ORDINANCE NO. 1615

CITY OF BLUFFTON STORMWATER QUALITY MANAGEMENT ORDINANCE

WHEREAS Indiana Code Sections 36-1-3-1 et seq. permit any unit in the State of Indiana to exercise any power or to perform any function necessary to the public interest in the context of its governmental or internal affairs, which is not prohibited by the Constitution of the United States or of the State of Indiana, or denied or pre-empted by any other law, or is not expressly granted by any other law to another governmental entity;

WHEREAS the Indiana Water Pollution Control Board as part of its NPDES General Permit Rule Program imposed certain duties and obligations upon designated Municipal Separate Storm Sewer System (MS4) areas;

WHEREAS in December 2021 the Indiana Department of Environmental Management (IDEM) issued a new Construction Stormwater General Permit (CSGP) that requires certain project site owners, among other things, to develop a set of construction plans which include a stormwater pollution prevention plan (SWPPP) for both construction and post-construction phases of development and that those plans are to be sent to IDEM or their designee for review;

WHEREAS in December 2021 IDEM also issued a new MS4 General Permit (MS4GP) that requires Indiana entities designated as MS4 to, among other things, adopt, implement, and enforce various illicit discharge prevention, construction, and post-construction requirements contained in the CSGP;

WHEREAS on April 13, 2022, the City of Bluffton was designated by IDEM as a MS4 entity and per MS4GP requirements, the City must put in place new illicit discharge, construction, and post-construction stormwater ordinances as well as enforcement mechanisms sufficient to enforce project site owners and/or operators to meet the illicit discharge prevention requirements as well as minimum construction and post-construction requirements of the IDEM MS4GP.

NOW, THEREFORE, BE IT ORDAINED by the Common Council of the City of Bluffton, Indiana, that:

1. APPLICABILITY AND EXEMPTIONS

This ordinance shall be applicable to all parcels of real estate within the jurisdiction of the City of Bluffton unless exempt under this ordinance.

A. Exempt Real Estate. The following activities are exempt from the stormwater performance and documentation requirements established by this Ordinance. Note that this exemption does not include activities of any size that may result in an illicit discharge as discussed in Section 5 of this Ordinance.

i. Agricultural land disturbing activities, including tillage, planting, cultivation, or harvesting operations for the production of agricultural or nursery and vegetative crops, pasture renovation and establishment, the construction of agricultural conservation practices, and the installation and maintenance of agricultural subsurface field tile.
ii. Forest harvesting activities.
iii. Construction activities that result in a land disturbance of less than one (1) acre of total land area as determined under IDEM CSGP and are not part of a larger common plan of development or sale.
iv. The following activities, provided other applicable 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; and
    (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 the equivalent stormwater requirements to those under IDEM CSGP, including expansion of landfill boundaries and construction of new cells either within or outside the original solid waste permit boundary.
v. Repairs to any stormwater treatment practice deemed necessary by the City of Bluffton's Board of Public Works and Safety.
vi. Additions or modifications to existing single family structures.

2. DEFINITIONS

For purposes of this ordinance, the following definitions shall be applicable:

A. If any term or provision contained in the IDEM CSGP is used in this ordinance and not otherwise defined in this ordinance, then the term or provision shall have the same meaning as set forth in the IDEM CSGP.

B. If any term or provision contained in the IDEM MS4GP is used in this ordinance and not otherwise defined in this ordinance, then the term or provision shall have the same meaning as set forth in the IDEM MS4GP.

C. Board shall mean the Board of Public Works and Safety of the City of Bluffton.

D. City shall mean the City of Bluffton, Indiana.

E. City Engineer shall mean the City of Bluffton's Engineer or the City Engineer's designee.

F. Development shall mean any man-made change to improved or unimproved real estate including but not limited to:

i. Construction, reconstruction, or placement of a building or any addition to a building;
ii. Construction of flood control structures such as levees, dikes, dams or channel improvements;
iii. Construction or reconstruction of bridges or culverts;

iv. Installing a manufactured home on a site, preparing a site for a manufactured home, or installing a recreational vehicle on a site for more than one hundred eighty (180) days;
v. Installing utilities, erection of walls, construction of roads, or similar projects;
vi. Mining, dredging, filling, grading, excavation, or drilling operations;
vii. Storage of materials; or
viii. Any other activity that might change the direction, height, or velocity of flood or surface waters.

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

G. Developer shall mean 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. This term does not include a private home owner who sells his/her home on a lot in a multi lot subdivision.

H. Flood (or Flood Waters) shall mean 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.

I. Illicit Discharge shall mean 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.

J. Person shall mean an individual, partnership, limited partnership, limited liability partnership, corporation, limited liability company, association, company, organization, or governmental entity, whether for-profit or not-for-profit.

K. Redevelopment shall mean alterations of a property that change a site or building in such a way that there is disturbance of one (1) acre or more of land. The term does not include such activities as exterior remodeling.

L. SWCD shall mean the Wells County Soil and Water Conservation District, or its successor.

M. Trained Individual shall mean an individual who is trained and experienced in the principles of stormwater quality, including erosion and sediment control as may be demonstrated by professional certification (such as Certified Erosion Sediment and Stormwater Inspector (CESSWI) or Certified Inspector in Erosion and Sediment Control (CISEC)).

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

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

3. ADMINISTRATION

Except as otherwise provided, the Board of Public Works and Safety (hereinafter referred to as "the Board") shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted or duties imposed upon the Board may be delegated in writing by the Board to qualified persons or entities acting in the beneficial interest of or in the employ of the Board.

4. INTERPRETATION AND SEVERABILITY

A. Interpretation. In their interpretation and application, these regulations shall be held to be the minimum requirements for the promotion of public health, safety and general welfare.

B. Conflict. Other ordinances and parts of other ordinances inconsistent or conflicting with any part of this ordinance are hereby repealed to the extent of such inconsistency or conflict.

C. Compatibility with other Permit and Ordinance Requirements. This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law. The requirements of this ordinance should be considered minimum requirements, and where any provisions of this ordinance impose restrictions different from those imposed by any other ordinance, rule or regulation, or other provisions of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

D. Severability. If the provisions of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of this ordinance.

5. ILLICIT 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 Bluffton, 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 shall be properly contained within an appropriate practice and any waste material properly disposed of.

The Board is authorized to require dischargers to implement pollution prevention measures, utilizing BMPs necessary to prevent or reduce the discharge of pollutants into the City of Bluffton's stormwater drainage system.

C. Exempted discharges and connections

Notwithstanding other requirements in this Ordinance, stormwater comingled with other discharges either regulated by other NPDES permits or determined by the Board to not be a significant source of pollutants, including the following, are exempt from the requirements of this Section:

i. Water line and hydrant flushing for maintenance
ii. Irrigation water
iii. Footing, foundation, and crawl Space drains (uncontaminated)
iv. Excess storm sewer cleaning water not collected by a vacuum truck (uncontaminated)
v. Fire suppression activities
vi. Uncontaminated pumped groundwater
vii. Springs
viii. Residential car washing
ix. Non-commercial car washing by community organizations
x. External building washdown, without detergents
xi. Dechlorinated/debrominated residential swimming pool discharges
xii. Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20))
xiii. Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used

xiv. Uncontaminated condensate from air conditioning units, coolers, and other compressors, and from outside storage of refrigerated gases or liquids

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 shall include adequate protection and/or containment so as to prevent any such materials from entering any temporary or permanent stormwater conveyance or watercourse.

E. Private property maintenance duties

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

F. Spill reporting

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

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

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

G. Inspections and monitoring

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

ii. Potential Polluters - If, as a result of the storm drainage system inspection, a discharger is suspected of an illicit discharge, the Board may inspect and/or obtain stormwater samples from stormwater runoff facilities of the subject discharger, to determine compliance with the requirements of this Ordinance. Upon request, the discharger shall allow the Board'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 Board 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 8 of this Ordinance.

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

6. CONSTRUCTION AND POST-CONSTRUCTION REQUIREMENTS

Any Person owning or operating non-exempt real estate shall obtain a Stormwater Permit addressing the IDEM-required construction and post-construction requirements for new development and redevelopment, and comply with each of the following requirements:

A. General Permit Procedures

The project site owner shall submit an application for a Stormwater Permit to the Board, who may forward some or all of the technical information contained in the application to the Wells County SWCD or another designee who acts as an agent of the Board for plan review. The application will include a completed application checklist contained in **Appendix A**, construction plan sheets, a stormwater pollution prevention plan, and any other necessary support information. The Board may, at his/her discretion, require one or more copies be submitted to other entities deemed appropriate by the Board. Additionally, a digital copy of the construction plans is required in a format accepted by the Board.

After 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 Board. Once all comments have been received and review completed, the Board will either

approve the project, request modifications, or deny the project. If the applicant does not agree with or accept the review findings and wishes to seek an appeal, the Board will place the project on the agenda of the next regularly scheduled meeting of the Board, provided the agenda for the meeting has not yet been advertised or published. If time for notification does not allow, the project shall be placed on the following regularly scheduled meeting of the Board. If the project must go through a scheduled meeting, the Board 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 Board will either issue a permit, request modifications to the construction plans, or deny the project.

The project site owner must notify the Board and IDEM 48 hours before beginning construction. Notification to the Board shall be in the form of an email while the notification to IDEM shall be in the form of an online IDEM Notice of Intent (NOI) submittal. Once a permit has been issued and the pending construction notifications submitted to the Board and IDEM before the beginning of construction, construction may commence. Once construction starts, the project owner shall monitor construction activities and inspect all stormwater pollution prevention measures in compliance with this Ordinance and the terms and conditions of the approved permit. The required self-monitoring report form is included in Appendix A. Upon completion of construction activities, a Certification of Completion and Compliance must be submitted to the Board (see the required form in Appendix A). 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 Board or a designee, requesting a termination inspection. The Board or a designee shall inspect the construction site to verify that the completed project is fully stabilized and meets the requirements of this Ordinance and that the terms and conditions of the permit. Once the applicant receives a copy of the Termination Inspection Report confirming compliance (see Appendix A), they must forward a copy to IDEM along with the required IDEM Notice of Termination (NOT) submittal through IDEM's portal.

B. Ordinance Fees

Stormwater Permit Application and Inspection Fees will be in accordance with the fee schedule set by the Board as a separate ordinance or resolution.

C. SWPPP Review Time Limits

Pursuant to IC 13-18-27-16, an MS4-designated entity or other review authority such as SWCD must make a preliminary determination as to whether the construction plan associated with SWPPP is substantially complete before the end of the tenth (10th) working day (for sites with less than 5 acres of land disturbance) after the day on which the SWPPP is submitted to the review authority or the fourteenth (14th) working day (for sites with 5 acres or larger of land disturbance) after the day on which the SWPPP is submitted to the review authority.

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

D. Construction Site Erosion and Sediment Control Requirements

i. General and Implementation Requirements - The City or its designated SWPPP reviewer utilizes the IDEM recommended Construction/SWPPP Review Form provided in Appendix A to review the submitted plans. The following general and implementation requirements apply to all land-disturbing activities and shall be considered in the preparation of a SWPPP within the corporate boundaries of the City of Bluffton.

(1) A professional engineer, licensed surveyor or licensed landscape architect must be utilized for activities associated with the development and design of the SWPPP, stormwater measure implementation, and stormwater project management.

(2) Minimize the potential for soil erosion by designing a development that fits the topography and soils of the site. Unless needed to meet requirements and goals of the development, steep slopes should be avoided, and natural contours should be followed.

(3) All activities on a site should be conducted in a logical sequence and in accordance with the site's construction phasing plan so that the smallest practical area of land will be exposed for the shortest practical period of time during development.

(4) The length and steepness of designed slopes should be minimized to reduce erosion potential. Drainage channels and swales must be designed and adequately protected so that their final gradients and resultant velocities will not cause erosion in the receiving channel or at the outlet. Methods for determining acceptable velocities are included in the Indiana Storm Water Quality Manual (ISWQM).

(5) Sediment-laden water which otherwise would flow from the project site shall be managed by appropriate erosion and sediment control measures to minimize sedimentation to receiving waters and adjacent properties as discussed in the ISWQM and other authoritative sources.

(6) Public roadways and roadways not exclusive to construction traffic shall be kept cleared of accumulated sediment that is a result of runoff or tracking. The following minimum conditions are applicable:

(a) Clearing of sediment must not include the utilization of mechanical methods that will result in mobilization of dust off the project site or flushing the area with water unless the flushed water is directed to an appropriate sediment control measure.
(b) Cleared sediment must be redistributed or disposed of in a manner that is in accordance with all applicable statutes and regulations.
(c) Sediment discharged or tracked onto roadways that are open to traffic must be removed as directed by a regulatory authority or at a minimum, removed by the

end of the same day.

(7) Phasing of construction activities must be used, when feasible, to minimize the footprint of disturbed unstable areas.

