

# PREFACE

## DOCUMENT HISTORY & BACKGROUND

In the mid-1980s the Indiana Local Technical Assistance Program (LTAP) predecessor, HERPICC, developed a model stormwater drainage ordinance, perhaps as a companion to then-HERPICC Stormwater Drainage Manual, that provided a regulatory language guidance to communities seeking to control increased runoff due to new development through a local ordinance. The noted model ordinance was used as a template by many communities in Indiana. However, over the years new laws for erosion control during construction as well as post-construction requirements necessitated a number of new ordinances to be adopted by communities. This, along with advances in methods and data, resulted in numerous, often inconsistent or segregated, ordinances and provisions associated with various stormwater quantity and quality requirements by various counties and communities.

In December 2021, the Indiana Department of Environmental Management (IDEM) formally replaced 327 IAC 15-5 (Rule 5) with a new Construction Stormwater General Permit (CSGP) and 327 IAC 15-13 (Rule 13) with a new MS4 General Permit (MS4 GP). Since these permits had not been updated since 2003, they incorporated several new or revised provisions that would impact how the stormwater construction and post-construction associated with new development or redevelopment would need to be reviewed and permitted, either by IDEM (through CSGP) or by MS4 entities (through MS4 GP). Regulated Indiana MS4 entities such as counties, cities, and towns have 24 months to incorporate these new changes (in the MS4 GP) into their existing, required local ordinances.

It is important to note that local jurisdictional entities do not have the authority to directly implement or enforce IDEM's CSGP. Instead, the local ordinance serves this purpose, which is one of the reasons that at a minimum all of IDEM's CSGP requirements must be included in a local ordinance. This is also a requirement contained in the MS4 GP for regulated MS4 entities. When implementing and enforcing a local ordinance, the jurisdictional entity must use their local ordinance requirements and citations to them instead of IDEM's CSGP. For County MS4 entities, the IDEM MS4 GP also requires that construction and post-construction ordinances or other regulatory mechanism required by the CSGP is administered countywide, excluding incorporated cities and areas for which the County MS4 entity does not have jurisdiction.

To assist with promoting statewide consistency among these local ordinances, several regulated MS4 communities requested that an entity such as LTAP develop a model stormwater management ordinance for them to use. To fulfill this need, LTAP secured funding and retained the services of Christopher B. Burke Engineering, LLC (Burke) to assist with the development of a Model Stormwater Management Ordinance and an accompanying Stormwater Technical Standards Manual for use by Indiana counties and local communities.

The main impetus for LTAP to create this new model stormwater management ordinance was to help counties and local communities meet a major requirement of the new IDEM CSGP and MS4 GP associated with construction and post-construction. However, in order to appeal to various Indiana communities and their stormwater management needs regardless of them being designated as a regulated MS4 or not, such a model stormwater ordinance needed to be as comprehensive as possible and include aspects of stormwater management associated with new development and redevelopment that go beyond the IDEM-required provisions. Additionally, recently observed as well as the projected climate change impacts on flooding and erosion along Indiana streams and other water bodies necessitates adoption of higher, No-Adverse-Impact standards by Indiana communities in order to minimize their exposure to such impacts. As such, in addition to minimum IDEM requirements, the LTAP model stormwater management ordinance and its companion stormwater technical standards manual

incorporate a comprehensive and No-Adverse-Impact set of provisions that various Indiana communities can wholly or partially adopt as they see appropriate.

These LTAP Model Stormwater Ordinance and Technical Standards are developed for use by both MS4 and non-MS4 communities. Although not necessarily required by IDEM, non-MS4 communities are also encouraged to adopt the stormwater quality-related provisions contained in these comprehensive model stormwater ordinance and technical standards. However, IDEM may still require an IDEM-sanctioned entity to perform the plan review and inspections as required by the IDEM CSGP.

Several existing resources, including the LTAP Stormwater Drainage Manual and existing No-Adverse-Impact stormwater ordinance and technical standards recently developed by Burke for a number of progressive MS4 and non-MS4 communities, were used for and incorporated into this Model Ordinance or its companion Model Stormwater Technical Standards manual. The provisions contained in these model ordinance and standards meet IDEM's December 2021 permit requirements and also include options for communities to select enhanced provisions to meet their local needs.

## **USE OF THIS DOCUMENT**

This up-to-date, consistent, comprehensive Model Stormwater Management Ordinance that works hand-in-hand with its companion Model Stormwater Technical Standards Manual is intended to help various counties and communities in Indiana manage stormwater impacts in a changing climate, which has exacerbated these impacts and created new concerns.

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This document is intentionally formatted with larger margins on the right side. These margins include helpful, instructional text to highlight areas where replacement text is needed, offer suggestions, or key considerations and discussion points.

To use the information contained in this document, there are two major routes for the user: 1) customize and adopt the comprehensive ordinance and standards in their entirety (the user can reduce the right margin of this document to hide side comments) or 2) just extract the language from one section of the ordinance or a chapter of the Technical Standards document (e.g., extract the new language regarding IDEM's new CSGP from Section 4 of the Model Ordinance and Chapter 7 of the Model Technical Standards) and use it in a stand-alone IDEM-required construction ordinance or the users comprehensive ordinance and standards (if they have an existing one).

It is important to note that while this model ordinance and standards meet the minimum IDEM requirements, they also contain additional, recommended requirements, practices, and standards that every community in the state should consider adopting. The intent of these documents is to set a prudent baseline standard for responsible stormwater management throughout the state of Indiana, regardless of whether or not such a standard is required by a federal or state agency.

Local communities should consider adopting the ordinance and technical standards as a complete package. Many communities have chosen to keep their ordinances streamlined with detailed or explanatory verbiage included in their technical standards. LTAP followed this same streamlined approach. The main reason for this is that usually the ordinance or any future revisions to it must be approved formally by a governing body. The technical standards typically can be updated more frequently and easily through the department or staff implementing the community's stormwater program.

Several communities in Indiana already have adopted various, typically separate, ordinances to regulate various aspects of stormwater quantity and quality within their jurisdictions. Provided these existing community ordinances already contain the necessary enabling authority to the community to require information and compliance similar to that contained in this LTAP Model Stormwater Management Ordinance or can be updated to do so, these communities may choose to simply update their current ordinances and reference a customized version of the LTAP Model Stormwater Technical Standards Manual.

The main provisions and required data are contained in the LTAP Model Technical Standards Manual. So, if a community does streamline their ordinance(s), then similar to LTAP's approach the ordinance should refer to the technical standards to make it clear that compliance with both documents is mandatory. It is advisable for each community to consult with their legal counsel to ensure the technical standards will not be viewed simply as being merely unenforceable guidance.

LTAP is planning to periodically issue updates to this document as needed and as funding allows. Suggested corrections, revisions, needed additions, and/or improvements should be forwarded to LTAP so that it can be considered and incorporated into upcoming updates, as appropriate.

The following "Summary of Revisions" page contains a list of revisions/additions included in previous versions as well as this version of this document.

## SUMMARY OF REVISIONS

Version #	Date	List of Major Revisions
1.0	Aug 2021	Original version based on Burke NewGen O&TS Template
1.1	Feb 2022	<ul style="list-style-type: none"> <li>• Made revisions to preamble pages</li> <li>• Changed reference to IDEM regulations from “Draft CSGP” to “CSGP”</li> <li>• Converted the format of permit flow chart to a PowerPoint object</li> <li>• Corrected minor typos throughout</li> </ul>
1.2	Oct 2022	<ul style="list-style-type: none"> <li>• Added a “Summary of Revisions” page (this page)</li> <li>• Made minor revisions to the list of exempted discharges in Section 2</li> <li>• Made minor revisions to language regarding individual lots located within a larger permitted project in Section 4 (a)</li> <li>• Added a paragraph regarding project management log at the end of Section 4 (d)</li> <li>• Changed “Certified Professional” to “Trained Individual” in Chapter 6</li> <li>• Revised compliance and enforcement language in Section 7</li> <li>• Added a few definitions in Appendix A</li> </ul>

# Jurisdiction Entity Stormwater Management Ordinance

Version 1.2 (October 2022)

*Replace "Jurisdiction Entity"  
throughout the document to the name  
of the community*

*Change date as appropriate*

# Abbreviated Table of Contents

Section	Title
1	GENERAL INFORMATION
2	Prohibited Discharges and Connections
3	Stormwater Quantity Management
4	Stormwater Pollution Prevention for Construction Sites
5	Stormwater Quality Management for Post-Construction
6	Permit Requirements and Procedures
7	Compliance and Enforcement
Appendices	
A	Abbreviations and Definitions

*Sections 2, 4, and 5 have been specifically developed to meet IDEM's requirements for entities that have MS4 designation. However, these provisions are prudent and recommended to be adopted by all entities regardless of federal or state mandates.*

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities can delete the sections highlighted in green.*

## SECTION 1

# General Information

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### (a) AUTHORITY AND TITLE

This Ordinance is adopted in accordance with statutory authority granted to *Jurisdiction Entity* under “Home Rule” and further is required by Phase II of the National Pollutant Discharge Elimination System Stormwater 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). Based on this authority and these requirements, this Ordinance regulates:

- i. Discharges of prohibited non-stormwater flows into the storm drain system.
- ii. Stormwater drainage improvements related to development of lands located within the corporate boundaries of the *Jurisdiction Entity*.
- iii. Drainage control systems installed during new construction and grading of lots and other parcels of land.
- iv. Stormwater, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity
- v. Stormwater discharges from construction support activities directly related to construction sites subject to this ordinance.
- vi. Erosion and sediment control systems installed during new construction and grading of lots and other parcels of land.
- vii. The design, construction, and maintenance of stormwater drainage facilities and systems.
- viii. The design, construction, and maintenance of stormwater quality facilities and systems.
- ix. The design, construction, and maintenance of new dams
- x. The development downstream of existing dams
- xi. Development within floodplains, floodways, fluvial erosion hazard corridors, and bluff zones

This Ordinance shall be known and may be cited as the *Jurisdiction Entity* Stormwater Management Ordinance. Once adopted, this Ordinance will supersede any conflicting ordinances previously adopted by the *Jurisdiction Entity*.

### (b) APPLICABILITY AND EXEMPTIONS

This Ordinance shall regulate all development and redevelopment occurring within the *Jurisdiction Entity*. No building permit shall be issued and no land disturbance started for any construction in a development, as defined in Appendix A, until the plans required by this Ordinance for such construction have been accepted in writing by the *Jurisdiction Entity*. With the exception of the requirements of Section 2 and Section 6(d) of this Ordinance, single-family dwelling houses and duplexes in accepted subdivisions, and land-disturbing activities affecting less than 10,000 square feet of area shall be exempt from the requirements of this Ordinance. Also exempt from this Ordinance shall be agricultural land-disturbing activities.

*The content of this sub-section should be customized to most appropriately reflect specific situation of the community. The text highlighted in green should be deleted for non-MS4 communities.*

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities will also need to delete the list of activities highlighted in green.*

*The list of exempt categories and the threshold should be reviewed and adjusted per jurisdiction’s. Although agricultural activities are noted as exempt, the entity may want to add that it reserves the right to evaluate the impacts of creating new drainage ditches on the receiving stream. If receiving streams currently experiences flooding, additional stormwater management measures may be required.*

In addition to the requirements of this Ordinance and its companion Stormwater Technical Standards Manual, compliance with all applicable ordinances of **Jurisdiction Entity** as well as with applicable Federal, State of Indiana, and other Local statutes and regulations shall also be required. Unless otherwise stated, all other specifications referred to in this Ordinance shall be the most recent edition available. **Jurisdiction Entity** capital improvement projects shall be exempt from obtaining a permit, but are expected to meet all applicable technical requirements of this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual. If the project site is located within a **Jurisdiction Entity County name** County Regulated Drain Watershed, the applicant will need to check with the **Jurisdiction Entity County name** County Surveyor's Office to learn if additional Surveyor's Office requirements specific to that regulated drain would apply to the site. In case there are conflicts between the requirements contained in this Ordinance and applicable requirements contained in other regulatory documents referenced above, the most restrictive shall prevail.

