities for perpetuity. Note inspection dates, facility components inspected, facility condition, and any maintenance performed or repairs made. Documentation must be produced upon the request of the CBU Personnel, within forty-eight (48) hours of the request.
 - f. Vegetation shall be maintained on a regular basis per design specifications.
 - g. Pest control measures shall be implemented to address insects, rodents, and other pests. Natural pest control is preferred over chemical treatments.
 - h. Mechanical measures shall be maintained on a regular basis per the manufacturer's recommendations.
 - i. Signage and fencing shall be installed and maintained where necessary to protect property and the public. Native vegetation plantings shall have "No Mow" or other appropriate signage.
 - j. Underground vaults and structures shall include design measures to facilitate regular cleaning and maintenance. Confined space entry procedures shall be

followed.

- (f) Right-of-Entry Statement. The O&M manual shall include a statement that CBU has the right to enter the property to inspect the stormwater management facility or BMP. The statement shall be signed and notarized.
- (g) Implementation Schedule. An inspection and maintenance schedule shall be prepared in a tabular format and included in the O&M manual. This schedule shall provide for routine examination of all stormwater management facilities and BMPs on the property and incorporate the varying maintenance needs of each.
- (h) Drainage Easement(s) Documentation. The O&M manual shall include a figure showing the location of access and drainage easement(s) around the stormwater management facilities and BMPs.

13.080.020 Stormwater Management Facility and BMP Maintenance.

- (a) Stormwater management facilities and BMPs shall be maintained in a properly functioning condition so that their effectiveness in managing and treating stormwater runoff is not diminished, in accordance with the operation and maintenance procedures and schedules recommended by the manufacturer of the BMP or listed in the Indiana Stormwater Quality Manual, the City of Bloomington Stormwater Design Manual, the approved O&M manual, and the terms and conditions of the approved Stormwater Management Plan. The stormwater management facility or BMP owner is considered in violation of this chapter if the facility or BMP is not maintained properly.
- (b) Following construction completion and the issuance of a Notice of Termination (NOT), inspection and maintenance of stormwater management facilities and BMPs shall be the long-term responsibility of the owner of those facilities (including Homeowners Associations or any other entity as specified in restrictive covenants).

13.080.030 Records of Inspection and Maintenance Activities.

- (a) The stormwater management facility or BMP owner must conduct necessary inspections at least once per year. The inspection shall cover physical conditions, available water quality storage capacity, and the operational condition of key facility elements. Completed inspection forms must be maintained by the owner and produced upon request by CBU personnel within forty-eight (48) hours of the request.
- (b) Annual inspection reports shall be due to CBU, beginning one year after construction is completed. Subsequent reports shall be due each year within the same month of the initial report. All deficiencies found during the inspection shall be addressed. If the annual inspection report is not received within the month it is due, if there are deficiencies which exist but were not included in the report, or if any deficiencies included in the report are not addressed in a timely manner, CBU may take enforcement action in accordance with this chapter.
- (c) CBU must be notified of any changes in ownership, major repairs, or failure in writing within thirty (30) days.
- (d) In the event that CBU personnel find a stormwater management facility in need of maintenance or repair, CBU will notify the owner on record of the necessary maintenance or repairs and give the owner a timeframe for completing the work. If the maintenance or repairs are not completed within the designated timeframe, CBU may perform the work

and bill the owner for the actual costs of the work. CBU may also commence enforcement.

- (e) CBU also has the authority to perform long-term inspection of all public or privately-owned stormwater management facilities. Such inspections will be in addition to the regular inspections required to be performed by the facility owner. The inspections will follow the operation and maintenance procedures listed in the approved Stormwater Management Plan for each facility or BMP. Noted deficiencies and recommended corrective action will be included in an inspection report.

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13.09 Administration and Procedures

13.09.010 Purpose and Enforcement

- (a) This Chapter 13.09 identifies and clarifies the types of permits, approvals, and processes which are required as part of this SMO.
- (b) Failure to comply with any provision of this Chapter 13.09, including but not limited to failure to comply with the terms and conditions of any permit or other approval obtained hereunder, shall be a violation of this SMO and shall be subject to the penalties and remedies in Section 13.09.70 (Enforcement and Penalties).

13.09.020 Permits and Review Procedures

(a) Preliminary Review

- (1) At the request of an applicant, a preliminary review of stormwater management plans can be conducted by CBU prior to a project receiving approval from City of Bloomington Boards, Commissions, and/or City Council or similar approvals that are delegated to staff level approvals. Often such a review is required or encouraged by a department other than CBU or by sections of BMC other than Chapter 13. Such reviews are also requested by designers to determine the constructability of a project. This review is intended to provide high-level feedback from CBU and find any serious issues with the feasibility of a project.

