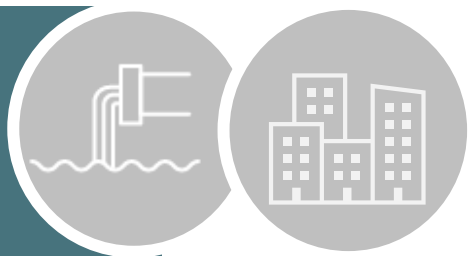
MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

INDUSTRIAL STORM WATER CERTIFIED OPERATOR TRAINING MANUAL

January 2024

EGLE, WATER RESOURCES DIVISION

800-662-9278 | Michigan.gov/EGLE



CONTENTS

INTRODUCTION

The federal Clean Water Act (CWA) requires storm water discharges to waters of the United States from regulated industries to be authorized under a National Pollutant Discharge Elimination System (NPDES) permit. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) has been authorized by the United States Environmental Protection Agency (USEPA) to administer the NPDES Program in the State of Michigan.

Michigan NPDES Industrial Storm Water (ISW) permits require permitted industrial facilities to:

- Obtain the services of an ISW Certified Operator.
- Develop a Storm Water Pollution Prevention Plan (SWPPP).
- Implement all pollution prevention measures described in the SWPPP, including the inspection and maintenance programs to ensure lasting effectiveness.
- Eliminate all unpermitted or illicit discharges to surface waters.
- Conduct routine and comprehensive inspections (including visual assessments) to evaluate the effectiveness of pollution prevention measures.
- Develop and implement an employee training program.
- Update pollution prevention measures and the SWPPP as necessary.
- Write and submit an annual report summarizing inspections, problems, and changes to the plan.
- Maintain documentation that demonstrates compliance with the permit requirements.

This manual is organized in the following manner:

1. Basic information on water quality and storm water.
2. An overview of the federal and state regulations that relate to storm water.
3. The storm water permitting framework.
4. What industrial facilities need to do to meet the requirements of the storm water general permit.
5. Components of a SWPPP.
6. Appendix.

Additional program guidance documents and videos are available at the ISW web page.
For additional environmental program training opportunities, visit MIchigan.gov/EGLEEvents, or contact EGLE's Environmental Assistance Center at 800-662-9278 or EGLE-Assist@Michigan.gov.

WATER QUALITY AND STORM WATER

Let's begin with a brief overview of water quality issues, especially where they relate to precipitation and runoff. From a raging stream during spring snowmelt, to a gentle summer rain, to the slow movement of water through the ground, water is in constant motion.

The movement and endless recycling of water between the atmosphere, the land surface, and underground aquifers is called the hydrologic cycle. This movement, driven by the energy of the sun and the force of gravity, supplies the water needed to support life. Understanding the hydrologic cycle is basic to understanding all water and is a key to the proper management of water resources. Many processes work together to keep Earth's water moving in a cycle. There are five processes at work in the hydrologic cycle: condensation, precipitation, infiltration, runoff, and evapotranspiration. These occur simultaneously and, except for precipitation, continuously.

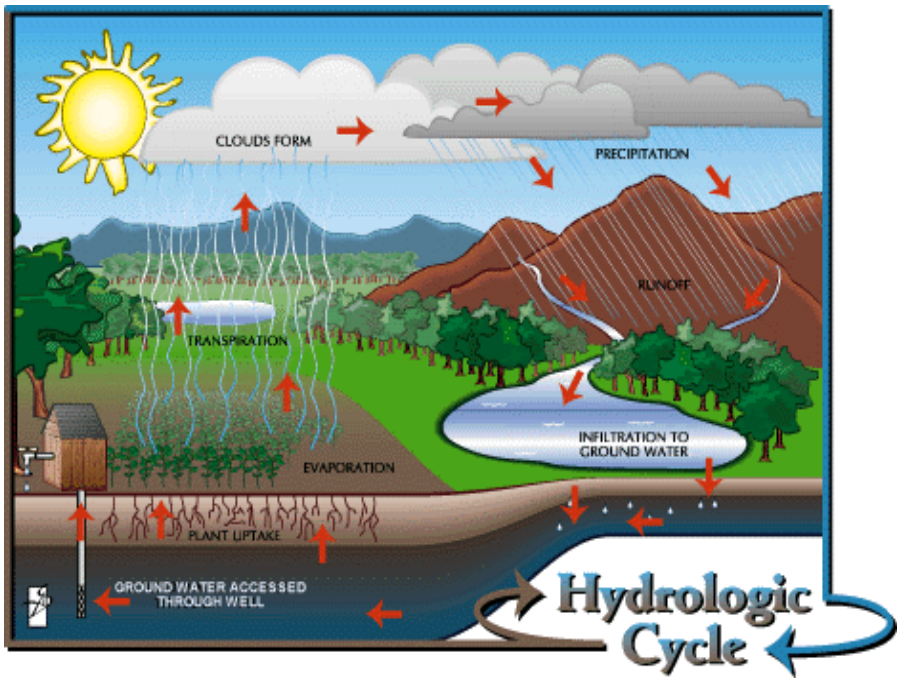


Figure 1 - Hydrologic Cycle showing the natural cycling of water.

Storm water and runoff are part of this natural hydrologic process. Under natural conditions, most of the rainwater or snow that falls to the ground infiltrates or evaporates.

However, industrial activities can alter natural drainage patterns and add pollutants to rainwater and snowmelt. The introduction of pollutants to storm water most commonly occurs at industrial facilities when operating procedures allow industrial materials to become exposed to storm water. This potentially contaminated storm water may then enter storm sewer systems or flow over the ground and discharge to lakes, rivers, streams, and wetlands.

The best way to address this is through pollution prevention. It is better for the environment and more cost-effective to prevent the contamination of storm water at the source. This concept has led to the development of the current storm water regulations.

The goal of the storm water program is to reduce pollution entering Michigan's waters by implementing controls designed to prevent the contamination of storm water runoff.

Preventing Pollution is the Best Solution!

Most automobile drivers are aware that roads are slickest after the first few minutes of a rainstorm. It is in those first few minutes that oil, grease, lead, and other pollutants that have accumulated on the pavement are picked up by water and transported to underground storm sewers or roadside ditches. This initial washing action by storm water is referred to as the first flush. It has been determined that this first flush of storm water runoff contains the highest percentage of pollutants.

Typical pollutants associated with storm water runoff that can impair water quality include the following:

- ***Hydrocarbons***

  Common sources of hydrocarbons (gasoline, oil, and grease) in ISW runoff are from spills at oil storage and fueling facilities, automobiles and equipment, and improper disposal of waste oils. Hydrocarbons are known to be toxic to aquatic organisms at relatively low concentrations and are a major concern when addressing storm water runoff controls.

- ***Toxic Pollutants***

  Sources of toxic pollutants are quite varied. Pesticides, herbicides, corroded metals, wood preservatives, paints, used oils, solvents, and machinery fluids all can have toxic effects on aquatic life and may contaminate drinking water supplies. Some toxic substances can accumulate in the food chain, resulting in fish advisories limiting the amounts and types of fish we can safely eat.

- ***Organic Pollutants***

  Food processing facilities, airports with deicing activities, septic systems, animal waste, combined sewer systems, and illicit storm sewer connections are sources of high nutrient content. Biota will require need a great deal of oxygen to break down these substances. Storm water runoff can deposit large quantities of these nutrient rich substances in our lakes and streams. This will increase the levels of BOD (biological oxygen demand), COD (chemical oxygen demand), and TOC (total organic carbon), and decrease the levels of dissolved oxygen in the aquatic environment. The pulse of high oxygen demand that can occur during and after a storm water runoff event can significantly deplete oxygen supplies in shallow, slow moving waters. Oxygen depletion is a common cause of fish kills and odor problems.

- ***Nutrients***

  Nutrients are a common component of storm water runoff. The addition of phosphorus and nitrogen to storm water runoff from landfills, septic fields, animal waste, illicit connections,

erosion, and overfertilization can result in algal blooms, excessive plant growth, ammonia toxicity, and groundwater contamination. In freshwater systems, phosphorus is the main cause of excessive plant and algal growth.

Figure 2 - Algal bloom in a lake because of nutrient loading.

- ***Pathogens***

  The presence of pathogens in surface water inhibits recreational uses such as swimming and boating. Bacteria and viruses are pathogens that can cause ear and/or intestinal problems as a result of contact. Common sources of bacteria and viruses are illicit drain connections, sanitary sewer overflows, animal waste, and failing septic systems.

- ***Sediment***

  Sediment is one of the most widespread pollutants in surface water. Erosion occurs when wind and water mobilize unstable soils. Erosion commonly occurs from areas of construction activities, bare soil around a facility, gravel parking lots, landfills, access roads, and mining operations. Stream bank and streambed erosion can be caused by changes in hydrology. Many pollutants (nutrients, hydrocarbons, and toxic substances) attach to sediment particles, particularly fine sediments such as clay. Therefore, as sediment is carried to a water body, it can carry other pollutants with it. Even without attached pollutants, sediment can be very destructive to aquatic systems by covering and damaging habitat.

Figure 3 - Sediment discharges from a construction activity.

- ***Salts***

  The most common source of chlorides and other salts in urban storm water runoff is deicing of impervious surfaces such as roads, parking lots, and walkways. Because salt is extremely soluble, almost all salt applied to roads, parking lots, and walkways ends up in surface or groundwater. High chloride concentrations can be toxic to many freshwater organisms, and there are numerous documented cases of water contamination caused by storm water runoff from inadequately protected stockpiles of salt and sand/salt mixtures.

REGULATIONS RELATED TO STORM WATER

FEDERAL REGULATIONS

Originally enacted in 1948, the federal Water Pollution Control Act was the first legislation passed to protect water quality in the United States. However, the act did little to control discharges of pollutants into the nation's waterways. By the mid-1960s approximately two-thirds of the nation's rivers, lakes, and coastal areas were rated as unsafe for fishing and swimming.

Figure 4 – The purpose of the CWA was to address polluted waterways.

Highly publicized events, such as the Cuyahoga River fire of 1969 and growing public concern for water quality led to the federal Water Pollution Control Amendments of 1972. Better known as the Clean Water Act (CWA), the primary purpose of the CWA was to eliminate the pollution problems caused by municipal sewage and industrial wastewater.

Point source discharges of pollutants to navigable waters required authorization under an NPDES permit. As pollution control measures, such as wastewater treatment plants, were implemented for these point source discharges, water quality problems were reduced but not eliminated.

To investigate another potential source of contamination to our waterbodies, a study called the Nationwide Urban Runoff Program was conducted. In this study, storm water discharges from municipal separate storm sewer systems were analyzed from 1978 to 1983. The results indicated that storm water runoff contained many pollutants. In fact, it was shown that a large percentage of streams and lakes had impaired uses, at least partially due to the pollutants in storm water discharges.

As a result, 1987 amendments to the CWA recognized that storm water was a significant source of water pollution. The amendments redefined point source discharges to include urban storm water and ISW runoff directed to surface water through discrete conveyances such as a pipe, ditch, graded lot, or constructed waterway. In addition, Congress directed the USEPA to develop regulations for storm water discharges associated with construction activities, municipal separate storm sewer systems (MS4), and industrial activities. The Final Rule and NPDES Application Requirements for Storm Water Discharges are identified in the Code of Federal Regulations (CFR) at 40 CFR, Section 122.26.

STATE REGULATIONS

In 1994 the State of Michigan compiled all state environmental laws into the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The following are environmental laws included in the NREPA that apply to regulated storm water discharges:

- ***Part 31, Water Resources Protection***

  Part 31 was created to protect and conserve the water resources of the state. Many of the sections in Part 31 are the basis for the wastewater discharge and water pollution control programs administered by EGLE's Water Resources Division (WRD). Notable sections as they relate to storm water discharges are summarized below:

  - Section 3105 allows EGLE staff to enter properties for inspections.
  - Section 3109 is a prohibition against the direct or indirect discharge of a substance into the waters of the state that is or may become injurious to any designated use.
  - Section 3110 requires commercial and industrial facilities that discharge wastewater (includes regulated storm water) to waters of the state shall have the treatment and control measures under the supervision and control of a certified wastewater operator.
  - Section 3111b requires reporting to 911 for spills that are required to be reported under the Part 5 Rule, Spillage of Oil and Polluting Materials.
  - Section 3112 requires wastewater (includes regulated storm water) discharges to waters of the state be authorized by a permit from EGLE.
  - Section 3115 sets forth the enforcement provisions for noncompliance with Part 31.
  - Section 3118 contains the fees in the NPDES Storm Water Program.
  - Section 3119 creates the Storm Water Fund for program administration.

- ***Part 91, Soil Erosion and Sedimentation Control***

  The primary intent of Part 91 is to protect the waters of the state and adjacent properties by minimizing erosion and controlling off-site sedimentation. Construction activities commonly occur at industrial facilities. If such activities do occur, a Soil Erosion and Sedimentation Control permit may be required. Soil Erosion and Sedimentation Control permits must be obtained from the county or municipal enforcing agent for any earth change activity that disturbs one or more acres of land or that is within 500 feet of a lake or stream. Mining that involves the removal of clay, gravel, sand, peat, or topsoil also requires a Soil Erosion and Sedimentation Control permit.

- ***Part 201, Environmental Remediation***

  The intent of Part 201 is to provide a regulatory framework for sites of environmental contamination in order to protect public health and the environment. Many industrial sites are regulated by Part 201 due to past industrial practices. Special considerations, which will be discussed later in this manual, need to be made when storm water is discharged from industrial sites regulated by Part 201.

- ***Part 213, Leaking Underground Storage Tanks***

  Part 213 provides regulations related to environmental contamination associated with leaking underground storage tanks. Many industrial sites are regulated by Part 213 and special considerations, which will be discussed later in this manual, need to be made when storm water is discharged from sites regulated by Part 213.

The following notable rules were promulgated pursuant to Part 31 of the NREPA:

- ***Part 21, Wastewater Discharge Permits, R 323.2101-323.2197***

  Part 21 includes all the rules related to the state of Michigan's permitting program for discharges of waste or waste effluent to waters of the state. The rule includes permitting requirements for discharges of storm water associated with industrial activity, Municipal Separate Storm Sewer System (MS4) discharges, and discharges from construction activities. In Michigan, permitting for construction sites one acre or larger is regulated under permit-by-rule. Construction sites that have an earth disturbance of five acres or larger need to submit a Notice of Coverage to EGLE.

- ***Part 5, Spillage of Oil and Polluting Materials, R 324.2001-324.2009***

  These rules describe the requirements related to spill prevention, secondary containment, and spill notification for the storage of salt, oil, and other regulated polluting materials. The rules also include the requirements for a facility regulated under these rules to develop a Pollution Incident Prevention Plan.