*The requirement that entity/MS4-owned facilities are also expected to meet applicable provisions in this ordinance and technical standards is also a mandated IDEM provision for MS4-owned projects as it pertains to construction pollution control and self-monitoring elements*

Any construction project which has had its final drainage plan accepted by the **Jurisdiction Entity** within a 2-year period prior to the effective date of this Ordinance shall be exempt from all requirements of this Ordinance that are in excess of the requirements of ordinances in effect at the time of acceptance. Such an exemption is not applicable to the requirements detailed in Section 2 of this Ordinance.

*The "grandfathered" provisions in this paragraph can be modified to match the jurisdiction's preferences*

The **Jurisdiction Entity** has the authority to modify, grant exemptions, and/or waive any and all the requirements of this Ordinance and its associated technical standards document. A pre-submittal meeting with the **Jurisdiction Entity** may be requested by the applicant to discuss the applicability of various provisions of the Ordinance 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 the **Jurisdiction Entity** that may be based on the review of more detailed information and plans.

### (c) FINDINGS

The **Jurisdiction Entity** finds that:

1. Water bodies, roadways, structures, and other property within the **Jurisdiction Entity** or its planning jurisdiction boundary are at times subjected to flooding;
2. Flooding is a danger to the lives and property of the public and is also a danger to the natural resources of the region;
3. Land development alters the hydrologic response of watersheds, resulting in increased stormwater runoff rates and volumes, increased flooding, increased stream channel erosion, and increased sediment transport and deposition;
4. Soil erosion resulting from land-disturbing activities causes a significant amount of sediment and other pollutants to be transported off-site and deposited in ditches, streams, wetlands, lakes, and reservoirs;
5. Increased stormwater runoff rates and volumes, and the sediments and pollutants associated with stormwater runoff from future development projects within the **Jurisdiction Entity** will, absent reasonable regulation and control, adversely affect the **Jurisdiction Entity's** water bodies and water resources;

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities may need to delete non-water quantity related findings from the list highlighted in green.*



6. Pollutant contributions from illicit discharges within the *Jurisdiction Entity* will, absent reasonable regulation, monitoring, and enforcement, adversely affect the *Jurisdiction Entity's* water bodies and water resources;
7. Stormwater runoff, soil erosion, non-point source pollution, and illicit sources of pollution can be controlled and minimized by the regulation of stormwater management;
8. Adopting the standards, criteria, and procedures contained and referenced in this Ordinance and implementing the same will address many of the deleterious effects of stormwater runoff and illicit discharges;
9. Adopting this Ordinance is necessary for the preservation of the public health, safety, and welfare, for the conservation of natural resources, and for compliance with State and Federal regulations.

**(d) PURPOSE**

The purpose of this Ordinance is to provide for the health, safety, and general welfare of the citizens of the *Jurisdiction Entity* through the regulation of stormwater and non-stormwater discharges to the storm drainage system and to protect, conserve and promote the orderly development of land and water resources within the *Jurisdiction Entity*. This Ordinance establishes methods for managing the quantity and quality of stormwater entering into the storm drain system. The objectives of this Ordinance are:

- i. To reduce the hazard to public health and safety caused by excessive stormwater runoff.
- ii. To regulate the contribution of pollutants to the storm drain system from construction site runoff.
- iii. To regulate the contribution of pollutants to the storm drain system from runoff from new development and re-development.
- iv. To prohibit illicit discharges into the storm drain system.
- v. To establish legal authority to carry out all inspection, monitoring, and enforcement procedures necessary to ensure compliance with this ordinance.

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities may want to delete the texts highlighted in green.*

**(e) ABBREVIATIONS AND DEFINITIONS**

For the purpose of this Ordinance, the abbreviations and definitions provided in Appendix A shall apply.

**(f) RESPONSIBILITY FOR ADMINISTRATION**

The *Jurisdiction Entity* shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted or duties imposed upon the authorized enforcement agency may be delegated in writing by the *Jurisdiction Entity* to qualified persons or entities acting in the beneficial interest of or in the employ of the *Jurisdiction Entity*.

**(g) INTERPRETATION**

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

## (h) SEVERABILITY

The provisions of this Ordinance are hereby declared severable, and if any court of competent jurisdiction should declare any part or provision of this Ordinance invalid or unenforceable, such invalidity or unenforceability shall not affect any other part or provision of this Ordinance.

## (i) DISCLAIMER OF LIABILITY

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

The words “approve” and “accept”, and their common derivations as used in this Ordinance in relation to plans, reports, calculations, and permits shall mean that *Jurisdiction Entity* has reviewed the material produced and submitted by the applicant or his/her agents for general compliance with this Ordinance and the *Jurisdiction Entity* Stormwater Technical Standards Manual, and that such compliance would qualify the applicant to receive a stormwater management approval or permit. Such an “approval” or “acceptance” is based on the assumption that the project engineer has followed all appropriate engineering methods in the design. Any stormwater quantity (drainage) or water quality problems associated with the project caused by poor construction by the contractor and/or poor engineering design or judgment, either on-site or off-site, are the responsibility of the developer and the project engineer.

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities may want to delete the text highlighted in green.*

Consideration, design, construction, and maintenance of safety measures for proposed or existing stormwater facilities shall be the responsibility of the developer, applicant, and/or the property owner. *Jurisdiction Entity* and its officials and representatives shall not be responsible for maintenance nor liability for any accidents.

## SECTION 2

# Prohibited Discharges and Connections

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### (a) APPLICABILITY AND EXEMPTIONS

This section shall apply to all discharges, including illegal dumping, entering the storm drain system under the control of the **Jurisdiction Entity**, 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.

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities can delete this section in its entirety.*

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

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 also exempted from this section.

### (b) PROHIBITED DISCHARGES AND CONNECTIONS

No person shall discharge to a MS4 conveyance, watercourse, or waterbody, directly or indirectly, 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 (BMP's).

Concrete washout material must be properly contained within an appropriate practice and any waste material properly disposed of.

The **Jurisdiction Entity** is authorized to require dischargers to implement pollution prevention measures, utilizing BMP's necessary to prevent or reduce the discharge of pollutants into the **Jurisdiction Entity**'s stormwater drainage system.

### (c) EXEMPTED DISCHARGES AND CONNECTIONS

Notwithstanding other requirements in this Ordinance, the following categories of non-stormwater discharges or flows are exempted from the requirements of this section:

- i. Water line flushing;
- ii. Landscape irrigation;

- iii. Diverted streamflows;
- iv. Rising ground waters;
- v. Uncontaminated groundwater infiltration;
- vi. Uncontaminated pumped ground water;
- vii. Discharges from potable water sources;
- viii. Foundation drains;
- ix. Air conditioning condensation;
- x. Irrigation water;
- xi. Springs;
- xii. Water from crawl space pumps;
- xiii. Footing drains;
- xiv. Lawn watering;
- xv. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
- xvi. Flows from riparian habitats and wetlands;
- xvii. Dechlorinated swimming pool discharges not including discharges from saltwater swimming pools;
- xviii. Street wash water;
- xix. Discharges from emergency firefighting activities;
- xx. Naturally introduced detritus (e.g. leaves and twigs);
- xxi. Routine external building washdown water that does not use detergents.

**(d) STORAGE OF HAZARDOUS 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 active construction sites must include adequate protection and/or containment so as to prevent any such materials from entering any temporary or permanent stormwater conveyance or watercourse.

**(e) PRIVATE PROPERTY MAINTENANCE DUTIES**

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

**(f) SPILL REPORTING**

Any discharger who accidentally discharges into a waterbody any substance other than stormwater or an exempted discharge shall immediately inform the **Jurisdiction Entity** concerning the discharge. A written report concerning the discharge shall be filed with the **Jurisdiction Entity** and IDEM, by the dischargers, within five (5) days. The written report shall specify:

- i. The composition of the discharge and the cause thereof;

- ii. The date, time, and estimated volume of the discharge;
- iii. All measures taken to clean up the accidental discharge, and all measures proposed to be taken to prevent any recurrence;
- iv. The name and telephone number of the person making the report, and the name and telephone number of a person who may be contacted for additional information on the matter.

A properly reported accidental discharge shall be an affirmative defense to a civil infraction proceeding brought under this Ordinance against a discharger for such discharge. It shall not, however, be a defense to a legal action brought to obtain an injunction, to obtain recovery of costs or to obtain other relief because of or arising out of the discharge. A discharge shall be considered properly reported only if the discharger complies with all the requirements of this section. This requirement does not relieve discharger from notifying other entities as required by state or federal regulations.

## **(g) INSPECTIONS AND MONITORING**

### **1. Storm Drainage System**

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

### **2. Potential Polluters**

If, as a result of the storm drainage system inspection, a discharger is suspected of an illicit discharge, the **Jurisdiction Entity** may inspect and/or obtain stormwater samples from stormwater runoff facilities of the subject discharger, to determine compliance with the requirements of this Ordinance. Upon request, the discharger shall allow the **Jurisdiction Entity's** properly identified representative to enter upon the premises of the discharger at all hours necessary for the purposes of such inspection or sampling. The **Jurisdiction Entity** or its properly identified representative may place on the discharger's property the equipment or devices used for such sampling or inspection. Identified illicit connections or discharges shall be subject to enforcement action as described in Section 7 of this Ordinance.

### **3. New Development and Re-Development**

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

## SECTION 3

# Stormwater Quantity Management

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### (a) APPLICABILITY AND EXEMPTIONS

The storage and controlled release of excess stormwater runoff shall be required for all new business, institutional developments, commercial and industrial developments, residential subdivisions, planned development, rural estate subdivisions, and any redevelopment or other new construction located within the *Jurisdiction Entity*. The *Jurisdiction Entity*, after thorough investigation and evaluation, may waive the requirement of controlled runoff for minor subdivisions and parcelization. Additional potential exemptions regarding the detention requirements are provided under Sub-section (b).

### (b) POLICY ON STORMWATER QUANTITY MANAGEMENT

It is recognized that most streams and drainage channels serving the *Jurisdiction Entity* do not have sufficient capacity to receive and convey stormwater runoff resulting from continued urbanization. Accordingly, the storage and controlled release of excess stormwater runoff as well as compensation for loss of floodplain storage shall be required for all developments and redevelopments (as defined in Appendix A) located within the *Jurisdiction Entity*. Release rate requirements, downstream restriction considerations, acceptable outlet, adjoining property impact considerations, policy on dams and levees, policy on Fluvial Erosion Hazard corridors, and compensatory floodplain storage rates are detailed in the *Jurisdiction Entity* Stormwater Technical Standards.

Due to unknowns regarding the future development patterns and the associated proposed stormwater quantity management systems within a watershed, it is the policy of the *Jurisdiction Entity* to discourage direct release of runoff from a new development or redevelopment without providing detention. However, in rare circumstances, where a comprehensive watershed-wide hydrologic study or watershed plan of a major stream (not a “beat the peak” analysis) adopted by the *Jurisdiction Entity* substantiates the benefits of (or allows for) direct release for a proposed development located adjacent to a major stream, the detention requirements set in this Ordinance may be waived. Other special circumstances when such a waiver may be considered by *Jurisdiction Entity* include situations where the design of a regional pond has already taken into account the provision of direct release in certain areas in the watershed.