(2) Submittal Requirements

- (A) Construction plans prepared by professional engineers, land surveyors, and/or architects, as appropriate
- (B) Drainage calculations
- (C) Refer to the CBU Rules and Regulations for additional requirements

(3) Review Procedures

- (A) Any projects applying for a preliminary review shall be submitted at least 19 business days before the Board/Commission/City Council hearing at which the project will be heard.
- (B) Staff shall provide review comments in a narrative form and submit them to the City staff members who prepare the hearing packet for the Board/Commission/City Council prior to the packet being sent out.

(b) Stormwater Management Permit

(1) Purpose

The purpose of the Stormwater Management Permit and procedure is to mitigate the environmental impact of development and to protect the water quality of the City of Bloomington and surrounding areas. This permit and procedure is a mechanism to ensure compliance with this SMO by providing a thorough review and permitting process as well as inspection and close-out process for all construction activities which affect stormwater.

(2) Applicability

- (A) No land-disturbing activity, development, or re-development of land that is subject to this chapter shall occur unless a Stormwater Management Permit has been issued except as exempted in 13.09.020(b)(3), below.
- (B) New retail gasoline outlets and new MS4-owned fueling areas or those that replace their existing tank systems, regardless of size, are required to install

appropriate measures to reduce lead, copper, zinc, and polyaromatic hydrocarbons in stormwater run-off.

(3) Exemptions

- (A) Land-disturbing activity that is cumulatively less than 2,500 square feet
- (B) Land-disturbing activity on a single-family residential lot or lots containing duplexes, triplexes, and fourplexes, that is less than 1 acre.
- (C) City of Bloomington infrastructure projects that disturb less than one acre of land and have a negligible effect on the stormwater system, as determined by the Assistant Director of the Utilities Engineering Division or their designee after considering the following factors:
 - (1) Existing and proposed impervious surfaces,
 - (2) Existing and proposed facilities that adequately achieve detention and water quality requirements,
 - (3) Proximity to sensitive hydrological features,
 - (4) Size of the project, and
 - (5) Any other adverse impacts the project may reasonably have on the MS4.
- (D) Projects which are already regulated by a MS4 other than the City of Bloomington (e.g. Indiana University and Indiana Department of Transportation).
- (E) Projects that disturb less than an acre and which take place completely within right-of-way and are already being permitted by the City of Bloomington Engineering Department.

(4) Additional Requirements

- (A) Compliance with the standards of this SMO shall not relieve any person of the independent obligation to comply with all applicable standards and practices set out in the Indiana Administrative Code, The Indiana Department of Environmental Management, all applicable provisions of the Bloomington Municipal Code, and all applicable rules, regulations, standards, and specifications of any City Department regarding development, re-development, or land-disturbing activity.

(5) Stormwater Management Permit Process

(A) Submittal Requirements

- i) Completed Stormwater Management Permit application
- ii) Full set of sealed construction plans that include the information required by the Stormwater Design Manual and the CBU Rules and Regulations.
- iii) Stormwater Drainage Report that includes the information required by the Stormwater Design Manual and the CBU Rules and Regulations.

- iv) Operation and maintenance plan
- v) Erosion control and post-construction measures estimate prepared by a licensed engineer

(B) Plan Review

After CBU receives the submittal materials, a determination will be made whether the application is substantially complete within 14 business days. If the submittal is deemed insufficient, CBU may request additional information and/or a revised submittal. Once the application is deemed substantially complete, the following will take place:

- (i) Review will be conducted by CBU and/or its plan review consultant(s). Comments and deficiencies will be provided to the applicant. The applicant may resubmit for additional rounds of reviews. Once CBU and/or its plan review consultant(s) have no further comments and/or deficiencies to communicate a Stormwater Management Permit may be issued.
- (ii) The applicant may not submit the NOI to IDEM (if applicable) or commence land-disturbing activities until the Stormwater Management Permit is issued.

(C) Permit Issuance

The Stormwater Management Permit will be issued after the application submission is approved. In granting a Stormwater Management Permit, CBU may impose such terms and conditions as are reasonably necessary to meet the purposes of this chapter. The project site owner is responsible for compliance with this chapter, the City of Bloomington Stormwater Design Standards Manual, the CSGP (as applicable), and these terms and conditions.