- ***Part 10, Treatment Plant Operators, R 323.1251-323.1259***

  These rules describe the requirements related to EGLE's wastewater certified operator program such as the types of certifications offered, applications, exams, certification renewal, and certification revocation criteria. It should be noted that EGLE may revoke the certificate of a person who, after a hearing, is judged incompetent or unable to properly perform the duties of the operator in his classification, or who has practiced fraud or falsification, or who has been negligent in the discharge of his duties.

STORM WATER PERMITTING FRAMEWORK

CLASSES OF PERMITS

In Michigan, two classes of NPDES permits are issued to cover storm water discharges from industrial sites: *General* and *Individual*.

NPDES GENERAL PERMITS

ISW general permits contain general requirements intended to protect surface water quality. They are not site-specific, meaning all permittees operating under an ISW general permit will be required to implement the same requirements. A facility with coverage under an ISW general permit will be authorized to discharge via a Certificate of Coverage (COC) issued by the WRD. There are two types of ISW general permits in Michigan:

1. ***Storm Water Discharges Not Associated with Special-Use Areas***

   Most COCs issued for ISW discharges in the State of Michigan are issued under this type of ISW general permit.

2. ***Storm Water Discharges Associated with Special-Use Areas***

   This type of ISW general permit has some additional requirements that includes the requirement for the permittee to perform a Short-Term Storm Water Characterization Study (STSWCS) or a Benchmark Monitoring Study of storm water discharges from certain areas. Facilities meeting

one or more of the following conditions must be covered under the Storm Water Discharges Associated with Special-Use Areas general permit:

- The facility has secondary containment structure(s) mandated by state or federal regulations from which accumulated storm water within the structure is periodically discharged to surface waters of the state.
- The site has been classified pursuant to Part 201 and/or Part 213 of the NREPA as a site of environmental contamination or cleanup where known or potential impacts on surface waters exist that cannot be adequately permitted under the Storm Water Discharges Not Associated with Special-Use Areas general permit.
- The facility is engaged in activities or has areas that may contribute pollutants to the storm water for which EGLE determines monitoring is necessary. This includes, but is not limited to, facilities that are engaged in industrial activity classified by Standard Industrial Classification (SIC) code 5015 or 5093.

Permittees that are issued this permit will be notified on their COC regarding which study(ies) need to be performed. Both the STSWCS and Benchmark Monitoring Study require a study plan be submitted to the WRD district supervisor for approval six months after the COC is issued. It is important to note that the Benchmark Monitoring Study only applies to permittees that are engaged in industrial activity classified by SIC code 5015 or 5093. Guidance regarding benchmark monitoring and developing a STSWCS can be found on the ISW web page.

INDIVIDUAL NPDES PERMITS

If the conditions at an industrial facility cannot be properly managed by one of the general permits identified above, an individual permit written specifically for the facility may be issued. An individual permit may contain additional requirements such as regular sampling, monitoring, end of pipe treatment, or effluent limits.

Note that if a facility is required to obtain an NPDES individual permit to authorize other wastewater discharges to surface waters of the state, such as a wastewater treatment plant, the regulated storm water associated with the facility can be rolled into the permit as well. In this case, the individual permit would include the same applicable general industrial storm water requirements found in the general permits described above.

PERMIT FEE

All facilities that have authorization to discharge industrial storm water on January 1 will be responsible for the $260 annual permit fee. ISW invoices are required to be issued by the WRD before February 1. In response to the WRD's annual notice, the permittee shall remit the fee to the address on the notice and be postmarked no later than March 15 of each year. Permittees can pay invoices via MiEnviro Portal as well.

WHO NEEDS A STORM WATER PERMIT

There are three criteria to consider when determining if coverage is needed under the NPDES ISW permit.

1 First, determine if the industry is identified in the federal storm water regulations at 40 CFR, Section 122.26(b)(14) and the state storm water regulations under Part 21 Rules, Wastewater Discharge Permits, promulgated pursuant to Part 31, Water Resources Protection, of the NREPA. Many regulated industries are identified by SIC code, while others are included by narrative description.

There is another industrial classification system termed North American Industrial Classification System (NAICS). This classification system can be converted to the SIC code system at a NAICS conversion Web page. In general, the following industrial categories are regulated:

- Mining (SIC 10— through 14—)
- Manufacturing (SIC 20— through 39—)
- Warehousing and Storage (SIC 422-)
- Transportation (SIC 40— through 45— & SIC 5171)
- Landfills
- Steam Electric Power Plants
- Recycling Facilities and Automobile Salvage Yards (SIC 5093 & 5015)
- Wastewater Treatment Facilities
- Hazardous Waste Treatment, Storage, and/or Disposal Facilities

A complete list of regulated industries is available on the Primary Activities and SIC Codes guide available on the ISW web page.

2 Once it is confirmed that the facility is a regulated industry, the next step is determining if there is a point source discharge of storm water to surface waters of the state. Surface waters of the state include rivers, lakes, streams, and wetlands. The surface water that receives the point source discharge is called the receiving waters.

A point source is any discernible, confined, and discrete conveyance that discharges storm water into surface waters. Examples of point source discharges include, but are not limited to, pipes, ditches, channels, tunnels, conduits, or anything that conveys storm water into surface waters. In most cases, land graded to convey storm water runoff across a piece of property would create a point source discharge of storm water; however, general sheet flow is not considered a point source discharge.

Figure 5 - Outfall to surface waters of the state.

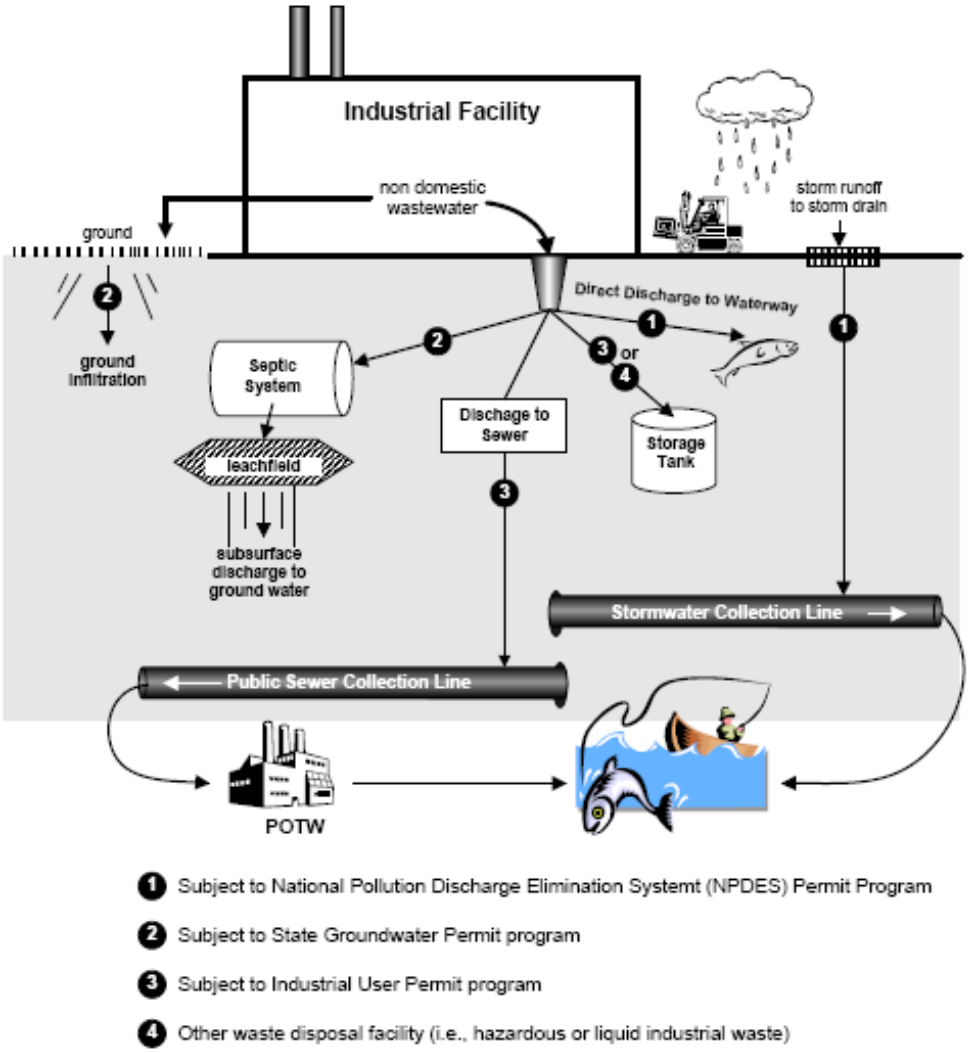
It is important to understand the following terms:

- ***Point of discharge***
  The location of a point source discharge where storm water is discharged directly into a separate storm sewer system.
- ***Outfall***
  The location at which a point source discharge enters the surface waters of the state.

At many facilities, storm water is discharged from the facility into a municipal storm sewer system. It is important to understand whether the municipal sewers are separate or combined.

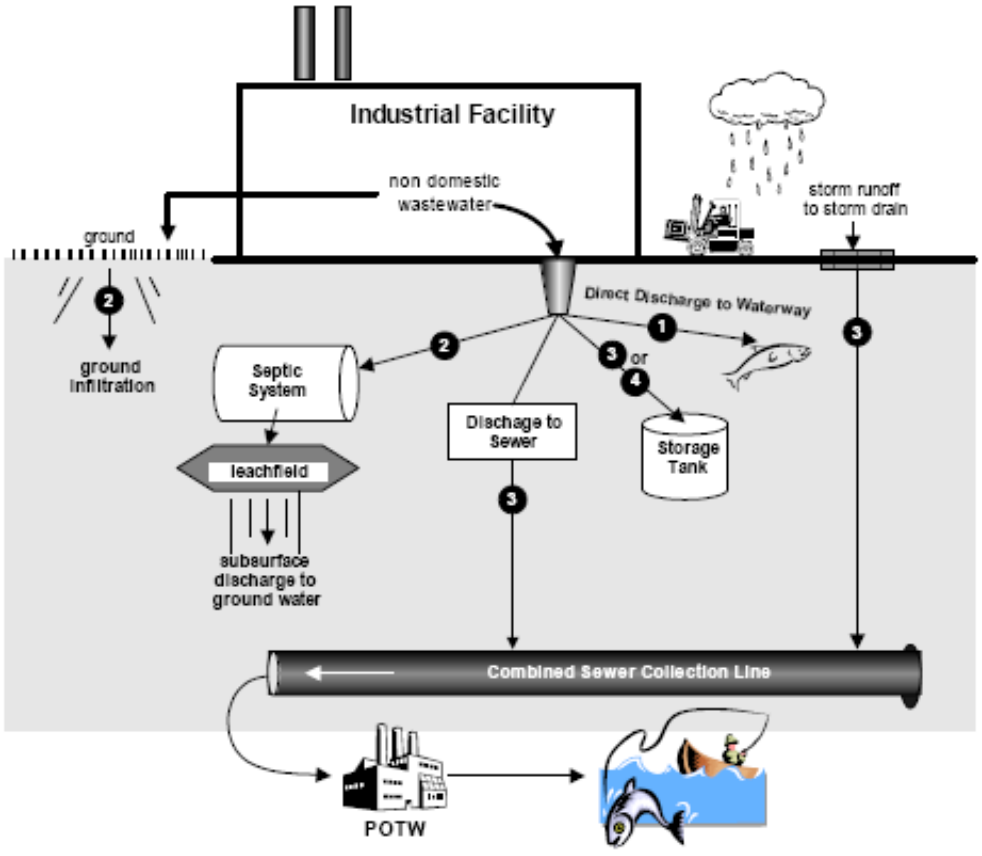
In a separate storm sewer system, storm water is kept separated from sanitary sewage and discharges directly into a surface water body. The sanitary sewage, which also may contain industrial wastewater, is directed to the local wastewater treatment plant where it is treated and then discharged. Permit coverage is needed when storm water is discharged to a separate storm sewer system.

Figure 6 – Separate Sewer System



In a combined sewer system, storm water is combined with sanitary sewage and directed to the local wastewater treatment plant. If all storm water from the facility is discharged to a combined sewer system, storm water permit coverage is not needed.

Figure 7 – Combined Sewer System



3 The final step in the determination process is evaluating the potential for exposure of industrial materials or activities to storm water. Industrial materials or activities include, but are not limited to, material handling equipment, industrial machinery, raw materials, intermediate products, by-products, waste materials, and final products. However, final products that are designed for outdoor use that cannot be mobilized by storm water runoff are not considered exposed

Facilities without exposure may apply for an exemption from the storm water permit requirements by submitting an application for No Exposure Certification in MiEnviro Portal. No Exposure Certification guidance can be found at the ISW web page.

To remain exempt from the storm water permit requirements, the condition of no exposure must be maintained at all times and the application for No Exposure Certification submitted in MiEnviro Portal every five years.

If there is exposure of any industrial materials or activities to storm water runoff that discharges to surface waters of the state, storm water permit coverage is required.

In summary, facilities must obtain storm water permit coverage if all of the criteria apply:

1. The facility's SIC code is regulated.
2. Storm water from the property discharges to surface waters of the state.
3. There is exposure of industrial materials.

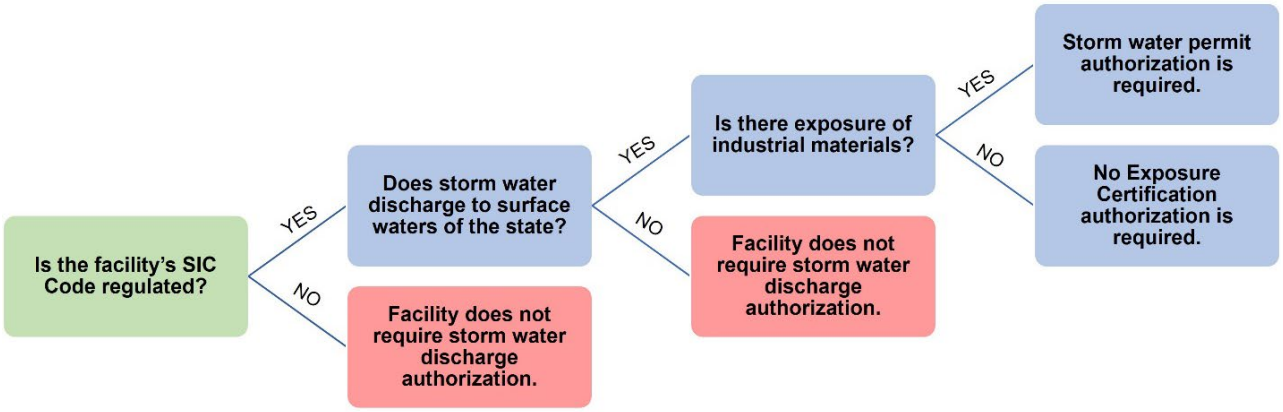


Figure 8 - Flow chart to help determine what type of industrial storm water authorization is required.