### (c) CALCULATIONS AND DESIGN STANDARDS AND SPECIFICATIONS

The calculation methods as well as the type, sizing, and placement of all stormwater facilities shall meet the design criteria, standards, and specifications outlined in the *Jurisdiction Entity* Stormwater Technical Standards Manual. The methods and procedures in the Stormwater Technical Standards Manual are consistent with the policy stated above.

#### **(d) DRAINAGE EASEMENT REQUIREMENTS**

All stormwater systems, including detention or retention basins, conveyance systems, structures and appurtenances, located outside of the right-of-way shall be placed within a drainage easement. There shall be no trees or shrubs planted, nor any structures or fences erected in any drainage easement, unless otherwise accepted by **Jurisdiction Entity**. Additional easement requirements along stormwater conveyance systems are contained in the **Jurisdiction Entity** Stormwater Technical Standards Manual. All drainage improvements performed relative to the conveyance of stormwater runoff and the perpetual maintenance thereof, within the latter easements, shall be the responsibility of the owner or homeowner association.

Any outlet to, crossing, and/or encroachment of a county Regulated Drainage Easement requires application and acceptance from the County Drainage Board in accordance with the Indiana Drainage Code.”

#### **(e) PLACEMENT OF UTILITIES**

No utility company may disturb existing storm drainage facilities without the consent of the **Jurisdiction Entity** staff, whose decision may be appealed to the **Jurisdiction Entity's body with authority to grant appeals** of the **Jurisdiction Entity**. All existing drainage facilities shall have senior rights and damage to said facilities shall result in penalties as prescribed in Section 7 of this ordinance.

#### **(f) STRUCTURES NEAR COUNTY REGULATED DRAINS**

For regulated drains not located in platted subdivisions, unless otherwise accepted by the **Jurisdiction Entity County name** County Drainage Board, no permanent structure (including fences) shall be erected within seventy-five feet measured at right angles from a) the existing top edge of each bank of a regulated open drain, as determined by the **Jurisdiction Entity County name** County Drainage Board; or b) the center line of a piped Regulated Drain. The Indiana Drainage Code may be consulted for further details.

#### **(g) INSPECTION, MAINTENANCE, RECORD KEEPING, AND REPORTING**

After the approval of the Stormwater Management Permit by the **Jurisdiction Entity** and the commencement of construction activities, the **Jurisdiction Entity** has the authority to conduct inspections of the work being done to insure full compliance with the provisions of this section, the Stormwater Technical Standards Manual, Design and Construction Standards, and the terms and conditions of the approved permit.

The **Jurisdiction Entity** also has the authority to perform long-term, post-construction inspection of all public or privately owned stormwater quantity facilities. The inspection will cover physical conditions, available storage capacity, and the operational condition of key facility elements. Stormwater quantity facilities shall be maintained in good condition, in accordance with the designed and

approved performance specifications for the facilities, in addition to any prescribed Operation & Maintenance procedures, and shall not be subsequently altered, revised or replaced except as approved by the *Jurisdiction Entity*. If deficiencies are found during the inspection, the owner of the facility will be notified by the *Jurisdiction Entity* and will be required to take all necessary measures to correct such deficiencies. If the owner fails to correct the deficiencies within the allowed time period, as specified in the notification letter, the *Jurisdiction Entity* will undertake the work and collect from the owner using lien rights if necessary.

Assignment of responsibility for maintaining facilities serving more than one lot or holding shall be documented by appropriate covenants to property deeds, unless responsibility is formally accepted by a public body, and determined before the final stormwater permit is approved.

Stormwater conveyance facilities may be donated to the *Jurisdiction Entity* or other unit of government designated by the *Jurisdiction Entity*, for ownership and permanent maintenance providing the *Jurisdiction Entity* or other governmental unit is willing to accept responsibility.

*The text highlighted in green is optional and intended for those communities that accept the ownership and responsibility of all or a part of permitted stormwater conveyance facilities into their system. Delete if that is not desired by the community.*



## SECTION 4

# Stormwater Pollution Prevention for Construction Sites

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### (a) APPLICABILITY AND EXEMPTIONS

The **Jurisdiction Entity** will require a Stormwater Pollution Prevention Plan (SWPPP), which includes erosion and sediment control measures and materials handling procedures, to be submitted as part of a project's construction plans and specifications. Any project located within the corporate boundaries of the **Jurisdiction Entity** that includes clearing, grading, excavation or other land disturbing activities resulting in the disturbance of 10,000 square feet or more of total land area is subject to the requirements of this section. This includes both new development and re-development. This section also applies to disturbances of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb 10,000 square feet or more of total land area. Section 4 (c) provides guidelines for calculating land disturbance. Projects meeting the coverage requirements of IDEM's CSGP shall also be in compliance with the requirements contained in that permit.

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

- i. Landfills that have been issued a certification of closure under 329 IAC 10.
- ii. Coal mining activities permitted under IC 14-34.
- iii. Municipal solid waste landfills that are accepting waste pursuant to a permit issued by the Indiana Department of Environmental Management under 329 IAC 10 that contains equivalent stormwater requirements, including the expansion of landfill boundaries and construction of new cells either within or outside the original solid waste permit boundary.

For an individual lot where land disturbance is expected to be one (1) acre or more, the individual lot owner must complete their own notice of intent letter, apply for a stormwater permit from the **Jurisdiction Entity**, and ensure that a sufficient construction and stormwater pollution prevention plan is completed and submitted in accordance with Section 6 of this Ordinance, regardless of whether the individual lot is part of a larger permitted project site. For an individual lot where land disturbance is 10,000 square feet or more but less than one (1) acre, an Individual Lot Plot Plan Permit application is required prior to receiving a building permit. Details of the permitting process are contained in Section 6.

An individual lot located within a larger permitted project site, is considered part of the larger permitted project site, and the individual lot operator must comply with the terms and conditions of the stormwater permit approved for the larger project site. The stormwater permit application for the larger project site must include detailed erosion and sediment control measures for individual lots. In addition, the builders of these individual lots are required to **submit Individual Lot Plot Plan Permit application along with a SWPPP for that individual lot prior to receiving a building permit. Details of the permitting process for individual lots and parcels are contained in Section 6 and additional requirements for individual lots may be found in the Jurisdiction Entity Stormwater Technical Standards Manual.**

*A SWPPP is required by IDEM only for land disturbing activities resulting in 1 acre or more of disturbance. The recommended 10,000 square feet threshold noted throughout this section may be changed to 1 acre if preferred by the community. Also, unless the entity is designated as a MS4, the review and enforcement of these requirements would not fall on the entity. However, the recommended practice for all jurisdictions, whether designated as MS4 or not, is to adopt provisions stated in this model ordinance to safeguard degradation of the quality of community's water resources.*

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities can delete the contents of this section and simply refer the applicants to IDEM. As an agency IDEM will work those entities that have been designated to review plans and/or conduct inspections that have accepted the responsibility of reviewing plans as part of the IDEM requirements.*

*if the entity does not wish to keep the language and requirements associated with entity-required separate Individual lot permit in Section 6 (d) and in technical standards, then delete the highlighted segment and instead insert "develop a SWPPP for the individual lot and complete a Construction Stormwater Residential Development Registration form (State Form 53049) and maintain it onsite."*

It will be the responsibility of the project site owner to complete a stormwater permit application and ensure that a sufficient construction plan is completed and submitted to the **Jurisdiction Entity** in accordance with Section 6 of this Ordinance. It will be the responsibility of the project site owner to ensure compliance with this Ordinance during the construction activity and implementation of the construction plan, and to notify the **Jurisdiction Entity** upon completion of the project and stabilization of the site, requesting a termination inspection to be performed by the **Jurisdiction Entity**. However, all persons engaging in construction and land disturbing activities on a permitted project site meeting the applicability requirements must comply with the requirements of this section and this Ordinance.

## **(b) POLICY ON STORMWATER POLLUTION PREVENTION**

Effective stormwater pollution prevention on construction sites is dependent on a combination of preventing movement of soil from its original position (erosion control), intercepting displaced soil prior to entering a waterbody (sediment control), and proper on-site materials handling.

For land disturbance of one (1) acre or more, the developer must submit to the **Jurisdiction Entity**, a SWPPP with detailed erosion and sediment control plans as well as a narrative describing materials handling and storage, and construction sequencing. The SWPPP and the project management log must be retained for at least three (3) years from the date the project permit is terminated. For land disturbances totaling 10,000 square feet or more but less than one (1) acre, appropriate erosion and sediment control measures that are consistent with the **Jurisdiction Entity** Stormwater Technical Standards Manual must be designed and shown on the plans.

The required IDEM general and implementation requirements that apply to all land-disturbing activities are contained in the **Jurisdiction Entity** Stormwater Technical Standards Manual.

## **(c) CALCULATIONS AND DESIGN STANDARDS AND SPECIFICATIONS**

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

- i. Off-site construction activities that provide services (for example, road extensions, sewer, water, offsite stockpiles, and other utilities) to a land disturbing project site, must be considered as a part of the total land disturbance calculation for the project site, when the activity is under the control of the project site owner.
- ii. To determine if multi-lot project sites are regulated by this section, 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:

1. For a single-family residential project site where the lots are one-half (0.5) acre or more, one-half (0.5) acre of land disturbance must be used as the expected lot disturbance.
2. For a single-family residential project site where the lots are less than one half (0.5) acre in size, the total lot must be calculated as being disturbed.
3. 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.

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, the *Jurisdiction Entity* Stormwater Technical Standards Manual, and the product guidance/specifications of the manufacturer. The methods and procedures included in these two references are in keeping with the above stated policy and meet the requirements of the IDEM's CSGP. A Copy of the Indiana Stormwater Quality Manual may be obtained online through IDEM.

The design requirements that would apply to all land-disturbing activities and shall be considered in the selection, design, and implementation of all stormwater quality and management measures contained in the SWPPP are contained in the *Jurisdiction Entity* Stormwater Technical Standards Manual.

#### **(d) INSPECTION, MAINTENANCE, RECORD KEEPING, AND REPORTING**

Following approval of the Stormwater Management Permit or Individual Lot Plot Plan Permit by the *Jurisdiction Entity* and commencement of construction activities, the *Jurisdiction Entity* has the authority to conduct inspections of the site to ensure full compliance with the provisions of this section, the approved Stormwater Pollution Prevention Plan, the Indiana Stormwater Quality Manual, and the terms and conditions of the approved permit.

A self-monitoring program (SMP) must be implemented by the project site owner to ensure the stormwater pollution prevention plan is working effectively. A trained individual, acceptable to the *Jurisdiction Entity*, shall monitor and manage project construction and stormwater activities. Details regarding the required monitoring activities are contained in the *Jurisdiction Entity* Stormwater Technical Standards Manual.

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

A project management log must be maintained at the project site or in the possession of on-site individuals associated with the management and operations of the construction activities. Details regarding requirements related to the project management log are contained in the *Jurisdiction Entity* Stormwater Technical Standards Manual.

## SECTION 5

# Stormwater Quality Management for Post-construction

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### (a) APPLICABILITY AND EXEMPTIONS

In addition to the requirements of Section 4, the stormwater pollution prevention plan, which is to be submitted to the **Jurisdiction Entity** as part of the Stormwater Management Permit application, must also include post-construction stormwater quality measures. These measures are incorporated as a permanent feature into the site plan and are left in place following completion of construction activities to continuously treat stormwater runoff from the stabilized site. Any project located within the corporate boundaries of the **Jurisdiction Entity** that includes clearing, grading, excavation, and other land disturbing activities, resulting in the disturbance of 10,000 square feet or more of total land area is subject to the requirements of this section. This includes both new development and re-development, and disturbances of land less than 10,000 square feet of total land area that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb 10,000 square feet or more of total land area. In addition, regardless of the amount of disturbance, the **Jurisdiction Entity** reserves the right to require pre-treatment BMPs for proposed hot spot developments in accordance with provisions contained in the **Jurisdiction Entity** Stormwater Technical Standards Manual.

