STORMWATER MANAGEMENT ORDINANCE
CITY OF MADISON, INDIANA

Abbreviated Table of Contents

SECTION 1
General Information

(a) AUTHORITY AND TITLE

This Ordinance is adopted in accordance with statutory authority granted to the City of Madison 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:

1. Discharges of prohibited non-stormwater flows or connections into the public stormwater system and Waters of the State.
2. Stormwater improvements related to development or redevelopment of properties under the jurisdiction of the City of Madison.
3. Temporary and permanent stormwater facilities installed during construction and grading of lots and other parcels of land.
4. Erosion prevention and sediment control measures implemented during construction.
5. The design, construction, and maintenance of stormwater drainage facilities, including collection, conveyance, and treatment systems, and their appurtenances.
6. The design, construction, and maintenance of stormwater quality facilities and systems.

This Ordinance shall be known and may be cited as the City of Madison Stormwater Management Ordinance. Once adopted, this Ordinance will supersede previously adopted regulations by the City of Madison. In instances of conflicts with other regulations, the more stringent standard shall apply.

This Ordinance shall apply to any Development or Construction plan that is submitted to the City of Madison for permit after January 1st, 2025. Any plans submitted to any Department prior to the passing of this ordinance shall be subject to all previously approved ordinances and regulations in existence at time of filling.

(b) APPLICABILITY AND EXEMPTIONS

This Ordinance shall regulate all development and redevelopment occurring within the City of Madison. 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 City of Madison. With the exception of the requirements of Section 2 of this Ordinance, single-family dwelling houses and duplexes in accepted subdivisions, and land-disturbing activities affecting less than one (1) acre of area shall be exempt from the requirements of this Ordinance. Also exempt from this Ordinance shall be agricultural land-disturbing activities unless specific to illicit discharges, dumping, or related work to an agricultural use.

In addition to the requirements of this Ordinance and its companion Stormwater Design Guide, compliance with all applicable ordinances of the City of Madison as well as with applicable Federal, State of Indiana, and other 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. The City of Madison capital improvement projects shall be

exempt from obtaining a permit but are expected to meet all applicable technical requirements of this Ordinance and the City of Madison Stormwater Design Guide.
Any construction project which has had its final drainage plan accepted by the City of Madison within a two (2) year period prior to the effective date of this Ordinance shall be exempt from 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 City of Madison has the authority to increase, modify, grant exemptions, and/or waive certain requirements of this Ordinance when supported by sound engineering and integration with community planning practices. A pre-submittal meeting with the City of Madison may be requested by the applicant to discuss the applicability of various provisions of the Ordinance and its associated design guide 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 City of Madison that may be based on the review of more detailed information and plans.

(c) FINDINGS

The City of Madison finds that:

1. Water bodies, roadways, structures, and other property within the City of Madison 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, and when not properly designed and built results in increased stormwater runoff rates and volumes, increased flooding, increased stream channel erosion, adverse impacts to habitat and natural resources, 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 City of Madison will, absent reasonable regulation and control, adversely affect the City of Madison's water bodies, water resources, and overall quality of life;
6. Pollutant contributions from illicit discharges within the City of Madison will, absent reasonable regulation, monitoring, and enforcement, adversely affect the City of Madison’s water bodies, water resources, and overall quality of life;
7. Stormwater runoff, soil erosion, non-point source pollution, and illicit discharges can be controlled and minimized by the regulation of stormwater management;
8. Adopting and implementing standards, criteria, and procedures contained and referenced in this Ordinance will help reduce deleterious effects of stormwater runoff and illicit discharges;
9. Adopting and enforcing this Ordinance is necessary for the preservation of the public health, safety, and welfare, for the conservation of natural resources, and for compliance with certain 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 City of Madison 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 City of Madison. This Ordinance establishes methods for managing the quantity and quality of stormwater entering into the stormwater system associated with developments and illicit discharges in order to comply with State and Federal regulations. The objectives of this Ordinance are:

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

(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 City of Madison 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 City of Madison to qualified persons or entities acting in the beneficial interest or in the employ of the City of Madison.

(g) INTERPRETATION

Words and phrases in this Ordinance shall be construed according to their common and accepted meanings, except those words and phrases defined in Appendix A. 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 and industry standards.

(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 City of

Madison 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 the City of Madison has reviewed the material produced and submitted by the applicant or his/her agents for general compliance with this Ordinance and the City of Madison Stormwater Design Guide, 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 design engineer has followed all appropriate engineering methods in the design. Situations may arise where designs and construction practices must go beyond the requirements of these regulations in order to adequately protect public safety and the environment. Any stormwater quantity (volume or flow) or quality problems associated with the project caused by poor construction and/or poor engineering design or judgment, either on-site or off-site, are the responsibility of the developer and the design engineer.

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. The City of Madison and its officials and representatives shall not be responsible for maintenance nor liable for any accidents.