Contact your WRD district office if you have questions regarding permit coverage.

MIENVIRO PORTAL (FORMERLY MIWATERS)

In 2015 the WRD launched a new electronic permit information system called MiWaters, now named MiEnviro Portal. MiEnviro Portal is a comprehensive, web-based permitting and compliance database. The system replaces over 25 applications and databases currently used by the WRD, some of which were over 30 years old.

MiEnviro Portal establishes a streamlined electronic permitting process, allowing Michigan to fulfill federal electronic reporting requirements and providing an online component for access to public information. The focus of MiEnviro Portal is permitting and compliance, including NPDES, storm water, groundwater discharge, aquatic nuisance control, sewerage system construction, and land and water interface permits. It also includes electronic reporting of untreated or partially treated sanitary wastewater.

MiEnviro Portal

One of the WRD's focuses with MiEnviro Portal was to have a system that makes it easier for the WRD to communicate with and provide services electronically to the regulated community. MiEnviro Portal provides near real-time notifications to the permittee of any violations determined by the system or by staff, providing permittees with an early "heads up" and opportunity to correct problems.

All permit applications and permit-required submittals will need to be submitted electronically via MiEnviro Portal. Each facility will need to have an Authorized User with Administrator status linked to the facility's MiEnviro Portal site who will be able to manage permissions, which includes deciding who can view, edit, and submit applications or submittals. Every Authorized User will be required to set up a personal account in MiEnviro Portal, which will involve establishing a username, password, and responses to security questions. It is important to understand that Authorized Users designated (by the facility or WRD) to submit applications, forms, etc. on behalf of the facility will need to authenticate their electronic signature by completing the Certifier Agreement tasks.

More information related to MiEnviro Portal can be found at: Michigan.gov/MiEnviro.

APPLYING FOR STORM WATER PERMIT COVERAGE

The following three scenarios need to be considered when applying for storm water permit coverage:

1. ***New facility that has not started industrial activity***

   In order for a new facility to be issued permit coverage, the facility must be able to certify the following:

   - A SWPPP has been developed for the facility.
   - The facility has an ISW Certified Operator.
   - There are no unauthorized discharges from the facility.
   - Nonstructural storm water pollution preventive measures and source controls identified in the SWPPP will be implemented when industrial activity begins.
   - Structural storm water pollution prevention controls identified in the SWPPP will be installed and operational when industrial activity begins.

   Once these requirements are completed, the facility may apply for permit coverage by submitting the Notice of Intent (NOI) application via MiEnviro Portal. The submittal of the NOI application certifies the above conditions have been met. MiEnviro Portal identifies this application as:

   > *NOI for coverage under the National Pollutant Discharge Elimination System (NPDES) for Storm Water Discharges Associated with Industrial Activity*.

   Note that you will need to provide the following while completing the NOI:

   - The body of water (receiving water) to which your storm water is discharged (either directly or via an underground storm sewer or roadside ditch).
   - The mailing address(es), contact information, SIC code information, and the name and certification number of the ISW Certified Operator.

2. ***Existing facility without storm water permit coverage***

If the facility is an existing facility (already in operation and with existing exposure of industrial materials or processes) without prior storm water coverage, it is in violation of state and federal regulations. In order to resolve the violation associated with the unpermitted discharge expeditiously, the WRD developed a Certificate of Entry (COE) process under General Administrative Consent Order (ACO) for Unpermitted Discharges No. ACO-UD12-100. Eligibility for ACO-UD12-100 is limited to those facilities that currently have a storm water discharge but have never held a permit issued by the WRD for the discharge. ACO-UD12-100 is not available to facilities with expired storm water permits or discharges that have caused environmental damage. Facilities eligible to resolve the unpermitted discharge violation through ACO-UD12-100 are required to submit an NOI/COE application via MiEnviro Portal and pay $260. MiEnviro Portal identifies this application as:

> *NOI for coverage under the National Pollutant Discharge Elimination System (NPDES) for Storm Water Discharges Associated with Industrial Activity and Certificate of Entry (COE).*

It is important to understand that by submitting this application the facility is certifying the following:

- A SWPPP has been developed for the facility.
- The facility has an ISW Certified Operator.
- There are no unauthorized discharges from the facility.
- Nonstructural storm water pollution preventive measures and source controls identified in the SWPPP will be implemented when industrial activity begins.
- Structural storm water pollution prevention controls identified in the SWPPP will be installed and operational when industrial activity begins.

The NOI/COE compliance assistance document is available on the ISW web page.

3. ***Portable industrial facilities***

Portable industrial facilities also need to submit an NOI for permit coverage. Examples of these facilities include portable concrete batch plants, rock or concrete crushers, and asphalt plants. A separate NOI application must be submitted in MiEnviro Portal for EACH portable facility.

Figure 9 - Portable aggregate crushers need ISW permit authorization if the site discharges to surface waters of the state.

If the portable facility is to be moved to a satellite location, the permittee must notify EGLE of the relocation in writing, at least ten days prior to startup at the new location.

INDUSTRIAL STORM WATER DISCHARGE PERMIT REQUIREMENTS

The pollution prevention components of Michigan's NPDES ISW general permits and individual permits require facilities to:

- Obtain the services of an ISW Certified Operator.
- Develop a SWPPP.
- Implement all pollution prevention measures described in the SWPPP including the inspection and maintenance programs to ensure lasting effectiveness.
- Eliminate all unpermitted or illicit discharges to surface waters.
- Conduct quarterly comprehensive site inspections and visual assessment sampling to evaluate the effectiveness of pollution prevention measures.
- Conduct routine inspections as part of the preventative maintenance and good housekeeping programs.
- Update pollution prevention measures and the SWPPP as necessary.
- Complete an annual report summarizing inspections, compliance activities, and changes to the plan.
- Maintain documentation that demonstrates compliance with the permit requirements.
- If applicable, an STSWCS plan and/or Benchmark Monitoring Study plan is required to be submitted within six months to the WRD district supervisor for approval.

INDUSTRIAL STORM WATER CERTIFIED OPERATOR REQUIREMENTS

A permittee that has ISW discharge authorization under an NPDES permit shall have an ISW operator certified by EGLE, as required by Section 3110 of Part 31 of the NREPA. The following are the responsibilities of the ISW Certified Operator:

- The ISW Certified Operator shall have supervision over the facility's storm water treatment and control measures included in the SWPPP.
- The ISW Certified Operator shall conduct quarterly comprehensive site inspections.
- The ISW Certified Operator shall conduct quarterly visual assessments of storm water discharges.

Figure 10 – ISW certified operators need to perform quarterly comprehensive site inspections.

- The ISW Certified Operator shall review and sign the SWPPP.

The ISW Certified Operator may be someone who works at the facility, a regional corporate environmental manager, a consultant, or anyone else the permittee designates to receive certification and perform these duties. Ideally, the ISW Certified Operator should be someone who is at the facility on a regular basis.

Figure 11 – ISW certified operators need to document their inspections.

If the facility's ISW Certified Operator leaves the facility or no longer has operator responsibilities, the permittee must immediately obtain another ISW Certified Operator. The new operator must review and sign the SWPPP. The permittee shall provide written notification (via MiEnviro Portal) that includes the name and certification number of the new ISW Certified Operator to the appropriate WRD district supervisor. WRD district information is available on the facility's COC.

It is recommended that a facility have multiple ISW Certified Operators to effectively manage the facility's Storm Water Program. If there are multiple ISW Certified Operators at the facility, their names should be listed in the SWPPP.

HOW TO OBTAIN AN ISW CERTIFIED OPERATOR CERTIFICATION

Information on how to obtain a ISW Certified Operator Certification can be found on the EGLE - ISW Certified Operator Training/Exam and Recertification Web page. Individuals will be required to register for an exam date and submit payment of $30 during registration. Please note registration closes one week prior to the exam date.

Preparation for the exam includes:

- Reviewing the ISW Certified Operator Training Manual
- Review the practice exam available on the ISW web page
- Reviewing the material on the ISW web page
- Watching the 9 instructional videos on EGLE's YouTube channel or the recordings of both session 1 and session 2 of the June 2021 training webinars

On the day of the exam, a link will be emailed to all registered for the exam session. The link is active only for the day of the exam and once started, the exam is only active for 2 hours.

Exams taken during the training/exam sessions are graded by the WRD's Licensing and Technology Support Unit (LTSU). A passing exam score is 70 percent correct. Those that achieve a passing exam score will be issued an ISW Certified Operator Certificate by the WRD's LTSU that is valid for five years. If a passing exam score is not achieved, the individual will be required to re-register, review the materials, retake the exam, and pay the $30 fee again.

If your mailing address changes during the five-year term, it is important to notify the WRD (either LTSU or your local district compliance staff) if your mailing address has changed, your name has changed or you have changed employers, so that renewal information can be sent to you when it is time.

HOW TO RENEW THE ISW CERTIFIED OPERATOR CERTIFICATION

Every January, the WRD's LTSU sends renewal notifications to those operators that will have their certifications expiring on July 1 of that year. Operators that receive the notification will be required to:

- Visit the EGLE - ISW Certified Operator Training/Exam and Recertification Web page
- Review the material on the ISW web page
- Watch the 9 instructional videos on EGLE's YouTube channel **or** the recordings of both session 1 and session 2 of the June 2021 training webinars
- Review the ISW Training Manual

There is no exam given, just click on the download recertification form and follow the instructions for payment and submission. The application will need to be completed by the operator and submitted to the WRD's LTSU. For a certification to be renewed, the renewal application and $95 payment must be received by EGLE prior to August 31 of the calendar year in which the certification expires.

CERTIFICATE REVOCATION AND PENALTIES FOR NEGLIGENCE

EGLE may revoke the certificate of a person who has practiced fraud or falsification or who has been negligent in the discharge of his/her duties. In addition, under Section 3115 of Part 31 of the NREPA, there is a $2,500 - $25,000 fine for negligence or falsification of records or reports. Upon conviction, in addition to a fine, the court in its discretion may sentence the defendant to imprisonment.

STORM WATER POLLUTION PREVENTION PLAN DEVELOPMENT

The SWPPP is a written plan that identifies sources of significant materials associated with industrial activity and includes procedures intended to reduce the exposure of significant materials to storm water runoff. This plan needs to be site-specific and must include all the controls implemented by the facility to ensure storm water discharges meet the State of Michigan water quality standards. It should be user-friendly, readable, and to the point. Do not include information that is not relevant or procedures that are not feasible for your situation.

If your facility has other environmental protection plans, such as a Pollution Incident Prevention Plan or Spill Prevention Countermeasures and Control Plan, you may want to consider combining your SWPPP with one or more of these documents. There will be overlap in many of the components of these plans. If multiple plans are combined, it is important to make sure the information related to the SWPPP requirements is easily identifiable for WRD staff during inspections.

A SWPPP template can be obtained from Michigan.gov/IndustrialStormwater.

The goal of the SWPPP is to prevent storm water from contacting contaminants before being discharged into the receiving waters. The SWPPP shall identify potential sources of storm water contamination and describe the controls necessary to reduce or eliminate impacts associated with the identified sources. The following objectives will aid in achieving the goal of the SWPPP:

- Identify and evaluate sources (industrial activity and materials) of significant materials that could contaminate storm water discharged from the facility.
- Implement nonstructural controls at the source to prevent significant materials from contaminating storm water.
- Install, construct, or provide structural controls, if necessary, to prevent significant materials from contaminating storm water and to give additional control or treatment for storm water that has become contaminated by significant materials.
- Ensure that the SWPPP is reviewed and updated annually. The SWPPP checklist available on the ISW web page can be used for the annual review. Based on the review, the SWPPP shall be revised if needed, and a written report shall be developed. Permittees are required to complete an annual report according to the general permit requirements associated with their COC.

SOURCE IDENTIFICATION

The first step in developing a SWPPP is source identification. This involves identifying potential sources of significant materials that have a reasonable potential to contaminate storm water and subsequently be discharged from the facility. To identify sources of significant materials at a facility, it is important to understand what they include. A significant material is any material that can degrade or impair water quality. Significant materials commonly associated with industries regulated by the state and federal storm water regulations include but are not limited to: soils, salt, raw materials, fuels and lubricants, solvents and detergents, wood and metal chips, plastic pellets, fertilizers and pesticides, food products, waste products (including litter), foundry sand, ash, slag, polluting materials, wastewater, and plant and animal waste.

The following items are included in the source identification section of the storm water permit and need to be adequately addressed in the facility's SWPPP:

Site Map

Source identification starts with the development of a site map that adequately illustrates the industrial activity and required components included in the storm water permit. The storm water permit requires the following 13 items to be identified on the site map:

Figure 12 – The SWPPP site map needs to include all items listed under the site map requirements in the permit.

1. Buildings and other permanent structures.
2. All areas of industrial activity, industrial equipment, and/or industrial material storage.
3. Storage, disposal, and/or recycling areas for significant materials.
4. The location of all storm water discharge points and monitoring points (numbered or otherwise uniquely labeled for reference).
5. The location of all storm water inlets (e.g., catch basins, roof drains, trench drains, etc.) contributing to each storm water discharge point (numbered or otherwise uniquely labeled for reference).

Figure 13 – There is no required format for the site map. Permittees can use a hand drawn sketch, as built drawings, aerial photos, etc.

6. The location of non-storm water NPDES-permitted discharges.
7. The location of all storm water conveyances (e.g., pipe, ditch, channel, basin, etc.) and outlines of the drainage areas contributing to each storm water discharge point. The best way to determine drainage areas is to observe runoff during a rainstorm.
8. All structural controls (e.g., secondary containment, inlet filters, etc.) and/or storm water treatment equipment/devices.
9. Area(s) of vegetation (with appropriate labeling such as lawn, old field, marsh, wooded, etc.).
10. Area(s) that have the potential for soil erosion and sediment discharges (e.g., gravel lots, access roads, material stockpiles, outfalls, etc.).
11. Impervious surfaces (e.g., roofs, asphalt, concrete, etc.).

12. Name and location of receiving water(s).

13. Contaminated areas of the site regulated under Part 201 and/or Part 213 of the NREPA.

The site map may be hand drawn, an aerial image, or electronically generated. The bottom line is that the map should show everything that is relevant to storm water at the facility.