The requirements under this section do not apply to the following activities:

- i. construction activities associated with a single-family residential dwelling disturbing less than one (1) acre, when the dwelling is not part of a larger common plan of development or sale; or individual building lots within a larger permitted project.

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

- i. Landfills that have been issued a certification of closure under 329 IAC 10.
- ii. Coal mining activities permitted under IC 14-34.
- iii. Municipal solid waste landfills that are accepting waste pursuant to a permit issued by the Indiana Department of Environmental Management under 329 IAC 10 that contains equivalent stormwater requirements, including the expansion of landfill boundaries and construction of new cells either within or outside the original solid waste permit boundary.

It will be the responsibility of the project site owner to complete a stormwater permit application and ensure that a sufficient construction plan is completed and submitted to the **Jurisdiction Entity** in accordance with Section 6 of this Ordinance. It will be the responsibility of the project site owner to ensure proper construction and installation of all stormwater BMP's (especially, the protection of post-stormwater BMPs during construction phase) in compliance with this Ordinance and with the approved Stormwater Management Permit, and to notify the **Jurisdiction Entity** upon completion of the project and stabilization of the site, requesting a termination inspection to be performed by the **Jurisdiction Entity**.

*Post-construction Stormwater Quality measures are required by IDEM for land disturbing activities resulting only in 1 acre or more of disturbance. The recommended threshold noted throughout this section may be changed to 1 acre if preferred by the community. Also, unless the entity is designated as a MS4, the review and enforcement of these requirements would not fall on the entity. However, the recommended practice for all jurisdictions, whether designated as MS4 or not, is to adopt provisions stated in this model ordinance to safeguard degradation of the quality of community's water resources once the active construction is completed.*

*Non-MS4 communities who do not wish to proactively regulate the water quality or prohibited non-stormwater flows in their communities can delete the contents of this section and simply refer the applicants to the County's SWCD or other entity accepting the charge of reviewing plans as part of IDEM requirements.*

However, all eventual property owners of stormwater quality facilities meeting the applicability requirements must comply with the requirements of this section and this Ordinance.

## (b) POLICY ON STORMWATER QUALITY MANAGEMENT

It is recognized that developed areas, as compared to undeveloped areas, generally have increased imperviousness, decreased infiltration rates, increased runoff rates, and increased concentrations of pollutants such as fertilizers, herbicides, greases, oil, salts and other pollutants. As new development and re-development continues within the corporate boundaries of the *Jurisdiction Entity*, measures must be taken to intercept and filter pollutants from stormwater runoff prior to reaching regional creeks, streams, and rivers. Through the use of appropriate Best Management Practices (BMPs), to treat the Water Quality Volume (WQv) or the Water Quality Flow (Qwq) stormwater runoff will be filtered and harmful amounts of sediment, nutrients, and contaminants will be removed.

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

*The policy discussion noted in this paragraph (highlighted in green) relates to the highly recommended, but not IDEM-required, Channel Protection Volume requirements. Delete if the community does not wish to adopt Channel Protection Volume requirements*

The project site owner must submit to the *Jurisdiction Entity* a Stormwater Pollution Prevention Plan (SWPPP) that shows placement of appropriate BMP(s) from a pre-approved list of BMP's specified in the *Jurisdiction Entity* Stormwater Technical Standards Manual. The SWPPP submittal shall include an Operation and Maintenance Manual for all post-construction BMP(s) included in the project and a notarized Maintenance Agreement, consistent with the sample agreement provided in the *Jurisdiction Entity* Stormwater Technical Standards Manual, providing for the long-term maintenance of those BMPs, both of which shall be recorded with the deed for the property on which the project is located. The noted BMP(s) must be designed, constructed, and maintained according to guidelines provided or referenced in the *Jurisdiction Entity* Stormwater Technical Standards Manual. Practices other than those specified in the pre-approved list may be utilized. However, the burden of proof, as to whether the performance and ease of maintenance of such practices will be according to guidelines provided in the *Jurisdiction Entity* Stormwater Technical Standards Manual, would be placed with the applicant. Details regarding the procedures and criteria for consideration of

acceptance of such BMP's are provided in the **Jurisdiction Entity** Stormwater Technical Standards Manual.

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

Discharges from new development and redevelopment sites will not be allowed directly into karst features without pre-treatment.

**(c) CALCULATIONS AND DESIGN STANDARDS AND SPECIFICATIONS**

Calculation of land disturbance should follow the guidelines discussed in Section 3(c).

The calculation methods as well as the type, sizing, and placement of all stormwater quality management measures, or BMPs shall meet the design criteria, standards, and specifications outlined in the **Jurisdiction Entity** Stormwater Technical Standards Manual. The methods and procedures included in the referenced Standards is in keeping with the above stated policy and meet or exceed the requirements of IDEM's MS4 GP.

**(d) EASEMENT REQUIREMENTS**

All stormwater quality management systems, including detention or retention basins, filter strips, pocket wetlands, in-line filters, infiltration systems, conveyance systems, structures and appurtenances located outside of the right-of-way shall be incorporated into permanent easements. For the purposes of monitoring, inspection, and general maintenance activities, adequate easement width, as detailed in the **Jurisdiction Entity** Stormwater Technical Standards Manual, beyond the actual footprint of the stormwater quality management facility as well as a 20-foot wide access easement from a public right-of-way to each BMP shall be provided.

**(e) INSPECTION, MAINTENANCE, RECORD KEEPING, AND REPORTING**

After the approval of the Stormwater Management Permit by the **Jurisdiction Entity** and the commencement of construction activities, the **Jurisdiction Entity** has the authority to conduct inspections of the work being done to ensure full compliance with the provisions of this section, the approved Stormwater Pollution Prevention Plan, the **Jurisdiction Entity** Stormwater Technical Standards Manual, and the terms and conditions of the approved permit.

Stormwater quality facilities shall be maintained in good condition, in accordance with the Operation and Maintenance procedures and schedules listed in the **Jurisdiction Entity** Stormwater Technical Standards Manual, in addition to the designed and approved performance specifications for the facilities and shall not be subsequently altered, revised, or replaced except as approved by the **Jurisdiction Entity**.

Details regarding the required of stormwater BMP Maintenance Agreement, O&M Maintenance Manual, and a Maintenance Escrow account and their transfer to other parties or subsequent owners prior to release of the maintenance bond discussed in Section 6 of this Ordinance is provided in the **Jurisdiction Entity** Stormwater Technical Standards Manual.

The **Jurisdiction Entity** also has the authority to perform long-term, post-construction inspection of all public or privately owned stormwater quality facilities. The inspection will cover physical conditions, available water quality storage capacity and the operational condition of key facility elements. Noted deficiencies and recommended corrective action will be included in an inspection report.

*The perpetual maintenance requirements discussed in this section and detailed in the Technical Standards meet or exceed the newly proposed mandates by IDEM for all MS4 entities.*



## SECTION 6

# Permit Requirements and Procedures

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### (a) CONCEPTUAL DRAINAGE PLAN REVIEW

In order to gain an understanding of the drainage requirements for a specific project, a developer may submit conceptual drainage plans and calculations for review by the **Jurisdiction Entity**. The direction provided by the **Jurisdiction Entity** during such a review is based on preliminary data and shall not be construed as an acceptance or binding on either party. The following is a general listing of minimum data requirements for the review of conceptual drainage plans:

- i. Two (2) complete sets of conceptual plans showing general project layout, including existing and proposed drainage systems (plan sheets must be larger than 11" by 17", but not to exceed 24" by 36").
- ii. General description of the existing and proposed drainage systems in narrative form.
- iii. Map showing on-site 100-year floodplain and floodway (please note if none exists).
- iv. Map showing all wetlands, lakes, and ponds on or adjacent to the site.
- v. Watershed Boundaries with USGS Contours or best information possible.
- vi. Two (2) copies of drainage calculations detailing existing and proposed discharges from the site
- vii. Existing watercourse or regulated drains.

### (b) PERMIT PROCEDURES

This section applies to all development, or re-development of land, that results in land disturbance of one (1) acre or more. Individual lots with land disturbance less than one (1) acre shall refer to Sections 4 and 5 and subsection (d) below for plan review requirements and procedures. Figure 1 is a flowchart summarizing the plan review/permit approval/project termination compliance process for land disturbance of one (1) acre or more and can be found at the end of this section.

#### 1. General Procedures

The project site owner shall submit an application for a Stormwater Management Permit to the **Jurisdiction Entity**. The application will include a completed application checklist, construction plan sheets, a stormwater drainage technical report, a stormwater pollution prevention plan, and any other necessary support information. Specific information to be included in the application can be found in Subsection (c) below. **xx** copies of each application must be submitted to the **Jurisdiction Entity**. The **Jurisdiction Entity** may, at its discretion, require one or more copies be submitted to other entities deemed appropriate by the **Jurisdiction Entity**. Additionally, a digital copy of the construction plans is required in a format accepted by the **Jurisdiction Entity**.

After the **Jurisdiction Entity**'s receipt of the application, the applicant will be notified as to whether their application was complete or insufficient. The applicant will be asked for additional information if the application is insufficient. If the application is complete, it will be reviewed in detail by the **Jurisdiction Entity**.

*The procedures, timelines, and flow chart provided in this section are typical approaches adopted by several MS4 entities. These should be carefully reviewed by the Jurisdiction Entity and revised based on each entity's preferences.*

*The number of copies required as part of the Stormwater Management Permit is a preference set by the Jurisdiction Entity.*

**Entity** and/or its plan review consultant(s). Once all comments have been received and review completed, the **Jurisdiction Entity** will either approve the project, request modifications or deny the project. If the applicant does not agree with or accept the review findings and wishes to seek an appeal, the **Jurisdiction Entity** will place the project on the agenda of the next regularly scheduled meeting of the **Jurisdiction Entity Permitting Board**, provided the agenda for the meeting has not yet been advertised or published. If time for notification does not allow, the project shall be placed on the following regularly scheduled meeting of the **Jurisdiction Entity Permitting Board**. If the project must go through a scheduled meeting, the **Jurisdiction Entity** will furnish the applicant a complete list of comments and objections to the plans and accompanying data prior to the scheduled meeting. After the scheduled meeting, the **Jurisdiction Entity** will either issue a permit, request modifications to the construction plans, or deny the project.

The project site owner must notify the **Jurisdiction Entity** and IDEM before beginning construction. Notification to the **Jurisdiction Entity** shall be in the form of an email while the notification to IDEM shall be in the form of an online IDEM NOI submittal. Once a permit has been issued and the pending construction notifications submitted to the **Jurisdiction Entity** and IDEM before the beginning of construction, construction may commence. Once construction starts, the project owner shall monitor construction activities and inspect all stormwater pollution prevention measures in compliance with this Ordinance and the terms and conditions of the approved permit. Upon completion of construction activities, a Certification of Completion and Compliance and as-built plans must be submitted to the **Jurisdiction Entity**. Once the construction site has been stabilized and all temporary erosion and sediment control measures have been removed, a notification shall be sent to the **Jurisdiction Entity**, requesting a termination inspection. The **Jurisdiction Entity**, or its representative, shall inspect the construction site to verify that the completed project is fully stabilized and meets the requirements of **Jurisdiction Entity**'s stormwater Ordinance and its technical standards and that the terms and conditions of the permit. Once the applicant receives a signed copy of the Termination Inspection Checklist confirming compliance, they must forward a copy to IDEM along with the required IDEM NOT form. Permits issued by the **Jurisdiction Entity** under this scenario will expire 5 years from the date of issuance. If construction is not completed within 5 years, an updated permit application must be submitted to the **Jurisdiction Entity** and an updated NOI must be resubmitted to IDEM at least 90 days prior to expiration.