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

(9) Natural features, including wetlands and sinkholes (karst features), shall be protected from pollutants associated with stormwater runoff, through appropriate stormwater management and/or treatment measures.

(10) Soil compaction is to be minimized, especially in areas where permanent vegetation will be re-established and/or areas that are designated to infiltrate stormwater for the post-construction phase.

(11) Topsoil must be preserved, unless infeasible.

(12) Existing natural buffers that are adjacent to waters of the state must be preserved to promote infiltration and provide protection of the water resource, unless infeasible. Activities performed by a county drainage board under IC 36-9-27 are excluded.

(a) Natural buffers must be preserved, including the entire buffer bordering and/or surrounding the water resource. Existing buffers:
  (i) 50 feet or more in width must be preserved to a minimum of 50 feet.
  (ii) less than 50 feet in width must be preserved in their entirety. May be enhanced with vegetation that is native and promotes ecological improvement and sustainability.

(b) Runoff directed to the natural buffer must be:
  (i) treated with appropriate erosion and sediment control measures prior to discharging to the buffer.
  (ii) managed with appropriate runoff control measures to prevent erosion from occurring within the buffer area.

(c) Further information regarding buffer requirements is contained in IDEM's "Implementation of Buffers" guidance document.

(13) Minimize the generation of dust through dust suppression techniques to prevent deposition into waters of the state and areas located beyond the permitted boundaries of the site as discussed in the ISWQM and other authoritative sources.

(14) A stable construction site access measure must be provided at all points of construction traffic ingress and egress to the project site. Where the selected measure is not effective, an alternative measure or additional controls must be

utilized to minimize tracking. Alternative measures may include, but are not limited to, wheel wash systems and rumble strips.

(15) During the period of construction activities, all stormwater management measures necessary to meet the requirements of this permit must be maintained. Alternative measures must be selected and implemented, as necessary.

(16) Discharge water from dewatering of ground water from excavations, trenches, foundations, etc. must not be discharged when:

(a) Sediment-laden water is not first directed to an appropriate sediment control measure or a series of control measures, as per the ISWQM and other authoritative sources, that minimizes the discharge of the sediment.
(b) A visible sheen and/or pollutants are present at a level that requires additional treatment and/or an alternate permit.

(17) Appropriate measures must be implemented to eliminate wastes or unused building materials including, but not limited to garbage, debris, cleaning wastes, wastewater, concrete washout, mortar/masonry products, soil stabilizers, lime stabilization materials, and other substances from being carried from a project site by runoff or wind. Wastes and unused building materials must be managed and disposed of in accordance with all applicable statutes and regulations.

(18) Construction and domestic waste must be managed to prevent the discharge of pollutants and windblown debris. Surplus plastic or hardened concrete/cementitious materials are not required to be placed in trash receptacles and are considered clean fill that may be reused, disposed of on-site, or recycled in accordance with applicable state and federal regulations. Management of waste materials may include, but are not limited to:

(a) Waste containers (trash receptacles), when selected to manage waste, must be managed to reduce the discharge of pollutants and blowing of debris. Receptacles that are not appropriately managed will require alternatives that include but are not limited to:
  (i) A cover (e.g., lid, tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation or
  (ii) A similarly effective method designed to minimize the discharge of pollutants.
(b) Waste that is not disposed of in trash receptacles must be protected from exposure to the weather and/or removed at the end of the day from the site and disposed of properly.

(19) Concrete washout areas, where concrete washout is permissible, must be identified for the site and the locations clearly posted. Wash water must be directed into leak-proof containers or leak-proof containment areas which are located and designed to divert runoff away from the measure and sized to prevent the discharge and/or

overflow of the concrete wash water. If not evaporated, wash water must be removed (pumped) for appropriate off-site disposal.

(20) Fertilizer applications associated with the stabilization plan for the project must meet the following requirements:

(a) Apply fertilizer at a rate and amount as determined by a soil analysis or in accordance with the ISWQM or similar guidance documents.
(b) Apply fertilizer at an appropriate time of year for the project location, taking into consideration proximity to a waterbody, and preferably timed to coincide with the period of maximum vegetative uptake and growth.
(c) Avoid applying fertilizer immediately prior to precipitation events that are anticipated to result in stormwater runoff from the application area.

(21) Proper storage and handling of materials, such as fuels or hazardous wastes, and spill prevention and clean-up measures must be implemented to minimize the potential for pollutants to contaminate surface or ground water or degrade soil quality. To meet this requirement:

(a) A spill prevention and response plan, meeting the requirements in 327 IAC 2-6.1, must be completed.
(b) Proper project management and the utilization of appropriate measures including, but not limited to, eliminating a source or the exposure of materials must be completed.
(c) Manage the following activities:
  (i) Fueling and maintenance of equipment.
  (ii) Washing of equipment and vehicles.
  (iii) Storage, handling, and disposal of construction materials, products, and wastes.
  (iv) Application of pesticides, herbicides, insecticides, and fertilizers.
  (v) Dispensing and utilization of diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals.
  (vi) Handling and disposal of hazardous wastes, including, but not limited to paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.
  (vii) Washing of applicators and containers used for paint, grout, or other materials.

(2) Personnel associated with the project must be informed of the terms and conditions of this permit and the requirements within the SWPPP. The permittee is required to document this process. Information must be provided through written notification, contracts, or other means (i.e., pre-construction meetings) that effectively communicates the provisions and requirements of the permit and SWPPP. Personnel may include, but are not limited to:

(a) General contractors, construction management firms, grading or excavating

contractors, and trade industry representatives (i.e. concrete industry) associated with the overall project.

(b) Contractors or individual lot operators that have primary oversight on individual building lots.

(c) Those responsible for the implementation of the SWPPP, and the installation, repair, and maintenance of stormwater measures.

(d) Those responsible for the application and storage of treatment chemicals.

(e) Those responsible for administering the self-monitoring program (SMP).

(3) A notice must be posted near the main entrance of the project site or at a publicly accessible location. For linear project sites, such as a pipeline or highway, the notice must be placed in a publicly accessible location near the project field office. The notice must be maintained in a legible condition and include:

(a) A copy of the completed IDEM Construction Stormwater Posting Project Information form or a document, such as the Permit Summary Report & Notice of Sufficiency letter produced by IDEM's online ePortal system that at a minimum contains the information referenced in the IDEM CSGP.

(b) The NPDES permit number(s), upon receipt.

(c) The location of the construction plan/SWPPP if the project site does not have an on-site location to store the plan.

(4) The use of anionic polymers (cationic polymers are not authorized for use) on the project site are authorized for sediment control provided their use is in conformance with current State of Indiana standards and specifications and the use is identified in the stormwater pollution prevention plan (SWPPP). If use of a polymer is not in the SWPPP and is selected at a later date, notification to IDEM and the Board is required. An email notification prior to the use of the polymer to the IDEM Storm Water Program and the Board is acceptable.

(5) Restoration and/or clean-up may be required for those areas impacted by sediment or other pollutant discharges. These activities will be performed as directed by the inspecting authority and may require:

(a) Development and submittal of a removal and restoration plan to ensure the methodology chosen will not result in further degradation of the resource.

(b) Permission by a property owner when the restoration activity requires access to a property owned by another entity or individual.

(d) Additional permits prior to initiation of the work.

ii. Stabilization Requirements - The following stabilization requirements apply to all land-disturbing activities:

(1) Un-vegetated areas that are left idle or scheduled to be left inactive must be temporarily or permanently stabilized with measures appropriate for the season to minimize erosion potential. To meet this requirement, the following apply:

(a) Stabilization must be initiated by the end of the seventh day the area is left idle. The stabilization activity must be completed within fourteen (14) days after initiation. Initiation of stabilization includes, but is not limited to, the seeding and/or planting of the exposed area and applying mulch or other temporary surface stabilization methods where appropriate. Areas that are not accessible due to an unexpected and disruptive event that prevents construction activities are not considered idle.
(b) Areas that have been compacted may be excluded from the stabilization requirement when the areas are intended to be impervious surfaces associated with the final land use, provided runoff from the area is directed to appropriate sediment control measures.

(2) Final stabilization of a project site is achieved when:

(a) All land-disturbing activities have been completed and a uniform (evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) has been established on all unpaved disturbed areas, and areas not covered by permanent structures, or equivalent permanent stabilization measures have been employed. This requirement does not apply to:

(i) Landscaping that is part of the final project plan is considered stable when the plan has been fully implemented and areas not being vegetated are stable with a non-erosive material and/or product.
(ii) Projects or specific stormwater measures that utilize native vegetation and/or special vegetative plantings that are either required by a water quality permit/authorization or part of the design and functionality of a stormwater measure provided the activity does not pose a threat that will result in off-site sedimentation.

(iii) Projects on land used for agricultural purposes when:

1. Stabilization is completed in accordance with the above Stabilization Requirements (in (1) (a) and (b)) as land-disturbance progresses. Land that is returned to agricultural production must be temporarily or permanently seeded upon completing land-disturbing activities. Stabilization requirements may be waived by the inspecting authority if the project site does not pose a threat of discharging sediment.
2. Disturbed areas, not previously used for agricultural production, such as filter strips, must be returned to their pre land disturbance use.

(c) Specific projects, due to function and/or operation may necessitate that an area remain disturbed. Only the minimum operational area is allowed to remain disturbed. This option primarily applies to off-road recreational commercial operations but may apply to other land use types upon determination by the

regulating entity.

ii. Design Requirements - The following design requirements 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:

(1) Sound engineering, agronomic, and scientific principles must be utilized for measures contained in the SWPPP.
(2) Appropriate measures must be planned, designed, and installed as part of an erosion and sediment control system and in accordance with the site's construction phasing plan.
(3) Stormwater runoff leaving the project site must be discharged in a manner that is consistent with this ordinance, state, or federal law.
(4) Collected runoff leaving the project site must be directed to an established vegetated area, when feasible and applicable, to increase pollutant removal and maximize stormwater infiltration and then either discharged directly into a well-defined, stable receiving conveyance or diffused and released without causing erosion at the point of discharge.
(5) Conveyance systems must be designed taking into consideration both peak flow and total volume and must be adequately protected so that their final gradients and resultant velocities are unlikely to cause erosion at the outlet or in the receiving channel, based on known conditions of the discharge at the time of design to accommodate post-construction conditions.
(6) Sediment basins, where feasible, must withdraw water from the surface of the water column unless equivalent sediment reduction can be achieved by use of alternative measures. Alternative measures include but are not limited to increasing the basin length to width ratio to 4:1 or greater, implementation of porous baffles, use of flocculants/polymers, and/or phasing of project land disturbance that also incorporates a rapid stabilization program. During freezing conditions, the implementation of alternative withdrawal methods may be utilized.

iii. Monitoring and Management Requirements - A trained individual, acceptable to the Board, shall monitor project construction and stormwater activities. These shall include:

(1) A written evaluation of the entire project site, with the exception of those areas that are considered unsafe. The evaluation must be performed by a trained individual and completed:

(a) Twenty-four (24) hours prior to a qualifying precipitation event or by the end of the next business day following each measurable storm event (excludes accumulated snow events); which is defined as a precipitation accumulation equal to, or greater than, one-half (0.50) inch of rainfall within a 24-hour period. If no rain event occurs within the work week a minimum of one inspection must occur. In the event of multiple qualifying events during the work week, no more than three (3) inspections would be required to meet the self-monitoring

commitment.

(b) At a minimum of one (1) time per month for specific areas within the project which are stabilized with permanent vegetative cover at seventy (70) percent density and/or erosion resistant armoring is installed. A reduction to once per month is also applicable for the entire project site for stabilized common areas, basins, conveyances, outfalls, and inactive building sites. Prior to reducing the monitoring to monthly, records must identify the area and the date the area became eligible for monthly monitoring. Weekly monitoring as identified in (a) above must resume if one or more of the following occurs:

(i) The vegetative cover fails or there is evidence of erosion in the identified area.
(ii) The Board requires monitoring to resume.

(2) A complete evaluation report must include:

(a) Name of the individual performing the evaluation, including printed name, title, and signature (electronic signatures are acceptable).
(b) Date of the evaluation.
(c) Amount of precipitation, when the evaluation is conducted after a measurable storm event. Recorded rainfall may be documented utilizing an on-site rain gauge or storm event information from a weather station that is representative of the project location.
(d) Observations of project performance in relation to:
(i) Implementation of the stormwater pollution prevention plan.
(ii) Assessment of existing stormwater measures based on industry standards and maintenance standards as identified in the designated Stormwater Permit Application Form to ensure each measure is operational and functioning properly.
(iii) Additional measures necessary in the event an existing measure fails or is not present in the landscape
(iv) Impacts including, but not limited to, sediment discharges, erosion, discharges that results in bank erosion, and operational activities that have the potential to generate pollutants and unauthorized discharges.
(e) Documentation of an actual discharge that is visible during the assessment, the location of the discharge and a visual description of the discharge. The visual description includes, but is not limited to, color (turbidity reading is an option), odor, floatables, settled/suspended solids, foam, oil sheen, and any other visible sign that may be attributed to operations occurring on the project site.
(f) Detail of corrective action recommended and/or completed. Corrective action includes, but is not limited to:
(i) Repairing, modifying, or replacing any stormwater management measure.
(ii) Clean-up and proper disposal of spills, releases, or other deposits.
(iii) Remedying a permit violation.
(iv) Taking reasonable steps to remediate, minimize or prevent the discharge of pollutants associated with the construction activity until a permanent

corrective solution is initiated.

