Operation & Maintenance of Facilities

Refresher Training

As required by Part I, Section A.3.g.2 of the MS4 NPDES Permit

# Facility Specific Stormwater Management





#### Why Am I Taking this Training?

- If you are taking this training, you will learn:
  - What the permit requirement are
  - What a stormwater Standard Operating Procedure (SOP) is
  - Inspection requirements and frequency
  - What is a high, medium, low pollution potential facility
- This training is for municipal and school employees and contractors working for municipalities
- Training is required
  - At least once during the permit cycle (typically 5-years) for existing staff
  - New hires shall receive training within one year of their hire date

#### Fleet

• A group of vehicles owned or operated as a unit.

#### Maintenance (includes but not limited to)

 adding/changing vehicle fluids, fueling, lubrication, painting, mechanical repairs, parts degreasing, and vehicle/equipment washing.

#### Storage Yard (includes but not limited to)

- areas where vehicles are stored longer than overnight/weekend
- areas where road maintenance materials are stored
- areas where vehicle maintenance materials are stored
- areas where chemicals in bulk are stored
- areas where catch basin cleaning wastes are stored
- and areas where maintenance equipment such as mowers, tractors, vactor trucks, and sweepers is stored.

#### Definitions



## Prioritized Inventory (Table 3 in the permit application)

- Submitted with permit application
- Include the location of each facility and estimate of the number of structure stormwater controls
- Prioritized based on the potential to discharge pollutants to surface waters (high, medium or low)

#### Facility Examples

Administration buildings

Airports

Animal control building

Bus stations and garages

Cemeteries

Composting facilities

Equipment storage / maintenance facilities

Fire stations

**Fuel Farms** 

Hazardous waste disposal facilities

Hazardous waste handling / transfer facilities

Landfills

Landscape maintenance facilities

Libraries

Materials storage yards

Mosquito control facility

Outdoor wash areas

**Parks** 

Pesticide storage facilities

Police stations

Public golf courses

Public parking lots

Public schools

Public works yards

Recycling facilities

Salt storage facilities

Solid waste handling / transfer facilities

Vacant land and open space

Vehicle storage and maintenance yards

Other, describe

### Genesee County Priority Procedure

A procedure for assessing the potential discharge pollutants to surface waters of the state was developed. The following factors were considered for assessing facilities in the urbanized area:

- 1. Amount of urban pollutants stored at the site (e.g., sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
- 2. Identification of improperly stored materials
- 3. The potential for polluting activities to be conducted outside (e.g., vehicle washing)
- 4. Proximity to waterbodies
- 5. Poor housekeeping practices
- 6. Discharge of pollutants of concern to impaired water
- 7. Did Facilities under 2008 permit have Facilities that were required (per Industrial Program) to have a SWPPP in 2010.

# Site-Specific Standard Operating Procedure (SOP)

- Required for high priority facilities
- Structural and non-structural stormwater controls
- Identify responsible person
- List of significant materials stored, handling requirements, and potential to be discharged
- List good housekeeping practices implemented. Good housekeeping practices include keeping the facility neat and orderly, properly storing and covering materials, and minimizing pollutant sources to prevent or reduce pollutant runoff







# High Potential for Pollution Facilities Inspections

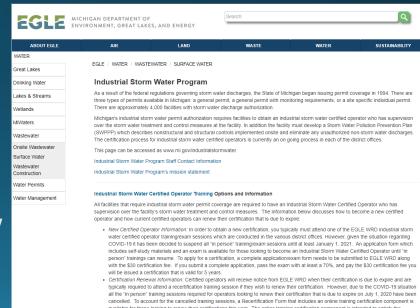
#### **Schedule**

- Routine maintenance and inspections. A biweekly schedule is recommended for routine inspections.
- Comprehensive inspection at least once every six months for all structural and non-structural controls

## EGLE Industrial Stormwater Program

This is a separate program focused on industrial sites but has many similarities to the municipal facilities program. Good resources are available on EGLE's website.

- EGLE Industrial Storm Water Program (michigan.gov)
- Industrial Storm Water Certified Operator
- Training
- Reference materials
  - Pollution prevention
  - Compost operations
  - Lidded leak-proof containers and compactors
  - Visual assessment report form, procedures, guidance video
  - SWPPP template (similar to SOP)
  - Activity specific controls (fueling, vehicle maintenance, painting, washing, loading, liquid storage, outside waste, etc.)
- Recommended for municipalities with a DPW yard.



The Industrial Storm Water Certified Operator Training Manual was developed by EGLE WRD to inform permittees and Industrial Storm Water

# Example Site Plan

Section Listed in General Permit	Storage Areas / Activity Areas	Significant Materials		
Loading, unloading, and other material handling operations	1) Boat maintenance area	Oil, battery acid, diesel fuel, gas and other fluids		
	2) Fueling area	Gasoline, diesel fuel		
Outdoor storage including secondary containment structures	1) Boat storage area	NA		
	2) Equipment storage area	Grease, hydraulic oil		
	3) Rack storage	Rusting of metal		
Outdoor manufacturing or processing activities	NA			
		I		
Significant dust or particulate generating processes	1) Boat hull sanding	Paint dust, fiberglass dust		
5) Discharge from vents, stacks, and air emission controls	NA			
0.0				
6) On-site waste disposal practices	1) Dumpster staging area	General refuse		
	2) Slip owner sewage pump out	Raw sewage and grey water		
	1) Dumpster staging area	General refuse		

#### Site Map Notes:

-Storm water runoff discharges to Muskegon Lake.

