

Wetlands and Storm Water Section Storm Water Program Office of Water Quality Indiana Department of Environmental Management	Authority: <i>This inspection was conducted pursuant to Indiana Code (IC) 13-14-2-2 and is consistent with the requirements of IC 13-14-5.</i>
Municipal Separate Storm Sewer System (MS4) Minimum Control Measure Audit: <ul style="list-style-type: none"> • Construction Site Run-off • Post-Construction Run-off 	Date of Audit: 10/1/2019 Report Issued: 10/16/2019 Audit Conducted By: Rob Beck Report Prepared By: Rob Beck

This audit report is a cumulative overview of the MS4 program for the construction site run-off and post-construction run-off minimum control measures. The report provides general background information, observations, recommendations, and requirements. The purpose of the audit is to identify program areas where an MS4 can improve program implementation, but to also identify deficiencies and/or violations that will require the MS4 to respond or address within specified timelines.

Section A: MS4 Program Information

MS4 Entity: City of Goshen	County: Elkhart
MS4 Permit Number: INR040137	Permit Start and Expiration: 11/06/18 - 11/05/23
MS4 Operator: Mayor Jeremy Stutsman	
MS4 Coordinator/Representative: Jason Kauffman, Stormwater Coordinator	
Audit Participants: Dustin Sailor, Jason Kauffman	

Construction Certification Date: 5/7/2007
Post-Construction Certification Date: 4/23/2007

Projects Regulated by MS4:

All new projects are regulated upon the effective date of the construction site ordinance. The MS4 did not assume responsibility for projects that were active prior to passage of the local ordinance. These projects remain under the regulatory authority of IDEM.

All new and active projects within the MS4 area, including those where construction was initiated prior to the effective date of the construction site ordinance.

The MS4 is a non-traditional MS4 (University, Prison, College, etc.) and does not regulate projects within the MS4. All projects that occur within the MS4 are considered to be owned and operated by the MS4. The MS4 is responsible to obtain a permit in accordance with 327 IAC 15-5 and manage the construction site.

MS4 Boundaries for Program Administration of the Construction Minimum Control Measure:

County MS4: Urbanized Areas Only Entire County, Excluding Incorporated Areas
Clarification:

Municipality, City, Town: Urbanized Areas Only Other
Clarification:

Outreach to the Regulated Community (Construction Site and Post-construction Run-off): Elkhart SWCD conducts the majority of outreach for the MS4.

Section B: Overall Program Assessment - Construction Site Run-off
(S = Satisfactory, M = Marginal, U = Unsatisfactory, NE = Not Evaluated, NA = Not Applicable)

S M U NE NA
(B1) The construction site ordinance meets the intent of 327 IAC 15-5.

Comment:

(a) [In Section 4 of the City of Goshen’s Construction Site Stormwater Run-Off Control Ordinance \(#4328\) it specifically references Rule 5, as amended from time to time, as being adopted and providing the minimum stormwater run-off requirements associated with construction activity. Additionally, Section 3 adopted the current version of the state’s](#)

erosion and sediment control manual as the technical manual of reference for the minimum control requirements for erosion and sediment control on construction projects within the City.

- (b) The acreage threshold for regulated projects within the City of Goshen is one acre or more, unless the project is identified as part of a larger common plan of development or sale, in which case it is required to obtain a permit no matter the area of disturbance.
- (c) The City of Goshen regulates all projects that disturb an acre or more of ground or are part of a larger common plan of development or sale no matter if a building is being constructed, a building is being demolished, or ground is being moved, unless the project is one that is exempted per Rule 5 (327 IAC 15-5-2 (b) and (c)).