SECTION 2
Prohibited Discharges and Connections

(a) APPLICABILITY AND EXEMPTIONS

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

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 (BMPs).

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

The City of Madison is authorized to require dischargers to implement pollution prevention measures, utilizing BMP's necessary to prevent or reduce the discharge of pollutants into the City of Madison'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:

1. Water line and hydrant flushing for maintenance;
2. Discharges from potable water sources;
3. Discharges from emergency firefighting activities;
4. Landscape irrigation and lawn watering;
5. Diverted streamflows;
6. Rising ground waters;

7. Irrigation water;
8. Springs;
9. Flows from riparian habitats and wetlands;
10. Naturally introduced detritus (e.g. leaves and twigs);
11. Uncontaminated groundwater infiltration;
12. Uncontaminated pumped ground water;
13. Uncontaminated footing, foundation, and crawl space drains;
14. Water from crawl space pumps;
15. Uncontaminated condensate from air conditioning units, coolers, and other compressors, and from outside storage of refrigerated gases or liquids;
16. Water from residential or non-commercial car washing by community organizations used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
17. Dechlorinated/debromated residential swimming pool discharges not including discharges from saltwater swimming pools;
18. Excess uncontaminated storm sewer cleaning water not collected by vacuum truck;
19. Pavement wash water, provided spills or leaks of toxic or hazardous materials have not occurred and where detergents are not used; and
20. 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

The city is not responsible for routine maintenance of unimproved channels. 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. Specifically, the owner or lessee is required to maintain and trim their own watercourses. 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.

It is important from a public policy standpoint to differentiate between public and private drainage since many complaints received are actually the responsibility of individual landowners. For the purposes of this Ordinance, the two shall be defined as follows:

1. Private Drainage is defined as drainage which is located on private property within an unimproved channel and does not involve a public drainage easement or right-of-way. Some private drainage may extend onto multiple properties and where the maintenance was not specified on the subdivision plats or other legal documents, those drainage facilities and their maintenance also falls within responsibility of the individual landowners.

2. Public Drainage is defined as drainage involving a public drainage easement or is located in an improved channel within the city's right of way. Public Drainage infrastructure includes pipes, curb inlets, grates, and basins.

(f) SPILL REPORTING

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

1. The composition of the discharge and the cause thereof;
2. The date, time, and estimated volume of the discharge;
3. All measures taken to clean up the accidental discharge;
4. All measures proposed to be taken to prevent any recurrence;
5. 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, if a different person.

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. Stormwater System

The City of Madison has the authority to periodically inspect the portion of the stormwater system under the City of Madison's control, as well as receiving waters, 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 stormwater system. It could also include sample collections and related in the stormwater system to detect the introduction of pollutants into the system by means other than a discrete connection, such as dumping, contaminated runoff surface runoff into the public system, or other related illicit discharges.

2. Potential Polluters

If, as a result of the stormwater system inspection, a discharger is suspected of an illicit discharge, the City of Madison may inspect and/or obtain samples from stormwater runoff of the subject discharger, to determine compliance with the requirements of this Ordinance. Upon request, the discharger shall allow the City of Madison's properly identified representative to enter upon the premises of the discharger at all hours necessary for the purposes of such inspection or sampling. The City of Madison 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 City of Madison, the City of Madison has the authority to inspect new development and re-development sites to verify that all on-site stormwater conveyances and connections to the stormwater system are in compliance with this section.

SECTION 3
Stormwater Quantity Management

(a) APPLICABILITY AND EXEMPTIONS

The storage and controlled release of excess stormwater runoff shall be required for developments or redevelopments disturbing one (1) acre or more of land or disturbances of less than one (1) acre but part of a larger common plan that will disturb one (1) acre or more and is located within the City of Madison or subject to the City of Madison regulations. The City of Madison may waive the requirement of controlled runoff for minor subdivisions and parcelization when fully justified and substantiated by sound, current engineering methodology that demonstrates no adverse impact to downstream and surrounding properties, habitats, water quality, in-stream conditions, and overall quality of life. 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 City of Madison 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 City of Madison or subject to the City of Madison regulations. 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 City of Madison Stormwater Design Guide.

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 City of Madison to discourage direct release of runoff from a new development or redevelopment without providing detention. However, in certain circumstances, where a comprehensive watershed hydrologic study or watershed plan of a major stream (not a "beat the peak" analysis) adopted by the City of Madison 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 the City of Madison 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 follow sound, current engineering methodology and follow the design criteria, standards, and specifications outlined in the City of Madison Stormwater Design Guide.

(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 an easement. No trees or shrubs shall be planted, nor any structures or fences erected in any drainage easement, unless otherwise accepted by the City of Madison. Additional easement requirements along stormwater conveyance systems are

contained in the City of Madison's Stormwater Design Guide and the City of Madison's Subdivision and Planning & Zoning Regulations. 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.