*The online IDEM NOI submittal is only required for sites that are 1 acre or larger*

## 2. SWPPP Review Time Limits

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

- a. No SWPPP review notification received: If the review authority does not notify the applicant of its preliminary determination as to whether the construction plan is substantially complete within either 10 or 14 days as

noted above, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual, and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project.

- b. **SWPPP not substantially complete:** If the review authority notifies the applicant that the construction plan is not substantially complete, the project site owner may not submit a notice of intent letter to IDEM until the review authority makes a conclusive favorable determination concerning the construction plan under the IDEM rule/permit, or this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual.
- c. **Unfavorable SWPPP:** If the review authority notifies the applicant that the construction plan is substantially complete; and makes a conclusive unfavorable determination concerning the construction plan under IDEM rule/permit, or this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual, the project site owner may not submit a notice of intent letter to IDEM.
- d. **Preliminary SWPPP review:** If the review authority notifies the applicant that the construction plan is substantially complete and a preliminary review has been completed, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual, and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project. The plan review authority reserves the right to perform a comprehensive review at a later date, and revisions may be required at that time.
- e. **Conditional SWPPP review:** If the review authority notifies the applicant that the construction plan is substantially complete and a conditional review has been completed, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual, and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project provided that the requirements included in the conditional review are fulfilled.
- f. **Favorable SWPPP review:** If the review authority notifies the applicant that the construction plan is substantially complete and a preliminary review has been completed, the project site owner may submit a notice of intent letter to IDEM including the information required by IDEM, or this Ordinance and the **Jurisdiction Entity** Stormwater Technical Standards Manual, and 48 hours after the NOI is submitted to IDEM, may begin the construction project, including the land disturbing activities of the construction project.

*If the community is an MS4-designated community and/or has included the requirements in Section 4 (Stormwater Pollution Prevention for Construction Sites) of this Model Ordinance, then delete "the IDEM, or" in Paragraphs a, b, and c, since all the necessary requirements will be in the Ordinance and Standards*

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

### **(c) INFORMATION REQUIREMENTS**

Specific projects or activities may be exempt from all or part of the informational requirements listed below. Exemptions are detailed in the "Applicability and Exemptions" Sections of Sections 2 through 5. If a project or activity is exempt

from any or all requirements of this ordinance, an application should be filed listing the exemption criteria met, in lieu of the information requirements listed below. This level of detailed information is not required from individual lots, disturbing less than 1 acre of land, developed within a larger permitted project site. Review and acceptance of such lots is covered under Section (d).

The different elements of a permit submittal include an application checklist, construction plans, a stormwater drainage technical report, a stormwater pollution prevention plan for active construction sites, a post-construction stormwater pollution prevention plan, and any other necessary supporting information. All plans, reports, calculations, and narratives shall be signed and sealed by a professional engineer or a licensed surveyor, registered in the State of Indiana who also meets the definition of a Trained Individual found in Appendix A.

### **1. Application Checklist**

As part of the *Jurisdiction Entity* Stormwater Management Permit application package, the application checklist provided in the *Jurisdiction Entity* Stormwater Technical Standards Manual must be completed by the applicant and provided along with other required supporting material.

### **2. Construction Plans**

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

### **3. Stormwater Drainage Technical Report**

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

### **4. Stormwater Pollution Prevention Plan for Construction Sites**

For sites with total disturbance of one (1) acre or more, a stormwater pollution prevention plan associated with construction activities must be designed to, at least, meet the requirements of this Ordinance. The SWPPP and construction plans must include the items listed in the application checklist provided in the *Jurisdiction Entity* Stormwater Technical Standards Manual. For land disturbances totaling 10,000 square feet or more of land area but less than one

(1) acre, appropriate erosion and sediment control measures that are consistent with the **Jurisdiction Entity** Technical Standards must be designed and shown on the plans.

### 5. Post-Construction Stormwater Pollution Prevention Plan

For sites with total land disturbance of 10,000 square feet or more of total land area, a post-construction stormwater pollution prevention plan must be designed to, at least, meet the requirements of this Ordinance and must include the information provided in the **Jurisdiction Entity** Stormwater Technical Standards Manual. The post-construction stormwater pollution prevention plan must include items listed in the application checklist provided in the **Jurisdiction Entity** Stormwater Technical Standards Manual.

### (d) REVIEW OF INDIVIDUAL LOTS

For all individual lots disturbing 10,000 square feet or more but less than one (1) acre, a formal review and issuance of an Individual Lot Plot Plan Permit will be required before a building permit can be issued. Similarly, for individual lots disturbing less than 10,000 square feet of total land area, developed within a larger permitted project, a formal review and issuance of an Individual Lot Plot Plan Permit will be required before a building permit can be issued. All stormwater management measures necessary to comply with this Ordinance must be implemented in accordance with permitted plan for the larger project.

The following information must be submitted to the **Jurisdiction Entity**, for review and acceptance, by the individual lot operator, whether owning the property or acting as the agent of the property owner, as part of a request for review and issuance of an Individual Lot Plot Plan Permit that must be obtained prior to the issuance of a building permit.

*Although not currently included in the IDEM permit, the recommended practice for all jurisdictions is to adopt Individual Lot Plan Permit provisions stated in this model ordinance to safeguard against degradation of the quality of community's water resources as well as to protect adjacent lot owners from negative impacts from the individual lot being developed.*

- I. A site layout for the subject lot and all adjacent lots showing building pad location, dimensions, and elevations, and the drainage patterns and swales.
- II. Erosion and sediment control plan that, at a minimum, includes the following measures:
  1. Installation and maintenance of a stable construction site access.
  2. Installation and maintenance of appropriate perimeter erosion and sediment control measures prior to land disturbance.
  3. Minimization of sediment discharge and tracking from the lot.
  4. Clean-up of sediment that is either tracked or washed onto roads. Bulk clearing of sediment shall not include flushing the area with water. Cleared sediment must be redistributed or disposed of in a manner that is in compliance with all applicable statutes and rules.
  5. Implementation of concrete or cementitious wash water practices that securely contain and allow for the proper disposal of concrete or cementitious wash water.
  6. Adjacent lots disturbed by an individual lot operator must be repaired and stabilized with temporary or permanent surface stabilization.
  7. Self-monitoring program including plan and procedures.

Certification of Compliance stating that the individual lot plan is consistent with the Stormwater Management Permit, as approved by the **Jurisdiction Entity**, for the larger project (if the individual lot is part of a larger permitted project).

Name, address, telephone number, and list of qualifications of the trained individual in charge of the mandatory stormwater pollution prevention self-monitoring program for the project site.

The individual lot operator is responsible for installation and maintenance of all erosion and sediment control measures until the site is stabilized.

**(e) CHANGES TO PLANS**

Any changes or deviations in the detailed plans and specifications after approval of the applicable Stormwater Management Permit shall be filed with, and accepted by, the *Jurisdiction Entity* prior to the land development involving the change. Copies of the changes, if accepted, shall be attached to the original plans and specifications.

**(f) FEE STRUCTURE**

**1. FEE AMOUNT**

As a condition of the submittal and the review of development plans by the *Jurisdiction Entity*, the applicant shall agree to pay the *Jurisdiction Entity* the applicable fee, as set by the *Jurisdiction Entity* with respect to the review of all drainage submittals, preliminary plans, final plans, construction plans and accompanying information and data, as well as prepaid inspection fees.

**2. TIME OF PAYMENT**

After the meeting at which the *Jurisdiction Entity* is scheduled to consider acceptance of the applicant's final stormwater management plan, the *Jurisdiction Entity* will furnish a written statement to the applicant specifying the total amount due the *Jurisdiction Entity* in connection with the review of the applicant's submittals, plans and accompanying information and data, including the amount required to be paid by applicant for review and pre-paid inspection fees.

*This procedure should be modified if the entity has a set application fee that must be paid when the application is submitted.*

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

The *Jurisdiction Entity* shall have the right to not accept the drainage improvements or to not approve the advancement of any project for which the applicable fees have not been paid.

**3. METHOD OF PAYMENT**

Fees shall be paid by one of the following methods:

- Check
- Certified Check
- Cashier's Check
- Money Order

All checks shall be made payable to the: *Jurisdiction Entity's Address*

#### 4. REFUND OF PAYMENT

Fees are refundable **only** if the **Jurisdiction Entity** determines that compliance by the development or project to this Ordinance is not necessary.

#### 5. FEE SCHEDULE

Stormwater Permit Application and Inspection Fees will be in accordance with the fee schedule set by **Jurisdiction Entity** as a separate resolution.

### (g) REQUIRED ASSURANCES

This section shall apply to all projects whether the stormwater management system or portions thereof will be dedicated to the **Jurisdiction Entity** or retained privately. As a condition of approval and issuance of the permit, the **Jurisdiction Entity** shall require the applicant to provide assurance in form of an irrevocable letter of credit or a bond when the stormwater management plan has been accepted and before construction begins. Said assurance will guarantee a good faith execution of the stormwater drainage plan, the stormwater pollution prevention plan, the stormwater quality management plan, and any permit conditions. The assurance shall be for an amount equal to 125 percent of the total costs of all stormwater management measures for the entire project. The above-mentioned costs shall be based on an estimate as prepared by a registered engineer or land surveyor. Said costs shall be for the installation and ongoing monitoring and maintenance of erosion control measures and the construction and ongoing monitoring and maintenance of storm drainage infrastructure, detention/retention facilities, and stormwater quality BMP's, as regulated under this Ordinance, until the construction is completed, the site is stabilized, and as-built plans are accepted by the **Jurisdiction Entity**. Assurances shall be for a minimum of \$5,000. All other performance bonds, maintenance bonds or other assurances required by the **Jurisdiction Entity** in accordance with any and all other ordinances shall also apply and so be required. Local governmental jurisdictions may require additional performance and/or maintenance assurances. The intent of this assurance is not only to complete the installation of storm drain infrastructure for the project, but also to assure that adequate stormwater pollution prevention measures are properly installed and maintained. If adequate assurances are set aside by the project site owner for the overall project, proof of total assurance can be submitted in place of an individual stormwater assurance.

*The amount and specifics of assurances should be reviewed by entity's legal counsel and typical values provided here revised as appropriate for each entity.*

### (h) TERMS AND CONDITIONS OF PERMITS

In granting a Stormwater Management Permit, the **Jurisdiction Entity** may impose such terms and conditions as are reasonably necessary to meet the purposes of this Ordinance. The project site owner shall insure compliance with such terms and conditions. Non-compliance with the terms and conditions of permits will be subject to enforcement as described in Section 7.

The project site owner shall inform all general contractor, construction management firms, grading or excavating contractors, utility contractors, and the contractors that have primary oversight on individual building lots of the terms and conditions of the Stormwater Management Permit and the schedule for proposed implementation.

In the event that a project site is determined to impact or discharge to a Sensitive Area or is located in an Impact Drainage Area, the **Jurisdiction Entity** may require more stringent stormwater quantity and quality measures than detailed in this Ordinance or in the *Indiana Stormwater Quality Manual*.