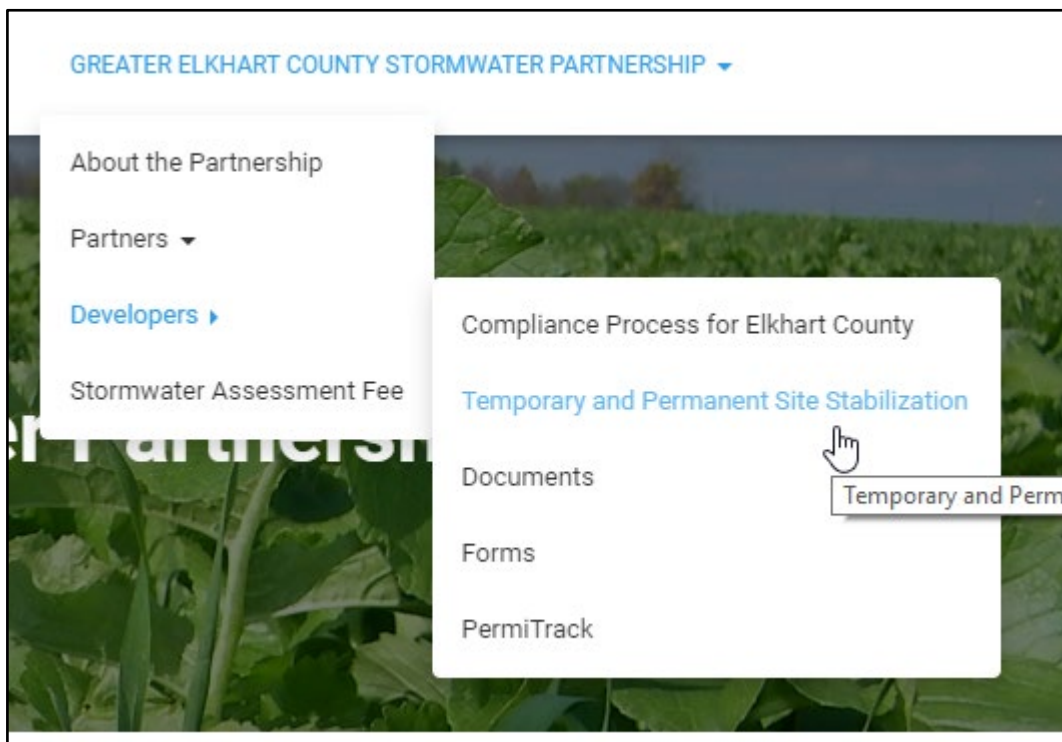
Recommendations:

Requirements:

(B2) Requirements and standards have been developed and/or adopted for the implementation of measures associated with erosion, sedimentation, and other waste on construction sites.

Comment:

- (a) The City of Goshen’s Construction Site Stormwater Run-Off Control Ordinance (#4328) Section 3 states that the current version of the state’s erosion and sediment control manual is adopted as the technical manual of reference for the minimum control requirements for erosion and sediment control on construction projects within the City.
- (b) The Elkhart County Soil and Water Conservation District manages the review of stormwater pollution prevention plans for construction projects in the City of Goshen jurisdiction and detailed information on the program can be found on their website: www.elkcoswcd.org/greater-elkhart-county-stormwater-partnership/ under the Developers section of the Greater Elkhart County Stormwater Partnership section. The current Chapter 7 of the Indiana Stormwater Quality Manual is located under the Temporary and Permanent Site Stabilization section as shown in the following picture for clarity:



- (c) The City of Goshen Stormwater Department website also provides a link to the full Indiana Stormwater Quality Manual: www.goshenindiana.org/guidance-documents.

Recommendations:

Requirements:

(B3) Construction plans submitted for regulated projects are reviewed in accordance with the local MS4 ordinance.