Reasonable Potential

Evaluation

Inlet(s)

Discharge

Point(s)

-Most of the property is impervious surface except for the gravel lot and the strip of grass near the docks.

-Dumpsters on-site are fitted with covers.

Exposure Method

Spillage during material handling activities

-Drip pans are used at the sewage pump out station.

-Inlet C has a valve to discharge wash water to the WWTP.

-The black line represents the property boundary.

-White arrows represent storm sewer lines.

-Black arrows represent storm drainage areas.

-Green boxes represent storm water discharges points.

-Red circles represent storm water inlets.



## Example Inspection

- Routine (examples)
  - Brief walk through
  - Stains, spills, piles spread-out
  - Dumpster lids, materials covered
  - Stormwater controls ready for rain
  - Document inspection date and comments
- Comprehensive (examples)
  - Checklist for each BMP
  - How full are the CBs?
- LID Manual for Michigan checklists

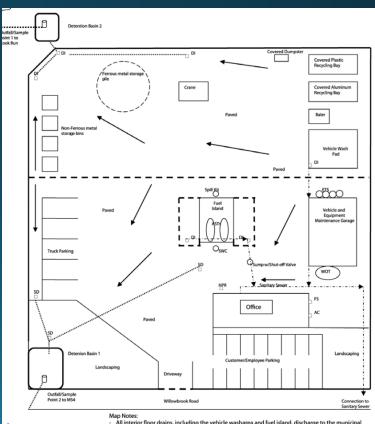
		Project Location:					
		Date/Time:					
		Inspector:					
		Maintenance Item	Satisfactory/ Unsatisfactory	Recommended Inspection Frequency	Comments		
		Inlet/Outlet Pipes					
		Structural integrity of inlet/outlet (Are any inlet pipes broken, crumbling, separated?)					
		List Inlet Pipes Approximate Diameter and Type of Material					
		Inlet Pipe 1	-	A			
		Inlet Pipe 2	-				
PROPE	RTY OWNE	Inlet Pipe 3	-				
Property Owner First Name	1	Outlet Pipe Size/Type	-				
Triperiy Owner Las Transc		Riprap at inlet pipe (Is the riprap still present? Is it visible and not covered with sediment?		Α			
Street Address		Stone around outlet pipe (Is the stone clogged with debris and/or sediment?)		A			
		Trash or debris blocking inlet/outlet (Inspect to ensure no major obstructions hindering general functionality)		М			
City State		Inspect/clean catch basin upstream of the BMP if accessible.		A			
		Inspect inlets and outlet for erosion (Are there eroded areas around the pipes?)		A			
Phone	1	Inspect overflow spillway for signs of erosion.					
		Pretreatment (if applicable) (Might include se concentrator)	diment forebay, up	stream catch basii	ı, bioswale, rain garden, sv		
Facility Type (Check one, if more than one use se	prate forms):	Device functioning to trap/collect sediment		A			
= 0 W/I	1	Remove accumulated sediment as appropriate for		A			
Dry Well Landscape Infiltrati		the pretreatment device, forebay					
Gravel/Vegetated Swale Stor	rage Chamber	Detention Pond		A			
		Inspection frequency key — A = Annual, M *It is recommended to review and inspect the	= Monthly, S = A	fter major storm	ilt plane		
PRE-TREATMENT (DEVICES THAT TI	REAT STORM	WATER BEFORE ENTERING I	HE FACILITY	I J	nt plans.		
Items to Inspect	Yes/No	Comments					
Excessive trash/debris/sediment?	Yes	~					
Evidence of clogging ?	Yes	~					
Evidence of erosion ?	Yes	~					
Evidence of standing water; ponding, noticeable odors?	Yes	<b>~</b>					
Are the inlet areas blocked ?	Yes	~					

# Medium and Low Priority Facilities

• Identify BMPs currently implemented or to be implemented during

the permit cycle. For example,

- CBs most common
- Detention basins
- Oil/grit separator
- Dumpsters
- Have a site map with BMPs and drainage system
- Should be inspecting at least once per year



 All interior floor drains, including the vehicle washarea and fuel island, discharge to the municipal sanitary sewer system.

salition y severe system.

All SDs are part of the MS4. Contact the City of Anywhere Public Works Department, Stormwater
Management Division at (111) 999-0001 concerning significant inspection findings associated wit
these storm drains.

### Other Permits and Considerations

- The MS4 program does <u>not</u> exonerate other environmental regulations and permits
- For example:
  - Michigan's Part 5 Administrative Rules contain spill prevention, containment, and notification requirements for the storage of salt, oil, and other regulated polluting materials. <a href="www.mi.gov/parts">www.mi.gov/parts</a>
  - Industrial stormwater program www.mi.gov/industrialstormwater
  - Groundwater Program regulates discharge of wastewater to groundwater and the storage of hazardous materials under Part 31.
     www.mi.gov/groundwaterdischarge



#### Additional Information

- GCDC Surface Water Management (gcdcswm.com)
- www.ClearGeneseeWater.org
- EGLE Stormwater Program <u>www.mi.gov/eglestormwater</u>
- US EPA Stormwater Discharges from Municipal Sources https://www.epa.gov/npdes/stormwater-discharges-municipal-sources

# Questions?

#### Thank you

#### Genesee County Drain Commissioner Surface Water Management

4608 Beecher Road Flint, MI 48532

Office (810) 732-1590 Fax (810) 732-1474

www.gcdcswm.com

With support from
Tetra Tech
3497 Coolidge Rd
East Lansing, MI 48823
(517) 316-3940
www.tetratech.com