(D) Post-Permit Issuance

(i) Duration

- a) The Stormwater Management Permit shall remain active until the permit is closed via written notice from CBU, or if (b) below is met.
- b) The Stormwater Management Permit shall expire 365 days after issuance if earth-disturbing activities have not yet taken place unless an extension is granted by the Director.
- c) If a project that has received a Stormwater Management Permit and has begun earth-disturbing activities but then becomes inactive for a period of 180 days or longer, the Stormwater Management Permit shall expire. A new Stormwater Management Permit shall be obtained before work resumes.

ii) Changes or Amendments

- a) The Stormwater Management Permit Applicant may submit revisions or amendments to an approved permit for consideration by the local, state, and federal authorities

having jurisdiction prior to installation of such revisions or amendments. A revision or amendment to an approved Stormwater Management Permit shall only be authorized upon review and written approval by all local, state, and federal authorities having jurisdiction.

b) CBU reserves the right to require the responsible parties to remove any and all unapproved improvements which may impact stormwater at the responsible parties' expense.

iii) Termination of the Permit

The Stormwater Management Permit shall terminate when either the permit expires in accordance with Section 13.09.020(b)(3)(D)(i) or the permitted project receives written notification from CBU that the permit has been closed in accordance with Section 13.09.050.

(c) Drainage and/or Utilities Easements

(1) Purpose

The purpose of this section is to outline the procedures for obtaining and recording unplatted drainage and/or utility easements, modifying unplatted drainage and/or utility easements, terminating unplatted drainage and/or utility easements, and vacating unplatted easements and to ensure statutory requirements of the Indiana Code and the MS4 General are met.

(2) Applicability

This Section 13.09.020(c) governs easements that are:

- (A) Required and/or granted pursuant to a provision of this SMO;
- (B) Permitted or required as a commitment or condition of approval for unplatted drainage and/or utility easements;
- (C) Previously dedicated unplatted Drainage and/or Utilities Easements; or
- (D) Any other instances in which an easement would be required by CBU.

(3) Easement Procedures

- (A) With the exception of platted easements, all other proposals to create, terminate, vacate, or modify Drainage and/or Utilities Easements shall be reviewed and approved by CBU staff prior to such easement documents being recorded at the Monroe County Recorder's Office.
- (B) Drainage and/or Utilities Easements shall be required for all surface drainage conveyances, retention/detention facilities, and water quality infrastructure that are located on private property.
- (C) All Drainage Easements:
 - (i) Shall prohibit any alteration within the easement that would hinder or redirect flow.
 - (ii) Shall provide that the owner of the lot on which the easement is placed shall be responsible for maintenance of the drainage features within such easement.

- (iii) Shall be enforceable by CBU and by owners of properties that are adversely affected by conditions within the easement.
- (iv) Shall allow CBU to enter upon the easement for the purpose of maintenance, to charge the costs of such maintenance to the responsible parties, to construct drainage facilities within the easement, and to assume responsibility for the drainage features at its discretion.

(D) Form

Easement instruments shall be prepared in a recordable form acceptable to the City Legal Department and CBU.

(E) Recording

Approved easement instruments shall be recorded in the Monroe County Recorder's office. A copy of the easement shall be delivered to CBU in a format that is acceptable to CBU staff. The grantor shall be responsible for any and all costs associated with recording the easement document.

(F) Encroachments

All encroachments into a drainage easement require prior written approval from CBU staff in the form of an encroachment agreement. Any encroachment into a drainage easement without an encroachment agreement will be subject to enforcement and may be directed to be removed from the easement at the property owner's expense.

(G) Covenants, Conditions, and Restrictions

Inclusion of language defining easements in an instrument creating covenants, conditions, and restrictions shall not be sufficient to create, modify, terminate, or vacate an easement. Easement instruments shall be independently recorded documents that may be modified, terminated, or vacated only as provided in this SMO.

13.09.030 Financial Assurance

(a) Purpose

Financial assurances are provided so that CBU has a mechanism to ensure that all stormwater infrastructure, erosion controls, and post-construction BMPs are installed in compliance with this SMO and function properly.

(b) Applicability

Any activity requiring a Stormwater Management Permit shall also be required to provide financial assurance to CBU prior to the issuance of said Stormwater Management Permit. The posting of a financial assurance is not required when the recipient of the Stormwater Management Permit or owner of the project is the City of Bloomington.