### 1. Determination of Sensitive Areas

Sensitive Areas include highly erodible soils, wetlands, karst areas, threatened or endangered species habitat, outstanding waters, impaired waters, recreational waters, and surface drinking water sources. Any discharge from a stormwater practice that is a Class V injection well shall meet the Indiana groundwater quality standards and registered with US EPA as required by the IDEM. If wetlands are suspected on a site, a wetland delineation should be completed in accordance with the methodology established by the U.S. Army Corps of Engineers (COE). The need for the applicant to check for the presence of threatened or endangered species habitat will be determined on a case-by-case basis. Special terms and conditions for development determined to impact or discharge to any Sensitive Area shall be included in the Stormwater Management Permit.

### 2. Determination of Impact Drainage Areas

The following areas shall be designated as Impact Drainage Areas, unless good reason for not including them is presented to the **Jurisdiction Entity**.

- i. A floodway or floodplain as designated by the most updated FEMA Code dealing with floodplain regulation and/or by the Best Available Data through IDNR.
- ii. Land within 25 feet of each bank of any ditch within the Jurisdiction Entity's system.
- iii. Land within 15 feet of the centerline of any stormwater infrastructure or enclosed conduit within the Jurisdiction Entity's system.
- iv. Land within 75 feet of each bank of a county open regulated drain.
- v. Land within 50 feet of a natural drainageway.
- vi. Land within 75 feet of the centerline of any tiled regulated drain.
- vii. Land within the Fluvial Erosion Hazard (FEH) corridor.
- viii. Land within the expected breach inundation zone of an existing or proposed new dam, and areas protected from flooding by a levee.

*The setbacks noted in this subsection are suggested amounts based on experience with various entities. They may be changed by the Jurisdiction Entity to match their specific needs*

*Items vii and viii may be deleted if the entity does not wish to regulate FEH corridors or the dam and levee related provisions*

The **Jurisdiction Entity** or **Jurisdiction Entity** Engineer is authorized, but is not required, to classify certain geographical areas as Impact Drainage Areas. In determining Impact Drainage Areas, the **Jurisdiction Entity** may consider such factors as topography, soil type, capacity of existing drains, and distance from adequate drainage facility.

Land that does not have an adequate outlet, taking into consideration the capacity and depth of the outlet, may be designated as an Impact Drainage Area by the **Jurisdiction Entity**. Special terms and conditions for development within any Impact Drainage Area shall be included in the Stormwater Management Permit.



### 3. Determination of Designated Drainage Areas Served by Regional Facilities

The **Jurisdiction Entity** is authorized, but is not required, to classify certain geographical areas as Designated Drainage Areas that are or will be served by regional facilities, such as a regional pond. In such cases, an Infrastructure Development Fee (IDF) rate may be established for the Designated Drainage Area. The basis for determining such a fee for a proposed development or re-development within a Designated Drainage Area will be as detailed in the **Jurisdiction Entity** Stormwater Technical Standards Manual.

*Other alternatives, such as designating the area as an Impact Drainage Area and passing a resolution to set the fee have also been used by some jurisdictions and can be adopted by the entity as appropriate.*

#### (i) CERTIFICATION OF AS-BUILT PLANS

This section shall apply to all projects whether the stormwater management system or portions thereof will be dedicated to the **Jurisdiction Entity** or retained privately. After completion of construction of the project and before the release of required performance assurances referenced in Section (g) above, a professionally prepared and certified 'as-built' set of plans (record drawings) shall be submitted to the **Jurisdiction Entity** for review. These as-built plans/record drawings must be prepared and certified by the Engineer of Record, i.e., the company/engineer who originally prepared the construction plans. Additionally, a digital copy of the 'as-built' plans (record drawings) as well as finalized digital versions of all analyses, models, manuals, and reports that are consistent with the as-built conditions is required in a format acceptable to the **Jurisdiction Entity**. These plans shall include all pertinent data relevant to the completed storm drainage system and stormwater management facilities, and shall include:

1. Pipe size and pipe material
2. Invert elevations
3. Top rim elevations
4. Elevation of the emergency overflow (spillway) for ponds
5. Grades along the emergency flood routing path(s)
6. Pipe structure lengths
7. BMP types, dimensions, and boundaries/easements
8. "As-planted" plans for BMP's, as applicable
9. Data and calculations showing detention basin storage volume
10. Data and calculations showing BMP treatment capacity
11. Certified statement on plans stating the completed storm drainage system and stormwater management facilities substantially comply with construction plans and the Stormwater Management Permit as approved by the **Jurisdiction Entity**. (See certificate in the Stormwater Technical Standards Manual.

#### (j) POST-PROJECT MAINTENANCE BOND AND VERIFICATIONS

In addition to as-built plans and the certification of completion and compliance, following the release of performance assurances, the property owner, developer, or contractor shall be required to file a two-year maintenance bond or other acceptable guarantee with the **Jurisdiction Entity** in an amount not to exceed twenty five percent (25%) of the cost of the stormwater management system

*The duration of maintenance bond or assurances typically is between 2 and 5 years.*

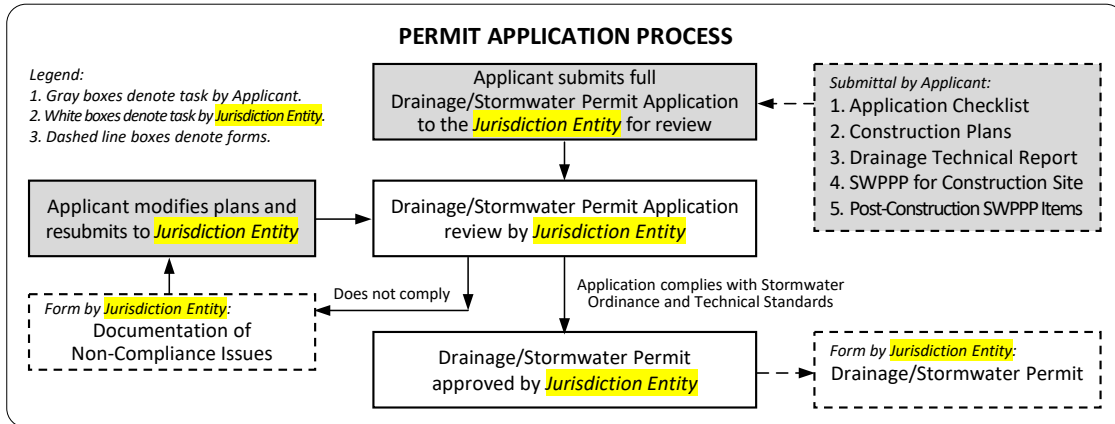
located outside the public road rights-of-way, and in a form satisfactory to the **Jurisdiction Entity** in order to assure that such stormwater system installation was done according to standards of good workmanship, that the materials used in the construction and installation were of good quality and construction, and that such project was done in accordance with the accepted plans, and this Ordinance and that any off-site drainage problems that may arise, whether upstream or downstream of such project, will be corrected if such drainage problems are determined by **Jurisdiction Entity** to have been caused by the development of such project. The bond or other acceptable guarantee shall be in effect for a period of two years after the date of the release of required performance assurances referenced in Section (g) above. The beneficiary of all maintenance bonds shall be the **Jurisdiction Entity** Council of the **Jurisdiction Entity**.

To verify that all stormwater infrastructure is functioning properly, visual recordings (via closed circuit television) of such infrastructure, including all subsurface drains, shall be required twice, once following the completion of installation of the stormwater management system and submittal of as-builts, and the second time before release of maintenance bonds. These visual recordings will be scheduled by the **Jurisdiction Entity** and paid for by the developer. Notices shall be provided to the **Jurisdiction Entity** within 72 hours following the completion of installation and again at least 60 days prior to the expiration date of the maintenance bond so that the noted recordings may be scheduled. Reports summarizing the results of the noted visual recordings shall be reviewed and accepted by the **Jurisdiction Entity** before the plat is recommended for recording and again before the maintenance bond shall be recommended to be released.

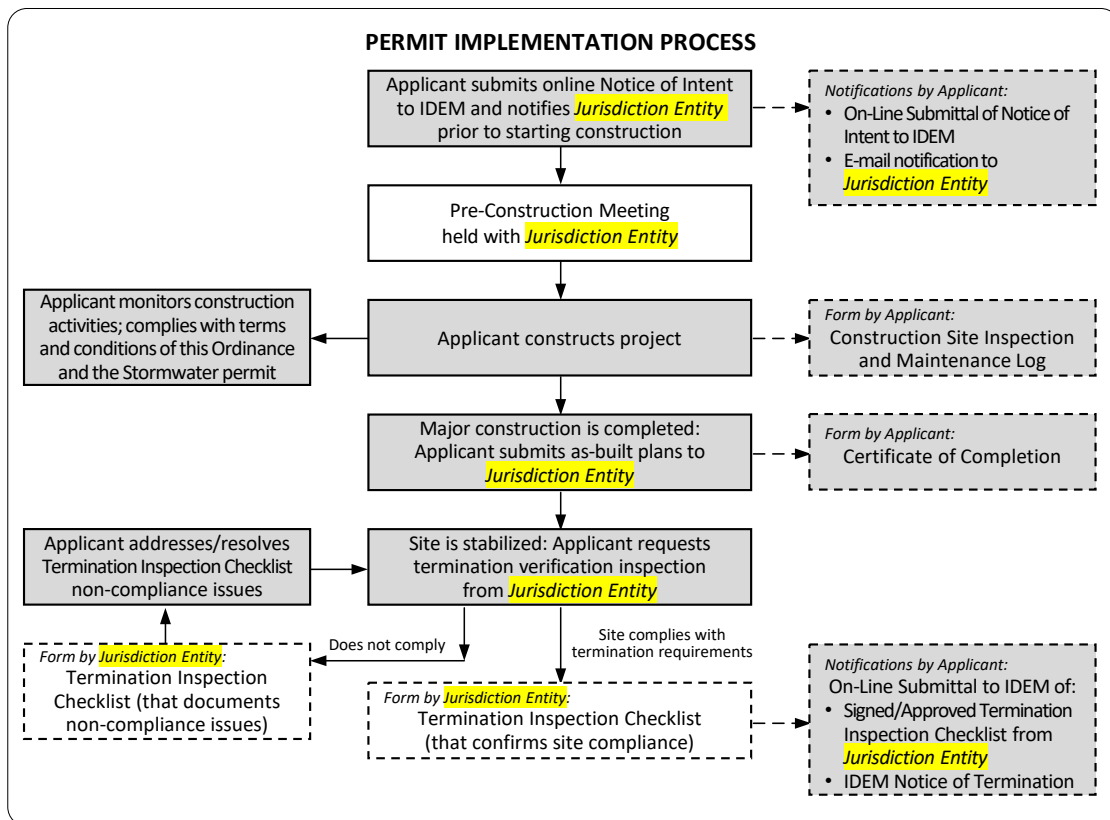
*This provision is optional and typically used by entities that take the storm sewer system as a regulated drain system*

Additional requirements for transfer of any applicable stormwater BMP Maintenance Agreement, O&M Maintenance Manual, and Maintenance Escrow accounts to subsequent owners prior to release of the maintenance bond is discussed in Section 5 of this ordinance.

**Figure 1: Permit Approval and Project Termination Sign-off Process**



*This chart is typical for an MS4 entity. Non-MS4 entities who do not wish to voluntarily adopt prudent higher standards may need to revise parts of this chart as appropriate. For convenience, the chart is formatted as an editable PowerPoint object. Double-click the chart to edit the PowerPoint slide*



*In non-MS4 communities, IDEM may still require an IDEM-sanctioned entity to perform the plan review as required by the IDEM CSGP*

*In non-MS4 communities, IDEM may still require an IDEM-sanctioned entity to perform the NOT inspections as required by the IDEM CSGP*

## SECTION 7

# Compliance and Enforcement

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### (a) COMPLIANCE WITH THIS ORDINANCE

To secure compliance with the requirements of this Ordinance, violations thereof shall be subject to the enforcement provisions set forth under (b) following. Additionally, compliance with the requirements set forth in the local Zoning Ordinances is also necessary. Compliance with all applicable ordinances of the **Jurisdiction Entity** as well as with applicable State of Indiana statues and regulations shall also be required. Unless otherwise stated, all other specifications referred to in this Ordinance shall be the most recent edition available.