Comment:

- (a) The plan review process is handled by both the Elkhart County SWCD and the City of Goshen Stormwater Department. The SWPPP is submitted for review to the Elkhart County SWCD and the SWCD reviews sections A and B. The Post-Construction Stormwater Management Plan (PCSMP) is submitted for review to the City of Goshen as part of the City’s Technical Review program.
- (b) The SWCD reviews the SWPPP and provides comments to the plan preparer within the required timeframe as established by House Bill 1266 on July 1, 2019. Once the SWCD has completed their review of Sections A and B of the SWPPP they notify the City of Goshen Stormwater Department.
- (c) In order to meet the City of Goshen’s post-construction requirements a property owner must submit a PCSMP, which includes a post-construction stormwater maintenance agreement, as part of the City’s Technical Review program. Submittals are accepted every third Wednesday and comments are provided back to the plan preparer within 10 business day with a Technical Review meeting occurring on the Thursday of the following week. Once the PCSMP has gone through any necessary revisions and is found to meet Goshen’s post-construction stormwater requirements the Stormwater Department sends an email notice to the SWCD letting them know post-construction requirements have been satisfied.
- (d) Once the SWCD receives the notice from the City they complete the SWPPP review paperwork and notify the plan preparer and project owner of the SWPPP acceptance so they can proceed with the submittal of the Notice of Intent.
- (e) If the project needing permit coverage is a municipal project the SWPPP is submitted to the SWCD and IDEM is notified so IDEM can complete the review of the SWPPP since the SWCD is funded in part by the City of Goshen’s Stormwater Program.

Recommendations:

Requirements:

S M U NE NA

(B4) Construction projects are managed through a tracking system that includes name, address/location, duration, indication of compliance actions, and status (active NOI or equivalent and termination).

Comment:

- (a) The Elkhart County SWCD maintains a Microsoft Access Database with this information and provide the following response: All Construction projects are tracked though the Elkhart County SWCD office. Tracking includes project name, address/location, duration, compliance actions, site inspections, NOI and NOT status, and payments received. Another way projects are being watched and tracked is through our inspection program, Permitracks. Through this program sites can be monitored for self-inspections, and inspector reports to make sure all sites stay in compliance.

Recommendations:

Requirements:

S M U NE NA

(B5) The construction site run-off inspection program has established procedures and written policy for program implementation; including sites that are a priority for inspection.

Comment:

- (a) Elkhart County SWCD employees are the primary inspectors of permitted construction projects. The SWCD performs pre-construction meetings, site inspections, and termination inspections. The Goshen Stormwater Department performs site inspections as needed and must sign off on the termination of a project before the SWCD signs the Notice of Termination application for a project.
- (b) The SWCD formulated a priority ranking for the inspection of a permitted construction project based upon acreage disturbed, proximity to a waterway, and past and current SWPPP compliance issues.
- (c) Section 6.0 of City Ordinance #4328 specifically grants authority to the SWCD and Stormwater Department to conduct inspections of any projects involved in construction activities regulated under Rule 5.
- (d) In order to document site inspections the SWCD and City of Goshen utilize an online program called PermiTrack (www.mypermitrack.com) to inspect all projects since January 1, 2017, while any project submitted before that date will have inspections completed using an electronic inspection report form.

Recommendations:

Requirements:

S M U NE NA

(B6) Policy and procedures are implemented to enforce the construction site run-off program.
The MS4 utilizes Fines Stop work orders Penalties Permit suspension

Comment:

- (a) When it comes to enforcement, the SWCD will conduct a minimum of two site inspections before turning a project over for compliance to the City of Goshen. However, if the Goshen Stormwater Department sees an erosion and sediment control issue on a construction site staff has the ability to conduct inspections and move into enforcement without the SWCD's involvement.
- (b) If enforcement is necessary, the process as described in Section 7.0 of City Ordinance #4328 is followed and the City's Enforcement Matrix as established by Resolution 2017-15, is referenced for use with the Goshen Stormwater Board when determining what kind of fines, if any, are to be issued.

Recommendations:

Requirements:

S M U NE NA

(B7) MS4 personnel responsible for plan review, inspection, and enforcement of construction activities attend annual training.