(c) Performance Bond Requirements

- (1) Financial assurances shall be in the form of a performance bond or an irrevocable, unconditional, acceptable letter of credit issued by a financial institution acceptable to CBU. Assurance shall be made out to CBU.
- (2) Said performance bond shall guarantee a good faith execution of the SWPPP, Erosion and Sediment Control Plan, and any other conditions of plan approval including proper installation of all approved stormwater infrastructure.
- (3) The total performance bond shall be for the cost of installation of stormwater improvements including detention/retention facilities, stormwater quality BMPs, and other stormwater infrastructure and the continuous installation, monitoring, and maintenance of temporary sediment and erosion control measures, stormwater management facilities, and water quality BMPs as regulated under this SMO. The intent of this performance bond is not only to complete the installation of stormwater infrastructure for the project, but also to ensure that adequate stormwater pollution prevention measures are properly installed, maintained and cleaned for such a period as specified by the City.
- (4) Performance bonds shall be kept current until the Stormwater Management Permit is closed. Delinquent performance bonds or other assurances will result in enforcement as detailed in Section 13.09.050 Enforcement and Penalties.
- (5) CBU may redeem the performance bond to complete all necessary work, after giving notice and opportunity for compliance.
- (6) Following issuance of a Certificate of Completion, the performance bond may be released and a maintenance bond shall be posted.

(d) Maintenance Bond Requirements

- (1) Prior to the release of the performance assurance, the property owner shall provide a financial maintenance guarantee in the form of a maintenance bond or irrevocable, unconditional, acceptable letter of credit issued by a financial institution acceptable to CBU. Assurance shall be made out to CBU.
- (2) Said maintenance bond shall guarantee the materials and workmanship of all permanent sediment and erosion control measures, detention/retention facilities, water quantity BMPs, soil stabilization measures (including soil-stabilizing vegetation) and other stormwater infrastructure shall be maintained in accordance with the approved plans, O&M manual, and this Ordinance. Maintenance shall include providing CBU with documentation that the stormwater system is inspected, cleaned, and maintained.
- (3) The maintenance bond shall meet the following conditions:
 - (A) The maintenance bond shall run and be in force for a period of three years from the date of release of the performance bond and can be extended if CBU staff deem an extension necessary.
 - (B) A penal sum shall be fixed and approved by CBU, but in no case shall the penal sum be less than 25% of the value of the associated performance bond. The minimum maintenance bond shall be no less than \$5,000.00.
 - (C) The maintenance bond shall be issued in the property owner or permit applicant's name alone or in the name of the applicant and their subcontractor

as co-signers.

- (b) All financial maintenance bonds shall expire at the end of the 3 year period for which they were established unless extended at the discretion of CBU. Within 60 days of the expiration date, CBU will provide a written release of the bond.

13.09.040 Inspection and Close Out

(a) Inspection

CBU may inspect any properties, infrastructure, or monitoring facilities of any user to determine the compliance with the requirements of this SMO. The user shall allow CBU or its representatives ready and unhindered access at any time and without notice to all parts of the premises of the user for the purposes of inspection, sampling, copying or records examination or in the performance of any of their duties to determine compliance with this SMO. CBU, in pursuit of ensuring compliance with this SMO, shall have the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations at any time and without notice.

Inspection results may be communicated verbally or in writing.

(b) Certificate of Completion

(1) Purpose

The Certificate of Completion is intended to provide a mechanism for CBU to ensure that:

- (A) Permitted improvements, land-disturbance, and/or infrastructure, both public and private, conform to the standards of this SMO; and
- (B) All terms and conditions of any permits or permissions issued by CBU have been met.

(2) Applicability

(A) Generally

A Certificate of Completion shall be required for any project for which a Stormwater Management Permit was issued by CBU.

(3) Application

An application for a Certificate of Completion may be submitted to CBU when a project in accordance with Section 13.09.040(b)(2) is believed by the responsible parties to be complete. The application must be complete in order for a Certificate of Completion to be issued.

(4) Inspection

CBU staff shall inspect the site for compliance with this SMO and any other CBU requirements prior to issuance of a Certificate of Completion.

(5) Other Requirements

Prior to issuance of a Certificate of Completion, all CBU requirements and conditions shall be met, including but not limited to:

- (A) As-built plans submitted by the responsible parties, reviewed by CBU staff, and found to be sufficient by CBU staff.
- (B) A meeting to discuss the O&M requirements shall be held between CBU, the contractor, and the property owner.
- (C) The O&M document(s) shall be submitted by the responsible parties, reviewed by CBU staff, and found to be sufficient by CBU staff. Additionally:
 - (i) If the project is not a City-owned project located in the right-of-way, the document(s), in a form acceptable to CBU and City Legal, shall then be recorded at the Monroe County Recorder's Office. A copy of the recorded O&M document(s) shall be provided to CBU.
 - (ii) If the O&M document(s) relate to a City-owned project located in the right-of-way, then the document(s), in a form acceptable to CBU and City Legal, shall be kept on file with the City department that owns the project. A copy of the O&M document(s) shall be provided to CBU.
- (D) Any drainage and utility easements, in accordance with Section 13.09.020(c), shall be recorded with the Monroe County Recorder's Office. A copy shall be delivered to CBU in a format that is acceptable to CBU staff. Any cost incurred by recording the easement document shall be incurred by the grantor.
- (E) A maintenance bond shall be delivered to CBU staff to replace the performance bond.