(e) PLACEMENT OF UTILITIES

No utility company may disturb existing storm drainage facilities without the consent of the City of Madison staff, whose decision may be appealed to the City of Madison's body with authority to grant appeals of the City of Madison. 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) INSPECTION, MAINTENANCE, RECORD KEEPING, AND REPORTING

After the approval of the Stormwater Management Permit by the City of Madison and the commencement of construction activities, the City of Madison has the authority to conduct inspections of the work being done to ensure full compliance with the provisions of this section, the Stormwater Design Guide, and the terms and conditions of the approved permit.

The City of Madison 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 City of Madison. If deficiencies are found during the inspection, the owner of the facility will be notified by the City of Madison and will be required to take all necessary measures to correct such deficiencies. If the owner fails to correct the deficiencies within the allowed time period, as specified in the notification letter, the City of Madison 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.

SECTION 4
Stormwater Pollution Prevention for Construction Sites

(a) APPLICABILITY AND EXEMPTIONS

The City of Madison will require a Stormwater Pollution Prevention Plan (SWPPP), which includes erosion prevention and sediment control measures, to be submitted as part of a project's construction plans and specifications. Any project located within the corporate boundaries of the City of Madison that includes clearing, grading, excavation, or other land disturbing activities resulting in the disturbance of one (1) acre 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 one (1) acre 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 listed under this section do not apply to the following activities:

1. Agricultural land disturbing activities;
2. Forest harvesting activities (not associated with development site preparation work for land development, construction of roads, other facilities, etc.);
3. Stormwater discharges associated with oil and gas exploration, production, processing and treatment operations, or transmission facilities under 40 CFR 122.26.

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

1. Landfills that have been issued a certification of closure under 329 IAC 10.
2. Coal mining activities permitted under IC 14-34.
3. 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 City of Madison, 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.

An individual lot with land disturbance less than one (1) acre, located within a larger permitted project site, is considered part of the larger permitted project site, and the individual lot operator must comply with the terms and conditions of the stormwater permit approved for the larger project site. The stormwater permit application for the larger project site must include detailed erosion and sediment control measures for individual lots.

It will be the responsibility of the project site owner to complete a stormwater permit application and ensure that a sufficient construction plan is completed and submitted to the City of Madison 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 City of Madison upon completion of the project and stabilization of the site, requesting a termination/completion inspection to be performed by the City of Madison. The City of Madison will then issue a notice of termination/completion letter if the termination/completion inspection is sufficient. 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 City of Madison, 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 one (1) acre or more, appropriate erosion and sediment control measures that are consistent with the City of Madison Stormwater Design Guide 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 City of Madison Stormwater Design Guide.

(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:

1. 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.
2. Strip developments will be considered as one (1) project site and must comply with this section unless the total combined disturbance of all individual lots is less than one (1) acre and is not part of a larger common plan of development or sale.

The calculation methods as well as the type, sizing, and placement of all stormwater pollution prevention measures for construction sites shall meet the design criteria, standards, and specifications outlined in the Indiana Stormwater Quality Manual and the City of Madison Stormwater Design Guide. 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 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 City of Madison Stormwater Design Guide.

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

Following approval of the Stormwater Management Permit by the City of Madison and commencement of construction activities, the City of Madison 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 City of Madison Stormwater Design Guide, 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 City of Madison, shall monitor and manage project construction and stormwater activities. The trained individual shall perform a written evaluation of the project site:

1. Twenty-four (24) hours prior to a qualifying event or by the end of the next business day following each measurable storm event.
2. If there are no qualifying storm events within a given week, the site should be monitored at least once in that week.
3. In the event of multiple qualifying storm events during a work week (Monday – Friday), no more than three (3) inspections are required.
4. A minimum of one (1) time per month for specific areas within the project area which are stabilized with permanent vegetation cover of at least seventy (70) percent density and/or erosion resistant armoring is installed. Weekly monitoring must resume if the vegetative cover fails, there is evidence of erosion in the area, or IDEM/inspecting authority requires weekly monitoring to resume.

A qualifying storm event is defined as precipitation accumulation equal to, or greater than, one-half (0.50) inches of rainfall within a twenty-four (24) hour period. Self-monitoring inspections by the qualified professional inspector shall continue until the entire site has been stabilized and a notice of termination/completion letter has been issued by the City of Madison. Details regarding the required monitoring activities are contained in the City of Madison Stormwater Design Guide.

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 qualified professional inspector for maintenance and enhancements to stormwater quality measures should be implemented. Substantial changes to the plan shall involve advance notification in writing from the site owner to the City of Madison.

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. The City of Madison has the right to request complete records of maintenance and monitoring activities involving stormwater pollution prevention measures. All evaluation reports for the project site must be made available to the City of Madison, in an organized fashion, within forty-eight (48) hours upon request. Examples regarding requirements related to the project management log are contained in the City of Madison Stormwater Design Guide.