Comment:

- (a) The Elkhart County SWCD manages the training for their employees and provide the following response: The SWCD attends training and holds certifications to be responsible for plan review, inspections, and construction activities. Trainings and meetings include, INAFSM meetings, CESSWI training, NPDES trainings and certifications, Drainage school, MS4 conferences and meetings, and Stormwater webinars.
- (b) City staff involved with post-construction stormwater management routinely attend stormwater workshops, conferences, meetings, and online webinars. A list of the trainings attended by City staff is on file with the MS4. Should the MS4 acquire the construction plan review/inspection work from the Elkhart SWCD, there is the assumption that MS4 personnel will take on more training for construction storm water-related issues.

Recommendations:

Requirements:

S M U NE NA

(B8) The construction site run-off program is reviewed at least once every five (5) years.

Comment:

- (a) The Greater Elkhart County Stormwater Partnership routinely makes adjustments to the construction site run-off program to make sure the regulated community can efficiently meet state and local requirements.
- (b) The only change to Ordinance #4328 was with Ordinance #4624.
- (c) Updates have been made to the overall construction site run-off program as needed, for example, Resolution 2011-G which established the policy under which the Goshen Stormwater Department operates each year between the months of November and April to ensure certificate of occupancies can be issued even when site conditions do not allow for permanent stabilization to be completed. This process includes an agreement signed by the property owner, their contractor (where applicable), and the Stormwater Board and a Surety to cover the costs of the work if the property owner and/or contractor do not follow through.

Recommendations:

Requirements:

(B9) Overall performance in administering the construction site run-off minimum control measure.

Comment: The Goshen MS4 inspector is a veteran inspector who is competent in all issues of erosion and sediment control. He has a good rapport with contractors on-site and trained and skilled in identifying violations.

Recommendations:

Requirements:

Section C: Overall Program Assessment - Post-construction Site Run-off

(S = Satisfactory, M = Marginal, U = Unsatisfactory, NE = Not Evaluated, NA = Not Applicable)

S M U NE NA
(C1) The post-construction ordinance addresses local resource issues and meets the intent of 327 IAC15-5.

Comment:

- (a) Post-construction requirements are covered in City Ordinance #4329, *Uniform Requirements for Post-Construction Stormwater Management*.
- (b) All PCSMPs are recorded with the Elkhart County Recorder. The common practice was to have the PCSMP accepted by the Goshen Stormwater Board once it was found to sufficiently meet all requirements, however, this led to several projects having several recorded amendments to the PCSMP because of changes or additions during the project. Thus, in early 2019, the policy was changed to record PCSMPs near the end of the project around the time a project is requesting a certificate of occupancy (C/O). This allows for the PCSMP to be updated if any changes occurred during the project thus reducing the number of recorded documents and reducing future confusion.
- (c) Any new development within the City of Goshen must comply with the City's Stormwater Drainage Policy, which requires a property to retain at least a 3-inch rainfall over a 24 hour period, which closely represents a 100 year – 1 hour storm event for the area around the City.

Recommendations:

Requirements:

S M U NE NA
(C2) Requirements and standards have been developed and/or adopted for the implementation of measures associated with post-construction site run-off.

Comment:

- (a) Post-construction requirements are covered in City Ordinance #4329, *Uniform Requirements for Post-Construction Stormwater Management*.
- (b) When reviewing proposed stormwater treatment units the City of Goshen references the New Jersey Government Department of Environmental Protection Stormwater Manufacture Treatment Devices website to make sure the device is acceptable and to determine if the size requirements based off of the projected cfs rate. www.nj.gov/dep/stormwater/treatment.html
- (c) If there are questions about the details of a post-construction stormwater measure, Chapter 8 of the Indiana Stormwater Quality Manual is referenced as is the EPA's NPDES National Menu of Best Management Practices for Stormwater website: www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#post.
- (d) The City Stormwater Department website provides a link to the Indiana Stormwater Quality Manual, as well as to the Stormwater Drainage Manual published by the Indiana Local Technical Assistance Program (LTAP) of Purdue University. www.goshenindiana.org/guidance-documents.
- (e) Many local engineering firms have access to the PCSMP template but if the firm has not worked in Goshen before then the template is provided to them along with an example of the Post-Construction Stormwater Maintenance Agreement. They are allowed to review the Maintenance Agreement but changes are not routinely allowed.