(6) Issuance

CBU shall issue a Certificate of Completion in writing upon a determination by CBU staff that the project is complete. Within 60 days of issuance, the performance bond shall be released.

The responsible party shall receive a Certificate of Completion no later than one year from the date in which the project's intended use becomes operational.

13.09.050 Enforcement and Penalties

(a) Authority

The City of Bloomington Utilities Director and his or her designee are designated enforcement officials with full authority to investigate, issue notices of violation, and secure remedies, including but not limited to injunctive relief, for any violation of this SMO.

(b) Penalties and Remedies

- (1) For the purposes of this SMO, a violation shall be defined as violation of or failure to comply with:
 - (A) Any provision or requirement of this SMO; or

- (B) Any condition, requirement or commitment established with the issuance of a permit or other approval under this SMO; or
 - (C) The required elements of the submission on the basis of which any permit or approval has been rendered hereunder.
- (2) Any violation as defined herein is hereby declared a common and public nuisance, and any person who is a responsible party as defined in Section 13.09.050(e)(1) with respect to such violation shall, in addition to any other penalty or remedy provided herein, be liable for maintaining a common and public nuisance.
- (3) Any violation shall be subject to the penalties and remedies provided in Section 13.09.050(d), and CBU shall have recourse to any remedy available in law or equity.
- (4) Each day that any violation continues shall be considered a separate violation for purposes of the penalties and remedies specified in this chapter. A violation continues to exist until corrected.

Correction includes, but is not limited to:

- (A) Cessation of an unlawful practice;
 - (B) Faithful or otherwise-approved restoration or replacement of a structure, infrastructure, site, or natural feature;
 - (C) Any other remedy specified in this SMO; and/or
 - (D) Other remedy acceptable to CBU
- (5) The City Legal Department may institute appropriate action to impose and collect fines and/or other penalties; to enforce or defend any action taken pursuant to Section 13.09.050; and to prevent, enjoin, abate, remove or correct any violation of or noncompliance with this SMO or any condition, requirement, or commitment established in connection with this SMO. All costs connected therewith shall accrue to the responsible parties. Costs include, but are not limited to, repairs to the stormwater drainage system made necessary by the violation, any and all penalties levied by the EPA or IDEM for violations of CBU's NPDES permit and/or the MS4GP, attorney's fees, and other costs and expenses.
- (6) In addition to issuing a notice of violation (NOV), the CBU Director or their designee may utilize and/or seek through legal proceedings one or more of the following remedies:
- (A) Revoke or withhold other approvals, certificates and/or permits issued by CBU relevant to the site on which the violation has occurred or to the parties committing the violation;
 - (B) Issue a stop work order (with at least 72 hours notice in the case of violations of 13.05.050);
 - (C) Draw on a performance or maintenance surety, as necessary, to affect any remedial actions required to abate the violations;
 - (D) Revoke the permits, certificates and/or approvals that have been violated; and/or

(E) Any and all penalties and remedies listed in Section 13.09.050(d):
Penalties and Remedies.

(7) The remedies provided for in this SMO shall be cumulative, and not exclusive, and shall be in addition to any other remedies available in or equity.

(c) Administration

The CBU Director or their designee shall maintain a record of all complaints and investigations, and the resolutions of those complaints, whether made by citizens or by staff; communicate on a regular basis with citizen complainants about the progress being made in investigating and resolving their complaints; conduct enforcement activities in order to achieve compliance; and report to the Utilities Service Board on an as-needed basis as to the number and type of complaints and the outcome of each.

(d) Schedule of Fines

- (1) Any violation of this SMO shall be subject to a civil fine of not more than \$2,500.00 for each such violation, and not more than \$7,500.00 for the second and any subsequent violation, in addition to any and all other remedies available to CBU, except where a lesser fine is specified herein.
- (2) The following violations of this SMO shall be subject to the fines listed in Table 09.01: Fines for SMO Violations, for the first offense.