(v) Restoring an impacted area and/or removing accumulated sediment, provided appropriate permission and permits are obtained to conduct the activity.

(g) A timeline for which the corrective action will occur to remediate the discharge of pollutants. The established corrective action, at a minimum, must be initiated:

(i) On the day the deficiency was discovered or when it is not practical to initiate on the discovery date, no later than forty- eight (48) hours for the repair of a measure or installation of a temporary measure until a new and/or replacement measure is installed as specified in item ii) below.

(ii) Within seven (7) days of discovery for the installation of a new (alternative) measure or replacement of an existing measure unless a shorter timeframe is required as part of a regulatory inspection. The inspecting authority may also allow additional time to take corrective action.

(iii) If corrective action cannot be achieved within the timelines outlined in (i) or (ii) above, a reason for incompletion must be provided and documented, including the anticipated completion date.

(h) Documentation of corrective action taken from the previous self-monitoring report.

(3) Maintaining the SMP reports at the site or at an easily accessible location (refer to v. Project Documentation Requirements below).

(4) Providing all written reports for the project site to the Board within forty-eight (48) hours of a request. Electronic copies are acceptable, provided they are in a format consistent with the paper record.

iv. Project Documentation Requirements – The following project documentation shall be developed and maintained:

(1) Maintain a project management log that contains:

(a) Information related to all off-site borrow sites, disposal areas, and staging areas, including the location of each activity as it is identified and/or selected.

(b) Information related to all project activities including, but not limited to:

(i) SMP reports.

(ii) Regulatory inspections.

(iii) Responses to a compliance action or enforcement action.

(iv) Records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change and a summary of all changes.

(2) Ensure the SWPPP and supporting documentation associated with the SMP and project management log are accessible at the project site office or in the possession of on-site individuals with responsibility for the overall project management or

associated with the management and operations of construction activities. This information must be provided to the Board within forty-eight (48) hours of a request.

v. Project Termination Requirements – 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 Board or a designee, requesting a termination inspection. The Board or a designee, or its representative, shall inspect the construction site to verify that the completed project is fully stabilized and meets the terms and conditions of the permit. Once the applicant receives a copy of the Termination Inspection Report confirming compliance, they must forward a copy to IDEM along with the required IDEM NOT information and submit a completed Certification of Completion and Compliance to the Board.

vi. Individual Lot Requirements – An individual lot located within a larger permitted project site, is considered part of the larger permitted project site, and the individual lot operator must comply with the terms and conditions of the stormwater permit approved for the larger project site. The stormwater permit application for the larger project site must include detailed erosion and sediment control measures for individual lots. In addition, the builders of these individual lots are required to develop a SWPPP for the individual lot per requirement included in Appendix A and complete a Construction Stormwater Residential Development Registration form (State Form 53049) and maintain it onsite.

P. Post-Construction Requirements

i. Stormwater Quantity Control Measures – All sites shall establish stormwater management practices so that the post-development runoff rate of stormwater and/or volume from the project site must not exceed the pre-development discharge based on the two-year, ten-year, and one-hundred-year peak storm events.

(1) The details of the City of Bluffton stormwater quantity management requirements shall be in accordance with that provided in the Wells County, Indiana Technical standards (Article 7). The required information as part of the City of Bluffton Stormwater Permit application is contained in the permit application checklist in Appendix A.

ii. Stormwater Quality Control Measures – Runoff from the project site must be managed to minimize pollutants that are expected to be associated with storm water run-off from the final land use. To achieve pollutant minimization goals, measures must be selected based on correct sizing to address the Water Quality Volume (WQv) or water quality flow rate (Qwq) to ensure compliance with 327 IAC 2-1-6(a)(1)(A-D) and 327 IAC 2-1.5-8(a) and 327 IAC 2-1.5-8 (b)(1)(A-D).

(1) Board has established a minimum standard that the measurement of the effectiveness of the control of post-construction stormwater runoff quality will be

based on removal of floatables in stormwater runoff and treatment, to the maximum extent practicable, of all major pollutants of concern expected for the proposed land use and/or those identified in the Storm Water Pollution Prevention Plan (SWPPP) for the site (including, if applicable, those pollutants found to be the cause of the receiving stream to be listed in IDEM 303(d) list) for the first inch of rainfall at the site. The above-noted "maximum extent practicable" criterion is subject to a minimum of 80% removal of Total Suspended Solids (TSS). These requirements are adopted as the basis of the City of Bluffton stormwater quality management program for all areas of the jurisdiction. For the purpose of these Standards, the control of post-construction stormwater runoff quality is assumed satisfactory when the appropriate number of pre-approved structural BMPs listed in **Table 1**, sized to treat the Water Quality Volume (WQv) or Water Quality Flow (Qwq) for the total site disturbed area are designed, installed, and operated in accordance with fact sheets provided in the appendices provided in the Indiana Office of Community and Rural Affairs (OCRA) Green Infrastructure Curriculum and Training web resources (Appendix-C-BMP-Fact-Sheets.pdf (in.gov)).

Innovative BMPs, including but not limited to, BMPs not previously accepted by Board must be certified by a Professional Engineer licensed in State of Indiana and approved through the Board. ASTM standard methods must be followed when verifying performance of new measures. New BMPs, individually or in combination, must meet the minimum 80% TSS removal standard, including the capture and removal of floatables. All innovative BMPs must have a low to medium maintenance requirement to be considered by the Board. Testing to establish the pollutant removal rate must be conducted by an independent testing facility, not the BMP manufacturer. The accepted design flow rate for a Water Quality Device shall be the flow value at which the claimed removal rate for TSS is equaled or exceeded based on the unit's efficiency curve (flow rate versus removal rate graph).

Stormwater Manufactured Treatment Devices (MTD), also known as Hydrodynamic separators are proprietary, and usually include a pollutant-water separation component. The MTD should be sized to treat flows up to, and including, the Water Quality Treatment Rate (Qwq) calculated for each project site outlet. To be acceptable, the MTD should meet the following criteria:

- The MTD must be offline and located upstream of detention facilities (if any).
- The MTD must provide complete and unobstructed access to the entire bottom of the system from grade level, if applicable, for ease of maintenance.
- The MTD, or the treatment train (if applicable) that includes the MTD as one of its components, must have the ability to capture or skim pollutants including but not limited to: floating oils / immiscible materials.

- The MTD, or the treatment train (if applicable) that includes the MTD as one of its components, must have the ability to capture both floating and suspended solid material (trash, organic material, etc.) and other pollutants.
- The MTD shall be a manufactured system currently certified by the New Jersey Department of Environmental Protection (NJDEP). A list of NJDEP-MTDs certified for 50% and 80% TSS removal are provided in a table located at http://www.nj.gov/dep/stormwater/treatment.html.

To obtain the maximum flow rate for various models of a MTD that is listed in the NJDEP-certified list, the latest verification report from NJCAT Verification Database must be used. A link to the database is provided right above the NJDEP-certified list table.

In summary, the following steps should be used to determine whether a proposed MTD unit is NJDEP-certified and to determine the accepted maximum flow rate for that unit.

Step 1: Determine if the MTD is NJDEP-certified for 50% treatment rate (when the MTD will be used in a treatment train) or 80% treatment rate (when the MTD will be used alone):

a) Go to http://www.nj.gov/dep/stormwater/treatment.html
b) Look up the name of the MTD in the first column of the table
c) Look up the Certified TSS Removal Rate of that MTD in the fourth column

Step 2: Determine the maximum accepted flow rate:

a) Click the link "Certification" in the second column of the NJDEP-certified list table referenced in Step 1. In some cases, a table of MTD model versus the NJDEP-certified maximum flow rate is included in the certification letter. In that case, skip to sub-step "g)" (below). If not continue to the sub-step "b)" (below)
b) Click the "Click here" link above the NJDEP-certified list table to access NJCAT Verification Database
c) Find the name of the MTD manufacturer of interest in first column
d) Find the latest entry (one with the latest verification date shown in third column) for that particular MTD
e) Click the report download link in the fourth column
f) Find the Table in the report (typically towards the end of the report) that lists various MTD model sizes along with the NJDEP 50% (or 80%, if appropriate) TSS Maximum Treatment Flow Rate
g) The selected model should have a maximum flow rate that is equal or larger than the site's required treatment flow rate as determined in Section C.2 of this Chapter.

Note that the NJDEP-certified manufactured system treatment rates for units not equipped with special filters reflect a standard certified 50% TSS reduction at the listed certified treatment flow rate. Therefore, to achieve the 80% TSS removal

requirement, either a treatment train with a conventional listed in Table 8-1 (except for another MTD or a sand filter) must be used or a filtration system must be used instead in accordance with the NJDEP methodology. The treatment train shall not include more than one MTD.

Also, note that multiple inlet or units in series configurations are not accepted unless the NJCAT certification and NJDEP verification is specifically done for such an arrangement.

Note that a single BMP measure may not be adequate to achieve the water quality requirements (as noted above) for a project. It is for this reason that a "treatment train", a number of BMPs in series, is often required for a project. The pollutant removal efficiency of a number of BMPs in series may be determined from the following formula:

$$E_{series} = 1 - (1-E_1)(1-E_2)(1-E_3)\ldots$$

where,
E_{series} = Removal Efficiency of the BMP series combined (in decimal form)
E_1, E_2, E_3,... = Removal Efficiency of Units 1, 2,3, ..., respectively (in decimal form)

Methodology for determining the WQv and Qwq are provided below:

(a) Water Quality Volume (WQv)

Water Quality Detention BMPs must be designed to store the water quality volume for treatment. The water quality volume, WQv, is the storage needed to capture and treat the runoff from the first one inch of rainfall. The water quality volume is equivalent to one inch of rainfall multiplied by the volumetric runoff coefficient (Rv) multiplied by the site area.

$$WQv = (P)\ (Rv)\ (A) / 12$$

where:
WQv = water quality volume for each site's outlet (acre-feet)
P = 1 inch
Rv = volumetric runoff coefficient
A = area in acres

The volumetric runoff coefficient is a measure of imperviousness for the contributing area, and is calculated as:

$$Rv = 0.05 + 0.009(I)$$

Where:

I is the percent impervious cover

For example, a proposed commercial site will be designed to drain to three different outlets, with the following drainage areas and impervious percentages:

Subarea ID	On-site Contributing Area (acres)	Impervious Area %	Off-Site Contributing Area (acres)
A	7.5	80	0.0
B	4.3	75	0.0
C	6.0	77	0.0

Calculating the volumetric runoff coefficient for subareas A, B and C yields:

Rv (subarea A) = 0.05+0.009(80) = 0.77
Rv (subarea B) = 0.05+0.009(75) = 0.73
Rv (subarea C) = 0.05+0.009(77) = 0.74

The water quality volumes for these three areas are then calculated as:

WQv (subarea A) = (1")(Rv)(A)/12 = 0.77(7.5)/12 = 0.47 acre-feet
WQv (subarea B) = 0.73(4.3)/12 = 0.26 acre-feet
WQv (subarea C) = 0.74(6.0)/12 = 0.37 acre-feet

Note that this example assumed no offsite sources of discharge through the water quality BMPs. If there were significant sources of off-site runoff (sometimes called runon for upstream areas draining to the site), the designer would have the option of bypassing off-site runoff around the on-site systems, or the detention BMP should be sized to treat the on-site channel protection volume plus the water quality volume for the off-site sources.

(b) Water Quality Treatment Flow Rate (Qwq)

The following procedure should be used to estimate peak discharges for flow through BMPs (adopted from Maryland, 2000). It relies on the volume of runoff computed using the Small Storm Hydrology Method (Pitt, 1994) and utilizes the NRCS, TR-55 Method.

Using the WQv methodology, a corresponding Curve Number (CNwq) is computed utilizing the following equation:

$$CNwq = \frac{1000}{\left[10 + 5P + 10Qa - 10\sqrt{Qa^2 + 1.25QaP}\right]}$$

where:

CNwq = curve number for water quality storm event
P = 1" (rainfall for water quality storm event)
Qa = runoff volume, in inches = 1"×Rv = Rv (inches)
Rv=volumetric runoff coefficient (see previous section)

Due to the complexity of the above equation, the water quality curve number is represented as a function of percent imperviousness in **Figure 1**.