SECTION 5
Stormwater Quality Management for Post-construction

(a) APPLICABILITY AND EXEMPTIONS

In addition to the requirements of Section 4, the stormwater pollution prevention plan, which is to be submitted to the City of Madison 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 City of Madison that includes clearing, grading, excavation, and other land disturbing activities, resulting in the disturbance of one (1) acre 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 one (1) acre of total land area that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) acre or more of total land area. In addition, regardless of the amount of disturbance, the City of Madison reserves the right to require pre-treatment BMPs for proposed hot spot developments in accordance with provisions contained in the City of Madison Stormwater Design Guide.

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

1. 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
2. Individual building lots within a larger permitted project; or
3. Agricultural land disturbing activities; or
4. Forest harvesting activities.

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:

1. Landfills that have been issued a certification of closure under 329 IAC 10.
2. Coal mining activities permitted under IC 14-34.
3. 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 City of Madison 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 Stormwater Management Permit, and to notify the City of Madison upon completion of the project and stabilization of the site, requesting a termination/completion inspection to be performed by the City of Madison. 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 City of Madison, 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) stormwater runoff will be filtered, and harmful amounts of sediment, nutrients, and contaminants will be removed.

The project site owner must submit to the City of Madison a Stormwater Pollution Prevention Plan (SWPPP) that shows placement of appropriate BMP(s) from a pre-approved list of BMP's specified in the City of Madison Stormwater Design Guide. 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 City of Madison Stormwater Design Guide, 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 City of Madison Stormwater Design Guide. 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 City of Madison Stormwater Design Guide, would be placed with the applicant. Details regarding the procedures and criteria for consideration of acceptance of such BMP's are provided in the City of Madison Stormwater Design Guide.

Gasoline outlets and refueling areas must install appropriate practices (as noted under "Hot Spots" provision in the Stormwater Design Guide) 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 City of Madison Stormwater Design Guide. 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 General Permit.

(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 City of Madison Stormwater Design Guide, 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 City of Madison and the commencement of construction activities, the City of Madison 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 City of Madison Stormwater Design Guide, 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 City of Madison Stormwater Design Guide, 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 City of Madison.

Details regarding the requirement 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 City of Madison Stormwater Design Guide.

The City of Madison 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.

SECTION 6
Permit Requirements and Procedures

(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 City of Madison. The direction provided by the City of Madison during such a review is based on preliminary data and shall not be construed as an acceptance or binding on either party. If a preconstruction meeting occurs, the following is a general listing of minimum data requirements for the review of conceptual drainage plans:

1. One (1) complete set of conceptual plans showing general project layout, including existing and proposed drainage systems.
2. General description of the existing and proposed drainage systems in narrative form.
3. Map showing on-site 100-year floodplain and floodway (please note if none exists).
4. Map showing all wetlands, lakes, and ponds on or adjacent to the site.
5. Watershed Boundaries with USGS Contours or best information possible.
6. Drainage calculations detailing existing and proposed discharges from the site

(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/completion compliance process for land disturbance of one (1) acre or more and can be found at the end of this section.

All projects located within the corporate boundaries of the City of Madison lie within the MS4 area boundary by default.

1. General Procedures

Application: The project site owner shall submit an application for a Stormwater Management Permit to the City of Madison. 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. One (1) copy of each application must be submitted to the City of Madison. The City of Madison may, at its discretion, require one or more copies be submitted to other entities deemed appropriate by the City of Madison. Additionally, a digital copy of the construction plans is required in a format accepted by the City of Madison.

Review: After the City of Madison'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 City of Madison and/or its plan review consultant(s). Once all comments have been received and review completed, the City of Madison will either approve the project, request modifications, or deny the project.

Appeals: If the applicant does not agree with or accept the review findings and wishes to seek an appeal, the City of Madison will place the project on the agenda of the next regularly scheduled meeting of the City of Madison Board of Public Works and Safety, 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 City of Madison Board of Public Works and Safety. If the project must go through a scheduled meeting, the City of Madison 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 City of Madison will either issue a permit, request modifications to the construction plans, or deny the project.

Notification Prior to Construction: The project site owner must notify the City of Madison and IDEM before beginning construction. Notification to the City of Madison shall be in the form of an email to the designated recipient on the application form. 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 both the City of Madison and IDEM 48 hours before the beginning of construction, construction may commence.

Notification During Construction: 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.

Construction Completion: Upon completion of construction activities, a Certification of Completion and Compliance and as-built plans must be submitted to the City of Madison in digital format in the form of an email. 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 City of Madison, requesting a termination/completion inspection. The City of Madison, or its representative, shall inspect the construction site to verify that the completed project is fully stabilized and meets the requirements of the City of Madison's Stormwater Ordinance and its design guide and that the terms and conditions of the permit. Once the applicant receives a signed copy of the Termination/Completion Inspection Checklist confirming compliance, they must forward a copy to IDEM along with the required IDEM NOT form.