Significant Material Inventory

Once the site map has been completed, the written portion of the SWPPP can be developed. While developing the SWPPP, all sources of potential storm water contamination need to be evaluated and identified. During the evaluation, it is important to consider indoor material storage areas or industrial activity areas if there is a potential for those areas to negatively impact storm water discharges. Often, significant materials get tracked outside and exposed to storm water runoff by vehicles or employees.

Figure 14 – Facilities need to develop an inventory of their significant materials that could be exposed to storm water.

The storm water permit requires that the SWPPP include a list or inventory of all significant materials that have the reasonable potential to contaminate storm water runoff. For each significant material identified, the SWPPP shall describe the ways in which the significant material is or has the reasonable potential to become exposed to storm water runoff. In addition, the inlet and discharge point through which the material may be discharged if released shall also be identified.

To further describe the pollutant sources associated with the significant materials identified, the SWPPP shall include an evaluation and written description of the reasonable potential for the contribution of significant materials from the following 12 areas or activities:

1. Loading, unloading, and other industrial material handling activities.
2. Outdoor industrial material storage areas, including secondary containment structures.
3. Outdoor manufacturing or processing activities.
4. Dust or particulate generating processes/activities.
5. Discharges associated with vents, stacks, and air emission controls.
6. Industrial waste or recyclable material storage or disposal areas.

7. Activities associated with the maintenance and cleaning of vehicles, machines, and equipment.
8. Area(s) that have the potential for soil erosion and sediment discharges (e.g., gravel lots, access roads, material stockpiles, outfalls, etc.).
9. Areas of contamination regulated under Part 201 and/or Part 213 of the NREPA.
10. Areas of significant material residues.
11. Areas where animals (wild or domestic) congregate and deposit wastes.
12. Other areas where storm water may come into contact with significant materials.

A Listing of Significant Spills and Leaks

The SWPPP must include a listing of significant spills or leaks that have occurred at the facility in the last three years. EGLE has prepared a compliance assistance document, "Understanding When to Report Spills to Comply with the Industrial Storm Water Permit" to help permittees determine the appropriate course of action regarding the noncompliance notification and spill notification requirements in the general permits.

If a release occurs, it shall be managed in accordance with the SWPPP and be reported as required by the storm water permit. The SWPPP shall be updated to include a description of the release within 14 calendar days.

Summary of Existing Storm Water Sampling Data

Chemical storm water sampling is not typically required for most facilities in Michigan; however, if there is any storm water sampling data, it should be evaluated during the source identification phase of the SWPPP development. A summary of the data and the potential pollutant sources identified as a result of the evaluation need to be included in the SWPPP.

Illicit Connection Investigation and Elimination

Illicit connections are the source of many illicit discharges to MS4s and/or waters of the state. The most common illicit connections at industrial facilities are internal floor drains that are not legally plumbed according to the Michigan Plumbing Code. Internal floor drains cannot be plumbed to a separate storm sewer system. The SWPPP shall include a written description of the actions taken to identify, investigate, and eliminate illicit connections to the MS4s or waters of the state. Any discharge from an illicit connection to an MS4 or waters of the state is a violation of the storm water permit.

Figure 15 – An illicit discharge to surface waters of the state is a violation of the permit.

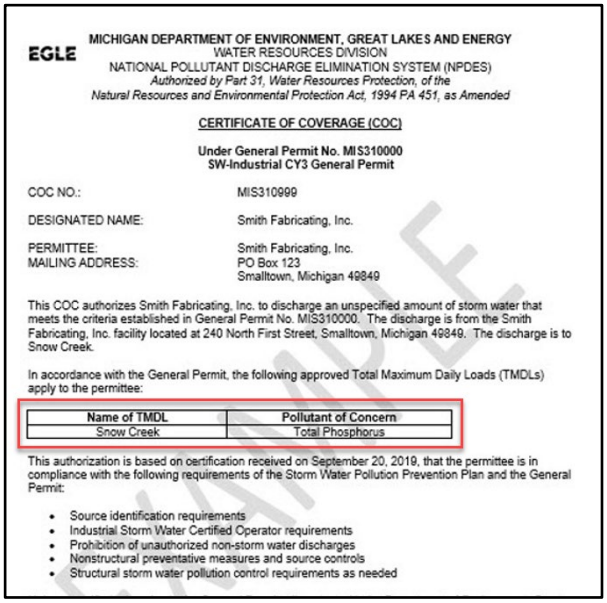
A Description of the Dust Suppression Material Used On-site

Some industrial facilities will need to control dust on-site due to fugitive dust regulations under the purview of EGLE Air Quality Division. The SWPPP shall include a description of the dust suppression material used on-site, the areas where the material is used, and the actions implemented to prevent an unauthorized discharge of the material. If the permittee does not use dust suppression material on-site, the SWPPP shall indicate this.

TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

Water quality standards are state rules established to protect surface waters of the state. In general, the water quality standards establish goals in three areas. The first goal is to protect the uses of lakes and streams, such as for swimming and fishing. The second goal is to maintain safe levels to protect the uses, such as minimum oxygen levels needed for fish to live. The third goal is to protect high quality waters.

In the situation where a waterbody is not meeting water quality standards, EGLE will establish a TMDL. The purpose of the TMDL process is to determine the pollutant load a lake or stream can handle from all sources and still meet water quality standards. The TMDL is a plan containing allowable loading limits from point sources and nonpoint sources and is designed to allow the water body to again meet all water quality standards.



EGLE

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY
WATER RESOURCES DIVISION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
Authorized by Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as Amended

CERTIFICATE OF COVERAGE (COC)

Under General Permit No. MIS310000
SW-Industrial CY3 General Permit

COC NO.: MIS310999

DESIGNATED NAME: Smith Fabricating, Inc.

PERMITTEE: Smith Fabricating, Inc.
MAILING ADDRESS: PO Box 123
Smalltown, Michigan 49849

This COC authorizes Smith Fabricating, Inc. to discharge an unspecified amount of storm water that meets the criteria established in General Permit No. MIS310000. The discharge is from the Smith Fabricating, Inc. facility located at 240 North First Street, Smalltown, Michigan 49849. The discharge is to Snow Creek.

In accordance with the General Permit, the following approved Total Maximum Daily Loads (TMDLs) apply to the permittee:

Name of TMDL	Pollutant of Concern
Snow Creek	Total Phosphorus

This authorization is based on certification received on September 20, 2019, that the permittee is in compliance with the following requirements of the Storm Water Pollution Prevention Plan and the General Permit:

- Source identification requirements
- Industrial Storm Water Certified Operator requirements
- Prohibition of unauthorized non-storm water discharges
- Nonstructural preventative measures and source controls
- Structural storm water pollution control requirements as needed

EXAMPLE

Figure 16 - TMDLs associated with the receiving waters may be identified on the COC.

NPDES permitted facilities such as ISW permittees are included as point sources when a TMDL is developed. If a facility is located in a watershed with an established TMDL, this information may be included in the facility's COC or individual permit. It should be noted that the department is phasing out the listing of the TMDL in COCs and individual permits. Permitees are able to identify applicable TMDLs associated with their authorization via their MiEnviro site. Guidance regarding TMDL identification via MiEnviro can be found on this TMDL guidance document. The facility must identify the TMDL pollutant in their SWPPP and describe measures to be taken to prevent or minimize the discharge of the pollutant. EGLE acknowledges that the implementation of an acceptable SWPPP will, in most cases, address the TMDL requirements.

During compliance evaluations, EGLE staff will assess whether a particular facility may be a significant source of the TMDL pollutant. In some cases, a STSWCS may be required to obtain more information about the quality of the storm water leaving the facility.

For more information, please see the compliance assistance document, "Understanding Total Maximum Daily Load (TMDL) Requirements as they relate to the Industrial Storm Water Permit."

A list of water bodies with TMDL requirements can be found on EGLE's TMDL Web page.

NONSTRUCTURAL CONTROLS

Nonstructural controls are best management practices that are relatively simple, fairly inexpensive, and applicable to a wide variety of industries or activities. These are typically everyday types of activities undertaken by employees at the facility. Many facilities may already have nonstructural controls in place for other reasons. The following are the nonstructural controls to be included in the SWPPP to manage and address sources of significant materials that have reasonable potential to pollute storm water and subsequently be discharged to surface waters of the state:

Preventive Maintenance

Preventive maintenance procedures shall list the storm water management and control devices, treatment systems, industrial equipment, etc. that will be routinely serviced and maintained to prevent significant material exposure to storm water. Preventive maintenance activities involve the regular inspection and maintenance of storm water management control devices and industrial equipment. The intent of these activities is to identify conditions that may cause breakdowns or failures that could result in the discharge of pollutants to the storm sewer system and ultimately surface waters of the state.

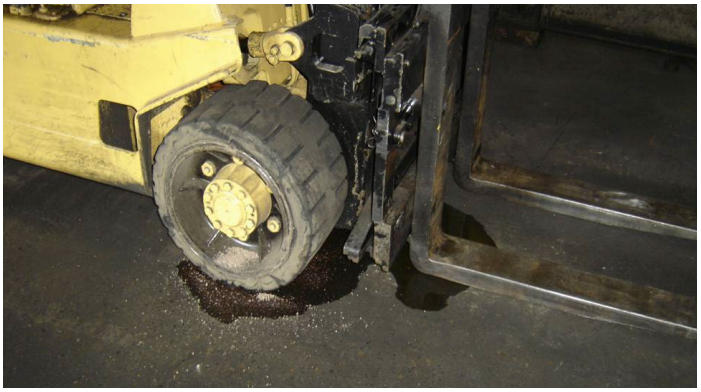


Figure 17 - Preventative maintenance inspections are important to prevent exposure to storm water.

Storm water management control devices and industrial equipment listed in a facility's preventative maintenance program may include oil/water separators, storm water catch basins, storm water catch basin filters, waste compactors, dust collection systems, etc. The procedures included in the SWPPP shall include a maintenance schedule for each item included in the facility's preventative maintenance program.

GOOD HOUSEKEEPING INSPECTIONS

The SWPPP shall include procedures and a schedule regarding the good housekeeping activities that are performed at the facility that are intended to maintain a clean and orderly work environment. The areas associated with the items listed in the preventive maintenance procedures shall also be included in these procedures.

A clean and orderly work environment will reduce the potential for pollutants to contaminate storm water discharged to the storm sewer system and ultimately surface waters of the state. Equipment (e.g., mobile

Figure 18 - Good housekeeping practices are important in the effort to reduce exposure and prevent unauthorized discharges.

pavement sweepers) or contractors (e.g., cleaning company) utilized at the facility to aid in housekeeping activities should be described in this section of the SWPPP as well. The procedures included in the SWPPP shall identify the areas and cleaning/inspection frequency included in the housekeeping program. Areas identified in a facility's good housekeeping program may include waste and scrap metal container areas, fueling areas, plastic pellet silos, vehicle washing areas, etc. Routine inspections associated with the housekeeping program need to be documented and maintained with the SWPPP.

The following practices should be considered when developing good housekeeping procedures:

- ***Operation and Maintenance***

  These practices ensure that the processes and equipment are working properly:

  - Maintain clean, dry surfaces.
  - Regularly pick up waste materials.
  - Perform preventive maintenance on equipment.
  - Routinely inspect for leaks and spills.
  - Ensure spill cleanup procedures are understood by all employees.

- ***Material Storage Practices***

  Proper storage can minimize the potential for the accidental release of materials and chemicals that can cause contamination of storm water runoff. It will also reduce damage and loss of materials on-site. The following storage practices should be considered if applicable:

  - Provide adequate aisle space.
  - Avoid storing acids and bases near each other.
  - Avoid storing flammable materials near heat sources.
  - Store critical materials in secondary containment.
  - Store materials away from direct traffic routes.
  - Store materials away from drip edges, downspouts, and storm water inlets whenever possible.

Figure 19 – Good material storage practices at facilities can reduce the potential for spills.

  - Stack containers according to manufacturer's suggestions.
  - Store containers on pallets to minimize corrosion due to ground moisture.
  - Limit the number of persons handling hazardous materials, and properly train those that will be handling such materials.

- *Material Inventory Procedures*

  Keeping an up-to-date inventory of all materials present on-site will help to keep costs down, track material storage and handling, and identify which materials and activities pose the greatest risk to the environment. It will also help to limit the amount of any given material on-site at any one time. The following items should be included in the material inventory:

  - Identify all chemical substances present in the workplace.
  - Check to make sure all containers are labeled properly.
  - Check to make sure all labeling includes storage, handling, and disposal instructions.

- *Employee Participation*

  Frequent and proper training of employees in good housekeeping techniques and proper safety methods reduce the potential that materials or equipment will be mishandled. It also reduces the chance of injury, loss of materials, and release of contaminants. Motivational programs may further increase the effectiveness of the training. The following are suggestions to promote employee participation and good housekeeping:

  - Incorporate information sessions on good housekeeping practices into employee training programs.
  - Discuss good housekeeping at employee meetings.
  - Promote pollution prevention concepts through posters, brochures, newsletters, etc.
  - Post bulletin boards with updated good housekeeping procedure tips and reminders.

Good housekeeping inspections are an integral component of both the preventative maintenance and housekeeping programs. These inspections are the responsibility of the facility's ISW Certified Operator; however, they can be performed by other facility staff or contractors as determined by the ISW Certified Operator. The frequency of the various routine inspections shall be determined by the ISW Certified Operator with the understanding that the areas determined to have a greater potential for spills (critical areas) will be inspected more frequently. At some facilities, critical areas may be inspected daily or weekly with the noncritical areas only inspected quarterly at the time the comprehensive site inspection is performed.

COMPREHENSIVE SITE INSPECTIONS

The purpose of these inspections is to thoroughly assess the site conditions and the overall storm water program implemented on-site to ensure compliance with the storm water permit. As with the good housekeeping inspections discussed earlier, the SWPPP shall include procedures for the comprehensive site inspections. At a minimum, one inspection shall be performed during normal facility operating hours by an ISW Certified Operator within each of the following quarters: January-March, April-June, July-September, and October-December.

The entire facility must be inspected and evaluated during the comprehensive site inspection. This would include all areas identified on the site map, areas identified in the significant material inventory, areas where significant spills or leaks have occurred in the last three years, all storm water inlets and discharge points, and all structural controls and/or storm water treatment equipment/devices. Additionally, the ISW Certified Operator shall review the good housekeeping inspection reports, and any other paperwork associated with the storm water program.

Figure 20 - Quarterly comprehensive site inspections need to be performed by an ISW certified operator.