Recommendations:

Requirements:

S M U NE NA
(C3) The MS4 directs physical growth away from sensitive areas and towards those that will not compromise water quality. The MS4 manages the selection of measures in wellhead protection areas, discharges to other sensitive resource areas, and where applicable sinkholes.

Comment:

- (a) The City of Goshen has two wellhead protection areas with portions extending through industrial areas of the City, thus, any new development to occur in these areas is not allowed to infiltrate stormwater run-off unless the water meets current drinking water standards. Any new development that occurs must install stormwater quality and quantity measures with a slow release to the City's storm sewer system. However, if there is no capacity within the City's storm sewer system then alternative steps must be taken or the stormwater run-off must be piped to an area outside of the wellhead protection area.

- (b) If a development project would like to discharge to a wetland area then a sufficient stormwater treatment train of at least two measures must be installed. For example a stormwater treatment unit and forebay treat stormwater run-off before entering a wetland area.
- (c) The City of Goshen does not typically allow the use of drywells as part of a stormwater conveyance system due to the potential impacts of allowing stormwater run-off to go deep underground and because they are considered a type of Class V Injection Well. However, drywells are allowed in situations where there is no other choice. If a drywell is installed then the project owner must submit the Class V Injection Well registration paperwork to the EPA and provide a copy to the City of Goshen. The City utilizes the EPA's Underground Injection Control (UIC) Program Class V Identification Guide when reviewing proposed stormwater systems to determine if a measure is or could be considered a Class V Injection Well.

Recommendations:

Requirements:

- S M U NE NA
 (C4) New retail gasoline outlets and refueling areas that replace their existing fuel tank systems are required by ordinance or other means to design and install appropriate measures to reduce lead, copper, zinc and polyaromatic hydrocarbons in storm water run-off from the facility.

Comment:

- (a) The City of Goshen does not have a specific ordinance towards requiring new retail gas stations to install appropriate measures to reduce lead, copper, zinc and polyaromatic hydrocarbons in storm water run-off from the facility. However, during the post-construction review process the City Stormwater Department ensures proper measures are in place to capture and cleanup any hydrocarbon spills.
- (b) New gas stations are required to implement measures to prevent spills of hydrocarbons from impacting stormwater run-off. As an example some gas stations install 90° pipe downturns to capture spilled liquids on the surface of the water in the storm structure so that it does not flow down system. Others install stormwater treatment units to capture hydrocarbon liquids from leaving the site. Still others sheet drain the area around the fueling area to allow for surface cleanup in the event of a spill.

Recommendations:

Requirements:

- S M U NE NA
 (C5) Post-construction plans submitted for regulated projects are reviewed in accordance with the local MS4 ordinance.

Comment:

- (a) See section B2 and B3 above for the post-construction plan submittal process.
- (b) The Stormwater Coordinator performs all reviews of submitted post-construction plans.

Recommendations:

Requirements:

- S M U NE NA
 (C6) The MS4 requires the development and implementation of written operational and maintenance plans for all planned structural post-construction storm water management measures to ensure long-term functionality.

Comment:

- (a) Any new development of an acre or more or part of a larger common plan of development or sale must submit a Post-Construction Stormwater Management Plan (PCSMP), which includes a post-construction stormwater maintenance agreement. The PCSMP serves as a description of the development and what post-construction stormwater measures are installed, it acts as an Operation and Maintenance manual, it specifically describes the responsibilities of the property owner, and it explains how the property owner will fund and maintain the on-site post-construction stormwater measures.
- (b) In residential subdivision projects the project owner hires a contractor to install the storm sewer but the City has an inspector inspecting the project, and once the work is done and accepted the City will take over maintenance of the storm sewer structures and pipes up to the pipe outlet while the retention basins are the responsibility of the property owners and/or HOA.