#### 1. Definitions

- i. **Violation.** Any action or inaction which violates the provisions of this Ordinance, the requirements of an approved stormwater management design plan or permit, and/or the requirements of a recorded stormwater maintenance agreement may be subject to the enforcement actions outlined in this Section. Any such action or inaction is deemed to be a public nuisance and may be abated by injunctive or other equitable relief, in addition to and separate from the imposition of any of the enforcement actions described below.
- ii. **Compliance.** The act of correcting a violation or violations within the time frame specified by the **Jurisdiction Entity**.
- iii. **Offence.** Both a violation and a failure of compliance on a particular project constitute an "offense." If there are multiple violations or multiple failures of compliance on the same project, each shall be considered a separate offense as further stated in section (b)(3).

#### 2. Warning Notice

When the **Jurisdiction Entity** finds that any person has violated, or continues to violate, any provision of this ordinance, or any order issued hereunder, the **Jurisdiction Entity** may serve upon that person a written Warning Notice, specifying the particular violation believed to have occurred and requesting the discharger to immediately investigate the matter and to seek a resolution whereby any offending discharge will cease. Investigation and/or resolution of the matter in response to the Warning Notice in no way relieves the alleged violator of liability for any violations occurring before or after receipt of the Warning Notice. Nothing in this subsection shall limit the authority of the **Jurisdiction Entity** to take any action, including emergency action or any other enforcement action, without first issuing a Warning Notice.

### (b) ENFORCEMENT OF THIS ORDINANCE

#### 1. Notice of Violation/Citation

If the **Jurisdiction Entity** determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management design plan, a recorded stormwater management maintenance agreement, or the provisions of this ordinance, it shall issue a written Notice of Violation to such applicant or other responsible person and the owner of the property. Where a person is engaged in activity covered by this ordinance without having first secured a permit therefore, the notice of violation shall be

served on the owner or the responsible person in charge of the activity being conducted on the site.

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

**2. Compensatory Action**

In lieu of enforcement proceedings, penalties, and remedies authorized by this ordinance, the **Jurisdiction Entity** may impose upon a violator, alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, public education, etc.

**3. Civil Penalties for Violations**

Any person who commits an offense under this Ordinance commits a civil infraction subject to a fine not to exceed \$2,500 for each offense, plus costs, damages, and expenses. Each day such violation occurs or continues without a compliance action that is satisfactory to the **Jurisdiction Entity** may be deemed a separate offense and shall make the violator liable for the imposition of a fine for each day. The rights and remedies provided for in this section are cumulative and in addition to any other remedies provided by law. An admission or determination of responsibility shall not exempt the offender from compliance with the requirements of this Ordinance.

*The amount of maximum fine noted may be changed by the Jurisdiction Entity to match their specific needs*

Any person who aids or abets a person in a violation of this Ordinance shall be subject to the penalties provided in this section.

The **Jurisdiction Entity** has established an Enforcement Response Schedule as noted in the table below that standardizes the approach that the **Jurisdiction Entity** may, in its discretion, employ in dealing with stormwater regulations offenses subject to this Ordinance and the associated Technical Standards document. When so employed, this Schedule shall apply separately to each offense in the following manner: The first offense is the underlying violation itself, while the subsequent offenses 2 thru 8 (as necessary) are failures of compliance.

*The table below should be reviewed and revised as appropriate by each entity*

Offence #	Type of Response Anticipated
1 <sup>st</sup> offense	Verbal Telephone Notice, Letter of Violation or Written Warning and Administrative Penalty
2 <sup>nd</sup> offense	Letter of Violation, Administrative Penalty and/or Site Visit
3 <sup>rd</sup> offense	Letter of Violation, Administrative Penalty and/or Site Visit
4 <sup>th</sup> offense	Letter of Violation, Administrative Penalty and/or Site Visit
5 <sup>th</sup> offense	Agreed Order, Administrative Penalty and/or Site Visit
6 <sup>th</sup> offense	Administrative Order, Administrative Penalty and/or Site Visit
7 <sup>th</sup> offense	Compliance Schedule, Administrative Penalty and/or Site Visit
8 <sup>th</sup> offense	Litigation and Administrative Penalty

Likewise, in order to standardize the approach that the **Jurisdiction Entity** may, in its discretion, employ in the imposition of Administrative Penalties, the **Jurisdiction Entity** has established the following Schedule of Administrative Penalties. Again, the penalty for the 1st offense would apply to the violation itself, while the subsequent penalties 2 through 4 (as necessary) would apply to failures of

compliance. In its discretion, the **Jurisdiction Entity** may impose penalties up to the amount specified in this Schedule.

Offence #	Penalty
1 <sup>st</sup> offense	\$250.00
2 <sup>nd</sup> offense	\$500.00
3 <sup>rd</sup> offense	\$1,000.00
4 <sup>th</sup> offense	\$2,500.00

*The amount of penalty/fine noted in this table may be changed by the Jurisdiction Entity to match their specific needs*

#### 4. Stop Work Order

In addition to the penalties listed above, if land disturbance activities are conducted contrary to the provisions of this Ordinance or accepted final stormwater management plans, the **Jurisdiction Entity** may order the work stopped by notice in writing served on any person engaged in the doing or causing of such work to be done, and any such persons shall forthwith stop such work until authorized by the **Jurisdiction Entity** to proceed with the work. A Stop Work Order will be posted on the site by the **Jurisdiction Entity** and it is unlawful for any person to remove the notice or continue any work on the site without permission from the **Jurisdiction Entity**. The **Jurisdiction Entity** may also undertake or cause to be undertaken, any necessary or advisable protective measures to prevent violations of this Ordinance or to avoid or reduce the effects of noncompliance herewith. The cost of any such protective measures shall be the responsibility of the owner of the property upon which the work is being done and the responsibility of any person carrying out or participating in the work.

The **Jurisdiction Entity** may bring an action under IC 34-28-5-1 (b), to be read together with IC 34-6-2-86(1)(B) and 13-21-3-12(4), to enforce a stop work order against any person who neglects or fails to comply with a stop work order.

For construction projects that are operating under a SWPPP approved by the **Jurisdiction Entity**, if a Stop Work Order is issued on the grounds that the erosion and sediment control measures included in the construction plan are not adequate, the project site owner must be notified in writing of the inadequacies in the erosion and sediment control measures and the project site owner has seventy-two (72) hours after receiving written notice to resolve the identified inadequacies before the Stop Work Order can take effect.

The seventy-two (72) hour period to resolve identified inadequacies on a construction project does not apply if the Stop Work Order is issued to a construction project where the project site owner is creating a public health hazard or safety hazard.

#### 5. Withhold Certificate of Occupancy

The **Jurisdiction Entity** may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise satisfied the requirements of this ordinance as determined by the **Jurisdiction Entity**.

#### 6. Suspension, Revocation, or Modification of Permits

The **Jurisdiction Entity** may suspend, revoke, or modify any existing permit that the violator may also have been previously granted. A suspended, revoked, or modified permit may be reinstated after the applicant or other responsible person

has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the **Jurisdiction Entity** may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

## **7. Suspension of Access to the Stormwater Drainage System**

### **i. Emergency Cease and Desist Orders**

When the **Jurisdiction Entity** finds that any person has violated, or continues to violate, any provision of this ordinance, or any order issued hereunder, or that the person's past violations are likely to recur, and that the person's violation(s) has (have) caused or contributed to an actual or threatened discharge to the MS4 or waters of the United States which reasonably appears to present an imminent or substantial endangerment to the health or welfare of persons or to the environment, the **Jurisdiction Entity** may issue an order to the violator directing it immediately to cease and desist all such violations and directing the violator to immediately comply with all ordinance requirements and take such appropriate preventive action as may be needed to properly address a continuing or threatened violation, including immediately halting operations and/or terminating the discharge.

Any person notified of an emergency order directed to it under this Subsection shall immediately comply and stop or eliminate its endangering discharge. In the event of a discharger's failure to immediately comply voluntarily with the emergency order, the **Jurisdiction Entity** may commence court action against such person under IC 34-28-5-1 (b), to be read together with IC 34-6-2-86(1)(B) and 13-21-3-12(4), to enforce a stop work order.

The **Jurisdiction Entity** may allow the person to recommence its discharge when it has demonstrated to the satisfaction of the **Jurisdiction Entity** that the period of endangerment has passed, unless further termination proceedings are initiated against the discharger under this ordinance. A person that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful discharge and the measures taken to prevent any future occurrence, to the **Jurisdiction Entity** within 5 days of receipt of the emergency order. Issuance of an emergency cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the violator.

### **ii. Suspension Due to Illicit Discharges in Emergency Situations**

The **Jurisdiction Entity** may, without prior notice, suspend stormwater drainage system discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the stormwater drainage system or waters of the state if the violator fails to comply with a suspension order issued in an emergency, the **Jurisdiction Entity** may take such steps as deemed necessary to prevent or minimize damage to the stormwater drainage system or waters of the state, or to minimize danger to persons.

### **iii. Suspension Due to the Detection of Illicit Discharge**

Any person discharging to the stormwater drainage system in violation of this ordinance may have their stormwater drainage system access terminated if such

termination would abate or reduce an illicit discharge. The **Jurisdiction Entity** will notify a violator of the proposed termination of its stormwater drainage system access. The violator may petition the **Jurisdiction Entity** for a reconsideration and hearing. A person commits an offense if the person reinstates stormwater drainage system access to premises terminated pursuant to this Section, without the prior approval of the **Jurisdiction Entity**.

### (c) COST OF ABATEMENT OF THE VIOLATION

In addition to any other remedies, should any owner fail to comply with the provisions of this ordinance, the **Jurisdiction Entity** may, after giving notice and opportunity for compliance, have the necessary work done, and the owner shall be required to promptly reimburse the **Jurisdiction Entity** for all costs of such work.

Nothing herein contained shall prevent the **Jurisdiction Entity** from taking such other lawful action as may be necessary to prevent or remedy any violation. All costs connected therewith shall accrue to the person or persons responsible. Costs include, but are not limited to, repairs to the stormwater drainage system made necessary by the violation, as well as those penalties levied by the EPA or IDEM for violation of the **Jurisdiction Entity**'s NPDES permit, administrative costs, attorney fees, court costs, and other costs and expenses associated with the enforcement of this Ordinance, including sampling and monitoring expenses.

If the amount due for abatement of the violation is not paid within a timely manner as determined by the decision of the **Jurisdiction Entity** or by the expiration of the time in which to file an appeal, the **Jurisdiction Entity** may commence a court action to recover the costs assessed under IC 34-28-5-1 (b), to be read together with IC 34-6-2-86(1)(B) and 13-21-3-12(4).

### (d) APPEALS

#### 1. Appeal of Notice of Violation

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

- i. The application of the Ordinance provisions being appealed will present or cause practical difficulties for a development or development site; provided, however, that practical difficulties shall not include the need for the developer to incur additional reasonable expenses in order to comply with the Ordinance; and



- ii. The granting of the relief requested will not substantially prevent the goals and purposes of this Ordinance, nor result in less effective management of stormwater runoff.
- iii. Any person who has appealed a violation to the *appropriate board* may appeal an adverse decision of the Board to the *Jurisdiction Entity's County* court within 60 days of the Boards order, all pursuant to IC 36-1-6-9 (e) & (f).