Table 09.01: Fines for SMO Violations

SMO Violation	Title 13 Reference	Fine (US Dollars)
Prohibited Illicit Discharge	13.03.050	\$500
Failure to Meet Private Property Duties	13.06.050	\$100
Failure to Report an Illicit Discharge	13.03.090	\$100
Failure to Comply with Stormwater Development Standards	13.04	\$100
Failure to Comply with Erosion Control/Pollution Requirements	13.05.050	\$2,500
Failure to Comply with O&M	13.08.020	\$500
Failure to Obtain a SMP	13.09.020	\$500
Failure to Comply with a SMP	13.09.020	\$250
Placement of an Obstruction within a Drainage Easement	13.09.020	\$500
Failure to Obtain a Certificate of Substantial Completion	13.09.040	\$250

SMO Violation	Title 13 Reference	Fine (US Dollars)
Any Other Violation; Second and Subsequent		Up to \$2,500; up to \$7,500

(e) Enforcement Procedures - Notice of Violation

- (1) If the CBU Director or their designee finds that any violation of this SMO is occurring, or has occurred, a Notice of Violation (NOV) may be issued to the responsible party. Such NOV's may be further accompanied by additional warnings following the same procedures of this chapter. For purposes of issuing a NOV, the following persons shall be considered responsible parties, with liability for fines and responsibility for remedy of the violation:
 - (A) The property owner;
 - (B) Persons with any possessory interest in the property; and
 - (C) Any person who, whether as property manager, principal agent, owner, lessee, tenant, contractor, builder, architect, engineer or otherwise who, either individually or in concert with another, causes, maintains, suffers or permits the violation to occur and/or to continue.
- (2) The NOV shall be in writing and shall be served on all of the responsible parties in one or more of the following manners: delivery in person or by first class mail. The notice of violation shall state:
 - (A) The location of the violation;
 - (B) The nature of the violation;
 - (C) The date the violation began or was reported or observed;
 - (D) The daily fine assessed for the violation;
 - (E) The period of correction (if any);
 - (F) The date of re-inspection (if any);
 - (G) Additional remedies CBU may seek for violation;
 - (H) That the fine is paid to City of Bloomington Utilities;
 - (I) That the NOV may be appealed to the Utilities Service Board;
 - (J) That the fine may be contested in the Monroe County Circuit Courts.
- (3) Each item of noncompliance enumerated on the NOV shall be considered to be a separate violation, and each day that each such item of noncompliance continues shall be considered to be a separate violation. Fines shall accrue from the date the violation was reported or observed.

(f) Appeals

(1) Purpose

The appeal process is employed by CBU to afford any citizen, user or responsible party an avenue of appeal when there is some doubt that an administrative official, staff member, or the USB has rendered a correct interpretation of the applicable ordinances and regulations while administering or enforcing any part of this SMO.

(2) Applicability

- (A) An appeal may be made by any person aggrieved by an order, requirement, decision, or determinations made by an administrative official, staff member, or administrative board charged with the administration or enforcement of any part of this SMO.
- (B) The Appeals section of this SMO shall not apply to fines levied under the authority of Section 13.09.050(d). Such fines levied for violations of this SMO may be challenged in the Monroe County Circuit Court.

(3) Appeals Procedure

(A) Time Limit

Notice of an appeal shall be made in writing to CBU no later than 7 business days from receipt of the written order or ruling.

(B) Burden of Proof

The appellant has the burden of proving the necessary facts to warrant approval of an appeal by the USB. Such proof shall be provided at time of appeal submission.

(C) Stay of Proceedings

An appeal stays all proceedings from further action unless the CBU Director determines that stay would create adverse impacts to the health, safety, or welfare of the City, neighborhood, or watershed.

(D) Stop Work Order

When an appeal from the decision of an administrative official or USB has been filed, the CBU Director may issue a stop work order on the premises affected.

(4) Decision

(A) The Utilities Service Board shall affirm, reverse, or amend a decision or interpretation made by another decision-making body.

(B) The Utilities Service Board may reverse a previous decision in whole or in part, or may modify the order, requirement, decision, or determination appealed from.

(C) The Utilities Service Board may attach conditions of approval on any appeal to ensure the health, safety, and welfare of the City and watershed.

(5) Post-Decision

(A) The Utilities Service Board shall issue its findings in writing.

(B) Any further appeal from the Utilities Service Board shall be filed with a court of competent jurisdiction no later than fourteen days from receipt of the Utility Service Board's written findings.

13.10 Definitions

As used in this title, the following words have the following meanings unless otherwise designated. Where words are not defined, they shall have the meanings provided in CBU's "Rules, Regulations and Standards of Service."