Permit Expiration: Permits issued by the City of Madison 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 City of Madison and an updated NOI must be resubmitted to IDEM at least 90 days prior to expiration.

2. SWPPP Review Time Limits

Pursuant to IC 13-18-27, an MS4-designated entity or other review authority, such as the Soil and Water Conservation District (SWCD), must make a preliminary determination and notify the permit applicant as to whether the construction plan associated with SWPPP is substantially complete before the end of the following time periods after the day on which the SWPPP is submitted to the review authority:

i. For sites with less than 5 acres of land disturbance: the end of the tenth (10th) working day; or
ii. For sites with 5 acres or larger of land disturbance: the end of the fourteenth (14th) working day.

The following actions may occur following the SWPPP plan submittal and review:

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 this Ordinance and the City of Madison Stormwater Design Guide, 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 this Ordinance and the City of Madison Stormwater Design Guide. Additional information required by the review authority will be included in the response to the applicant.
c. Unfavorable SWPPP: If the review authority notifies the applicant that the construction plan is substantially complete but does not meet the requirements under this Ordinance and the City of Madison Stormwater Design Guide, the project site owner may not submit a notice of intent letter to IDEM. The SWPPP will have to be modified to meet the requirements and resubmitted.
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 to IDEM including the information required by IDEM, or this Ordinance and the City of Madison Stormwater Design Guide. The NOI can be submitted to IDEM and construction may begin no less than 48 hours afterwards, 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 to IDEM including the information required by IDEM, or this Ordinance and the City of Madison Stormwater Design Guide. The NOI can be submitted to IDEM and construction may begin no less than 48 hours afterwards, 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 approved, the project site owner may submit a notice of intent to IDEM including the information required by IDEM, or this Ordinance and the City of Madison Stormwater Design Guide. The NOI can be submitted to IDEM and construction may begin no less than 48 hours afterwards, including the land disturbing activities of the construction project.

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

The different elements of a permit submittal include an application checklist, construction plans, a stormwater drainage technical report, a stormwater pollution prevention plan for 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 City of Madison Stormwater Management Permit application package, the application checklist provided in the City of Madison Stormwater Design Guide must be completed by the applicant and provided along with other required supporting material.

2. Construction Plans
   Construction plan sheets 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 City of Madison Stormwater Design Guide.

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 City of Madison Stormwater Design Guide.

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 meet the minimum requirements of this Ordinance. The SWPPP and construction plans must include the items listed in the application checklist provided in the City of Madison Stormwater Design Guide. 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 City of Madison Stormwater Design Guide 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 City of Madison Stormwater Design Guide. The post-construction stormwater pollution prevention plan must include items listed in the application checklist provided in the City of Madison Stormwater Design Guide.

(d) 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 City of Madison prior to the land development involving the change. Copies of the changes, if accepted, shall be attached to the original plans and specifications.

(e) FEE STRUCTURE

1. FEE AMOUNT

As a condition of the submittal and the review of development plans by the City of Madison, the applicant shall agree to pay the City of Madison the applicable fee, as set by the City of Madison 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. Fees shall be based on the amount of disturbed acreage associated with any proposed project.

Disturbed acres are defined as the area of the project in which the surface of the land is disturbed by excavation, embankments, land development, residential lot construction, mineral extraction and moving, depositing or storing of soil, rock, or other earthmoving activity.

2. TIME OF PAYMENT

Applications will not be accepted for review without payment of the appropriate fee. The fees below shall include inspection for perimeter control, grading, and stormwater quality management permits.

The City of Madison 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:

- Cash
- Credit/Debit Card
- Check
- Certified Check
- Cashier's Check
- Money Order

All checks shall be made payable to the: City of Madison
Payment can be made at: 101 W Main St, Madison, IN 47250

4. REFUND OF PAYMENT

Fees are refundable only if the City of Madison 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 outlined below.

Residential Developments	Initial	Re-Submissions
1 to 4 lots	$450	$350
5 to 25 lots	$600	$500
26 to 75 lots	$1,100	$1000
76 to 150 lots	$1,600	$1,500
More than 150 lots	$2,600	$2,500

Non-Residential Developments	Initial	Re-Submissions
Up to 5.0 acres	$600	$500
5.1 to 10.0 acres	$1,300	$1,200
10.1 to 25.0 acres	$2,100	$2,000
25.1 or more acres	$2,600	$2,500

Resubmittal fees for multiple reviews may be assessed by the City at the rates outlined in the Stormwater Permit Application table above.