The comprehensive inspection should help the ISW Certified Operator determine the effectiveness of the SWPPP and storm water management controls implemented on-site. A written report detailing the results of the comprehensive site inspection and the corrective actions must be kept with the facility's storm water files. Each comprehensive site inspection report shall include the following information:

- Date of the inspection.
- The ISW Certified Operator's name and certification number.
- All observations regarding significant material exposure and any necessary corrective actions related to the inspection of the following areas: areas identified on the site map, areas identified in the significant material inventory, areas where significant spills or leaks have occurred in the last three years, all storm water inlets and discharge points, and all structural controls and/or storm water treatment equipment/devices.
- Any notable issues related to the good housekeeping inspections that have occurred since the last comprehensive site inspection.
- Any required revisions to the SWPPP resulting from the inspection.
- A written certification stating the facility is in compliance with the storm water permit and the SWPPP, and if there are instances of noncompliance, they are identified.

VISUAL ASSESSMENTS

The purpose of the visual assessment is to evaluate the effectiveness of the storm water management control measures implemented by the facility and to ensure the discharge meets the conditions of the storm water permit. The requirements include developing procedures, collecting storm water samples, assessing the samples collected, and completing a written report.

Figure 21 – Qualified personnel can collect the visual assessment samples.

The visual assessment activities need to be conducted during a facility's normal hours of operation. Similar to the comprehensive site inspection requirements, one visual assessment shall be performed by an ISW Certified Operator within each of the following quarters: January-March, April-June, July-September, and October-December. When a visual assessment cannot be completed for any reason (e.g., adverse weather conditions, no discharge, qualifying event occurred outside the normal facility operating hours, etc.) during any quarter, written documentation explaining the reason for not completing the visual assessment shall be included with the SWPPP records.

Storm water samples collected as part of the visual assessment requirements can be collected by an ISW Certified Operator, qualified personnel, or an automatic sampler. Qualified personnel are individuals that have been trained by the facility's ISW Certified Operator to appropriately collect the samples to comply with the visual assessment requirements. These samples need to be collected within the first 30 minutes a discharge is observed from a discharge point as a result of a qualifying storm event and at least 72 hours from the previous discharge. A common misconception is that sampling must occur as soon as it begins to rain, however, at most facilities, it takes a while for storm water to flow through the storm sewer system and discharge. A facility should be aware of how long it takes for discharge to begin at the sampling location. If samples cannot be collected within the first 30 minutes of a discharge, they should be collected as soon thereafter as practicable. In the case of snowmelt, samples shall be collected if there is a discharge observed at the discharge points. Any notable observations of the discharge shall be documented on the written report; however, if an automatic sampler is used to collect the samples, this requirement is waived.

If the facility has two or more storm water discharge points that are believed to discharge substantially identical storm water effluents, the facility may conduct visual assessments of the discharge at one of the storm water discharge points and report that the results also apply to the other substantially identical storm water discharge point(s). The determination of substantially identical storm water discharge points is to be based on the significant material evaluation and shall be clearly documented in the SWPPP. Visual assessments shall be conducted on a rotating basis of each substantially identical storm water discharge point throughout the period of coverage under the permit.

Figure 22 - Visual assessment samples need to be evaluated by the ISW Certified Operator.

Once the samples have been collected, the visual assessment of the samples must be performed by the facility's ISW Certified Operator. The objective of the visual assessment is to determine if there are any unusual characteristics of the discharge that would suggest potential violation of the narrative water quality standards. If unusual characteristics are identified, corrective actions must be implemented to correct the issues

Narrative Standard: *In accordance with R 323.1050 of the Part 4 Rules of the NREPA, the receiving waters shall not have any of the following physical properties as a result of this discharge in unnatural quantities that are, or may become, injurious to any designated use: turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits.*

The visual assessment shall be documented by the facility's ISW Certified Operator. The documentation shall include the following:

- Sample location(s).
- Storm water sample collection date(s), time(s), and if applicable, an explanation as to why sample(s) were not collected within the first 30 minutes of discharge.
- Visual assessment date and time.
- Name and certification number of the Industrial Storm Water Certified Operator.
- Storm event information, including the length of event expressed in hours, approximate size of event expressed in inches of precipitation, duration of time since previous event that caused a discharge, date and time the discharge began, and nature of event (i.e., rainfall or snowmelt).
- Name(s) of personnel who obtained the storm water sample(s) or document that an automatic sampling device was used.

- Any notable observations of the discharge while the storm water samples were collected. This requirement is waived if an automatic sampling device was used to collect the storm water samples.
- Sample(s) shall be observed in a colorless glass or plastic container for the following characteristics: color, oil sheen, turbidity, floating solids, suspended solids, settleable solids, foam, and any other unusual characteristics.
- Unaltered, full-color photograph of the storm water sample(s) against a white background.
- A description of corrective actions taken if any unusual characteristics are identified during the visual assessment.

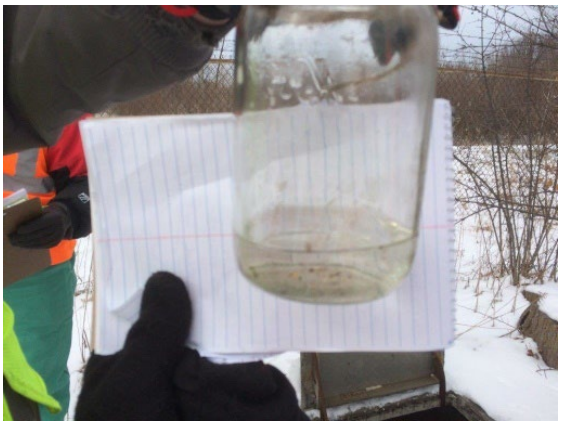


Figure 23 - A colored photo of the water sample against a white background is required.

A Visual assessment guidance video and other related assistance documents are available at Michigan.gov/IndustrialStormWater.

MATERIAL HANDLING AND SPILL PREVENTION / RESPONSE PROCEDURES

Proper material handling and storage procedures can minimize the potential for the accidental release of materials that could cause contamination of storm water runoff. These procedures need to address both inside and outside material handling activities. Materials spilled inside are frequently tracked outside by vehicles and foot traffic.

If your facility manages bulk liquids or other materials that have a potential to be spilled during loading and unloading activities, procedures that will minimize the possibility of spills should be developed.

Figure 24 -Poor housekeeping inside the facility can result in materials being tracked outside by vehicle traffic.

Extra care should be taken when handling materials around doorways, floor drains, catch basins, and water bodies. Having material handling and storage procedures in place at a facility will decrease the potential for spills. The following are examples of ways you can prevent unwanted spills or releases of materials:

- Avoid storing liquids near floor drains. If liquids have to be stored near floor drains, provide adequate containment.
- Avoid storing items that have the potential to leak near catch basins or water bodies.
- Avoid storing flammable materials near heat sources.

- Avoid storing acids and bases near each other.
- Avoid stacking materials too high.
- Provide adequate aisle space for vehicle traffic
- In high-risk areas where vehicle traffic is present, installation of barrier posts will reduce the potential for accidents.
- Proper labeling of material containers is necessary.
- Barrels and drums stored outside should be kept off the ground.
- Utilize secondary containment for bulk liquid storage areas.

Good material handling and storage procedures will reduce the potential for a spill. Spills and leaks together are one of the largest industrial sources of storm water pollution, and in many cases are avoidable. Developing spill response procedures is a very important part of the material handling component of the SWPPP. Establishing such procedures along with proper employee training can reduce accidental releases. Avoiding spills and leaks is environmentally and economically preferable to cleaning them up.

A spill prevention and response procedure should include:

- Identification of potential spill areas.
- Specification of material handling and storage procedures.
- Define what type of spills are reportable and to whom they need to be reported.
- Detailed cleanup procedures, which include the location of spill kits, cleanup equipment, identification of cleanup personnel, and phone numbers of appropriate personnel.

Figure 25 - Spill kits need to be available so employees can promptly clean up spills.

Figure 26 - Signage should be used to identify spill response equipment.

In general, if there is a spill or release to the waters of the state, contact EGLE's Pollution Emergency Alerting System (PEAS) at 1-800-292-4706 during non-business hours. During regular business hours, contact your local EGLE district office. It is important that you speak with someone at the district office. A voicemail message does not constitute adequate verbal notification.

A form (EQP 3465) for reporting spills and releases is available on EGLE's Release Reporting Forms Web page. The General Permit should be referenced for reporting requirements. Be aware, there may be additional state and local requirements regarding spills and reporting.

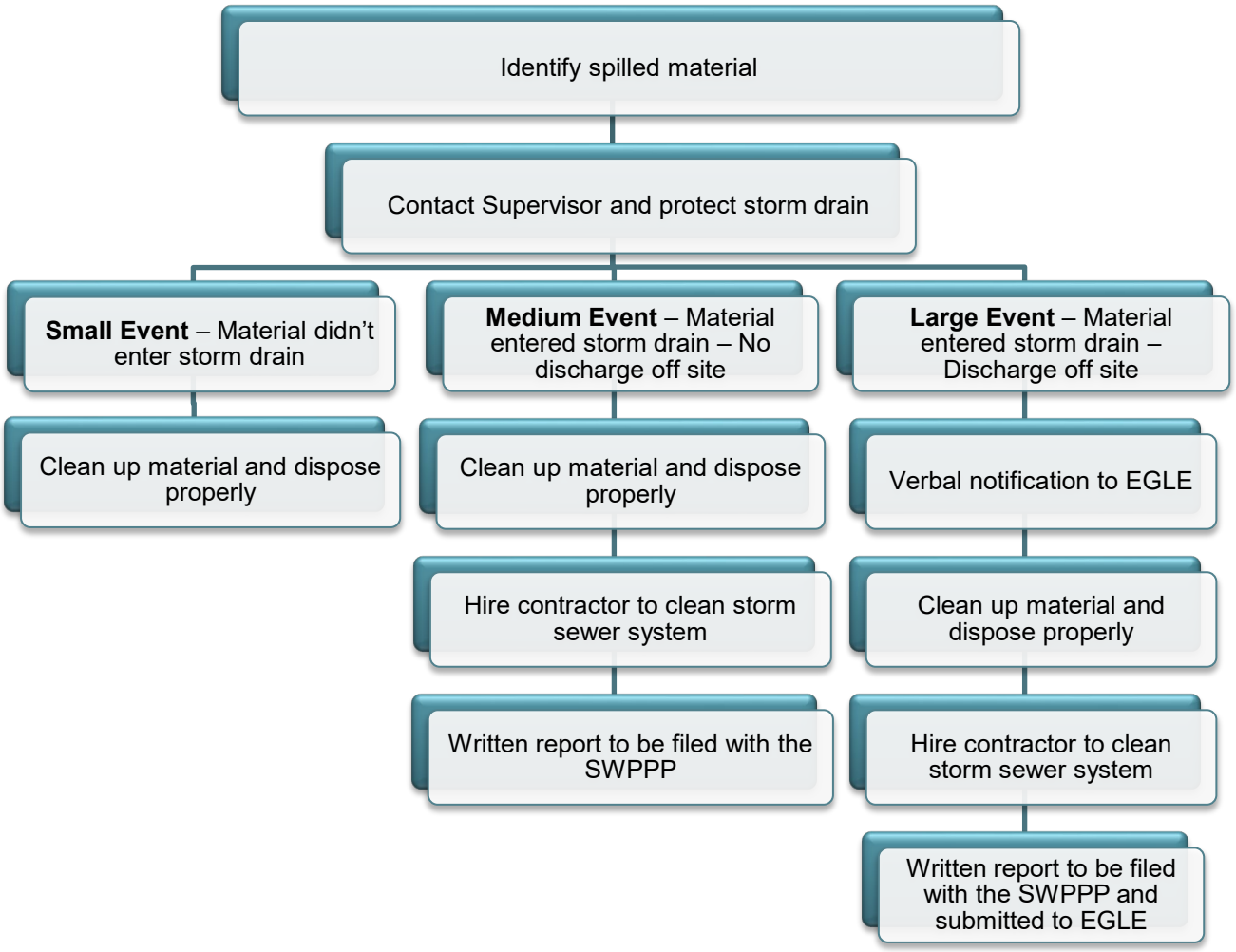


Figure 27 - Developing internal spill response procedures is an important component of the SWPPP.

EMPLOYEE TRAINING

Employee training is a major component of any SWPPP. Employee training is also an integral part of other control measures. In order for the SWPPP to be effective, the employees should be informed about storm water treatment and control measures at the facility. They should understand their role in storm water pollution prevention at the facility. Employee training for storm water issues may be done in conjunction with other training programs.

Figure 28 - Spill response procedures need to be included in the employee training program.

Figure 29 - Employee training is one of the most important components of a facility's storm water program.

The purpose of a training program is to inform personnel at all levels of their responsibility related to the components of the SWPPP. When properly trained, personnel are more capable of preventing spills, responding safely and effectively to spills, and recognizing situations that could result in unauthorized discharges. Employee training as a control measure is an ongoing process, which may take some time to implement. All new employees should be trained as soon as possible. The complexity of the best management practices (BMP) and the employee turnover will affect how often training sessions will need to be scheduled. The SWPPP shall include a schedule of these periodic training sessions. Storm water permits require employee training be conducted at least on an annual basis.

To aid in the employee training process, EGLE has prepared a video titled "Storm Water Employee Training". This video may be used as a part of the facility's employee training program. A Spanish version of this video is also available. In addition to showing the video, the facility will need to discuss site-specific pollution prevention, good housekeeping, and spill cleanup procedures.

At a minimum, the employee training program should include:

- Preventative maintenance and good housekeeping practices.
- Material handling and storage procedures.
- Spill response and reporting procedures.

All employee training must be documented. Training documentation should be kept with all other required storm water program records or the SWPPP should reference the alternate file location.

STRUCTURAL CONTROLS

Structural controls are best management practices that shall be used to reduce significant material exposure and/or the concentration of significant materials in the discharge to ensure compliance with the permit. Structural controls are physical features that control and prevent storm water pollution, which range from preventive measures to treatment systems. Structural controls need to be inspected as part of the comprehensive inspections and some may need to be inspected

Figure 30 – Using a cover is a good structural control to prevent storm water from entering a waste container.

during the routine inspections. The SWPPP shall provide a list of all structural controls utilized on-site and the significant material(s) intended to be managed by the structural controls. The location of the structural controls shall be identified on the site map. Where applicable, structural controls shall, at a minimum, be utilized to achieve the following:

- Prevent unauthorized discharges from industrial waste and recyclable material containers.
- Prevent the discharge of sediment and other particulates that can be mobilized by storm water.
- Minimize channel/streambank erosion and scour in the immediate vicinity of outfalls.