"Agricultural land disturbing activity" means tillage, planting, cultivation, or harvesting operations to produce agricultural or nursery vegetative crops. The term also includes pasture renovation and establishment, the construction of agricultural conservation practices, and the installation and maintenance of agricultural drainage tile. For purposes of this rule, the term does not include land disturbing activities for the construction of agricultural related facilities, such as barns, buildings to house livestock, roads associated with infrastructure, agricultural waste lagoons and facilities, lake and ponds, wetlands, and other infrastructure.

"Best management practice(s)" or "BMP" 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.

"Capacity (of a storm drainage facility) means the maximum flow that can be conveyed or stored by a storm drainage facility without causing damage to public or private property.

"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 water.

"Channelized runoff" means water runoff that would have naturally flowed over and through the soil, deflected to and moved through an artificial open channel or waterway that eventually makes its way to surface water resources.

"City" means the City of Bloomington, Indiana

"CBU" means the City of Bloomington, Indiana acting through its Utilities Service Board.

"Common area" means any portion of a development that meets the definition listed in Section 20.07 of the BMC. Maintenance of any such area is not the responsibility of CBU.

"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. This term does not include routine ditch or road maintenance or minor landscaping projects.

"Construction site" mean the same as "Project site"

"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.

“Construction Sequence” means the planned construction chronology by plan designers, contractors, and/or developers that describes the relationship between implementation of stormwater quality measures in relation to land disturbance.

“Contiguous” means adjoining or in actual contact with.

“Contractor or subcontractor” means an individual or company hired by the project site or individual lot owner, their agent, or the individual lot operation to perform services on the project site.

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

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

“Dechlorinated/dibrominated 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 five-hundredths (0.05) milligram per liter) of chlorinated residual.

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

“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.

“Development” means construction and site preparation work involving structures or improvements of any kind, and all land disturbing activities including, but not limited to, digging, drilling, excavating, grading, clearing, earth moving, filling, or performing any subsurface work and shall not be any more restrictive than the same definition in Section 20.07 of the BMC.

“Discharge” means the rate of water flow as measured by the 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 ground waters.

“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.

“Dry well” means a type of infiltration practice that allows stormwater runoff to flow directly into the ground via a bored or otherwise excavated opening the ground surface.

“Encroachment” means any private temporary or permanent structure or landscaping element that intrudes into an easement.

“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.

“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 that is much more rapid than normal or geologic erosion, primarily as a result of the activities of man.

(2) “Channel erosion” means 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 1 to 2 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 (see RILL).

(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 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, rapping sediment to prevent it from being discharged from or within a project site.

“Floatable” means any solid waste that will float on the surface of the water.

“Gasoline Outlet” means an operating gasoline or diesel fueling facility whose primary function is the resale of fuels.

“Grade” means as follows:

(1) The inclination or slope of a channel, canal, conduit, and the like, 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 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 Poaceae, characterized by blade-like leaves that originate as a sheath wrapped around the stem and provide ground-cover.

“Green infrastructure” means the range of measures that use plant or soil systems or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters.

“Green Infrastructure Fund” means an account held by CBU which project owners may pay into, with the authorization of CBU, in lieu of constructing green infrastructure. The fund will be used to finance detention and water quality projects at CBU’s discretion.

“Groundwater” means accumulation of underground water, natural or artificial. The term does not include man made underground storage or conveyance structures.

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

“Hazardous materials” means a substance or material that has been determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has been so designated. This includes hazardous substances, hazardous wastes, marine pollutants, and elevated temperature materials or any item or chemical which can cause harm to people, plants, or animals when exposed by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping.

“Highly erodible soil” means soil that has an erodibility index of eight or more using the erodibility index.

"IDEM" means Indiana Department of Environmental Management.

“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 Clean Water Act (CWA) Section 303(d) List of Impaired Waters.

“Impervious surface” means any surface artificially covered or hardened so as to prevent or impede the percolation or absorption of water into the ground, including but not limited to asphalt, concrete, roofing material, brick, plastic, gravel, or swimming pools and shall align in meaning with the same definition in Section 20.07 of the BMC.

“Individual building lot” or “Individual 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-disturbing activity” means any man-made change of the land surface including, but not limited to, removing vegetative cover that exposes the underlying soil, excavating, filling and

grading. Milling and paving, underground utilities, and/or resurfacing of paved surfaces is not considered land-disturbing activity for the purposes of this SMO.

“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 a part of a larger common plan. The term also includes phased or other construction activity by a single entity for its own use.

“Low Impact Development” systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat.