(c) All post-construction stormwater management measures on private property are to be maintained by the property owner as detailed in the post-construction stormwater maintenance agreement.

Recommendations:

Requirements:

S M U NE NA

(C7) The post-construction site run-off inspection program has established procedures for implementation, including a mechanism to enforce failure to maintain a post-construction measure.

Comment:

- (a) Before a project receives a certificate of occupancy the Stormwater Department must first conduct a final site inspection and determine if the proposed post-construction stormwater measures shown on the accepted site plan were properly installed and are functioning correctly. The Stormwater Department uses its best judgement when signing off on the release of a certificate of occupancy (C/O). If the required post-construction stormwater measures are not properly installed then the Stormwater Department will not sign off on the release of the C/O. However, if the measures are installed properly the C/O is released but the termination of a Rule 5 permit is not signed off on until such time as all post-construction measures are functioning correctly.
- (b) The Stormwater Department works with the Planning and Zoning Department and the Building Department to ensure a site inspection is conducted of each project requesting a C/O before it is released.
- (c) The Stormwater Department works with the Elkhart County SWCD to ensure the post-construction stormwater measures are installed and functioning correctly before a Notice of Termination application is signed and sent to IDEM.
- (d) Once construction is completed and the Rule 5 permit is terminated the property owner is responsible to conduct a minimum of an annual inspection of all post-construction stormwater management measures to ensure they are functioning correctly and being maintained as detailed in the PCSMP (see Section 5.01 of City Ordinance #4329). Additionally, the property owner has agreed to have a third party agency conduct an inspection once every five years of all the post-construction stormwater management measures to ensure they are functioning correctly and being maintained as detailed in the PCSMP.
- (e) During the summer of 2017 a part-time employee, working for the Stormwater Department, conducted preliminary site inspections of all properties with an existing post-construction plan.

Recommendations:

Requirements:

S M U NE NA

(C8) MS4 personnel responsible for plan review, inspection, and enforcement of the post-construction program attend annual training.

Comment:

- (a) City staff involved with post-construction stormwater management routinely attend stormwater workshops, conferences, meetings, and online webinars. A log of training events attended is kept on file.

Recommendations:

Requirements:

S M U NE NA

(C9) The post-construction site run-off program is reviewed at least once every five (5) years.

Comment: The ordinance is reviewed regularly, but to date there have been no significant deficiencies determined.

Recommendations:

Requirements:

(C10) Overall performance in administering the post-construction site run-off minimum control measure.

Comment: The MS4 has a very developed post-construction program based on years of experience and problems encountered in operation of practices. There is strong inter-departmental cooperation that has been developed to ensure appropriate implementation and maintenance of this program.

Recommendations:

Requirements: The MS4 should apply the same standards and/or requirements for post-construction to those projects they own and/or operate as they require for those projects they regulate.

Section D: Audit Summary

Action Items:

- **Recommendations:**
- Not Applicable
- **Required Actions:**
- Not Applicable

Attachments:

Action by IDEM: Failure to address and/or respond to deficiencies and/or violations may result in further action by IDEM including, but not limited to a compliance meeting and/or a non-compliance letter. As warranted, IDEM will perform follow-up inspections for projects owned and operated by the MS4 as they are permitted and will periodically revisit sites regulated by the MS4.

Section E: Audit Information

Report Provided to:

- Dustin Sailor, City of Goshen
- Jim Hess, Elkhart County Soil and Water Conservation District

Report distributed: **Email** **Mail** **Via Certified Mail:**

Questions and the submittal of documents in response to this report should be directed to:

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