The water quality curve number, CNwq, is then used in conjunction with the standard calculated time-of-concentration, tc, and drainage area as the basis input for TR-55 calculations. Using the SCS Type II distribution for 1 inch of rainfall in 24-hours, the water quality treatment rate, Qwq, can then be calculated.

TABLE 1
Pre-approved Post-Construction BMPs for Conventional Approach

BMP[A]	Typical % Removal Efficiency[B]	Maintenance Easement Requirements
	TSS	
Bioretention	90[C]	25 feet wide along the perimeter
Constructed Wetland	67[C]	25 feet wide along the outer perimeter of forebay & 30 feet wide along centerline of outlet
Underground Detention	70	20 feet wide strip from access easement to tank's access shaft & 30 feet wide along centerline of inlet and outlet
Extended Detention/Dry Pond	72	25 feet wide along the outer perimeter of forebay & 30 feet wide along centerline of outlet
Infiltration Basin (including retention ponds with pretreatment)	90[C]	25 feet wide along the perimeter
Infiltration Trench	90[C]	25 feet wide along the perimeter
Constructed (Sand) Filter	70[C]	25 feet wide along the perimeter
Water Quality Device	VARIES[D]	20 feet wide strip from access easement to chamber's access shaft
Vegetated Filter Strip	78[C]	25 feet wide along the length on the pavement side
Vegetated Swale	81[C]	25 feet wide along the top of bank on one side
Wet Ponds/Retention Basin	80	25 feet wide along the outer perimeter of forebay & 30 feet wide along centerline of outlet

Notes:

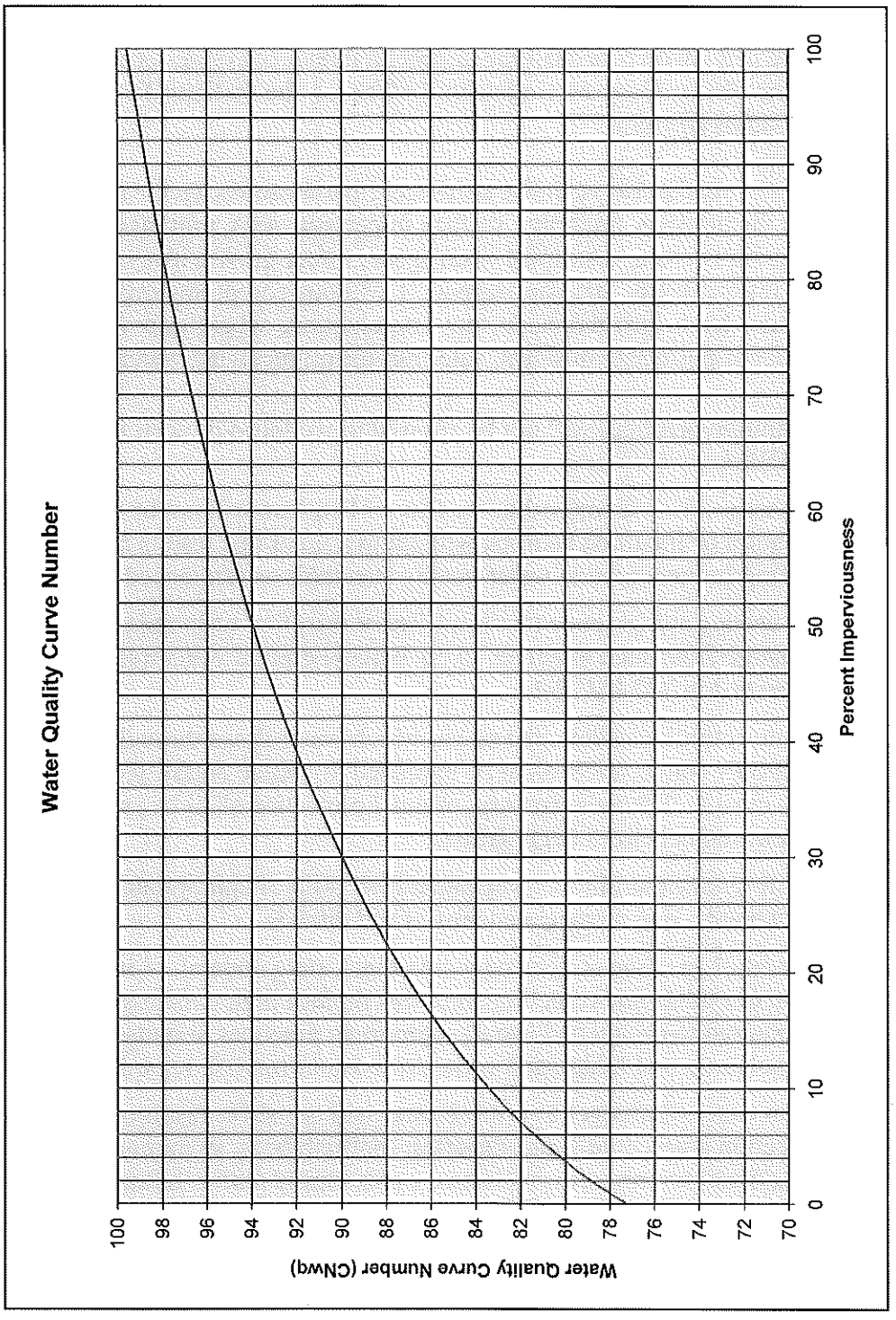
A. Detailed specifications for these BMPs are provided in the fact sheets contained in the appendices provided in the Indiana Office of Community and Rural Affairs (OCRA) Green Infrastructure Curriculum and Training web resources (Appendix-C-BMP-Fact-Sheets.pdf (in.gov)).

B. Removal rates shown are based on typical results. Unless otherwise shown, data extracted from various data sources. These rates are also dependent on proper installation and maintenance. The ultimate responsibility for determining whether additional measures must be taken to meet the Ordinance requirements for site-specific conditions rests with the applicant.

C. IDEM Stormwater Quality Manual.

D. The removal rate for this category varies widely between various models and manufacturers. The acceptable treatment rate for these devices shall be based on that currently certified by the New Jersey Department of Environmental Protection (NJDEP). Further details on acceptable Water Quality Devices and their treatment rates are provided in Chapter 9.

Figure 1
Curve Number Calculation for Water Quality Storm Event



(2) All storm water runoff generated from new development shall not discharge untreated storm water directly into a jurisdictional wetland or local water body without adequate treatment. Where such discharges are proposed, the impact of the proposal on wetland functional values shall be assessed using a method acceptable to the City. In no case shall the impact on functional values be any less than allowed by the Army Corp of Engineers (ACE) or the Indiana Department of Natural Resources (IDNR).

(3) All sites shall preserve buffer strips and riparian zones, create filter strips, minimize land disturbance, minimize surface imperviousness, minimize directly connected impervious areas, maximize open space, direct growth away from sensitive areas and toward areas that can support it without compromising water quality, have storage, have infiltration, in any combination, where appropriate to reduce the impact of pollutants in storm water run-off on receiving waters.

(4) Infiltration practices will not be allowed in wellhead protection areas, as defined by IDEM.

(5) Discharges from areas within the City of Bluffton will not be allowed directly into sinkholes or fractured bedrock without treatment that results in the discharge meeting Indiana ground water quality standards as referenced in 327 IAC 2-11.

(6) Any stormwater practice that is a Class V injection well must ensure that the discharge from such practices meets Indiana ground water quality standards as referenced in 327 IAC 2-11.

(7) As site conditions allow, the rate at which water flows through the City of Bluffton's conveyances shall be regulated to reduce outfall scouring and stream bank erosion. Where necessary, channel protection shall be provided to protect stream channels from degradation.

(8) As site conditions allow, a vegetated filter strip of appropriate width shall be maintained along unvegetated swales and ditches.

(9) New retail gasoline outlets, new municipal, state, federal, or institutional refueling areas, or outlets and refueling areas that replace their existing tank systems shall be required to design and install appropriate practices to reduce lead, copper, zinc, and polyaromatic hydrocarbons in storm water run-off, regardless of their size.

(10) Storm water discharges to critical areas with sensitive resources (i.e., wellhead protection areas, cold water fisheries, shellfish beds, swimming beaches, recreational waters, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

(11) Certain industrial sites are required to prepare and implement a storm water pollution prevention plan in accordance with 327 IAC 15-6 or the Industrial Storm Water General Permit, which will replace 327 IAC 15-6, and shall file a notice of intent (NOI) under the provisions of the National Pollutant Discharge

Elimination System (NPDES) general permit. The storm water pollution prevention plan requirement applies to both existing and new industrial sites.

(12) Storm water management practices that are part of a pollution prevention plan shall have a landscape detail showing both the vegetation to be in the practice and how and who will manage and maintain this vegetation.

(13) For those projects involving land uses considered to be high pollutant producers or stormwater Hot Spots (see **Table 2**), additional water quality requirements may be imposed by the Board in addition to those included in water quality criteria in order to remove potential pollutant loadings from entering either groundwater or surface water systems. These pre-treatment options are included in **Tables 2 and 3**.

Table 2
Pre-Treatment options for Stormwater Hot Spots

Stormwater Hot Spots	Minimum Pre-Treatment Options (see Table 3)
Vehicle Maintenance and Repair Facilities	A, E, F, G
Fleet Storage Areas for Busses, Trucks, Etc.	A, G
Vehicle Fueling Stations	A, G
Drive-through Restaurants, Pharmacies, Convenience Stores	B, C, I, K
Outdoor Chemical Mixing or Handling	G, H
Outdoor Storage of Liquids	G
Commercial Nursery Operations	I, J, L
Other Uses or Activities Designated by Appropriate Authority	As Required

Table 3
Minimum Pre-Treatment Options

Minimum Pre-Treatment Options	
A	Oil/Water Separators / Hydrodynamic Separators
B	Sediment Traps/Catch Basin Sumps
C	Trash/Debris Collectors in Catch Basins
D	Use of Drip Pans and/or Dry Sweep Material under Vehicles/Equipment
E	Use of Absorbent Devices to Reduce Liquid Releases
F	Spill Prevention and Response Program
G	Diversion of Stormwater away from Potential Contamination Areas
H	Vegetated Swales/Filter Strips
I	Constructed Wetlands
J	Stormwater Filters (Sand, Peat, Compost, etc.)
K	Stormwater Collection and Reuse (especially for irrigation)

iii. Inspection and Maintenance Requirements: Subsequent to successful installation of Post-construction BMPs, they need to be inspected and maintained regularly in accordance with the Operation and Maintenance Manual required to be prepared for each BMP. An operations and maintenance (O&M) manual for all MS4-owned or private infrastructure, including but not limited to pipes, ponds, ditches, and BMPs (when required), shall be submitted for the final plan approval and permit process. The manual will become a maintenance guide for the drainage infrastructure once

development is complete. The final O&M manual will be provided to the Board in both hard copy and digital formats. The O&M manual maintenance agreement along with a site map showing the BMP locations shall be recorded with the final plat. The O&M manual will include the following:

(1) Name, address, business phone number, home phone number, email address, cellular phone number, pager number of owner;
(2) Site drawings (8½" by 11" or 11" by 17"), showing both plan and cross-section views, showing the infrastructure and applicable features, including dimensions, easements, outlet works, forebays, signage, etc., as well as an overall site map of the development showing all structures;
(3) Guidance on owner-required periodic inspections;
(4) Requirement of owner to perform maintenance specified by Board inspection, if any;
(5) Guidance on routine maintenance, including mowing, litter removal, woody growth removal, signage, etc.;
(6) Guidance on remedial maintenance; such as inlet replacement, outlet works maintenance, etc.;
(7) Guidance on sediment and trash removal, both narrative and graphical, describing when sediment removal should occur in order to ensure that BMPs and other infrastructure remain effective as water quality and/or quantity control devices;
(8) A statement that the Board's representatives have the right to enter the property to inspect the infrastructure;
(9) A tabular schedule showing inspection and maintenance requirements; and
(10) Identification of the property owner and all future owners, such as the Homeowners Association, as the party responsible for all maintenance, including cost.
(11) Identification of the planned future owners or the Homeowners Association, if applicable, for eventual transfer of BMP ownership and maintenance responsibilities.
(12) Inspection checklists for various types of BMPs are provided in the appendices provided in the Indiana Office of Community and Rural Affairs (OCRA) Green Infrastructure Curriculum and Training web resources (https://www.in.gov/ocra/2367.htm). A sample of the required Stormwater Management Maintenance Agreement is provided in Appendix A. This agreement will need to be further customized, signed, notarized, and recorded so that it can be a part of the property's deed. The maintenance agreement and the O&M Manual shall be transferred to the new owner as the ownership and BMP maintenance responsibilities change hands.

iv. Maintain natural drainage for any portion of the real estate not served by a constructed drainage system.

v. Keep all natural features such as wetlands protected from stormwater runoff pollutants.