Following are some examples and a brief description of structural controls EGLE staff has come across over the years:

Figure 31 - Signage should be used to convey important information and is considered a necessary structural control in some situations.

- ***Signs and Labels***

  Signs and labels are a good way to identify problem areas, identify hazardous materials, and suggest caution in certain areas. They may also be used to provide instruction on the use of materials and equipment.

  Accurate labeling of containers is essential so that personnel can identify the type of material released and respond appropriately.

  Signs and labels should be used anywhere that information might prevent significant materials from being released to storm water. They should be visible and easy to read. Signs and labels may provide the following information: names and telephone numbers of people to call in an emergency, direction of drainage lines or ditches and their destination, or information on a specific material. Consult the Michigan Occupational Safety and Health Act (MIOSHA) standards for labeling of hazardous materials.

  Signs and labels should be inspected during the comprehensive site inspection so that they can be repaired or replaced when it is necessary.

- ***Safeguards***

  Installing safety posts, barriers, or fences around high risk areas will help to eliminate accidental spills due to human error. Many of these types of structures may already be required under other regulations.

- ***Security***

  A good security system could help prevent an accidental or intentional release of materials as a result of theft, vandalism, or sabotage. A security system could include lighting, routine patrols, and access control. Security personnel should be trained to search for leaks, spills, or discharges, as well as responding to intruders or disturbances. Routine patrolling and the training of the security personnel should be part of the SWPPP.

- ***Coverings***

  Covering is the partial or total enclosure of an area to prevent rain and snow from coming into contact with potential pollutants. Coverings may include tarpaulins, plastic sheeting, roofs, buildings, or dumpster lids.

  Coverings are appropriate for outdoor storage and areas where liquids and solids are stored in barrels or other containers. It may not be cost-effective to cover all industrial activities areas; therefore, it is recommended that areas with a greater potential to contaminate storm water runoff be under protective cover. These areas may include but are not limited to:

  - Chemical preparation or storage areas.
  - Vehicle maintenance areas.
  - Waste storage and handling areas.
  - Recyclable material storage areas.
  - Salt/sand piles.
  - Coal piles.

  Things to consider when designing an enclosure or covering for an area are:

  - Durability of the covering.
  - Compatibility to the material or activity being enclosed.
  - Access to materials.
  - Ease of handling and transferring materials.
  - Environmental or safety dangers that may be caused by enclosing the area.
  - Theft and vandalism.
  - Prevailing winds.
  - Proximity to drip edges and downspouts.
  - MIOSHA guidelines.

Figure 32 - Tarps can be an effective temporary structural control measure.

  Additional control measures may be used in conjunction with coverings to prevent contact of materials with storm water. These may include curbing, grading, or elevating materials. Impermeable surfaces under a storage area may also be necessary. Routine inspections of temporary coverings are necessary. Inspect coverings frequently for signs of wear and to make sure tarpaulins and plastic sheeting are properly anchored.

- ***Storm Water Conveyances***

  Channels, gutters, drains, ditches, and sewers collect storm water runoff and direct its flow. Conveyances can be used to collect storm water from industrial areas and keep it separate from storm water that has not come into contact with these areas.

  Note: If a pollutant is spilled, it should not be allowed to enter a storm water conveyance. Contaminated storm water should be directed to a treatment facility.

There are several things to consider when planning storm water conveyances, such as:

- Volume of storm water runoff.
- Velocity of storm water runoff.
- Drainage patterns of the site.

Storm water conveyances can be constructed or lined with many different types of materials, depending upon the use of the conveyance. Conveyances are most easily installed during the construction of a facility.

To ensure that storm water conveyances do not become clogged or damaged, they should be inspected routinely.

- ***Diversion Dikes***

  Diversion dikes or berms are structures that are used to prevent the flow of storm water runoff onto industrial areas. Diversion dikes are built on slopes just uphill from an industrial area together with some sort of a conveyance, such as a grass lined swale. A storm water conveyance directs the water away from the dike so that water will not pool and seep through the dike.

  Earthen dikes should be vegetated to prevent erosion of the dike.

  When planning the installation of dikes, the following should be considered:
  - Slope of drainage area.
  - Height of dike.
  - Volume of runoff it will need to divert.
  - Type of conveyance that will be used with the dike.

- ***Grading***

  This control measure is often used in conjunction with other practices to reduce runoff velocity, divert runoff away from industrial activities, and provide infiltration of storm water. It may also be used to direct contaminated runoff to treatment facilities or containment areas.

- ***Secondary Containment***

  Secondary containment structures are required by state or federal regulations for certain materials. The minimum volume of the containment structure will be dictated by the regulation requiring it. It is recommended that structures be large enough to hold at least 100 percent of the total volume plus sufficient space for accumulated storm water. It is also recommended that all piping and valves be located within the containment.

Diking is a common form of secondary containment for aboveground tanks and material storage areas. Containment dikes are earthen or concrete berms or retaining walls that are designed to hold spills. It is one of the best methods of preventing contamination of storm water as it holds and keeps the spill from contacting storm water outside of the diked area. Containment dikes are most commonly used for controlling large spills or accidental releases from liquid storage tanks.

Figure 33 - Secondary containment is intended to protect the environment in the event there is a leak from the storage tanks.

The material that the secondary containment structure is made of may vary according to the type of fluid the tanks contain. The secondary containment structure may need to be covered with a special liner for some chemicals. The secondary containment structure must be impervious so that it does not leak.

To prevent uncontrolled overflows, containment areas should have a pumping system or vacuum trucks available to remove the spilled materials. If the containment is required by state or federal regulations, the discharge of storm water trapped in the containment area to surface water is required to be authorized by an NPDES general permit for Storm Water Discharges Associated with Special-Use Areas. An STSWCS will be required if the storm water will be discharged to the surface waters of the state. A STSWCS compliance assistance document can be found on the ISW web page.

If the containment structure is a voluntary pollution prevention measure, then the storm water may be discharged according to the procedures in the SWPPP. If the storm water in the containment area has become contaminated due to a spill or release, it cannot be discharged to waters of the state (which includes the ground).

Regularly scheduled inspections of secondary containment structures should be a part of the SWPPP at the facility. Procedures for verifying storm water in secondary containment is not contaminated prior to release must be included in the SWPPP. Visual inspections of water trapped in the containment area should always be conducted prior to discharge. Visible sheens or unnatural turbidity indicate that the storm water in the containment area is contaminated and it should not be discharged to surface waters or to the ground. For materials that are not visibly apparent, chemical analysis may be required to detect contamination. Inspection of containment structures should be conducted soon after storm events to check for cracks in the structure, washouts, and overflows.

- ***Curbing***

Figure 34 - Curbing is a structural control that can be used to prevent storm water from entering areas where significant materials are stored.

Curbing is a barrier that surrounds an area of concern. Curbing functions in a similar way to diking except it is usually on a smaller scale. It is often used around tanks along with conveyances that would funnel a spill to a larger tank. It is useful in areas where liquid materials are handled and transferred. Areas of the curb that handle vehicle traffic should be reinforced and sloped for vehicles.

Since a curbed area has a much smaller capacity to hold a spill than a diked area, spills should be removed immediately. Curbed containment areas need to be inspected on a regular basis, especially before forecasted storm events and after a storm. Prompt cleanup maximizes the holding capacity and helps to reduce contamination of storm water. Storm water within the curbed area may be discharged per the procedures listed in the SWPPP.

The maintenance of curbing and other secondary containment is important. All cracks or breaks should be patched or the curb or dike in the containment system should be replaced.

Tracking of spilled material out of the curbed area can be a problem. Therefore, the area inside the curbing should be graded so that the spill will flow away from the traffic area. This helps keep the material away from equipment and personnel, facilitating an easier cleanup.

- ***Drip Pans***

Drip pans are used to contain small leaks that may occur at a facility. They should be made of a material that is impermeable and that will not react with the chemicals.

They can be useful in containing drips from leaky valves, pipes, etc. until the leak is repaired. Drip pans can also be an added safeguard when positioned under areas where leaks and drips may occur. This precaution may be very effective in reducing the contamination of storm water that collects in a secondary containment area. By catching the small drips or leaks, the drip pan prevents the larger volume of storm water from becoming contaminated, and makes disposal of the storm water much easier, less costly, and safer for the environment.

Drip pans should be placed where they can be easily removed and cleaned after they are inspected. They should be placed in a stable position so they will not be a safety or environmental hazard.

Drip pans should be inspected regularly so that they can be emptied before they overflow. A clear and easily specified practice of disposal, reuse, or recycling should be in place. Inspections should take place before forecasted storm events, immediately following storm events, and on a regularly scheduled basis so that drip pans do not overflow or develop a leak.

- ***Basins***

  Basins are structural controls used to collect storm water at a facility. The three types of basins that are commonly constructed at industrial facilities are detention basins, retention basins, and collection basins.

  - **Detention basins**

    These types of basins are designed to detain storm water and release it at a controlled rate for flood control. If there is a manually controlled discharge, an accidental release of contaminating material could be contained here, thus reducing the potential cleanup costs.

Figure 35 - Detention basins will have an outlet structure that discharges storm water to surface waters of the state.

  - **Retention basins**

    These types of basins are designed to retain storm water and allow it to evaporate or infiltrate to groundwater. Precautions must be taken to keep contaminated storm water out of the retention basin. If contaminated storm water enters the retention basin, it may contaminate the groundwater. If all storm water from the property enters a retention basin and there is no surface water discharge, a storm water permit is not required.

  - **Collection basins (storage basins)**

    These types of basins are structures where large spills or contaminated storm water are contained before cleanup or treatment. They are designed to receive and contain materials from many locations across a facility such as a containment area. Collection basins are not designed to treat contaminated storm water but to store it until it can be transferred to a treatment facility. They are very useful in areas with high spill potential.

    - Collection basins are designed to contain spills of a specified volume, a specified size storm event, or both. The collection system and basin should be designed to be compatible to the materials that may be transported through and into them. The basin should be impermeable so that contamination of groundwater does not occur.

    - If the collection basin will handle combustible or flammable materials, explosion-proof pumping equipment and controls should be used to prevent explosions or fires. Local safety codes and MIOSHA requirements should be followed.

    - Collection basins/systems must be inspected and maintained regularly. The contents of the basin should be removed after every storm event.

- ***Sumps***

  Sumps are located in the lowest area within a containment area or collection basin. They are placed so that the rest of the area drains into them and often contain pumps to remove the liquids. The sump should be made of impermeable materials with a smooth surface so liquids funnel easily to the pump.

  Figure 36 - Ejector pumps in sumps need to be manually operated to prevent unexpected unauthorized discharges.

  Sump pumps should be selected based on the maximum expected discharge rate, the viscosity (thickness) of material, and the distance the material will be pumped. Submersible pumps may be required if they will be in the sump area.

  If the sump is located in a truck well, the sump pump should have a manually operated switch. This will prevent releases to the receiving waters if a spill has occurred.

- ***Oil/Water Separators***

  Oil/water separators are devices that skim the insoluble oil off of the surface of storm water runoff. These devices need to be maintained regularly and properly to prevent flushing the captured oil into the receiving waters during a rain event. If not properly maintained, they are a source of pollutants. For additional information, see the section regarding activity specific controls.

- ***Catch Basins and Inserts***

  Catch basins are storm water inlets to the storm sewer system, that contain a sump to capture solids. Catch basin sumps will only capture heavier sediments such as sand and gravel. Suspended clays and silts, dissolved metals, oils and greases, detergents, and many other significant materials will pass directly into the storm sewer system to be carried untreated to surface waters of the state.

  Figure 37 - Catch basin filters can effectively remove sediment from storm water discharges.

  Regular maintenance is required, or the sumps may actually cause a discharge of pollutants during storm events. Unmaintained catch basins may contribute loads of biochemical oxygen demand (BOD) and sediment to the receiving stream.

Cleaning should be performed when sumps are half full. The removed sediment may have high levels of pollutants and typically needs to be landfilled.

In areas with the potential for spills, additional structural controls may be needed. A commonly used control is a catch basin cover that fits tightly over the catch basin's opening. The cover is used during loading or unloading or during other industrial activities where there is potential for a spill to occur. When the activity has ceased, the cover is then removed so the catch basin can accept flow during a rain or snowmelt event.

Many facilities have installed open/close valves inside of catch basins located in high risk areas. The catch basin valve is moved to the "closed" position during high risk activities to prevent a potential spill from reaching surface waters of the state. If a spill does occur, the catch basin can be vacuumed and cleaned before the valve is moved to the "open" position.

Catch basin inserts are used to trap contaminants that are transported by storm water runoff. Most are designed to fit under the catch basin lid. Some are filter devices used to trap insoluble particles, such as sediments, others have specialized media to remove dissolved contaminants in the storm water.

Consult design specifications of the catch basin insert to determine if it can effectively remove contaminants from the storm water runoff. The frequency of the maintenance will vary depending on the levels of contamination and the design specifications. Similar to catch basin sumps, catch basin inserts will actually contribute loads of pollutants during storm events if they are not properly maintained. For additional information, see the activity specific controls compliance assistance document on the ISW web page.

- ***Impervious Work Areas***

  Impervious work areas are used to prevent soil contamination and allow for easier spill cleanup. An example is a concrete pad used for dismantling automobiles at a salvage yard. Concrete paving is generally preferred to asphalt in areas where hazardous materials are stored or where the potential for a spill exists. Asphalt absorbs organic pollutants and can be slowly dissolved by some fluids. Paving should be inspected regularly for cracks that could allow contaminants to contact the soil or enter the groundwater.

SHORT TERM STORM WATER CHARACTERIZATION STUDY

Figure 38 - A STSWCS is required for discharges of storm water to surface waters of the state from regulated secondary containment structures.

Storm water discharges from mandated secondary containment areas, sites of environmental contamination (Part 201 and/or Part 213 of the NREPA), specific industrial sectors, facilities that discharge to a TMDL designated water body, or operations that have been designated "significant contributors to pollution" have the potential to cause violation(s) of water quality standards. For this reason, EGLE may determine that an STSWCS to evaluate the quality of these discharges is necessary.

If required by the storm water permit, within six months after the effective date of the COC or individual permit, the permittee must submit an approvable STSWCS plan for monitoring and analysis of the storm water discharges to the WRD district supervisor in MiEnviro Portal.

Upon approval of the STSWCS plan, the permittee shall begin monitoring the authorized discharge as specified in the STSWCS plan. If the WRD district supervisor does not take action to approve or comment on the STSWCS plan within 90 days after submittal and the SWPPP has been fully implemented, the permittee shall begin storm water monitoring in accordance with the STSWCS plan as submitted.

A STSWCS compliance assistance document can be found at Michigan.gov/IndustrialStormWater.