## **2. Enforcement Measures After Appeal**

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 5 days of the decision of the *appropriate board* upholding the decision of the *Jurisdiction Entity*, then representatives of the *Jurisdiction Entity* shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property, including the commencing of a court action under IC 34-28-5-1 (b), to be read together with IC 34-6-2-86(1)(B) and 13-21-3-12(4), to enforce the order of the *appropriate board*.



# Abbreviations and Definitions

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(a) **ABBREVIATIONS**

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

(b) **DEFINITIONS**

**Agricultural land disturbing activity.** Tillage, planting, cultivation, or harvesting operations for the production of 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.

**Base Flow.** Stream discharge derived from groundwater sources as differentiated from surface runoff. Sometimes considered to include flows from regulated lakes or reservoirs.

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

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

**Capacity (of a Storm Drainage Facility).** The maximum flow that can be conveyed or stored by a storm drainage facility without causing damage to public or private property.

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

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

**Compliance.** The act of correcting a violation or violations within the time frame specified by the **Jurisdiction Entity**.

**Comprehensive Stormwater Management.** A comprehensive stormwater program for effective management of stormwater quantity and quality throughout the community.

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

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

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

**Construction Support Activities.** Include but are not limited to the following: concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas. Such activities must not support multiple, unrelated projects, be a commercial/industrial operation, or continue to operate beyond the completion of the construction activity for the project it supports.

**Contiguous.** Adjoining or in actual contact with.

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

**Contour Line.** Line on a map which represents a contour or points of equal elevation.

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

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

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

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

**Dechlorinated swimming pool discharge.** Chlorinated water that has either sat idle for seven (7) 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.

**Design Storm.** A selected storm event, described in terms of the probability of occurring once within a given number of years, for which drainage or flood control improvements are designed and built.

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

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

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

**Detention Time.** The theoretical time required to displace the contents of a tank or unit at a given rate of discharge (volume divided by rate of discharge).

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

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

**Development.** Any man-made change to improved or unimproved real estate including but not limited to:

- i. Construction, reconstruction, or placement of a building or any addition to a building;
- ii. Construction of flood control structures such as levees, dikes, dams or channel improvements;
- iii. Construction or reconstruction of bridges or culverts;
- iv. Installing a manufactured home on a site, preparing a site for a manufactured home, or installing a recreational vehicle on a site for more than hundred eight (180) days;
- v. Installing utilities, erection of walls, construction of roads, or similar projects;
- vi. Mining, dredging, filling, grading, excavation, or drilling operations;
- vii. Storage of materials; or

- viii. Any other activity that might change the direction, height, or velocity of flood or surface waters.

“Development” does not include activities such as the maintenance of existing buildings and facilities such as painting, re-roofing, resurfacing roads, or gardening, plowing and similar agricultural practices that do not involve filling, grading, excavation, or the construction of permanent buildings.

**Discharge.** In the context of water quantity provisions, usually the rate of water flow. A volume of fluid passing a point per unit time commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, or millions of gallons per day. In the context of water quality provisions, the discharge means any addition of liquids or solids to a water body or a flow conveyance facility

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

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

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

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

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

**Dry Well.** A type of infiltration practice that allows stormwater runoff to flow directly into the ground via a bored or otherwise excavated opening in the ground surface.

**Duration.** The time period of a rainfall event.

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

**Erodibility Index (EI).** The soil erodibility index (EI) provides a numerical expression of the potential for a soil to erode considering the physical and chemical properties of the soil and the climatic conditions where it is located. The higher the index, the greater the investment needed to maintain the sustainability of the soil resource base if intensively cropped. It is defined to be the maximum of  $(R \times K \times LS) / T$  (from the Universal Soil Loss Equation) and  $(C \times I) / T$  (from the Wind Erosion Equation), where R is a measure of rainfall and runoff, K is a factor of the susceptibility of the soil to water erosion, LS is a measure of the combined effects of slope length and steepness, C is a climatic characterization of windspeed and surface soil moisture and I is a measure of the susceptibility of the soil to wind erosion. Erodibility Index scores equal to or greater than 8 are considered highly erodible land.

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

- *Accelerated erosion*--Erosion much more rapid than normal or geologic erosion, primarily as a result of the activities of man.
- *Channel erosion* --An erosion process whereby the volume and velocity of flow wears away the bed and/or banks of a well-defined channel.
- *Gully erosion* --An erosion process whereby runoff water accumulates in narrow channels and, over relatively short periods, removes the soil to considerable depths, ranging from 1-2 ft. to as much as 75-100 ft.
- *Rill erosion*--An erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed and exposed soils (see Rill).
- *Splash erosion*--The spattering of small soil particles caused by the impact of raindrops on wet soils; the loosened and spattered particles may or may not be subsequently removed by surface runoff.
- *Sheet erosion*--The gradual removal of a fairly uniform layer of soil from the land surface by runoff water.

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

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

**Floatable.** Any solid waste that will float on the surface of the water.

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

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

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

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

**Fluvial Erosion Hazard (FEH) Corridor.** Fluvial Erosion Hazard corridors represent the areas along the streams (including the channel and immediate overbanks areas) that are believed to be subject to stream movement or streambank erosion. These corridors have been delineated for most actively migrating and relatively stationary streams in Indiana through an Indiana Silver Jackets initiative.

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

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

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

**Geographical Information System.** A computer system capable of assembling, storing, manipulation, and displaying geographically referenced information. This technology can be used for resource management and development planning.

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

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

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

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

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

**Highly Erodible Land (HEL).** Land that has an erodibility index of eight or more.

**Hot Spot Development.** Projects involving land uses considered to be high pollutant producers such as vehicle service and maintenance facilities, vehicle salvage yards and recycling facilities, vehicle and equipment cleaning facilities, fleet storage areas for buses, trucks, etc., industrial/commercial or any hazardous waste storage areas or areas that generate such wastes, industrial sites, restaurants and convenience stores, any activity involving chemical mixing or loading/unloading, outdoor liquid container storage, public works storage areas,

commercial container nurseries, and some high traffic retail uses characterized by frequent vehicle turnover.

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

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

**Illicit Discharge.** Any discharge to a conveyance that is not composed entirely of stormwater except naturally occurring floatables, such as leaves or tree limbs. Illicit discharges include polluted flows from direct and indirect connections to the MS4 conveyance, illegal dumping, and contaminated runoff.

**Impaired Waters.** Waters that do not or are not expected to meet applicable water quality standards, as included on IDEM's CWA Section 303(d) List of Impaired Waters.

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

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

**Individual lot operator.** A contractor or subcontractor working on an individual lot.

**Individual lot owner.** A person who has financial control of construction activities for an individual lot.

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

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

**Land-disturbing Activity.** Any man-made change of the land surface, including removing vegetative cover that exposes the underlying soil, excavating, filling, transporting and grading.

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

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



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

**Lowest Floor.** Refers to the lowest of the following:

- i. The top of the basement floor;
- ii. The top of the garage floor, if the garage is the lowest level of the building;
- iii. The top of the first floor of buildings constructed on a slab or of buildings elevated on pilings or constructed on a crawl space with permanent openings; or
- iv. The top of the floor level of any enclosure below an elevated building where the walls of the enclosure provide any resistance to the flow of flood waters unless:
  1. The walls are designed to automatically equalize the hydrostatic flood forces on the walls by allowing for the entry and exit of flood waters, by providing a minimum of two opening (in addition to doorways and windows) having a total area of one (1) square foot for every two (2) square feet of enclosed area subject to flooding. The bottom of all such openings shall be no higher than one (1) foot above grade.
  2. Such enclosed space shall be usable only for the parking of vehicles or building access.

**Manhole.** Storm drain structure through which a person may enter to gain access to an underground storm drain or enclosed structure.

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

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

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

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

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

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

**Offense.** Both a violation and a failure of compliance on a particular project. If there are multiple violations or multiple failures of compliance on the same project, each shall be considered a separate Offense.

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

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

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

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

**Peak Discharge (or Peak Flow).** The maximum instantaneous flow from a given storm condition at a specific location.

**Percolation.** The movement of water through soil.

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

**Pervious.** Allowing movement of water.

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

**Porous pavement.** A type of infiltration practice to improve the quality and reduce the quantity of stormwater runoff via the use of manmade, pervious pavement which allows runoff to percolate through the pavement and into underlying soils

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

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

**Project site owner.** The person required to submit a stormwater permit application 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 specifications, including the ability to make modifications to those plans and specifications.

**Rain garden.** A vegetative practice used to alter impervious surfaces, such as roofs, into pervious surfaces for absorption and treatment of rainfall.

**Receiving Stream, Receiving Channel, or Receiving Water.** 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.** Replenishment of groundwater reservoirs by infiltration and transmission from the outcrop of an aquifer or from permeable soils.

**Redevelopment.** Development occurring on a previously developed site.

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

**Regional Pond.** A detention/retention basin sized to detain/retain the runoff from the entire watershed, on-site and off-site, tributary to the pond's outlet.

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

Regulatory Floodway. See Floodway.

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

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

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

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

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

**Riparian zone.** Of, on, or pertaining to the banks of a stream, river, or pond.

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

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

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

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

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

**Sensitive Water.** A waterbody is in need of priority protection or remediation based on its:

- i. Providing habitat for threatened or endangered species,
- ii. Usage as a public water supply intake,
- iii. Relevant community value,
- iv. Usage for full body contact recreation,
- v. exceptional use classification as found in 327 IAC 2-1-11(b),
- vi. Outstanding state resource water classification as found in 327 IAC 2-1-2(3) and 327 IAC 2-1.5-19(b).

**Silvicultural.** the practice of controlling the establishment, growth, composition, health, and quality of forests to meet diverse needs and values.

- i. Nonpoint activities include source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. Some of these activities (such as stream crossing for roads) may involve the placement of dredged or fill material which may require a CWA section 404 permit and a 401 Water Quality Certification.
- ii. Point source activities include any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States or the State.

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

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

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

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

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

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

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

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

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

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

**Stormwater Management System.** A collection of structural and non-structural practices and infrastructure designed to manage stormwater on a site. This system may include but is not limited to erosion control measures, storm drainage infrastructure, detention/retention facilities, and stormwater quality BMP's.

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

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

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

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

**Stormwater Drainage System.** 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.

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

**Subdivision, Major.** Any land that is divided or proposed to be divided into four (4) or more lots, whether contiguous or subject to zoning requirements, for the purpose of sale or lease as part of a larger common plan of development or sale.

**Subdivision, Minor.** Any land that is divided or proposed to be divided into less than four (4) lots, whether contiguous or subject to zoning requirements, for the purpose of sale or lease as part of a larger common plan of development or sale.

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

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

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

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

**Tile Drain.** Pipe made of perforated plastic, burned clay, concrete, or similar material, laid to a designed grade and depth, to collect and carry excess water from the soil.

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

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

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

**Urban Drain.** A drain defined as “Urban Drain” in Indiana Drainage Code.

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

**Vegetated swale.** A type of vegetative practice used to filter stormwater runoff via a vegetated, shallow-channel conveyance.

**Vegetated swale.** A type of vegetative practice used to filter stormwater runoff via a vegetated, shallow-channel conveyance.

**Violation.** Any action or inaction which violates the provisions of this Ordinance or the Technical Standards, the requirements of an approved stormwater management design plan or permit, and/or the requirements of a recorded stormwater maintenance agreement may be subject to the enforcement actions outlined in Section 7 of this Ordinance. Any such action or inaction is deemed to

be a public nuisance and may be abated by injunctive or other equitable relief in addition to, and separate from, the imposition of any of the enforcement actions described in Section 7 of this Ordinance.

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

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

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

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

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

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

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