7. SENSITIVE AREAS

In the event that a project site is determined to impact or discharge to a sensitive area as defined by the City's Water Quality Characterization Report (WQCR), the Board may require more stringent stormwater quantity and quality measures.

8. COMPLIANCE AND ENFORCEMENT

A. Compliance of 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 all applicable ordinances of the City of Bluffton as well as with applicable State of Indiana statutes and regulations shall also be required. Unless otherwise stated, all other specifications referred to in this Ordinance shall be the most recent edition available.

i. Definitions

(1) 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 are 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.

(2) Compliance. The act of correcting a violation or violations within the time frame specified by the Board.

(3) 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 C.iii.

ii. Warning Notice

When the Board finds that any person has violated, or continues to violate, any provision of this ordinance, or any order issued hereunder, the Board 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 Board to take any action, including emergency action or any other enforcement action, without first issuing a Warning Notice.

B. Right to Enter Premises.

i. The City shall have the right to enter on any premises for any of the following reasons:
(1) Investigate a suspected spill or discharge into the stormwater or City's storm drain

system;
(2) To carry out routine or investigative inspections;
(3) To carry out routine or investigative sampling;
(4) To verify compliance with any agreed order, order of the Board or order of any court of competent jurisdiction.

ii. If the Board has been refused access to any part of the premises from which stormwater is discharged and the Board is able to reasonably demonstrate to a court of competent jurisdiction within Wells County that there may be a violation of this ordinance, or that there is a need to inspect or sample as part of the Board's inspections or sampling program, the court may grant an order allowing City access to all relevant parts of a premises.

Any written notice of violation shall be issued upon the responsible party by regular U.S. mail or delivered personally to the responsible party unless the applicable ordinance or statute requires different written notice.

C. Enforcement of This Ordinance

i. Notice of Violation/Citation

If the Board determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management design plan, a recorded stormwater management maintenance agreement, or the provisions of this ordinance, it may 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.

ii. Compensatory Action

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

iii. 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 Board 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.

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

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

Likewise, in order to standardize the approach that the Board may, in its discretion, employ in the imposition of Administrative Penalties, the Board has established the following Schedule of Administrative Penalties. Again, the penalty for the 1st offense would apply to the violation itself, while the subsequent penalties 2 through 4 (as necessary) would apply to failures of compliance. In its discretion, the Board may impose penalties up to the amount specified in this Schedule.

Offense #	Penalty
1st offense	$250.00
2nd offense	$500.00
3rd offense	$1,000.00
4th offense	$2,500.00

iv. 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 Board 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 Board to proceed with the work. Note that per IC 13-18-27-18, if the Board has made a conclusive favorable determination concerning a construction plan (including SWPPP) and work on the construction project has begun, the Board may not order work on the construction project to stop on the grounds that the erosion and sediment control measures

included in the construction plan are not adequate unless the project site owner is notified in writing of the inadequacies that the Board perceives in the erosion and sediment control measures and the perceived inadequacies are not resolved within seventy-two (72) hours after the project site owner receives the written notice. However, this limitation does not prohibit the Board from ordering work on a construction project to stop immediately if the project site owner is creating a public health hazard or a safety hazard.

A Stop Work Order will be posted on the site by the Board and it is unlawful for any person to remove the notice or continue any work on the site without permission from the Board. The Board may also undertake or cause to be undertaken, any necessary or advisable protective measures to prevent violations of this Ordinance or to avoid or reduce the effects of noncompliance herewith. The cost of any such protective measures shall be the responsibility of the owner of the property upon which the work is being done and the responsibility of any person carrying out or participating in the work.

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

For construction projects that are operating under a SWPPP approved by the Board, 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 shall 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.

v. Withhold Certificate of Occupancy

The Board 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 Board.

vi. Suspension, Revocation, or Modification of Permits

The Board may suspend, revoke, or modify any existing permit that the violator may also have been previously granted. A suspended, revoked, or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated upon such conditions as the Board may deem necessary to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

vii. Suspension of Access to the Stormwater Drainage System

(1) Emergency Cease and Desist Orders. When the Board 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 Board 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 Board may commencé court action against such person under IC 34-28-5-1 (b), to be read together with IC 34-6-2-86(1)(B) and 13-21-3-12(4), to enforce a stop work order.

The Board may allow the person to recommence its discharge when it has demonstrated to the satisfaction of the Board 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 Board within 5 days of receipt of the emergency order. Issuance of an emergency cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the violator.

(2) Suspension Due to Illicit Discharges in Emergency Situations. The Board may, without prior notice, suspend stormwater drainage system discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the stormwater drainage system or waters of the state if the violator fails to comply with a suspension order issued in an emergency, the Board 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.

(3) 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 Board will notify a violator of the proposed termination of its stormwater drainage system access. The violator may petition the Board for a reconsideration and hearing. A person commits an offense if the person reinstates stormwater drainage system access to premises terminated pursuant to this Section, without the prior approval of the Board.

D. 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 Board may, after giving notice and opportunity for compliance, have the necessary work done, and the owner shall be required to promptly reimburse the Board for all costs of such work.

Nothing herein contained shall prevent the Board 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 Bluffton'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 Board or by the expiration of the time in which to file an appeal, the Board may commence a court action to recover the costs assessed under IC 34-28-5-1 (b), to be read together with IC 34-6-2-86(1)(B) and 13-21-3-12(4).

E. Appeals

i. 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 Bluffton 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 Bluffton 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 Bluffton may consider the recommendations of the City of Bluffton 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:

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

(2) 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.

(3) 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 Wells Circuit Court within 60 days of the Boards order, all pursuant to IC 36-1-6-9 (e) & (f).

ii. Enforcement Measures After Appeal

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 5 days of the decision of the Board of Public Works and Safety upholding the decision of the Board, then representatives of the Board 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.

Effective Date. This ordinance shall be in full force and effect from and after the date of its passage, approval, and publication as provided by law.

[Signatures are on the following page.]

Adopted by the Common Council of the City of Bluffton, Indiana, this 5 day of March 2024, by the following vote:

AYES 7, to-wit:	NAYS 0, to-wit:	ABSENT 0, to-wit:

Mayor John S. Whicker, Presiding Officer

ATTEST:

Michelle Simon, City Clerk-Treasurer

Presented by me to the Mayor of the City of Bluffton, Indiana, at 9:30 o'clock p.m. this 5 day of Mar, 2024.

Michelle Simon,
City Clerk-Treasurer

Approved by me this 5 day of March, 2024.

Mayor John S. Whicker

APPENDIX A
Forms

Application/Checklist for Stormwater Permit
Construction/SWPPP Technical Review Form
BMP Maintenance Agreement
Termination Inspection Checklist
Certification of Completeness and Compliance
Individual Lot/Parcel SWPPP Requirements
IDEM State Form 53049 (Individual Lot Registration)

City of Bluffton
Application/Checklist for Stormwater Permit
(To Be Completed by Applicant)

Project Name:		
General Location:		
Form Completed By (Name):		Date Completed:
Total Site Acreage:	Proposed Land Disturbance Acreage:	

1. Application Fee

Check Attached	Amt. $

2. Owner/Applicant Information

Owner Name:	Phone #:	E-Mail:
Engineer Company Name:		
Engineer Name:	Phone #:	E-Mail:
Brief Project Purpose and Description:		

3. Construction Plans – General Requirements			**☑ Included?**
3.1	Title sheet which includes location map, vicinity map, operating authority, design company name, developer name, and index of plan sheets.		
3.2	A copy of a legal boundary survey for the site, performed in accordance with Rule 12 of Title 865 of the Indiana Administrative Code or any applicable and subsequently adopted rule or regulation for the subdivision limits, including all drainage easements and wetlands.		
3.3	A reduced plat or project site map showing the parcel identification numbers, the lot numbers, lot boundaries, easements, and road layout and names. The reduced map must be legible and submitted on a sheet or sheets no larger than eleven (11) inches by seventeen (17) inches for all phases or sections of the project site.		
3.4	An existing project site layout that must include the following information:		
	3.4a	A topographic map of the land to be developed and such adjoining land whose topography may affect the layout or drainage of the development. The contour intervals shall be one (1) foot when slopes are less than or equal to two percent (<2%) and shall be two (2) feet when slopes exceed two percent (>2%). All elevations shall be given in either National Geodetic Vertical Datum of 1929 (NGVD) or North American Vertical Datum of 1988 (NAVD). The horizontal datum of topographic map shall be based on Indiana State Plane Coordinates, NAD83. The map will contain a notation indicating these datum information. i. If the project site is less than or equal to two (2) acres in total land area, the topographic map shall include all topography of land surrounding the site to a distance of at least one hundred (100) feet. ii. If the project site is greater than two (2) acres in total land area, the topographic map shall include all topography of land surrounding the site to a distance of at least two hundred (200) feet.	
	3.4b	Location, name, and normal water level of all wetlands, lakes, ponds, and water courses on or adjacent to the project site.	
	3.4c	Location of storm, sanitary, combined sewer, and septic tank systems and outfalls.	
	3.4d	The location of regulated drains, farm drains, inlets and outfalls, if any of record.	

	3.4e	Location of all existing section corners within the proposed development and a plan to protect and preserve them.	
3.5	A grading and drainage plan, including the following information:		
	3.5a	Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas.	
	3.5b	Delineation of all proposed land disturbing activities, including off-site activities that will provide services to the project site.	
	3.5c	Information regarding any off-site borrow, stockpile, or disposal areas that are associated with a project site, regardless of who owns or controls those areas. Off-site disposal areas may need to have their own permits.	
	3.5d	Location, size, and dimensions of all existing streams to be maintained, and new drainage systems such as culverts, bridges, storm sewers, conveyance channels, and 100-year overflow paths/ponding areas shown as hatched areas, along with the associated easements.	
	3.5e	Location, size, and dimensions of features such as permanent retention or detention facilities, including existing or manmade wetlands, used for the purpose of stormwater management. Include existing retention or detention facilities that will be maintained, enlarged, or otherwise altered and new ponds or basins to be built.	
	3.5f	One or more typical cross sections of all existing and proposed channels or other open drainage facilities carried to a point above the 100-year high water and showing the elevation of the existing land and the proposed changes, together with the high water elevations expected from the 100 year storm under the controlled conditions called for by this ordinance, and the relationship of structures, streets, and other facilities.	
3.6	Utility plan sheet(s) showing the location of all proposed utility lines for the project		
3.7	Storm sewer plan/profile sheet(s) showing the elevation, size, length, location of al proposed storm sewers. Existing and proposed ground grades, storm sewer structures elevations, and utility crossings also must be included.		
3.8	A 24-inch by 36-inch plat, including the following information:		
	3.8a	Legal description.	
	3.8b	Cross reference to Rule 12.	
	3.8c	Regulated drain statement and table.	
3.9	Any other information required by the City of Bluffton to thoroughly evaluate the submitted material.		
4. Storm Water Drainage Technical Report			**☑ Included?**
4.1	A summary report, including the following information:		
	4.1a	Description of the nature and purpose of the project.	
	4.1b	The significant drainage problems associated with the project.	
	4.1c	The analysis procedure used to evaluate these problems and to propose solutions.	
	4.1d	Any assumptions or special conditions associated with the use of these procedures, especially the hydrologic or hydraulic methods.	
	4.1e	The proposed design of the drainage control system.	
	4.1f	The results of the analysis of the proposed drainage control system showing that it does solve the project's drainage problems. Any hydrologic or hydraulic calculations or modeling results must be adequately cited and described in the summary description. If hydrologic or hydraulic models are used, the input and output files for all necessary runs must be included in the appendices. A map showing any drainage area subdivisions used in the analysis must accompany the report.	
	4.1g	Proof of Errors and Omissions Insurance for the registered professional engineer or licensed surveyor.	
4.2	A Hydrologic/Hydraulic Analysis, consistent with the methodologies and calculation included in the technical standards, and including the following information:		