(f) REQUIRED ASSURANCES

This section shall apply to all projects whether the stormwater management system or portions thereof will be dedicated to the City of Madison or retained privately. As a condition of approval and issuance of the permit, the City of Madison 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 City of Madison. Assurances shall be for a minimum of $10,000. All other performance bonds, maintenance bonds or other assurances required by the City of Madison 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.

(g) TERMS AND CONDITIONS OF PERMITS

In granting a Stormwater Management Permit, the City of Madison 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 City of Madison may require more stringent stormwater quantity and quality measures than detailed in this Ordinance or in the Stormwater Design Guide.

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 (USACE). 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 City of Madison.

   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 City of Madison's system.
   iii. Land within 15 feet of the centerline of any stormwater infrastructure or enclosed conduit within the City of Madison'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.

   The City of Madison or the City of Madison Engineer is authorized, but is not required, to classify certain geographical areas as Impact Drainage Areas. In determining Impact Drainage Areas, the City of Madison 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 City of Madison. 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 City of Madison 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 City of Madison Stormwater Design Guide.

(h) 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 City of Madison or retained privately. After completion of construction of the project and before the release of required performance assurances referenced in Section 6(g) above, a professionally prepared and certified 'as-built' set of plans (record drawings) shall be submitted to the City of Madison 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 stormwater system line and point layers able to be viewed by ESRI or CAD products, analyses, models, and reports that are consistent with the as-built conditions is required in a format acceptable to the City of Madison. 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 City of Madison. (See certificate in the Stormwater Design Guide.

Data must be provided in State Plane coordinates: NAD 1983 State Plane Indiana East FIPS 1301 feet.

(i) 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 City of Madison in an amount not to exceed twenty five percent (25%) of the cost of the stormwater management system located outside the public road rights-of-way, and in a form satisfactory to the City of Madison in order to assure that such stormwater system installation was done according to:

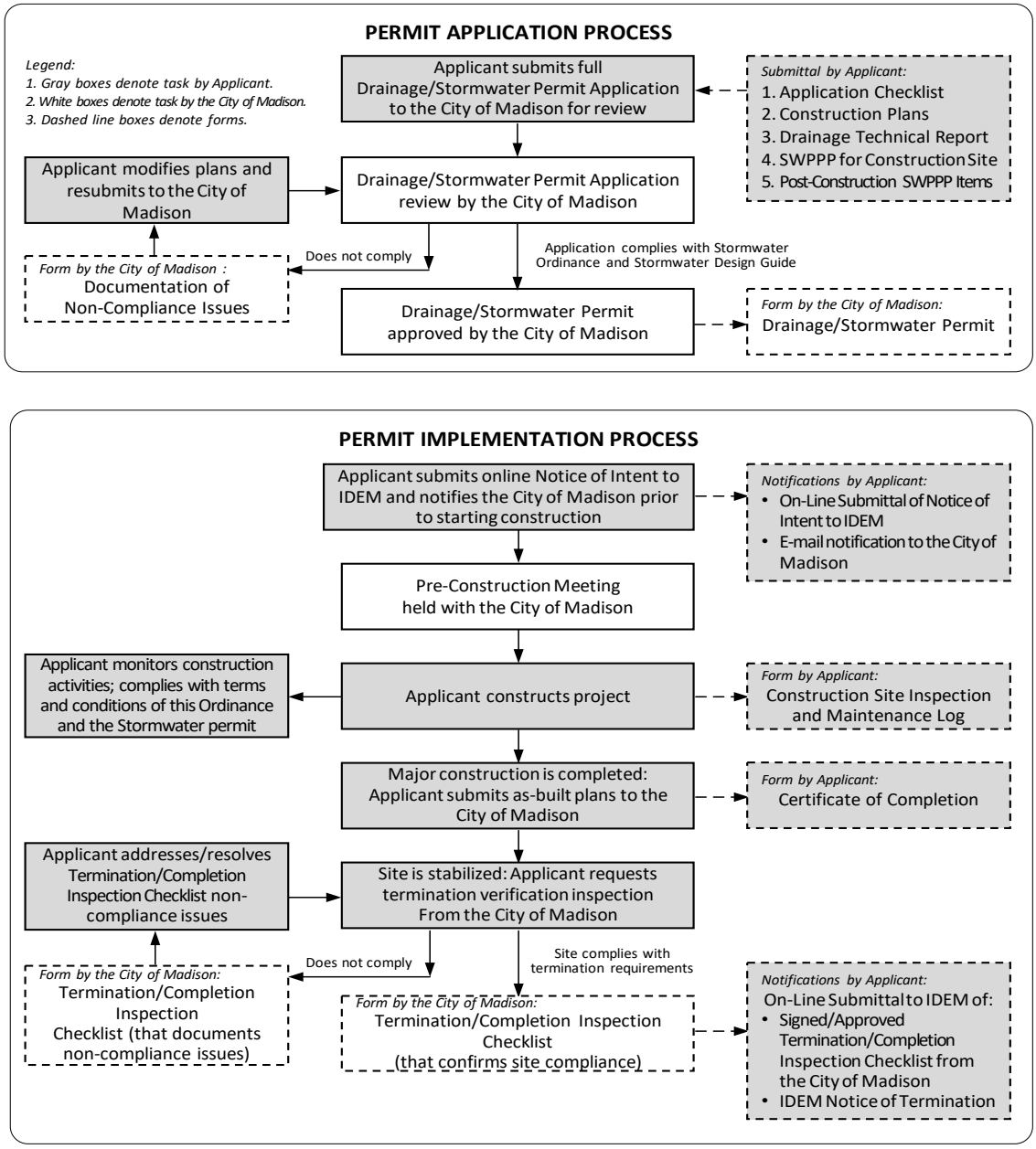
1. Standards of good workmanship;
2. That the materials used in the construction and installation were of good quality and construction;
3. That such project was done in accordance with the accepted plans and this Ordinance; and