“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 sewer system” or “MS4” means a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains, that is:

- (a) owned or operated by a federal, state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over stormwater, including special districts under state law such as a sewer district, flood control district, or drainage district, or similar entity, or a designated and approved management agency under Section 208 of the Clean Water Act (33 U.S.C. 1288) that discharges into waters of the state; or privately owned stormwater utility, hospital, university, or college having jurisdiction over stormwater that discharges into waters of the state;
- (b) designed or used for collecting or conveying stormwater;
- (c) not a combined sewer; and
- (d) not part of a publicly owned treatment works (POTW) as defined at 40 CFR 122.2.

“National pollution discharge elimination system” or “NPDES” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA.

“Nutrient” or “Nutrients” mean(s):

- (1) A substance necessary for the growth and reproduction of organisms.
- (2) In water, those substances (chiefly nitrates and phosphates) that promote growth of algae and bacteria.

“Open drain” means a natural watercourse or constructed open channel that conveys drainage water.

“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.

“Percolation” means the movement of water through soil.

“Person” means any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all federal, state, and local governmental entities.

“Pervious” means allowing movement of water.

“Pollutant” means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, medical wastes, chemical wastes, dissolved and particulate metals, floatables, pesticides, herbicides, fertilizers, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, animal waste, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

“Professional engineer” means a person licensed under the laws of the State to practice professional engineering.

“Project site” or “Construction 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 Ordinance, including a developer or a person who has financial and operational control of construction activities, and project plans and specification, including the ability to make modifications to those plans and specifications.

“Receiving stream, receiving channel or receiving water” means the body of water into which runoff or effluent is discharged. The term does not include private drains, unnamed conveyances, retention and detention basins, or constructed wetlands used as treatment.

“Recharge” means replenishment of groundwater reservoirs by infiltration and transmission from the outcrop of an aquifer or from permeable soils.

“Redevelopment” means alterations of a property that change a site or building in such a way that there are disturbances of 1 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.

“Regional detention” means stormwater storage with a controlled release rate that is provided for a specific watershed and benefits multiple sites and/or rights-of-way areas.

“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.

“Responsible party” means any person who is the property owner, has possessory interest in the property, and/or any person who has caused a violation.

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

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

“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.

“Sensitive area” means an area with highly erodible soils, wetlands, threatened or endangered species habitat, outstanding waters, impaired waters, recreational waters, and surface drinking water sources. Includes waterbodies in need of priority protection or remediation based on its:

- (1) Providing habitat for threatened or endangered species.
- (2) Usage as a public water supply intake.
- (3) Relevant community value.
- (4) Usage for full body contact recreation.
- (5) Limited use and outstanding State resource water classification as found in 327 IAC. 2-1-11 and 327 IAC. 2-1.5-19.

“Slope” means the 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 and Width (W) components for horizontal angles). Also note that according to international standards (metric), the slope are presented as the vertical or width component shown on the numerator - e.g., 1V:2H. Slope expressions in this Ordinance 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 “percent”. Slopes given in percent are always expressed as $(100 * V/H)$ - e.g., a 2:1 (1V:2H) slope is a 50% 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.

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

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

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

“Stormwater pollution prevention plan” or “SWPPP” or “SWP3” means a plan developed to minimize the impact of stormwater pollutants resulting from construction activities.

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

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

“Structure” means anything constructed or erected that requires location on the ground or attachment to something having a location on the ground, including but not limited to buildings, sheds, detached garages, mobile homes, manufactured homes, above ground storage tanks, freestanding signs, fences, walls, and other similar items and shall not be more restrictive than the same definition in Section 20.07 of the BMC..

“Subdivision” means any land that is divided or proposed to be divided into lots and shall not be more restrictive than the same definition in Section 20.07 of the BMC.

“Surface runoff” means precipitation that flows onto the surfaces of roofs, streets, the ground, and the like, 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.

“SWCD” means Soil and Water Conservation District

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

“Trained individual” means an individual who is trained and experienced in the principles of stormwater management, including erosion and sediment control as is demonstrated by completion of coursework, State registration, professional certification, or annual training that enable the individual to make judgments regarding stormwater management, treatment, and monitoring.

“Treatment Train” means a series of stormwater measures designed to maximize the removal of stormwater pollutants or control the volume of stormwater.

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

“Water resources” 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 man-made drainageway or pipe in or into which stormwater runoff or floodwaters, as that term is defined by the State of Indiana Department of Natural Resources, 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 facility. A watershed is often broken down into subareas for the purposes of hydrologic modeling.

“Wetland” has the same meaning as defined in Title 20.07.010 - Defined Words.

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