	4.2a	A hydraulic report detailing existing and proposed drainage patterns on the subject site. The report should include a description of present land use and proposed land use. Any off-site drainage entering the site should be addressed as well. This report should be comprehensive and detail all of the steps the engineer took during the design process.	
	4.2b	All hydrologic and hydraulic computations should be included in the submittal. These calculations should include, but are not limited to: runoff curve numbers and runoff coefficients, runoff calculations, stage-discharge relationships, times-of-concentration and storage volumes.	
	4.2c	Copies of all computer runs. These computer runs should include both the input and the outputs. Electronic copies of the computer runs with input files will expedite the review process and is required to be submitted.	
	4.2d	A set of exhibits should be included showing the drainage sub-areas and a schematic detailing of how the computer models were set up.	
	4.2e	A conclusion which summarizes the hydraulic design and details how this design satisfies this Ordinance.	
5. Stormwater Pollution Prevention Plan for Construction Sites			**☑ Included?**
5.1	Construction Plan Elements (Section A in IDEM Form)		
	A1	Index of the location of required plan elements in the construction plan	
	A2	A vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads	
	A3	Narrative of the nature and purpose of the project	
	A4	Latitude and longitude to the nearest fifteen (15) seconds	
	A5	Legal description of the project site	
	A6	11 X 17-inch plat showing building lot numbers/boundaries and road layout/names	
	A7	Boundaries of the one hundred (100) year floodplains, floodway fringes, and floodways	
	A8	Land use of all adjacent properties	
	A9	Identification of a U.S. EPA approved or established TMDL	
	A10	Name(s) of the receiving water(s)	
	A11	Identification of discharges to a water on the current 303d list of impaired waters and the pollutant(s) for which it is impaired	
	A12	Soil map of the predominant soil types	
	A13	Identification and location of all known wetlands, lakes and water courses on or adjacent to the project site (construction plan, existing site layout)	
	A14	Identification of any other state or federal water quality permits or authorizations that are required for construction activities	
	A15	Identification and delineation of existing cover, including natural buffers	
	A16	Existing topography at a contour interval appropriate to indicate drainage patterns	
	A17	Location(s) of where run-off enters the project site	
	A18	Location(s) of where run-off discharges from the project site prior to land disturbance	
	A19	Location of all existing structures on the project site	

	A20	Existing permanent retention or detention facilities, including manmade wetlands, designed for the purpose of stormwater management	
	A21	Locations where stormwater may be directly discharged into ground water, such as abandoned wells, sinkholes, or karst features	
	A22	Size of the project area expressed in acres	
	A23	Total expected land disturbance expressed in acres	
	A24	Proposed final topography	
	A25	Locations and approximate boundaries of all disturbed areas	
	A26	Location, size, and dimensions of all stormwater drainage systems, such as culverts, storm sewers, and conveyance channels	
	A27	Locations of specific points where stormwater and non-stormwater discharges will leave the project site	
	A28	Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas	
	A29	Location of all on-site soil stockpiles and borrow areas	
	A30	Construction support activities that are expected to be part of the project	
	A31	Location of any in-stream activities that are planned for the project including, but not limited to stream crossings and pump arounds	
5.2	Erosion and Sediment Control/Project Site Management (Section B in IDEM Form)		
	B1	Description of the potential pollutant generating sources and pollutants, including all potential non-stormwater discharges	
	Where applicable, Items in B2 through B10 below will be evaluated for location, dimensions, detailed specifications, and construction details		
	B2	Stable construction entrance locations and specifications	
	B3	Specifications for temporary and permanent stabilization	
	B4	Sediment control measures for concentrated flow areas	
	B5	Sediment control measures for sheet flow areas	
	B6	Run-off control measures	
	B7	Stormwater outlet protection locations and specifications	
	B8	Grade stabilization structure locations and specifications	
	B9	Dewatering applications and management methods	
	B10	Measures utilized for work within waterbodies	
	B11	Maintenance guidelines for each proposed temporary stormwater quality measure	
	B12	Planned construction sequence describing the relationship between implementation of stormwater quality measures in relation to land disturbance	
	B13	Provisions for erosion and sediment control on individual building lots regulated under the proposed project	
	B14	Material handling, spill prevention and spill response plan meeting requirements in 327 IAC 2-6.1	

	B15	Material handling and storage procedures associated with construction activity	
6. Post-Construction Stormwater Pollution Prevention Plan			**☑ Included?**
6.1	SWPPP – Post-Construction (Section C in IDEM Form)		
	C1	Description of pollutants and their sources associated with the proposed land use	
	C2	Description of proposed post-construction stormwater measures	
	C3	Plan details for each stormwater measure	
	C4	Sequence describing stormwater measure implementation	
	C5	Maintenance requirements for proposed post-construction stormwater measures	
	C6	Entity that will be responsible for operation and maintenance of the post-construction stormwater measures	

City of Bluffton, Indiana (to be completed by City Designated SWPPP Review Entity)	**Construction/ Stormwater Pollution Prevention Plan Technical Review** **IDEM Construction Stormwater General Permit:** https://www.in.gov/idem/stormwater/construction-land-disturbance-permitting/ (INRA00000 effective 12/18/2021)

Construction/Stormwater Pollution Prevention Plan Technical Review and Comment

Project Name: **Scope of Project:** **County(ies):** **Latitude:** **Longitude:**	**Plan Submittal Date:** Click here to enter a date. **Plan Review Date:** Click here to enter a date.

Plan Preparer: **Affiliation:**
Address:
City: **State:** **Zip:**
Phone: **Cell Phone:** **Email:**

Project Site Owner: **Company Name (if applicable):**
Address:
City: **State:** **Zip:**
Phone: **Cell Phone:** **Email:**

Plan Reviewer: **Affiliation:** **On behalf of:**
Address:
City: **State:** **Zip:**
Phone: **Cell Phone:** **Email:**

Plan Review Status:		
☐	**Plan is Adequate**	A comprehensive plan review has been completed and it has been determined that the plan satisfies the minimum requirements of the City of Bluffton Stormwater Ordinance and Technical Standards and the Construction Stormwater General Permit INRA00000 (Effective 12-18-2021).
☐	**Preliminary Review**	A comprehensive review will not be completed at this time. The plan review authority reserves the right to perform a comprehensive review at a later date, and revisions may be required at that time.
☐	**Conditional Acceptance**	Acceptance of the plan is conditional. The conditional acceptance is contingent upon addressing the issues identified in the comment sections.
☐	**Plan is Deficient**	Significant deficiencies were identified and must be addressed. Refer to the comment sections.

Action:	
☐	**Submit a Notice of Intent:** Submit the Notice of Intent (NOI) online through the IDEM Regulatory ePortal. It is required to upload a copy of this review form when submitting the NOI through the IDEM Regulatory ePortal: (https://stormwater.idem.in.gov/ncore/external/home)
☐	**Do not file a Notice of Intent or commence land-disturbing activities:** Deficiencies must be adequately addressed and an acceptable plan review completed.
☐	**Comments:** Refer to Plan Review Comments Sections of this document.

☐	**Revisions:** Update and submit the revised Construction/Stormwater Pollution Prevention Plan as indicated below.
	☐ Update and submit a complete plan set that addresses plan deficiencies.
	☐ Update and submit a document (narrative and/or plan sheets) that address plan deficiencies.
	☐ Update and submit a complete plan set that addresses plan deficiencies. A comprehensive plan review will not be completed.

Plan Review Information

- *The technical review and comment is intended to evaluate the completeness of the Construction/Stormwater Pollution Prevention Plan for the project. The Plan submitted was not reviewed for the adequacy of engineering design. All measures included in the plan, as well as those recommended in the comments should be evaluated as to their feasibility by a qualified individual with structural measures designed by a qualified engineer. The Plan has not been reviewed for other local, state, or federal permits that may be required to proceed with this project.*
- *Additional information, including design calculations may be requested to further evaluate the plan.*
- *All proposed stormwater pollution prevention measures and those referenced in this review must meet the design criteria and standards set forth in the "Indiana Stormwater Quality Manual" from the Indiana Department of Environmental Management or similar Guidance Documents.*
- *Construction activities and unforeseen weather conditions may affect the performance of the erosion and sediment control system, individual measures, or the effectiveness of the plan. The plan must be a flexible document, with provisions to modify or substitute measures as necessary to ensure compliance.*

Section A: Construction Plan Elements

Adequate	Deficient	NA	A	*The construction plan elements include general information associated with the project site that are critical for the evaluation of the stormwater pollution prevention plan component. This information includes, but is not limited to an index, resource information, reference maps, grading information, project layout and design, and drainage plan*
☐	☐	☐	1	Index of the location of required plan elements in the construction plan
☐	☐	☐	2	A vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads
☐	☐	☐	3	Narrative of the nature and purpose of the project
☐	☐	☐	4	Latitude and longitude to the nearest fifteen (15) seconds
☐	☐	☐	5	Legal description of the project site
☐	☐	☐	6	11 X 17-inch plat showing building lot numbers/boundaries and road layout/names
☐	☐	☐	7	Boundaries of the one hundred (100) year floodplains, floodway fringes, and floodways
☐	☐	☐	8	Land use of all adjacent properties
☐	☐	☐	9	Identification of a U.S. EPA approved or established TMDL
☐	☐	☐	10	Name(s) of the receiving water(s)
☐	☐	☐	11	Identification of discharges to a water on the current 303d list of impaired waters and the pollutant(s) for which it is impaired
☐	☐	☐	12	Soil map of the predominant soil types
☐	☐	☐	13	Identification and location of all known wetlands, lakes and water courses on or adjacent to the project site (construction plan, existing site layout)

☐	☐	☐	14	Identification of any other state or federal water quality permits or authorizations that are required for construction activities
☐	☐	☐	15	Identification and delineation of existing cover, including natural buffers
☐	☐	☐	16	Existing topography at a contour interval appropriate to indicate drainage patterns
☐	☐	☐	17	Location(s) of where run-off enters the project site
☐	☐	☐	18	Location(s) of where run-off discharges from the project site prior to land disturbance
☐	☐	☐	19	Location of all existing structures on the project site
☐	☐	☐	20	Existing permanent retention or detention facilities, including manmade wetlands, designed for the purpose of stormwater management
☐	☐	☐	21	Locations where stormwater may be directly discharged into ground water, such as abandoned wells, sinkholes, or karst features
☐	☐	☐	22	Size of the project area expressed in acres
Adequate	Deficient	NA	A	*The construction plan elements include general information associated with the project site that are critical for the evaluation of the stormwater pollution prevention plan component. This information includes, but is not limited to an index, resource information, reference maps, grading information, project layout and design, and drainage plan*
☐	☐	☐	23	Total expected land disturbance expressed in acres
☐	☐	☐	24	Proposed final topography
☐	☐	☐	25	Locations and approximate boundaries of all disturbed areas
☐	☐	☐	26	Location, size, and dimensions of all stormwater drainage systems, such as culverts, storm sewers, and conveyance channels
☐	☐	☐	27	Locations of specific points where stormwater and non-stormwater discharges will leave the project site
☐	☐	☐	28	Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas
☐	☐	☐	29	Location of all on-site soil stockpiles and borrow areas
☐	☐	☐	30	Construction support activities that are expected to be part of the project
☐	☐	☐	31	Location of any in-stream activities that are planned for the project including, but not limited to stream crossings and pump arounds

Section A – Comments:

- Evaluate areas with potential waters of the state and, where required, verify if permits/authorizations are required prior to any impacts to waters of the state. These potential resources include areas with hydric soil, hydrophytic vegetation, pooling water, or evidence of flowing water such as swales, ditches, drains, or natural conveyances. Evaluation of hydric soil, hydrophytic vegetation, or pooling water should conform to the US Army Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, and the applicable regional supplement https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/. Avoidance and minimization of impacts to waters of the state should be prioritized.

Section B: Stormwater Pollution Prevention Plan – Erosion and Sediment Control/Project Site Management				
Adequate	Deficient	NA	B	*The construction component of the Stormwater Pollution Prevention Plan includes stormwater quality measures to address erosion, sedimentation, and other pollutants associated with land disturbance and construction activities. Proper implementation of the plan, maintenance of measures, and administering a self-monitoring program is required to manage the project site to minimize the discharge of sediment and other pollutants. Construction activities and unforeseen weather conditions may affect the performance of the erosion and sediment control system, individual measures, or the effectiveness of the plan. The plan must be a flexible document, with provisions to modify or substitute measures as necessary to ensure compliance.*
☐	☐	☐	1	Description of the potential pollutant generating sources and pollutants, including all potential non-stormwater discharges
				Where applicable, items in 2 through 10 below will be evaluated for Location, dimensions, detailed specifications, and construction details
☐	☐	☐	2	Stable construction entrance locations and specifications
☐	☐	☐	3	Specifications for temporary and permanent stabilization
☐	☐	☐	4	Sediment control measures for concentrated flow areas
☐	☐	☐	5	Sediment control measures for sheet flow areas
☐	☐	☐	6	Run-off control measures
☐	☐	☐	7	Stormwater outlet protection locations and specifications
☐	☐	☐	8	Grade stabilization structure locations and specifications
☐	☐	☐	9	Dewatering applications and management methods
☐	☐	☐	10	Measures utilized for work within waterbodies
☐	☐	☐	11	Maintenance guidelines for each proposed temporary stormwater quality measure
☐	☐	☐	12	Planned construction sequence describing the relationship between implementation of stormwater quality measures in relation to land disturbance
☐	☐	☐	13	Provisions for erosion and sediment control on individual building lots regulated under the proposed project
☐	☐	☐	14	Material handling and spill prevention and spill response plan meeting the requirements in 327 IAC 2-6.1
☐	☐	☐	15	Material handling and storage procedures associated with construction activity

Section B – Comments:

- Stormwater quality measures for the reduction of sediment have not been evaluated for adequacy of design. The proposed measures included in this SWPPP are being accepted based on the design engineer's submittal.