4. 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 the City of Madison 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 City of Madison.

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/Completion Sign-off Process



SECTION 7
Compliance and Enforcement

(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 City of Madison 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. Violation, Compliance, Offense

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 City of Madison.

iii. **Offense**. 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 City of Madison finds that any person has violated, or continues to violate, any provision of this ordinance, or any order issued hereunder, the City of Madison 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 City of Madison 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 City of Madison 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. 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 City of Madison 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.

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

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

The City of Madison has established an Enforcement Response Schedule as noted in the table below that standardizes the approach that the City of Madison may, in its discretion, employ in dealing with stormwater regulations offenses subject to this Ordinance and the associated Stormwater Design Guide. 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.

Offense #	Type of Response Anticipated
1st offense	Verbal Notice, Written Notice of Violation or Warning, and Administrative Penalty
2nd offense	Notice of Violation, Administrative Penalty and/or Site Visit
3rd offense	Administrative Penalty and/or Site Visit
4th offense	Administrative Order, Administrative Penalty and/or Site Visit
5th offense	Compliance Schedule, Administrative Penalty and/or Site Visit
6th offense	Litigation and Administrative Penalty

The City of Madison may, in its discretion, employ in the imposition of Administrative Penalties, the City of Madison 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 8 (as necessary) would apply to failures of compliance. In its discretion, the City of Madison may impose penalties up to the amount specified in this Schedule.

The City of Madison reserves the right to issue a maximum penalty for any violation deemed sufficiently egregious or otherwise determined by the City of Madison to warrant a maximum penalty.

Illicit Discharges – Administrative Penalty – Table of Fines				
Fine Category	1st Offense		2nd Offense	3rd – 8th Offense
Residential	Minor	Warning + Cost of Cleanup	$150 + Cost of Cleanup	$300 + Cost of Cleanup
	Major	$250 + Cost of Cleanup	$500 + Cost of Cleanup	$1,000 + Cost of Cleanup
Commercial Industrial Institutional	Minor	$250 + Cost of Cleanup	$750 + Cost of Cleanup	$1,500 + Cost of Cleanup
	Major	$500 + Cost of Cleanup	$1,500 + Cost of Cleanup	$2,500 + Cost of Cleanup

Construction Activity – Administrative Penalty – Table of Fines			
Fine Category	1st Offense	2nd Offense	3rd – 8th Offense
Individual Lot (Residential)	$150 + Cost of Cleanup	$350 + Cost of Cleanup	$750 + Cost of Cleanup
Commercial Lot or Multi-Parcel Development (subdivision, commercial, industrial)	$500 + Cost of Cleanup	$1,000 + Cost of Cleanup	$2,500 + Cost of Cleanup

3. 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 City of Madison Engineer may order the work stopped by notice in writing served on any person engaged in the doing or causing of such work to be done, and any such persons shall forthwith stop such work until authorized by the City of Madison to proceed with the work. A Stop Work Order will be posted on the site by the City of Madison. It is unlawful for any person to remove the notice or continue any work on the site without permission from the City of Madison.

The City of Madison 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.

For construction projects that are operating under a SWPPP approved by the City of Madison, 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.

Any person who neglects or fails to comply with a stop work order shall, upon conviction, be guilty of a misdemeanor, punishable by a fine of not less than $2,500, and such person shall also pay the costs as may be imposed in the discretion of the court. Each day that a violation occurs will be considered a separate offense and may be subject to a separate fine for each violation. A permit reinstatement fee may also be

assessed by the City of Madison. The amount of the permit reinstatement fee will be equivalent to the initial permit fee set in accordance with the table in section 6(b)(5).

4. Withhold Certificate of Occupancy

The City of Madison 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 City of Madison.