BENCHMARK MONITORING

The Benchmark Monitoring requirements in storm water permits that are associated with special use areas include options the permittee needs to consider. It is important to note that the Benchmark Monitoring requirements only apply to permittees that are engaged in industrial activity classified by SIC code 5015 or 5093. All of the options require a written submittal within six months of issuance or reissuance of permit coverage via MiEnviro Portal. The Benchmark Monitoring Compliance Report under the facility's MiEnviro Portal site will include the options listed below. The permittee will be required to select an option and upload the associated supporting documentation described with each option. Submitting

Figure 39 - Benchmark monitoring requirements apply to vehicle salvage yards.

the Benchmark Monitoring Compliance Report within the required time frame fulfills the written submittal requirements of the storm water permit. The options to consider are explained in detail below:

OPTION 1 – The permittee elects to submit the Benchmark Monitoring Study Plan within six months of issuance or reissuance of permit coverage. The supporting documentation shall include:

- A Benchmark Monitoring Study Plan that meets the conditions of the general permit.
- A SWPPP that meets the conditions of the storm water permit including the additional sector-specific controls.

Figure 40 - Benchmark monitoring requirements apply to scrap metal recycling facilities.

OPTION 2 – The permittee elects to implement additional structural controls and/or site modifications before monitoring. The permittee shall submit a written request for an alternative schedule within six months of issuance or reissuance of permit coverage. The supporting documentation shall include:

- A written request that describes the additional structural controls to be installed and any other modifications planned for the site. The written request shall include a time line of when the controls will be functional and when the final study plan and SWPPP will be submitted. In no case shall an alternative schedule include benchmark monitoring commencing later than three years after issuance or reissuance of permit coverage.

OPTION 3 – The permittee elects to submit a request to forgo benchmark monitoring within six months of issuance or reissuance of permit coverage. By selecting this option and submitting the report via MiEnviro Portal, the permittee is certifying that the facility does not/will not accept metal particulates nor engage in practices that generate metal particulates unless the facility's operations and/or physical layout are designed and implemented to prevent contact between scrap metal and precipitation, including runoff, and/or eliminate discharges of storm water associated with areas of metal particulate storage or generation. Such practices include but are not limited to shredding, cutting, grinding, and/or smelting. Metal particulates include but are not limited to turnings, grinding sludges, and/or swarf. The supporting documentation shall include:

- A SWPPP that meets the conditions of the storm water permit including the additional sector specific controls.
- Three most recent quarterly visual assessment reports that includes color photos.

Additional compliance assistance information related to benchmark monitoring requirements can be found at the ISW web page at Michigan.gov/IndustrialStormWater.

PERMITTEE RESPONSIBILITIES

The permit describes several permittee responsibilities, so it is important to read the permit language carefully. The following section discusses scenarios that are most common.

PROHIBITION OF NON-STORM WATER DISCHARGES

Figure 41 - Wastewater from vehicle washing is not authorized under the storm water permit.

Often, facilities have discharges of water other than storm water. Operators are often unaware that they even exist. Discharges that are not listed in the general storm water permit are not authorized under this permit. These types of discharges are common and contribute to significant pollution of surface water and groundwater. You must determine if you have any of these types of discharges. By signing the NOI, the applicant is certifying that the facility has no unauthorized discharges.

You may currently have discharges that can be covered under another NPDES permit, be rerouted to a sanitary sewer system (with the approval of the treatment plant operator), or eliminated. In many older facilities, floor drains, drinking fountains, cooling water systems, vehicle wash water, and other wastewater systems were deliberately connected to storm sewer systems. In newer facilities, the same sorts of things can happen accidentally. These sorts of discharges are referred to as illicit connections and must be eliminated.

Examples of unauthorized discharges that may be covered by another NPDES permit include cooling water, hydrostatic pressure test water, vehicle wash water, treated groundwater, and process wastewater. The discharges from many sand and gravel mining operations, where a pit is dewatered, can be covered by the Sand and Gravel Mining General Permit (MIG490000).

The general storm water permit does not authorize the discharge of water additives without approval from EGLE. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, the permittee shall submit a request to EGLE for approval.

Figure 42 - Mine dewatering water is not authorized under the storm water permit.

It is the responsibility of the permittee to ensure that only authorized storm water is being discharged. However, the permittee may rely on the certified operator for guidance. The proper development, implementation, and evaluation of the SWPPP will ensure that only authorized discharges occur.

To check for non-storm water discharges, one or more of the following dry weather tests may be used:

- ***Visual Inspection***

  Inspect each outlet during dry conditions to see if there is a discharge. If there is a discharge during a dry period, it may indicate an illicit connection. Inspect the outlets on several occasions.

- ***Sewer Map***

  A review of a plant schematic is another simple method used to determine if there are any illicit connections into the storm water system. A common problem with this method is that facilities often do not have an accurate, up-to-date map. Be sure to confirm the discharge point of all floor drains.

- ***Dye Testing***

  Dye testing is done to determine where floor drains and other plumbing fixtures discharge. All projects involving the application of tracer dyes to waters that will discharge to waters of the state must obtain a Rule 97 Certification of Approval by submitting a written request to the WRD's Surface Water Assessment Section. Rule 97 information can be found at EGLE's Rule 97 Certifications Web page.

- ***Smoke Testing***

  Smoke testing is done to determine where a discharge pipe is coming from. With this process, smoke is pumped into the discharge pipe in an effort to identify all associated inlets. Notify all building personnel, neighboring building personnel, and the fire department before smoke testing.

There are several non-storm water discharges that can be covered under the general permit. They include:

- Discharges from fire hydrant flushing.
- Potable water sources including water line flushing.
- Water from fire system testing and firefighting training without burned materials or chemical fire suppressants.
- Irrigation drainage.
- Lawn watering.
- Routine building wash down that does not use detergents or other compounds.
- Pavement wash waters where contamination by toxic or hazardous materials has not occurred (unless all contamination by toxic or hazardous materials has been removed) and where detergents are not used.

- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids.
- Springs.
- Uncontaminated groundwater.
- Foundation or footing drains where flows are not contaminated with process materials such as solvents.

These types of discharges and the methods to be used to control them must be identified in the SWPPP. Discharges from firefighting activities are authorized by this permit but are exempted from the requirement to be identified in the SWPPP.

PLAN UPDATES AND ANNUAL SWPPP REVIEW REPORTS

Once the SWPPP has been implemented, it must be updated regularly. The review must be done annually from the date the SWPPP is completed. EGLE has created a SWPPP Checklist that can be used to review the SWPPP.

Revisions must be made to the SWPPP if it is determined that the information in the SWPPP is no longer current or if the implemented controls are inadequate. This includes any addition of new sources of significant materials, changes in the processes at the facility, changes in drainage patterns, or changes in the controls to be used to minimize exposure of such materials to storm water runoff. These changes should be included in the annual report.

The Annual SWPPP Review Report is the written summary of the ISW activities that have occurred in the last year. Be sure to include any spills that may have occurred since the time of the last review, how they were cleaned up, and the changes made to prevent a recurrence of the spill.

EGLE may notify the permittee at any time that the SWPPP does not meet minimum requirements. Such notification shall identify why the SWPPP does not meet minimum requirements. The permittee shall make the required changes to the SWPPP within 30 days after such notification from EGLE and shall submit to EGLE a written certification that the requested changes have been made.

RECORDKEEPING AND REPORTING

Keeping records and reporting events that occur on-site is an effective way of tracking the progress of the pollution prevention efforts. Reviewing these records can provide some useful information for developing improved controls for problem areas. Recordkeeping and reporting represent good operating practices because they can increase the efficiency of the facility and the effectiveness of the controls. All storm water program records must be retained for at least three years.

Figure 43 - Inspection records need to be retained for 3 years.

The SWPPP and associated records shall be retained on-site at the facility that generates the storm water discharge. These records should include inspection reports, maintenance activities, employee training dates, annual reports, and a description of incidents such as spills that can affect the quality of storm water runoff.

In addition to retaining records at the facility, the storm water permits require reporting for some circumstances. If there is noncompliance with the permit or other water quality regulations, the noncompliance must be reported to the WRD district supervisor.

When storm water is discharged to the surface waters of the state, there shall be no violation of the water quality standards in the receiving waters as a result of this discharge. This requirement includes, but is not limited to, the following conditions: The receiving waters shall not have any of the following unnatural physical properties in quantities which are or may become injurious to any designated use: unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge.

ALTERNATE SCHEDULE REQUEST FOR COMPREHENSIVE SITE INSPECTIONS AND/OR VISUAL ASSESSMENTS

The permittee may request EGLE approval of an alternate schedule for comprehensive site inspections and/or visual assessments. Such a request may be made if the permittee meets the following criteria: the permittee is in full compliance with the industrial storm water permit, the permittee has an acceptable SWPPP, the permittee has installed and/or implemented adequate structural controls at the facility, the permittee has all required inspection reports available at the facility, and the permittee has an ISW Certified Operator at the facility. It should be noted that EGLE may revoke the approval of an alternate schedule at any time upon notification to the permittee if these criteria are not being met. Frequency of the comprehensive site inspections or the visual assessments will not be reduced to less than semi-annually unless site-specific circumstances warrant it.

Figure 44 – There is an opportunity for permittees to reduce the frequency of the quarterly comprehensive site inspections and visual assessments.

This alternate schedule request option is also available for facilities that have sector specific permit requirements to perform routine preventative maintenance and good housekeeping inspections once every two weeks. However, with this request the permittee must also be able to show that their benchmark monitoring sample results did not exceed the applicable benchmark monitoring values listed in the permit. Frequency of these inspections will not be reduced to less than monthly unless site-specific circumstances warrant it.

NONCOMPLIANCE NOTIFICATION

In any instance of noncompliance with the requirements of federal or state water quality regulations, the written reporting shall include: a description of the discharge and the cause of noncompliance, the period of noncompliance (dates and times), the steps taken to minimize the impact, and the steps taken to prevent recurrence of the unauthorized discharge. All instances of noncompliance shall be reported as follows:

- Any noncompliance which may endanger health or the environment shall be reported verbally within 24 hours from the time the permittee becomes aware of the circumstances. In addition, a written submission shall also be provided within five days.
- All other instances of noncompliance shall be reported within five days from the time the permittee becomes aware of the noncompliance.

SPILL NOTIFICATION

The permittee shall immediately report any spill or loss of any polluting material that occurs to the surface waters or groundwaters of the state unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (R 324.2001 through 324.2009 of Michigan Administrative Code) by calling EGLE at the number indicated on the COC or individual permit; or if notice is provided after regular working hours, call EGLE's 24-hour PEAS at 1-800-292-4706. Within ten days of the release, the permittee shall submit to the WRD district supervisor a full written explanation of the cause, discovery, cleanup, and recovery measures taken, preventive measures to be taken, and schedule of implementation. The SWPPP must also be modified to reflect any changes that have occurred at the facility.

Figure 45 - Spills of polluting materials need to be reported immediately.

Please note that a spill may be considered to be noncompliance with the permit even though it may not be in excess of the threshold reporting quantities specified in the Part 5 Rules.

COC EXPIRATION AND REISSUANCE

An NPDES permit is valid for a maximum of five years. The COC or individual permit will state the expiration date. The COC expiration date is listed near the bottom of the COC; on an individual permit, it is listed on the first page. Typically, the permit expiration date for COCs is April 1; for individual permits, it is October 1.

If the permittee wishes to continue a discharge authorized under a permit beyond the permit expiration date, the permittee shall submit in MiEnviro Portal an application to the WRD's Permits Section. The application must be submitted six months prior to the expiration date (typically October 1). This gives the WRD an opportunity to reevaluate operational and monitoring requirements and effluent limits. A person holding a valid COC or individual permit under an expired permit shall continue to be subject to the terms and conditions of the expired permit until the permit is terminated, revoked, or reissued.

Michigan has developed a strategy for scheduling permit reissuance known as the "5-Year Basin Plan". This is a timetable for reissuance of permits based on receiving water bodies. A receiving water is the river, stream, or lake that "receives" a particular discharge. It is ideal to simultaneously evaluate all permits allowing discharge to a particular receiving water or watershed. A complete cycle of reissuance occurs every 5 years, with approximately 20 percent of the permits being reissued each year. The 5-Year Basin Plan was established with the objective of establishing the most efficient plan for water quality monitoring and permit reissuance.

If a facility submits a complete application prior to the expiration date listed on the COC or individual permit, coverage will be extended until the permit coverage is reissued by EGLE.

COC MODIFICATIONS

The following are common COC modifications:

- ***Transfer of Ownership or Control***
  - A Facility Ownership/Control Transfer Notification form must be submitted in MiEnviro Portal by the new owner 30 days prior to the actual transfer of ownership or control.
- ***Name or Address Change***
  - Submit the NPDES Minor Modification form in MiEnviro Portal.
- ***Change in Discharge or adding additional contiguous properties to the COC authorization***
  - Submit the NPDES Minor Modification form in MiEnviro Portal.

TERMINATION OF GENERAL PERMIT COVERAGE

When all storm water discharges associated with industrial activity that are authorized by the permit are eliminated or industrial activity has ceased, the permittee may submit an NPDES Permit Notice of Termination application in MiEnviro Portal to the WRD district supervisor to end authorization to discharge under the permit. All significant materials that are exposed or likely to be exposed to storm water runoff need to be eliminated from the property before the COC or individual permit is terminated. It is the responsibility of the permittee to request termination in a timely manner to allow permit termination prior to January 1. A permittee that has storm water permit coverage as of January 1 will be required to pay the annual permit fee.

Active industrial facilities that have eliminated exposure of all significant materials may request COC termination by submitting an application for No Exposure Certification in MiEnviro Portal. The no exposure exclusion is conditional. Therefore, if there is a change in circumstances that causes exposure of industrial activities or materials to storm water, the operator is required to comply immediately with all requirements of the storm water program, including obtaining a permit.

Any permittee that is authorized to discharge storm water from areas of industrial activity on January 1 of a given year shall be assessed an annual discharge fee. It is strongly recommended that permit termination requests be submitted to EGLE by December 1 in order to process the termination before January 1.

INDIVIDUAL PERMIT REQUIRED BY EGLE

EGLE may require an individual permit if:

- Unlawful pollution cannot be adequately guarded against with the requirements of the general permit.
- The discharger is not complying or has not complied with the conditions of the permit or schedules in the COC.
- A change has occurred in the availability of demonstrated technology or practices for the control or abatement of waste applicable to the point source discharge.
- Categorical effluent standards or limitations are promulgated for point source discharges of storm water.
- EGLE determines that the criteria under which the general permit was issued no longer apply.

MANAGEMENT RESPONSIBILITIES

DUTY TO COMPLY

It is the duty of the permittee to comply with all the terms and conditions of the general permit. Any noncompliance with the terms and conditions of the general permit constitutes a violation of the NREPA and is subject to enforcement, termination of coverage, coverage under an individual permit, and fines and penalties under the NREPA.

OPERATOR CERTIFICATION

The permittee shall have the waste treatment facilities under the direct supervision of an operator certified at the appropriate level (industrial storm water certified operator) for the facility certification by EGLE, as required by Sections 3110 and 4104 of the NREPA.

FACILITIES OPERATION

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of the general permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

ADVERSE IMPACT

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any conditions specified in the general permit including, but not limited to, such monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

CONTAINMENT FACILITIES

The permittee shall provide facilities for containment of any accidental losses of oil or other "polluting materials" in accordance with the relevant statute(s).

WASTE TREATMENT RESIDUES

Residuals (i.e., solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. Such disposal shall not result in any unlawful pollution of the air, surface waters, or groundwaters of the state.

RIGHT OF ENTRY

The permittee shall allow EGLE, or any agent of EGLE , upon the presentation of credentials, to conduct inspections at the facility, access records required to be kept as a condition of the general permit, and to sample any discharge.

Figure 46 - Permittees shall allow EGLE staff to conduct inspections.

DUTY TO PROVIDE INFORMATION

The permittee shall furnish to EGLE, within a reasonable time, any information which EGLE may request to determine whether cause exists for modifying, revoking, reissuing, or terminating the storm water permit or the facility's COC, or to determine compliance with the storm water permit. The permittee shall also furnish to EGLE, upon request, copies of records required to be kept by the storm water permit.

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to EGLE, it shall promptly submit such facts or information.

STORM WATER DISCHARGES NOT AUTHORIZED BY THE INDUSTRIAL STORM WATER GENERAL PERMITS

The following storm water discharges are not authorized by the ISW general permits:

- Storm water discharges associated with industrial activities that are permitted by an existing NPDES individual permit or a different general permit.
- Storm water discharges associated with construction activities as identified under 40 CFR, Section 122.26(b)(14)(x) (such activities require permit-by-rule coverage).
- Storm water discharges that have been determined by EGLE to be contributing to unlawful pollution that cannot be adequately guarded against under the requirements of the general permits for storm water discharges.
- Storm water discharges associated with industrial activity from inactive mining, inactive landfill, or inactive oil and gas operations occurring on federal lands where an operator cannot be identified.
- Storm water discharges for which federal effluent limitation guidelines exist. The following industrial categories have storm water effluent limitation guidelines in the CFR:
    - Cement manufacturing (40 CFR, Part 411)
    - Feedlots (40 CFR, Part 412)
    - Fertilizer manufacturing (40 CFR, Part 418)
    - Petroleum refining (40 CFR, Part 419)
    - Phosphate manufacturing (40 CFR, Part 422)
    - Steam electric (40 CFR, Part 423)
    - Coal mining (40 CFR, Part 434)
    - Mineral mining and processing (40 CFR, Part 436)
    - Mine dewatering water (40 CFR, Part 436)
    - Ore mining and processing (40 CFR, Part 440)
    - Asphalt emulsion (40 CFR, Part 443, Subpart A)
- Storm water discharge to groundwaters.
- Storm water from a new facility discharging to wild or wilderness rivers or water bodies within the boundaries of national lakeshores or national parks that are designated “outstanding state resource waters” pursuant to Michigan water quality standards.

POLLUTION PREVENTION

Reduce

Reducing the amount of materials used is an obvious monetary savings and will decrease the potential of pollutants being discharged into storm water runoff. Reduction of hazardous material use can be achieved by substituting them with less toxic products.

Reuse

Reusing materials is also cost-effective, and once implemented can greatly reduce the amount of waste generated from industrial facilities. Reusing solvents, packaging materials, and even paper can have a positive impact on our environment. For more information, contact EGLE's Materials Management Division.

Recycling

When properly set up, recycling of materials will become a habit that will help reduce the amount of polluting materials from entering storm water runoff. Recycling areas may be as simple as covered containers to selectively hold wastes, or they may include liquid waste drums, waste oil tanks, or large covered dumpsters that can be transported to a transfer station or recycling facility.

WHAT TO EXPECT DURING AND EGLE STORM WATER INSPECTION

EGLE is required by the USEPA to conduct routine inspections of permitted facilities. Usually, these inspections are unannounced. The ISW inspection consists of three parts, a tour of the facility, a review of the SWPPP, and a review of the associated records. In addition, EGLE's inspector will be evaluating other non storm water discharges.

Figure 47 - The EGLE inspection will include a tour of the site.

During the indoor and outdoor tour the EGLE inspector will focus on areas that impact the storm water discharge from the property. It is important to understand during this training that not all industrial facilities are the same, so in a sense, each inspection is unique. In general, the EGLE inspector will evaluate the following areas:

- Loading, unloading, and other material handling areas.
- Outdoor and indoor industrial storage areas, including secondary containment structures, pallets, drums, etc.

- Outdoor manufacturing or processing areas, including areas where significant dust or particulates would be generated.
- Discharge areas for vents, stacks, and other air emission controls.
- On-site waste disposal areas.
- Maintenance and cleaning areas for vehicles, machines, and equipment.
- Areas of exposed and or erodible soils.
- Point source discharges.
- Structural controls designed to treat, divert, or isolate storm water.
- Internal floor drains will be inspected to ensure that they are not connected to the storm sewer system or surface waters.

In addition, the inspector will evaluate any other areas of the facility where storm water may contact significant materials.

Once the indoor and outdoor inspection is completed, the SWPPP will be audited against the language in the general storm water permit. The SWPPP must be on-site, and records should be well organized and kept in an area that is easily accessible.

A review of the associated records includes: all inspection reports, preventative maintenance reports, annual reports, employee storm water training records, and any other applicable documents. Remember, the storm water permit requires that the facility keep all documentation for at least three years.

Figure 48 - Records shall be on-site and available for review by an EGLE inspector.

Once the inspection is complete, EGLE's inspector will conduct a closing meeting in which compliant and noncompliant items noted during the inspection will be discussed. Typically, a letter will be sent by EGLE's inspector to the facility describing the items discussed during the closing meeting. In most cases, the facility will be required to submit a written response to EGLE describing what has or will be done to comply with the inspection letter.

Visit Michgan.gov/IndustrialStormWater for a video detailing what to expect during an EGLE ISW inspection.

SUMMARY

As an ISW Certified Operator, you are an important link between industrial activities and the protection of our state's water resources. Your responsibilities include identifying conditions at the site that could contribute pollutants to storm water runoff, determining if structural and nonstructural controls are implemented to correct these conditions, and conducting inspections to ensure the facility is in compliance with the storm water permit. Your assistance will help your company verify appropriate records are kept and that they properly respond to spills that may occur at the facility. Your concerted efforts in these areas will ultimately prevent negative impacts on storm water runoff and protect the invaluable surface waters of our state.

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

APPENDIX A: RELATED WEB PAGES

- Approved Total Maximum Daily Loads
- Construction Storm Water Certified Operator Training Manual
- EGLE Storm Water
- Guidebook of Best Management Practices for Michigan's Watersheds
- Michigan Guidebook to Environmental, Health, and Safety Regulations
- Michigan.gov/MiEnviro
- Part 4 Rules, Water Quality Standards, of the NREPA
- Part 5 Rules, Spillage of Oil and Polluting Materials, of the NREPA
- Part 21 Rules, Wastewater Discharge Permits, of the NREPA
- Power Washing Guidance Document
- Commercial Salt Storage Guidance Document *(The link provided was broken and has been removed)*
- Road Agency Salt Storage Guidance Document *(The link provided was broken and has been removed)*
- Spill Prevention Control and Countermeasures
- Standard Industrial Classification/North American Industrial Classification System Conversion Information
- Universal Waste Management Guidance Document
- Used Oil Guidance Document
- USEPA Industrial Fact Sheet Series
- USEPA Storm Water

APPENDIX B: DEFINITIONS

Best Management Practices (BMP)

Structural devices or nonstructural practices that are designed to prevent pollutants from entering into storm water, to direct the flow of storm water, or to treat polluted storm water.

Certificate of Coverage (COC)

A document issued by EGLE that authorizes a discharge under a general permit.

Composite Sample

A sample that is made up of multiple grab samples that have been thoroughly mixed together.

Combined Sewer System

A sewer system in which storm water runoff is combined with sanitary wastes.

Critical Materials

Materials listed in Rule 9 of the Part 5 Rules, Spillage of Oil and Pollution Materials, of the NREPA, as polluting materials that require secondary containment.

Designated Use

At a minimum, all surface waters of the state are designated and protected for all of the following uses:

(a) Agricultural
(b) Navigation
(c) Industrial water supply
(d) Warm water fishery
(e) Other indigenous aquatic life and wildlife.
(f) Partial body contact recreation.
(g) Fish consumption

Discharge

Means the addition of any waste, waste effluent, wastewater, pollutant, or any combination thereof to any surface water of the state.

Discharge Point

The location where the point source discharge is directed to surface waters of the state or to a separate storm sewer. It includes the location of all point source discharges where storm water exits the facility, including outfalls and points of discharge.

District Supervisor

The supervisor of a WRD district office as identified in a COC accompanying the general permit.

Existing Facility

A facility that is or has been involved in industrial operations.

General Permit

An NPDES permit issued authorizing a category of similar discharges.

Grab Sample

A single sample taken at neither a set time nor flow.

Illicit Connection

A physical connection to an MS4 that primarily conveys non-storm water discharges other than uncontaminated groundwater into the storm sewer; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections.

Illicit Discharge

Any discharge to, or seepage into, an MS4 that is not composed entirely of storm water or uncontaminated groundwater. Illicit discharges include non-storm water discharges through pipes or other physical connections; dumping of motor vehicle fluids, household hazardous wastes, domestic animal wastes, or litter; collection and intentional dumping of grass clippings or leaf litter; or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-storm water waste directly into a separate storm sewer.

Individual Permit

A site-specific NPDES permit.

Inlet

A catch basin, roof drain, conduit, drain tile, retention basin riser pipe, sump pump, or other point where storm water or wastewater enters into a closed conveyance system prior to discharge off-site or into waters of the state.

Municipal Separate Storm Sewer System (MS4)

A conveyance or system of conveyances designed or used for collecting or conveying storm water that is not a combined sewer and is not part of a publicly-owned treatment works as defined in CFR, Section 122.2.

New Facility

A facility located on a newly developed or redeveloped site that is ready to begin industrial operations.

Noncontact Cooling Water

Water that is used for cooling that does not come into direct contact with any raw material, intermediate by-product, waste product, or finished product.

Nonstructural Controls

Practices or procedures implemented by employees at a facility to manage storm water or to prevent contamination of storm water.

Outfall

The location of a point source discharge where storm water is discharged directly to surface waters of the state.

Point of Discharge

The location of a point source discharge where storm water is discharged directly into a separate storm sewer system.

Point Source Discharge

A discharge from any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, or rolling stock. Changing the surface of the land or establishing grading patterns on land will result in a point source where runoff from the site is ultimately discharged to waters of the state.

Polluting Material

Oil and any material, in solid or liquid form, identified as polluting material under the Part 5 Rules of the NREPA.

Pretreatment

The act of reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a storm or sanitary sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by a National Pretreatment Standard for a particular industrial category.

Qualified Personnel

An individual who meets qualifications acceptable to EGLE and who is authorized by an ISW Certified Operator to collect the storm water sample.

Qualifying Storm Event

A precipitation event that results in a measurable amount of precipitation (i.e., a storm event that results in an actual discharge) and that follows the preceding storm event by at least 72 hours (3-days). The 72-hour storm interval does not apply if you document that less than a 72-hour interval is representative for local storm events.

Secondary Containment

A unit, other than the primary container in which the significant materials are packaged or held, that is required by state or federal law to prevent the escape of significant materials by gravity into sewers, drains, or otherwise directly or indirectly into any sewer system or to the surface water or groundwaters of this state.

Separate Storm Sewer System

A system of drainage, including roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels, where storm water is not combined with sanitary wastewater.

Significant Materials

Means any material which could degrade or impair water quality, including but not limited to: raw materials; fuels; solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (see 40 CFR 372.65); any chemical the facility is required to report pursuant to Section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA); polluting materials as identified under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code); Hazardous Wastes as defined in Part 111, Hazardous Waste Management, of the NREPA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant Spills and Significant Leaks

Any release of a polluting material reportable under the Part 5 Rules (R 324.2001 through R 324.2009 of the Michigan Administrative Code).

Special-Use Area

Storm water discharges for which EGLE has determined that additional monitoring is needed from secondary containment structures required by state or federal law; lands on Michigan's List of Sites of Environmental Contamination pursuant to Part 201 of the NREPA; and/or areas with other activities that may contribute pollutants to the storm water.

Storm Water

Storm water runoff, snowmelt runoff, surface runoff and drainage, and non-storm water included under the conditions of the general permit.

Storm Water Discharge Point

The location where the point source discharge of storm water is directed to surface waters of the state or to a separate storm sewer. It includes the location of all point source discharges where storm water exits the facility, including outfalls that discharge directly to surface waters of the state, and points of discharge that discharge directly into separate storm sewer systems.

Structural Controls

Physical features or structures used at a facility to manage or treat storm water.

Total Maximum Daily Load (TMDL)

Required by the CWA for water bodies that do not meet water quality standards. TMDLs represent the maximum daily load of a pollutant that a water body can assimilate and meet water quality standards, and an allocation of that load among point sources, nonpoint sources, and a margin of safety.

Water Quality Standards

State adopted and USEPA approved water quality levels that were established to protect the designated uses of the waters of the state. The water quality standards can be found in the Part 4 Rules of the NREPA (R 323.1041 through 323.1117 of the Michigan Administrative Code).

APPENDIX C: ACRONYMS

BMP	Best Management Practices
CFR	Code of Federal Regulations
COC	Certificate of Coverage
COE	Certificate of Entry
CWA	Federal Clean Water Act
EGLE	Michigan Department of Environment, Great Lakes, and Energy
ISW	Industrial Storm Water
MIOSHA	Michigan Occupational Safety and Health Act
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent Application
NPDES	National Pollutant Discharge Elimination System
NREPA	Natural Resources and Environmental Protection Act, 1994 PA 451, as Amended
PEAS	Pollution Emergency Alerting System
STSWCS	Short-Term Storm Water Characterization Study
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
TOC	Transfer of Coverage
USEPA	United States Environmental Protection Agency
WRD	Water Resources Division