Section C: Stormwater Pollution Prevention Plan – Post-Construction				
Adequate	Deficient	NA	C	*The post-construction component of the Stormwater Pollution Prevention Plan includes the implementation of stormwater quality measures to address pollutants that will be associated with the final project land use. Post-construction stormwater measures should be functional upon completion of the project. Long term functionality of the measures is critical to their performance and should be monitored and maintained.*
☐	☐	☐	1	Description of pollutants and their sources associated with the proposed land use
☐	☐	☐	2	Description of proposed post-construction stormwater measures
☐	☐	☐	3	Plan details for each stormwater measure
☐	☐	☐	4	Sequence describing stormwater measure implementation
☐	☐	☐	5	Maintenance guidelines for proposed post-construction stormwater measures
☐	☐	☐	6	Entity that will be responsible for operation and maintenance of the post-construction stormwater measures

Section C – Comments:

- Post-construction stormwater quality and quantity measures have not been evaluated for adequacy of design. The proposed measures included in this SWPPP are being accepted based on the design engineer's submittal.
- The rate of stormwater run-off and/or volume from the project site must meet local requirements to address stormwater quantity as established by ordinance or other regulatory mechanism. When a local requirement does not exist, the post-development run-off discharge from the project site must not exceed the pre-development discharge based on the two-year, ten-year, and one-hundred-year peak storm events.

Stormwater Management BMPs Maintenance Agreement

THIS AGREEMENT is made this _____day of _____ , 20____ , by _____ [Owner Name] of _____ [Company Name] with principal offices located _____ [Owner/Company Address], hereinafter "Owner".

In accordance with City of Bluffton Uniform Requirements for Construction and Post- Construction Stormwater Management, Ordinance, the Owner agrees to install and maintain stormwater management practice(s) (also known as BMPs) on the subject property, known as _____ [Property's Common Name] located at _____ [Property's Address], hereinafter "Property" in accordance with Exhibit A. The Owner further agrees to the terms stated in this document to ensure that the stormwater management practice(s) continues serving the intended function in perpetuity. This Agreement includes the following exhibit:

Exhibit A: BMP Operation and Maintenance Manual ("Manual").

Note: This agreement and all Exhibits shall be recorded with the deed of property by the Owner at the Bluffton County Recorder's Office and two (2) copies of the recorded document provided to City of Bluffton or designee's Office, hereinafter "Community".

Through this Agreement, the Owner hereby subjects the Property to the following covenants, conditions, and restrictions:

1. The Owner shall be solely responsible for the installation, maintenance, and repair of the stormwater management practices, drainage easements, and associated landscaping identified in the Manual.

2. No alterations or changes to the stormwater management practice(s) identified in the Manual shall be permitted unless they are deemed to comply with this Agreement and are approved in writing by the Community.

3. The Owner shall retain the services of a qualified individual or company to operate and ensure the maintenance of the stormwater management practice(s) identified in the Manual.

4. The Owner shall annually, by December 30th, provide to the Community records of inspections, maintenance, and repair of the stormwater management practices in accordance with the Manual.

5. The Community or its designee is authorized to access the property as necessary to conduct inspections of the stormwater management practices or drainage easements to ascertain compliance with the intent of this Agreement and the activities prescribed in the Manual. Upon written notification by the Community or its designee of required maintenance or repairs, the Owner shall complete the specified maintenance or repairs within a reasonable time frame determined by the Community. The Owner(s) shall be liable for the failure to undertake any maintenance or repairs so that the public health, safety and welfare shall not be endangered nor the road improvement damaged.

6. If the Owner fails to properly maintain the stormwater management practice(s) in accordance with the Manual and this Agreement, the Community is authorized, but not required, to perform the specified inspections, maintenance, or repairs in order to preserve the intended functions of the practice(s) and prevent the practice(s) from becoming a threat to public health, safety, general welfare or the environment. In the case of an emergency, as determined by the Community, no notice shall be required prior to the Community performing emergency maintenance or repairs. The Community may levy the costs and expenses of such inspections, maintenance, or repairs plus a ten percent (10%) administrative fee against the Owner. The Community at the time of entering upon said stormwater management practice for the purpose of maintenance or repair may file a notice of lien in the office of the Register of Deeds of City of Bluffton upon the property affected by the lien. If said costs and expenses are not paid by the Owner, the Community may pursue the collection of same through appropriate court actions and in such a case, the Owner shall pay in addition to said costs and expenses all costs of litigation, including attorney fees.

7. The Owner hereby conveys to the Community an easement over, on, and in the Property or otherwise grants perpetual access rights for the purpose of access to the stormwater management practice for the inspection, maintenance, and repair thereof, should the Owner fail to properly inspect, maintain, and repair the practice(s).

8. The Owner agrees that this Agreement shall be recorded and that the Property shall be subject to the covenants and obligations contained herein, and this Agreement shall bind all current and future owners of the property.

9. The Owner agrees in the event that the Property is sold, transferred, or leased to provide information to the new owner, operator, or lessee regarding proper inspection, maintenance, and repair of the stormwater management practice(s). The information shall accompany the first deed transfer and include this Agreement and all Exhibits. The transfer of this information shall also be required with any subsequent sale, transfer, or lease of the Property.

10. The Owner agrees that the rights, obligations, and responsibilities hereunder shall commence upon execution of the Agreement.

11. The Owner whose signatures appear below hereby represent and warrant that they have the authority and capacity to sign this agreement and bind the respective parties hereto.

12. The Owner, its agents, representatives, successors, and assigns shall defend, indemnify and hold the Community harmless from and against any claims, demands, actions, damages, injuries, costs or expenses of any nature whatsoever, hereinafter "Claims", fixed or contingent, known or unknown, arising out of or in any way connected with the design, construction, use, maintenance, repair or operation (or omissions in such regard) of the stormwater management practice(s) referred to in Exhibit A which are the subject of this Agreement. This indemnity and hold harmless shall include any costs, expenses, and attorney fees incurred by the Community in connection with such Claims or the enforcement of this Agreement.

IN WITNESS WHEREOF, the Owner has executed this Agreement on the day and year first above written.

_____ _____

Owner Signature Date

_____ _____

Printed Name Company

_____

Title

STATE OF INDIANA)
) SS:
COUNTY OF BLUFFTON)

BEFORE ME, the undersigned, a Notary Public in and for said County and State, personally appeared _____ Owner subscribed and sworn before this_____ day of _____, 20 ___.

_____ _____

Commission Expiration Date County of Residence

_____

Signature

_____

Printed Name

WHEN RECORDED, RETURN FILE STAMPED COPY TO:

City of Bluffton Board of Works and Public Safety
xxx
Bluffton, IN xxx

TERMINATION INSPECTION CHECKLIST AND COMPLIANCE ASSESSMENT
(To Be Completed by City of Bluffton or designee)

1. Compliance Requirements

All construction sites shall undergo a final inspection by the City of Bluffton or designee prior to submittal of a Notice of Termination (NOT) to IDEM by the project owner to document the site is stabilized, temporary BMPs have been removed and no future land disturbance will occur within the permitted boundaries. A completed copy of this form confirming compliance with project termination requirements, signed by the City of Bluffton or designee representative, is required to be sent by the applicant to IDEM along with the NOT.

2. Inspection Details

Project Name:	
Address/Lot #:	
IDEM Permit No. ("INR" followed by 6 digits):	
Inspection Performed By:	Date:

3. Notice of Termination (NOT) Verification Inspection Items

ITEM	YES	NO	N/A
A. Have all earth disturbing activities been completed?	☐	☐	☐
B. Are all soils stabilized as appropriate?	☐	☐	☐
C. Are all drainageways stabilized with either vegetation, rip rap, or other armament?	☐	☐	☐
D. Have all temporary erosion and sediment control measures been removed?	☐	☐	☐
E. Has all construction waste, trash, and debris been removed from the site?	☐	☐	☐
F. Has all construction equipment and material been removed from the site?	☐	☐	☐
G. Are all the permanent BMPs free of sediment accumulation resulting from construction activities?	☐	☐	☐

4. Corrective Actions Required (If Applicable)

If you answered "no" to any of the above questions, describe any corrective action which must be taken to remedy the problem and when the corrective actions are to be completed.

Attach additional sheet(s) if needed

5. Compliance Assessment

☐ DEFICIENT – Applicant must schedule a re-inspection by City of Bluffton after deficiencies are addressed.
☐ COMPLIANT – Applicant must upload a signed copy to IDEM along with the IDEM NOT online submittal.

6. Certification and Signature

Inspector Name and Title:	Phone:
Inspector Signature:	Date:

CERTIFICATE OF COMPLETION & COMPLIANCE

Name of project:_____

Address of premises on which land alteration was accomplished:_____

_____

_____

Inspection Date(s):_____ Stormwater Permit Number:_____

Relative to plans prepared by:_____ on_____

(date)

I hereby certify that:

1. I am familiar with drainage requirements applicable to such land alteration (as set forth in the Construction and Post-Construction Stormwater Management Ordinance of City of Bluffton); and

2. I (or a person under my direct supervision) have personally inspected the completed work and examined the drainage permit and its conditions, as-built plans, and final drainage calculations consistent with as-built conditions performed pursuant to the above referenced drainage permit; and

3. To the best of my knowledge, information, and belief, such land alteration has been performed and completed in conformity with all such drainage requirements, except

_____

_____

_____

_____

_____

_____

Signature: _____ Date: _____

Typed or Printed Name: _____ Phone: (___)_____

(SEAL)

Individual Lot/Parcel
Stormwater Pollution Prevention Requirements

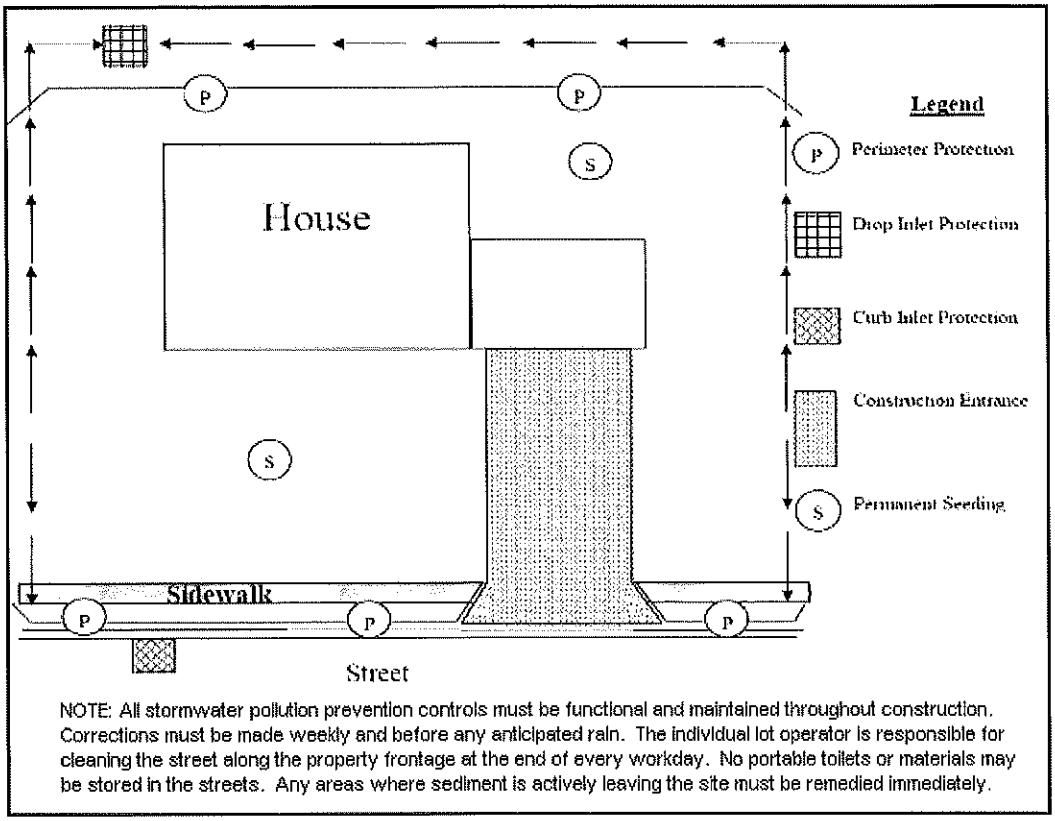
FOR COMPLIANCE WITH THE CITY OF BLUFFTON STORMWATER CODE

THE INDIVIDUAL LOT OWNER OR OPERATOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF STORMWATER POLLUTION PREVENTION CONTROLS UNTIL THE ENTIRE LOT IS COMPLETE AND 100% STABILIZED.