5. Suspension, Revocation, or Modification of Permits

The City of Madison may suspend, revoke, or modify any existing permit that the violator may also have been previously granted by notifying in writing the permit holder stating the reason for the suspension, revocation, or modification. Permits may be revoked for:

i. Any substantial departure from the approved application plans or specifications,
ii. Refusal or failure to comply with the requirements of state or local law, or
iii. For false statements or misrepresentations made in securing the permit.

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 City of Madison may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

6. Suspension of Access to the Stormwater System

i. Emergency Cease and Desist Orders

When the City of Madison 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 City of Madison 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 City of Madison may take such steps as deemed necessary to prevent or minimize harm to the stormwater drainage system or waters of the United States, and/or endangerment to persons or to the environment, including immediate termination of a facility's water supply, sewer connection, or other municipal utility services.

The City of Madison may allow the person to recommence its discharge when it has demonstrated to the satisfaction of the City of Madison 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 City of Madison within five (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 City of Madison 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 system or waters of the state if the violator fails to comply with a suspension order issued in an emergency, the City of Madison 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 City of Madison will notify a violator of the proposed termination of its stormwater drainage system access. The violator may petition the City of Madison for a reconsideration and hearing. A person commits an offense if the person reinstates stormwater system access to premises terminated pursuant to this Section, without the prior approval of the City of Madison.

(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 City of Madison may, after giving notice and opportunity for compliance, have the necessary work done, and the owner shall be required to reimburse the City of Madison for all costs of such work within twenty (20) days after being notified of the costs in writing.

Nothing herein contained shall prevent the City of Madison 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 City of Madison'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 City of Madison or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

(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 Board of Public Works and Safety of the City of Madison 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 Board of Public Works and Safety of the City of Madison shall consider the appeal and make a decision whereby it affirms, rejects or modifies the action being

appealed. In considering any such appeal, the Board of Public Works and Safety of the City of Madison may consider the recommendations of the City of Madison Staff and the comments of other persons having knowledge of the matter. In considering any such appeal, the Board of Public Works and Safety 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;
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; and
iii. Any person who has appealed a violation to the Board of Public Works and Safety may appeal an adverse decision of the Board to the court of Jefferson County within 60 days of the Boards order.

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 five (5) days of the decision of the Board of Public Works and Safety upholding the decision of the City of Madison, then representatives of the City of Madison 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 Board of Public Works and Safety. It shall be unlawful for any person, owner, agent, or person in possession of any premises to refuse to allow the City of Madison or its designee to enter upon the premises for the purposes set forth above. Any costs associated with the abatement shall be the responsibility of the owner of the premises. In the event the owner of the premises fails to pay those costs within thirty (30) days of invoice, the City of Madison shall impose a lien on the premises for the unpaid amount.

APPENDIX A
Abbreviations and Definitions

(a) ABBREVIATIONS

BMP	Best Management Practice
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
USACE	United States Army Corps of Engineers
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 pipe.

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 City of Madison.

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:

1. Construction, reconstruction, or placement of a building or any addition to a building;
2. Construction of flood control structures such as levees, dikes, dams, or channel improvements;
3. Construction or reconstruction of bridges or culverts;
4. 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;
5. Installing utilities, erection of walls, construction of roads, or similar projects;
6. Mining, dredging, filling, grading, excavation, or drilling operations;
7. Storage of materials; or
8. 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 (RxKxLS)/T (from the Universal Soil Loss Equation) and (CxI)/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-final 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.

Improved channels. Engineered channels that are lined with riprap, concrete, or other materials that provide protection and/or improve flows.

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:

1. The top of the basement floor;
2. The top of the garage floor, if the garage is the lowest level of the building;
3. 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
4. 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:
    i. 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.

ii. Such enclosed space shall be usable only for the parking of vehicles or building access.

Manhole. A 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

Private Drainage. Drainage which is located on private property within an unimproved channel and does not involve a public drainage easement.

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.

Public Drainage. Drainage involving a public drainage easement or is located within the city's right of way as an improved channel.

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:

1. Providing habitat for threatened or endangered species;
2. Usage as a public water supply intake;
3. Relevant community value;
4. Usage for full body contact recreation;

5. Exceptional use classification as found in 327 IAC 2-1-11(b); and
6. 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.

1. 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.
2. 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*V/H) –e.g., a 2:1 (1V:2H) slope is a fifty percent (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 ten percent (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 City of Madison that enable the individual to make judgments regarding stormwater control or treatment and monitoring.

Unimproved channels. Vegetated or unvegetated drainage ways with low pitched side slopes that collect and slowly convey runoff.

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.

Violation. Any action or inaction which violates the provisions of this Ordinance or the Stormwater Design Guide, 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 Quality Volume: Storage required to capture and treat stormwater runoff from 80% of the average annual rainfall.

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.

Waters of the State. A lake, reservoir, marsh, waterway, or other water: under public ownership, jurisdiction, or lease; or that has been used by the public with the acquiescence of any or all riparian owners.

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.