- Initial Stormwater controls such as construction entrances, curbside and rear of lot storm inlet protection (geo-textile wrapped under grate is prohibited), and perimeter controls (typically silt fence) must be in place BEFORE ANY LOT DISTURBANCE begins.
- All construction materials must be staged off of the street and on the lot behind perimeter controls.
- Portable toilets must be kept off of the street and should be placed on even ground on the lot behind perimeter controls.
- All lots must provide and utilize appropriate trash containment for site waste.
- Contractors must use appropriate practices for concrete, mortar, and paint washout. These materials must be properly contained and NOT enter the storm drains or other conveyances.
- Any off site tracking of sediment into the street, or off site sedimentation into swales or drains MUST be cleaned as soon as possible and by no later than the end of the day.
- Lot frontage should be cleaned and acceptable in appearance at the end of every business day.
- Areas where operations have impacted adjacent lots or rear yard swales MUST be repaired to design condition and 100% stabilized.

PLEASE NOTE: ANY INSPECTION WILL FAIL IF THE CORRECT STORMWATER POLLUTION PREVENTION CONTROLS ARE NOT IN PLACE AND PROPERLY MAINTAINED.

Stormwater Pollution Prevention Controls on Individual Lots



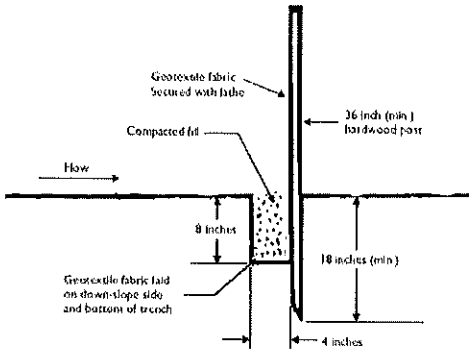
Construction Sequence

1. Install construction entrance.
    a. Use #2 stone. Flare entrance at street so it can handle vehicle turn radius. See Detail.
2. Install perimeter protection.
    a. Protection along the sides of the lot is only necessary if the adjacent lot is built out or if stormwater runoff will drain in that direction.
    b. Make sure perimeter protections are turned into the lot where they terminate to create a ponding area. See above diagram.
    c. Rear of lot perimeter protection should be installed to protect the rear yard swale.
3. Install protections on storm inlets at curbside and at rear of lot.
    a. Geo-textile or "fabric" wrapped underneath the grate is PROHIBITED.
    b. Make sure curbside inlet protection leaves the top 3-4 inches of the storm grate exposed to allow for overflow to enter the storm inlet, preventing ponding.
4. Lot disturbance may begin once the controls listed above are in place.
5. Maintain lot controls at all times and repair as soon as possible when a correction is needed.
    a. If sediment is actively leaving the site due to a failing control such as tracking or an operation such as dewatering, it must be corrected IMMEDIATELY.
6. Stabilize all exposed soils with vegetation, mulch, or stone when construction is complete.
    a. Lot is considered stabilized once vegetation has reached 100% coverage and 70 % density.
7. Remove temporary stormwater pollution prevention controls.
    a. These may be removed when exposed soils have been stabilized with vegetation, sod, or mulch.
    b. Seed alone is not a stabilization measure until it germinates and achieves proper coverage.

BMP DETAILS

Silt Fence (perimeter protection)

1. Install silt fence parallel to the contour of the land.
2. Extend ends of silt fence upslope 3-4 feet to allow for ponding areas behind the fence.
3. Excavate trench 8 inches deep and 4 inches wide.
4. Install with stakes on the down slope side of fence.
5. Bury 12 inches of fabric in the trench, extending the bottom 4 inches toward the upslope side.
6. Backfill trench on both sides of fence and compact.
7. Join silt fence sections by wrapping two posts and driving them in together. Do not use any other method of joining.



8. Inspect weekly and within 24 hrs of a ½" of rain. Silt fence should be cleaned out when the sediment has reached 1/3 the height of the exposed fencing. Repair silt fence where torn or damaged. Complete repairs no later than 48 hours from the date they are noticed.

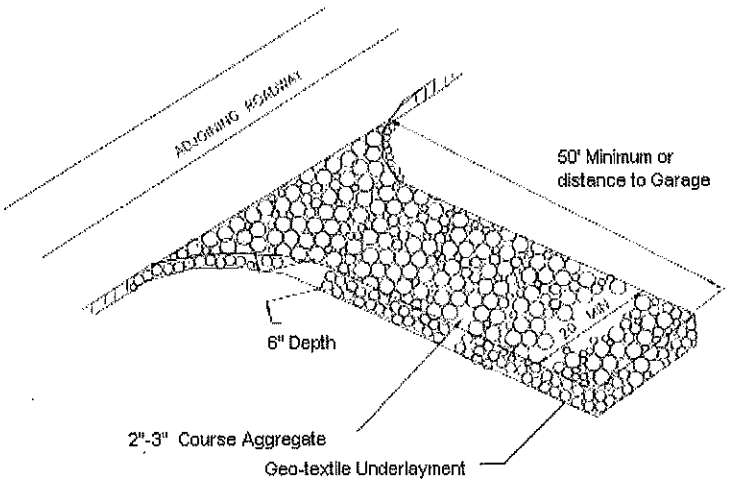
Wattles (perimeter protection)

1. Wattles (also known as filter socks or logs) are a manufactured product composed of straw, wood fibers, compost, or other materials. These products shall be installed per the manufacturer's recommendation, including wattle diameter requirements, anchoring, spacing on slopes, and appropriate applications.
2. Choose a diameter of wattle appropriate for the slope at the site. A minimum 8 inch diameter wattle is recommended for slopes 0 to 5 percent, 10 inch diameter for slopes 5 to 10 percent, and 20 inch diameter for slopes 10 to 15 percent.
3. Install wattles parallel to the contour of the land.
4. Extend the end of the wattles upslope 3 – 4 feet to allow for ponding areas behind the wattle.
5. Install wattles so that there is continuous ground contact along the length of the wattle. To ensure adequate ground contact, it is recommended to excavate a shallow trench where the wattle will be installed to a depth and width of approximately one-fourth the diameter of the wattle.
6. Overlap adjoining ends of wattles, so that there are no gaps between the adjacent wattles. Do not abut the wattles.
7. Anchor the wattles with stakes driven through the center of the wattles. Posts should be spaced no more than five feet apart and driven through the middle of the wattle. The posts should be driven a minimum of 18 inches deep into the soil. The stake should be flush with the top of the wattle. If wattles are installed with an adequate backstop, such as along the back of a curb, sidewalk, or driveway, staking may not be necessary, but they should still be trenched in to ensure adequate ground contact.

8. Inspect weekly and within 24 hours of a ½" of rain. Wattles should be cleaned out when the sediment has reached 1/4 the height of the exposed wattle. Repair wattles where torn or damaged. Complete repairs no later than 48 hours from the date they are noticed.

Construction Entrance

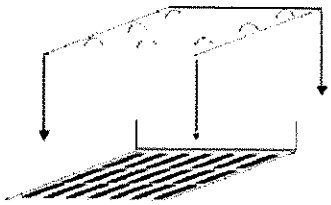
1. Install construction entrance from street to face of proposed building or at a 50' minimum length. Use #2 stone at a 6" minimum depth.
2. A geo-textile is required underneath the entrance to extend its functionality.
3. Flare out entrance where it meets the street so that vehicle turn radiuses do not travel over disturbed ground.



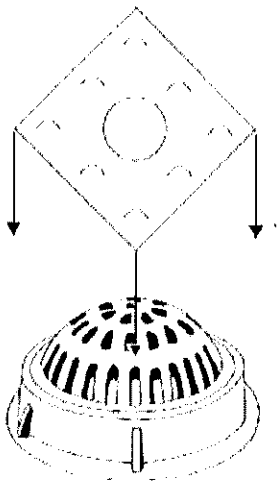
4. Perimeter Controls (silt fence) should be turned into the lot for a few feet where they meet the construction entrance.
5. Inspect weekly and within 24 hours of a ½" of rain. Freshen or replace stone as needed to prevent off site tracking. If offsite tracking is occurring, clean up immediately, and correct the reason why the drive is failing as soon as possible. Complete repairs no later than 48 hours from the date they are noted.

Inlet Protection

1. Install inlet protection on all curbside and rear of lot storm inlets within the flow line of the active lot.
2. Curbside inlet protection should be installed so that at least 3 – 4 inches of the top of the casting is exposed to allow for overflow, preventing excessive ponding. In areas expecting vehicle traffic, below grade inlet protection baskets or coconut fiber mats should be installed per the manufacturers recommendations as they will not cause a traffic hazard. Coconut fiber matting should extend at least 1 inch past the ends of the storm grate, and the edge of the coconut fiber mat that abuts the curb must be cut so that at least 3 – 4 inches of the top of the casting is exposed.
3. Rear lot storm inlets may utilize above-grade or below-grade inlet protection measures such as inlet protection baskets, coconut fiber mats, and geotextile fabric drop inlet protection installed per the manufacturer's recommendations. Coconut fiber mats should extend past the ends of the storm grate, and an overflow hole may be cut on the top of beehive inlet grates.
4. Wrapping geo-textile underneath the grate for protection or straw bale barriers are PROHIBITED practices.
5. Make sure inlet protection is securely fastened to the storm grate and installed per the manufacturer's recommendations. Utilize 7-8 zip ties to secure coconut fiber mats to storm grates.



STREET CURB INLET GRATE
(SECURE WITH 7 ZIP TIES)



BEEHIVE INLET GRATE WITH
OVERFLOW CUT-OUT
(SECURE WITH 8 ZIP TIES)

6. Inspect weekly and within 24 hours of a ½" of rain. Sediment accumulation or standing water around the inlet can indicate the need for maintenance. Clean protection when clogged with sediment or when it reaches ½ of the storage capacity or height of the control. Replace protection if torn or worn. Clean sediment from street around the storm inlet and place back onto lot behind perimeter controls. Complete repairs no later than 48 hours from the day they are noted.

CONSTRUCTION STORMWATER RESIDENTIAL DEVELOPMENT REGISTRATION

Construction Stormwater General Permit (INRA00000)

State Form 53049 (3-22)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

- **IDEM Construction General Permit:** The permit may be accessed at: https://www.in.gov/idem/stormwater/construction-land-disturbance-permitting/

For questions regarding this form, contact:
IDEM, Stormwater Program
100 North Senate Avenue, Room 1255
Indianapolis, IN 46204-2251
Phone: (317) 233-8488 or
(800) 451-6027, ext. 38388 (within Indiana)
Program email: Stormwat@idem.IN.gov
Web Access:
http://www.in.gov/idem (Search for Stormwater)

The purpose of this form is to establish responsibility for an individual lot operator to comply with specific requirements within and under Section 3.8 of the Construction Stormwater General Permit (CSGP). The use of this form only applies to residential developments where an individual lot operator has purchased one or more lots within an active permitted development that has permit coverage under the CSGP. Completion of this form allows the individual lot operator to conduct land-disturbing / construction activities within the permitted project site without submitting a Notice of Intent to obtain permit coverage for an individual lot(s).

SECTION A: PROJECT SITE INFORMATION (PERMITTED / PARENT PROJECT)

Project Name *(As it appears on the Notice of Intent, including applicable phases, sections, etcetera)*:

Authorization Number *(six digit)*: INR		County:	
Project Site Owner or Representative *(Complete the information below for the permittee for the overall (parent) project)*			
Business / Company Name:			
Last Name (*Individual*):		First Name:	
Mailing Address:			
City:		State:	ZIP Code:
Business Telephone:	Business Cellular Telephone:	Email:	

Certification:
I certify, to the best of my knowledge that the information above represents the project that currently has permit coverage. I understand that completion of this form:

- Establishes responsibility for the activities on individual building lots to the individual lot operator listed in Section B.
- Does not transfer ownership and responsibilities for the overall permitted project.
- Does not constitute termination of the overall project.

Signature: _____ Date:

Typed / Printed Name:

SECTION B: ACTIVITIES ASSOCIATED WITH AN INDIVIDUAL LOT(S) WITHIN A PERMITTED PROJECT SITE

List the lot Numbers by Section / Phase:

Individual Lot Operator			
Business / Company Name:			
Last Name (*Individual*):		First Name:	
Mailing Address:			
City:		State:	ZIP Code:
Business Telephone:	Business Cellular Telephone:	Email:	

Lot Operator Certification:
I certify, to the best of my knowledge that the information above represents the project that currently has permit coverage. I understand that:

- The completed Form must be kept as part of onsite records and available upon request *(Do not submit this form to IDEM unless requested)*.
- I have developed a SWP3 that is appropriate to minimize the discharge of sediment and other pollutants from the building lot(s) for which I am conducting land-disturbing / construction activities.
- Activities on the building lots(s) must comply with the CSGP Section 3.8 (final_gen_permit_inra00000_construction.pdf)
- Failure to comply with the requirements of the CSGP may result in a compliance action, including, but not limited to filing a Notice of Intent to obtain permit coverage under the CSGP and/or formal enforcement action.

Signature: _____ Date:

Typed / Printed Name: