

# **TOWNSHIP OF CLAY**

## **TOWNSHIP OF CLAY STORMWATER MANAGEMENT SYSTEM**

### **OPERATIONS AND MAINTENANCE PLAN**

AUGUST, 2019

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**I. PURPOSE**

The primary purpose of the Operations & Maintenance Plan (O&M Plan) shall be to minimize stormwater pollution from operation and maintenance activities conducted by the Township of Clay in its management of the DPS and Water Department.

**II. COVERAGE AREA**

The coverage area considered in this document includes All Township of Clay Entities.

**III. APPLICABLE OPERATIONS**

**The O&M Plan covers the following Township operations:**

- All routine and preventative maintenance of the Township of Clay stormwater system
- Road and parking lot maintenance practices, including: deicing, snow removal, and salting.
- Vehicle fleet maintenance, including: mechanical repairs, fueling, and washing.
- External building maintenance, including: exterior cleaning, washing, painting, and other maintenance activities.
- Grounds maintenance, including: fertilizer, pesticides, and herbicide application, green waste disposal, trash management, and sediment and erosion control.
- Materials storage, including: stockpiling of gravel or other debris and heavy equipment storage.

#### IV. OPERATION AND MAINTENANCE PROCEDURES

All scheduled inspections and maintenance of the Township of Clay stormwater system are contained in the stormwater Management System Inspection and Maintenance Logs included as Appendix A.

All Township operations listed in section III above shall be conducted in accordance with the Applicable Standard Operating Procedures as outlined below. Standard Operating Procedures For Township operations & maintenance are included in Appendix B and are summarized in Table 1 below.

**Table 1. Summary of Standard Operating Procedures for Township Operations & Maintenance**

<b>STANDARD OPERATING PROCEDURES</b>	<b>APPLICABLE WORK</b>
General Good Housekeeping Procedures	All work conducted by Township of Clay employee
Stormwater System Maintenance	Routine and preventative work on the Township of Clay's Stormwater System
Changes and Additions to the Storm Water System	Keeping inventory current and updated.
Road and Parking Lot Maintenance	Snow plowing, winter salt, sand, or deicer application, paving or patching asphalt or concrete work, painting and striping, trash, and debris removal.
Vehicle Maintenance and Fueling	Vehicle and equipment maintenance, good housekeeping and waste disposal, vehicle washing, vehicle fueling, fuel spill clean-up
Fueling Site and Vehicle /Equipment Fueling	Preventing discharge of pollutants to storm water while Fueling on Township property
Building Maintenance	Janitorial practices, waste management, pressure washing and exterior surface cleaning, painting, sanding, and sandblasting, HVAC system maintenance
Grounds Maintenance	Landscape Maintenance, mowing, mulching, graveling trails and parking lots, trash removal/waste management
Fertilizer and Herbicide Application DPW Yard	Storage, mixing, and application of fertilizers and herbicides. Prevent the discharge of pollutants to storm water in the course of work on the Township's DPW property.
Materials Storage, DPW Yard	Prevent discharge of pollutants to storm water in the course Of material storage on the Township's DPW property.
Materials Storage, General	Liquid materials storage, hazardous materials storage, stockpiling materials including: sand & gravel, wood products, including lumber, chips, sawdust, demolition debris including asphalt and concrete, decommissioned equipment
Incidental Spill Response and Clean-up	Limited actions taken to respond to an incidental release of potentially hazardous material

**APPENDIX A**  
**TOWNSHIP OF CLAY**  
**STORMWATER MANAGEMENT SYSTEM**

**OPERATIONS AND MAINTENANCE PLAN**

**STORMWATER MANAGEMENT SYSTEM INSPECTION AND  
MAINTENANCE LOGS - SPRING & FALL**

## **DITCHES/SWALES**

### **Suggested Frequency: as needed and on schedule with catch basins**

1. Ditches, swales and leaching basins should be inspected at the same time as inspection of catch basins within the same area.
2. Public complaints shall warrant inspection.
3. When cleaning, remove obstacles/debris
4. If necessary, cut/remove vegetation (as opposed to scraping) to allow capture of sediment
5. ID excessive siltation in ditching-may indicate the need to re-grade the ditch
6. During ditch scraping, maintain vegetation (downstream of ditch) to capture sediment
7. Debris shall be removed from leaching basin (see catch basin cleaning) without interrupting the bottom of basin.

**TOWNSHIP OF CLAY**  
**STORMWATER MANAGEMENT PROGRAM**  
**INSPECTION AND MAINTENANCE SCHEDULE, SWALES/DITCHES**

(CIRCLE ONE)

SPRING (To be completed annually between March 1st and May 1st,  
after the last significant snow & ice event)

FALL (To be completed annually between September 1st and November 1st,  
before the beginning of leaf collection)

Inspection date: \_\_\_\_\_ Location: \_\_\_\_\_

Inspection conducted by: \_\_\_\_\_

**Instructions:** Complete inspection by answering yes/no questions and check follow-up boxes when action is complete. Make any notes necessary to document the condition of the location and maintenance actions taken. When inspection & maintenance actions are completed, submit form to Public Service Supervisor.

**Swales:**

Is there evidence of erosion or channeled flow? Yes: \_\_\_\_\_ No: \_\_\_\_\_

☐ If yes, consult engineer and regrade

Are there bare spots? Yes: \_\_\_\_\_ No: \_\_\_\_\_

☐ If yes, reseed and monitor

Is there sediment build-up? Yes: \_\_\_\_\_ No: \_\_\_\_\_

☐ If yes, remove, correct source and monitor

**Additional Maintenance**

☐ Grass mowed & maintained at 4-9"

☐ Clean curb cuts

**Notes:**

**Ditches:**

Is there evidence of erosion or channeled flow? Yes: \_\_\_\_\_ No: \_\_\_\_\_

☐ If yes, consult engineer and regrade.

Are there bare spots? Yes: \_\_\_\_\_ No: \_\_\_\_\_

☐ If yes, reseed and monitor.

Is there sediment or debris build-up? Yes: \_\_\_\_\_ No: \_\_\_\_\_

☐ If yes, remove, correct source, and monitor

**Notes:**

## **Storm Structures**

### **Annual inspection, 1/3rd of Township basins cleaned annually and as needed**

Identify catch basins that need frequent maintenance.

1. Prioritize catch basins based on inspection findings, location in the Township , and public complaints. (e.g. inspection finds above expected debris and storm water, structures reside in low areas or near discharges to the surface water, public complaints on flood areas and non working structures.)
2. During cleaning, identify the need for repair of structure (also pertains to manholes and piping).
3. Clean catch basins when debris has filled it 1/3 of the way to the outlet
4. Inspect/determine the need for cleaning after storm events
5. Coordinate catch basin cleaning with related street/parking lot sweeping events

Prior to catch basin maintenance, conduct visual inspection to ensure the water in the sump has not been contaminated. If necessary, collect a grab sample of the water and look for signs of contamination such as visible sheen, discoloration, obvious odor, etc.

If there is any doubt of the quality of water, it should be collected into a vector truck and treated as waste under part 121 or part 115 Solid waste Management (part 115) of NREPA.

Using a sump pump or any other pumping mechanism, remove the majority of the water in the sump without disrobing the solid material below. Do not use pumps connected to the vector truck's holding tank.

The clear water may be directly discharged to one of the following:

- Sanitary system (with prior approval from St Clair County sewer plant)
- Curb and gutter
- Back into the storm sewer system as long as it is contained within the system during dry weather conditions to ensure no discharge into surface water
- Applied to the ground adjacent to the catch basin (evenly distributed at a maximum rate of 250 gallons/acre/year)

The resulting solid waste must be disposed of in a licensed landfill.

\*Annual updates and or revisions shall be made to prioritize problem areas based on inspection findings and citizen complaints.



**TOWNSHIP OF CLAY**  
**STORMWATER MANAGEMENT PROGRAM**  
**INSPECTION AND MAINTENANCE SCHEDULE, STORM STRUCTURES**

<b>Catch Basins:</b> <b>Location:</b> _____ <b>Date of last clean out:</b> _____  Has debris accumulated in the catch basin      Yes: _____ No: _____  <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 50px; height: 30px; margin-right: 10px;"></div>         If yes, clear obstruction/debris       </div> Has more than 1" of oil or 6" of sludge?      Yes: _____ No: _____  <div style="text-align: center;">         If yes, schedule vactoring       </div>	<b>Notes:</b>         
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Appearance of any illicit discharging? \_\_\_\_\_

(If "Yes" describe below)

Visually inspect area around structure for additional maintenance.

**Additional Maintenance:**

<input type="checkbox"/>	Schedule street sweeping of all municipal parking lots
<input type="checkbox"/>	Re-seed any exposed ground in system

**Additional notes:**

**Factor contractor:**  
Tri-County VAC  
810-650-2244

## **Parking Lot Sweeping**

### **Inspect seasonally, swept bi annually**

1. Township owned parking lots.
2. Insect lots at season's end and whenever necessary, such as after a significant storm.
3. Note any damage that may hinder storm flow to structures or positive flow off of lot.
4. More frequent sweeping may be needed in targeted areas on the basis of pollutant load reduction potential (based on inspections, pollutants, catch basin cleaning, land use, and surface water location).
5. If spills occur or illegal discharges are seen, report to the proper authorities.
6. Sweepers should be regularly maintained.
7. Employees should be properly trained on equipment prior to sweeping.
8. Records should be kept and the following should be included:
  - Date/Weather/
  - Lots swept
  - Employees who performed work
9. All solid waste must be disposed of in a licensed landfill.
10. Procedure should be reassessed within 30 days of identifying a need to revise a priority level.

**TOWNSHIP OF CLAY  
STORMWATER MANAGEMENT PROGRAM  
PARKING LOT SWEEPING LOG**

**Location:** \_\_\_\_\_

Date Swept: \_\_\_\_\_

Employee/Company: \_\_\_\_\_

Debris Disposal Location: \_\_\_\_\_

Photo Documentation? \_\_\_\_\_

Additional Notes:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## **On site Material Storage Inspection -**

### **Inspect Bi-Weekly**

See Standard Operating Procedure - DPW Yard and  
Standard Operating Procedure - Material Storage, DPW Yard

**SITE INSPECTION - MATERIALS**  
**CLAY TOWNSHIP DPW YARD**

**All significant materials stored on site must be inspected for leaking, contamination and damage to container**

Inspector:

Inspection Date:

List of materials stored on site.

	Material Name	Handling and Storage Procedure	Potential for Discharge	Inspected
1	Gasoline	Certified self sealing gas containers in fireproof cabinet	low risk	
2	Paint Thinners	Stored in cabinet	low risk	
3	Oil	Stored in sealed 55 gallon drums, inside of building	very low risk	
4	Windshield Solvent	Stored in sealed 55 gallon drums, inside of building	very low risk	
5	Stone	Stored in concrete barrier bins in the yard	low risk	
6	Sand	Stored in concrete barrier bins in the yard	low risk	
7	Dirt Cold Patch	Stored in concrete barrier bins in the yard	low risk	
8	Rock Salt	In bags on pallets in yard	low risk	

Is any material leaking?

If yes, list material and describe

If yes, is there contamination due to the leaking?

Are any storage containers damaged?

If yes, describe

Please note and describe any other concerns involving significant on site materials. (Example - Material not properly cleaned up after use)

Inspector signature

Date

## **Discharge Point Inspection**

### **Dry inspection yearly**

Prioritize discharge points and perform dry inspection annually.

Visually inspect the outlet, the receiving waters and the surrounding area of each point.

Note the following:

- Water flowing?
- Damage to outlet?
- Erosion at outlet?
- Blockage to outlet?
- Debris within outlet?

Wet weather inspections should be performed after rain event where outlet should be flowing.

Note the following for wet weather inspections:

- Water flowing?
- Cloudy?
- Color?
- Odor?
- Debris/sheen/foam?

**TOWNSHIP OF CLAY**  
**STORMWATER MANAGEMENT PROGRAM**  
**DISCHARGE POINT INSPECTION**

**Discharge Point Location:** \_\_\_\_\_

Discharge Point ID: \_\_\_\_\_

Map ID: \_\_\_\_\_

Receiving Surface Water or Other MS4 Jurisdiction: \_\_\_\_\_

Inspector: \_\_\_\_\_

Day/Date: \_\_\_\_\_

Weather/Temp: \_\_\_\_\_

Time: \_\_\_\_\_

During/After Rain Significant Rain Event?: \_\_\_\_\_

(If "Yes" document the rain event below)

Photos taken?: \_\_\_\_\_

Dry Weather Inspection:

Visually Inspect the outlet, the reciving waters and the surrounding areas.

(If "Yes" please describe)

Is there flow through outlet? \_\_\_\_\_

Damage to Outlet? \_\_\_\_\_

Erosion at Outlet? \_\_\_\_\_

Blockage to Outlet? \_\_\_\_\_

Debris within Outlet? \_\_\_\_\_

Note any concrens of the outlet, recieveing waters, and surrounding areas below.

Wet Weather Inspection:

Take water sample and visually inspect physical properties.

(If "yes" please describe)

Cloudy? \_\_\_\_\_

Color? \_\_\_\_\_

Odor? \_\_\_\_\_

Debris/Floating solids/oil sheens/foam? \_\_\_\_\_

Notes:

## **E. coli Reduction**

The expected potential sources of E. coli contamination within the Township's property is improper pet waste disposal on the Park Grounds. Signage with pet waste bag dispensers are placed in the parks reminding park goers to pick up their pet's waste.

It is possible for wildlife to contribute to any E. coli contamination at the outfalls. If E. coli testing shows results above standards the area will be monitored for avian or other wildlife grouping.

## **E. coli Testing**

1. E. coli testing should be performed twice a permit cycle (5 years), during a stretch of wet weather.
2. Areas that direct flow to the St. Clair River or Anchor Bay are considered high priority areas and should be tested. Identify those areas on site.
3. Take water sample per manufacturer's directions.

Prior to sampling, conduct visual inspection to ensure the water flowing into the St. Clair River and Anchor Bay from the Township's property is clean. Note the condition of the water on the log form. Include the color of the water and any obvious odors. Note any noticeable earth disturbances, debris or damage to structures at the outlet as well as any obstructions to flow.

Once the test results are found, compare the results to the following standards from the Michigan Department of Environmental Quality:

### ***Water Quality Standard for E. coli***

Total Body Contact (May1 - October 31):

*Daily Maximum Geometric Mean: 300 E. coli per 100 milliliters (ml)*

*30-Day Geometric Mean: 130 E. coli per 100 ml*

Partial Body Contact (all year):

*Daily Maximum Geometric Mean: 1,000 E. coli per 100 ml*

If test results are below these standards no further action is needed.

If test results are above these standards action should be taken to identify the source(s) of E.coli.

1. Inspect the entire area that flows to the St. Clair River or Anchor Bay from the Township's property.
2. Perform the applicable Standard Operating Procedures to determine contamination cause.



3. Once the contaminant is located, perform the necessary maintenance, disposal or storage procedure.
4. Retest the location 30 days later.
5. If the E. coli levels are still above normal, continue investigating potential sources and/or implementing additional BMPs.

<b>CLAY TOWNSHIP</b>							
<b>STORMWATER MANAGEMENT SYSTEM</b>							
<b>INSPECTION AND MAINTENANCE SCHEDULE</b>							
<b>E. coli Testing:</b>							
Name:				Date:			
Weather Conditions:							
Area 1:		(Location of sample)					
Area 2:		(Location of sample)					
<b>Sample ID:</b>							
Area 1:							
Area 2:							
<b>Observations:</b>							
Location:							
Water color:							
Odor:							
Disturbances at outlets:							
Structure damage at outlet:							
Obstructuions to flow							
Notes:							
Location:							
Water color:							
Odor:							
Disturbances at outlets:							
Structure damage at outlet:							
Obstructuions to flow							
Notes:							

<b>CLAY TOWNSHIP</b>							
<b>STORMWATER MANAGEMENT SYSTEM</b>							
<b>INSPECTION AND MAINTENANCE SCHEDULE</b>							

<b>E. coli Testing (con't.):</b>							
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<b>Test Results</b>							
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Area 1:							
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Is further action needed?:	Yes	No					
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Area 2:							
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Is further action needed?:	Yes	No					
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<b>Further Actions</b>							
------------------------	--	--	--	--	--	--	--

Area:							
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Determine if any maintenance work was performed within the drainage area that did not meet Standard Operating Procedure guidelines.							
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Notes:							
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<b>Perform the following Standard Operating Procedures:</b>							
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General Good Housekeeping	Date: _____	By: _____	
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Stormwater System Maintenance	Date: _____	By: _____	
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Road, Parking Lot, & Sidewalk Maintenance	Date: _____	By: _____	
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Grounds Maintenance	Date: _____	By: _____	
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DPW Yard	Date: _____	By: _____	
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Rain Garden and Green Roof	Date: _____	By: _____	
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<b>Found cause of E. coli contamination and corrective actions:</b>							
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**APPENDIX B**  
**STANDARD OPERATING PROCEDURES**  
**FOR**  
**TOWNSHIP OPERATION AND MAINTENANCE**

## STANDARD OPERATING PROCEDURES (SOPs)

GENERAL GOOD HOUSEKEEPING FOR OUTDOOR OPERATIONS & MAINTENANCE	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Weatherproof containment and storage materials – containers, drums, pallets, tarps, etc.
2. Spill kit and equipment for dry cleanup – kitty litter, absorbent pads, broom & dust pan.
3. Stormdrain inlet protection – drain covers, berms, wattles, etc.

### **Standard Operating Procedures**

1. Familiarize yourself with the location of all storm drains and conveyance facilities in all work areas.
2. Protect stormwater facilities during all work to ensure that only rain water enters the drainage system.
3. Do not dump liquids or other materials outside.
4. Pick up trash and dispose outside.
5. Keep trash receptacles closed at all times.
6. Do not put liquids in trash receptacles.
7. Do not put hazardous materials in trash receptacles.
8. Keep outside work areas clean and sweep up after projects
9. Do not hose down outside work areas.
10. Promptly clean up and contain all solids or liquid pollutant spills. Use solid absorbents and rags for clean-up of liquid spills and leaks.
11. Sweep paved maintenance and material handling areas regularly as needed, for collection of dust or debris that could contaminate stormwater.
12. Promptly repair or replace leaking connections, pipes, valves, hoses, or other leaking equipment that could contaminate stormwater.
13. Report any suspected illegal connections or illicit discharges to the storm system to the Department of Water and Sewer Superintendent.

### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may ***not*** be disposed of in Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township ***cannot*** safely transport.

### **Related Procedures**

1. SOP: Stormwater Systems Maintenance
2. SOP: Changes and Additions to the Storm Water System
3. SOP: Road & Parking Lot Maintenance
4. SOP: Vehicle Maintenance & Fueling
5. SOP: Building Maintenance
6. SOP: Grounds Maintenance
7. SOP: Fertilizer and Herbicide Application
8. SOP: Materials Storage, General
9. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

STORMWATER SYSTEM MAINTENANCE	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Stormwater Management System Inspection and Maintenance Logs – Spring and Fall.
2. Stormwater Management System Map.
3. Vactor truck, Catch Basin Spoon.

### **Standard Operating Procedures**

1. Inspect and maintain stormwater system according to the Stormwater Management System Inspection and Maintenance Logs once in the spring and again in the fall.
2. Schedule catch basin cleaning or spooning annually based on inspection.
3. Schedule street and parking lot sweeping biannually after winter snow & ice management and again in the fall after the summer dry season and before winter rains mobilize accumulated sediments and pollutants from impervious surfaces.
4. Maintain side slopes on ditches at a grade that does not cause side – slope erosion.
5. Maintain 4 to 9 inches of vegetation in ditches.
6. Remove mowed or cut vegetation from the ditch and do not dispose of in adjacent waterway or storm drainage system.
7. Do not apply herbicides, pesticides, or fertilizer in ditches or on adjacent roadways
8. Reseeding of ditches should be done in late spring or early fall. This allows vegetation to be re-established before the next wet season to minimize erosion.
9. Report any suspected illegal connections or illicit discharges to the storm system to the SCCHD at (810)-987-5300

### **Updating and Revising**

1. Procedure shall be reassessed and updated if needed within 30 days following the implementation of a new structural storm water control.

### **Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Changes and Additions to the Storm Water System
3. SOP: Grounds Maintenance
4. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

CHANGES AND ADDITIONS TO THE STORM WATER SYSTEM	
Purpose of SOP:	To keep a current inventory and updated maps to the Township's Storm Sewer System.
Location of SOP:	A hard copy of this SOP shall be kept at both the DPW/Water Plant. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.

### **Equipment and Materials Required**

1. Current storm sewer inventory and map (hard copy and an alterable electronic file).

### **Standard Operating Procedures**

#### **General Maintenance**

1. Familiarize yourself with the location of all storm drains and conveyance facilities throughout the township from the inventory and map.

#### **Addition to the Township's Storm Sewer System**

1. When a new facility or a structural storm water control has been added and the construction is complete, assess the new facility's site for its potential to discharge pollutants.
2. Assessment should include the consideration of the following factors:
  - The amount of urban pollutants stored at the site (e.g. sediment, nutrients, meal, trash, etc.)
  - The presence of improperly stored materials.
  - Polluting activities conducted outside (e.g. vehicle washing).
  - Proximity to water bodies.
  - Poor housekeeping practices.
  - The history of discharge of pollutants of concern to impaired waters.
3. The master inventory and map should be updated within 30 days of construction completion.
4. At time of update any new stormwater structures should be given a priority level based on the assessment.
5. Developer is required to submit as-built drawings after final completion of construction.

#### **Removal from Township's Storm Sewer System**

1. When a facility or storm water structure is removed from the system, inventory and map must be updated within 30 days of the removal.
2. The removal should be assessed to whether it will impact the remaining system.



**Changes to the Township's Storm Sewer System**

1. Any changes within the sewer system must be reflected on the inventory and map within 30 days of the system adjustment.

**Updating and Revising**

1. Procedures shall be assessed once a year and updated as necessary

**Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance

## STANDARD OPERATING PROCEDURES (SOPs)

ROAD & PARKING LOT MAINTENANCE	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Spill kit and equipment for dry cleanup – kitty litter, absorbent pads, broom & dust pan.
2. Storm drain inlet protection – drain covers,, berms, wattles, etc.
3. Tarps

### **Standard Operating Procedures**

#### **General Maintenance**

1. Familiarize yourself with the location of all storm drains and conveyance facilities in all work areas.
2. Collect and dispose of trash along roadsides and in parking lots when observed

#### **Street Maintenance**

1. Protect nearby storm drains using drain covers, inserts, berms, wattles, etc. around or over inlets when doing any maintenance work within 25 feet of an inlet.
2. Sweep or vacuum wastes from all maintenance work when the project is complete and before any rain event.
3. Schedule paving projects during dry weather only
4. Use erosion and sediment control during any earth distributing activities.

#### **Parking Lot Maintenance**

1. Clean leaves, trash, sand, and other debris from parking lots regularly or as needed to prevent debris from reaching any storm drain inlet or storm detention area.
2. Sweep parking lots with a street sweeper as needed at a minimum of 2 times per year, after winter salting and after fall leaf season.

3. Any automotive leaks, drips, or spills must be cleaned up with dry methods (absorbents) and disposed of properly.
4. Inspect dumpsters and waste disposal areas regularly. Clean up any trash, spills, or leaks and report leaking dumpsters to the disposal company.

### **Paving/Patching**

1. Conduct all patching, paving, or re-sealing of asphalt on dry days when no rain is present.
2. Stop paving during and immediately after a rainfall.
3. Pre-heat, transfer or load hot asphalt far away from any storm drain inlet.
4. Protect downstream waters and storm drain inlets from debris including grinding, sawing, or pavement demolition dust.
5. Cover and seal all storm drains before applying seal coat or slurry seal. Leave covers in place until the job is complete and all water from emulsified oil sealants has drained or evaporated. Clean up debris from inlets and dispose of properly

### **Concrete Pouring**

1. Do not allow slurry from saw cutting to enter storm drains.
2. Protect nearby storm drains using drain covers, inserts, berms, wattles, etc. around or over inlets when working within 25 feet of an inlet.
3. Washout from concrete truck chutes, mixers or other equipment with concrete waste should be collected in a leak proof container such as a 5 gallon bucket with lid or chute washout box .
4. The washout collected can be filtered and delivered to publicly owned treatment plant or recycled, both per EPA Stormwater Best Management Practice: Concrete Washout which can be found online.
5. Construction superintendents should inform all concrete truck drivers aware of the standards.

### **Painting and Striping**

1. Schedule painting and striping projects for dry weather only.
2. Stop painting if rain is expected.
3. Block nearby storm drain inlets (within 25 feet gradient from work site).
4. Promptly clean up any spill of paints, cleaners or other chemicals.
5. Conduct all loading, mixing, and cleanup activities at a covered location, far from any storm drain inlet.

### **Cleaning Sidewalks and Parking Lots**

1. Do not hose down sidewalks or parking lots except where wash water will only enter grassy or graveled areas where it can soak into the ground.
2. If you do not use any chemicals or detergents and are only cleaning surfaces of ambient dust, then you may direct the wash water to nearby landscaping or contain it on site and allow it to evaporate. When discharging to landscaping, make sure the water is being absorbed in the ground and not running off into a storm drain or paved area.
3. Dry cleanup methods should be used prior to any pressure washing. These include using absorbents (kitty litter, rags, sand, etc.) to clean up spills, sweeping or washing. The waste material should be disposed of properly.
4. If you must pressure wash, identify where all storm drains are located before starting. Wash water must not be allowed to flow down gutters or enter storm drains. All wash water must be captured for proper disposal.

- ✓ Determine where water will pool for collection.

- ✓ Use the following types of equipment to protect storm drains and to contain and collect wash water: vacuum pumps, booms/berms, portable containment areas, weighted storm drain covers, inflatable plumber's plugs, oil/water separators, holding tanks, portable sump pumps, hoses, absorbents.
- ✓ Any pressure washing waste water disposed of to a sanitary sewer requires written approval from the Twp.'s Public Works Dept.

### **Snow Plowing**

1. Avoid plowing, pushing, blowing or storing excess snow or other debris into storm drains.

### **Snow Storage and Disposal**

1. Do not dispose of snow in wetlands, ditches, open water, or directly on top of storm drains.
2. Establish snow areas that are:
  - ✓ On a grass or gravel surface where melt water can infiltrate.
  - ✓ Down gradient from water courses or wetlands.
  - ✓ Not located on or near storm drains.
3. Cleanup and sweep sediment and debris from paved surfaces after snowmelt.

### **Salting**

1. Use only clean salt for winter parking lot maintenance.
2. Use the lowest application rate that will be effective.
3. Sweep parking lots after winter salting operations.

### **Salt Loading and Storage**

1. Stockpiled salt should be stored under cover or covered with a tarp.
2. When loading salt, care should be taken not to overload the truck.
3. Loading areas and yards should be swept frequently to prevent salt build up and runoff.

### **Salt/Deicer Application**

1. Hand apply salt and/or chemical deicer on sidewalks where required for pedestrian safety.
2. Use the lowest amount of product that will be effective.
3. Do not apply salt and/or chemical deicers near storm drains.

### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may not be disposed of on Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

### **Updating and Revising**

1. Procedures shall be reassessed 30 days after adding or removing a BMP.

### **Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Stormwater Systems Maintenance
3. SOP: Vehicle Maintenance & Fueling
4. SOP: Materials Storage, General
5. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

VEHICLE MAINTENANCE & FUELING	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Weather proof containers
2. Polly or plastic pallets
3. Drum covers
4. Tarps
5. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom and dust pan)
6. Drip pan
7. Parts washer

### **Standard Operating Procedures**

#### **Vehicle & Equipment Maintenance**

1. Conduct all maintenance and repair work inside or under cover.
2. Only emergency maintenance or maintenance that does not involve fluids may be performed outside.
3. Move leaking vehicles or equipment indoors or under cover.
4. Use drip pans for leaking vehicles that need to be stored outside.
5. Contain leaking fluids and tag the vehicle to alert drivers that vehicle is non-operational.
6. Perform all maintenance activities involving fluids indoors only (except in emergency cases).
7. Dispose of wastewater from tire leak check to sanitary sewer, not storm drain.
8. Use designated parts washer for all parts washing and solvent use work.
9. Promptly transfer used fluids to recycling drums or hazardous waste containers.
10. Dispose of liquid waste properly.
11. Store cracked batteries in leakproof secondary containers.

#### **Vehicle & Equipment Fueling**

1. Fuel carefully to minimize drips on the ground.
2. Do not "top off" fuel tanks.
3. Remain present at the fueling station during the entire fueling operation.

4. When fueling small equipment in the field such as lawn mowers, portable generators, etc., do so over a paved surface, at a location that is down gradient from and far away from the nearest storm drain.
5. See Standard Operating Procedures: Fueling Site and Vehicle/Equipment Fueling

#### **Clean Up of Leaks, Drips, or Spills**

1. Clean up leaks, drips, or spills thoroughly and promptly.
2. Always use dry methods for clean-up of fuel spills (gas, diesel, or kerosene).
  - ✓ Spread absorbents (kitty litter or loose absorbents, sheets, pillows, pigs, or socks) on the spill.
  - ✓ Sweep up or pick up the absorbed materials.
  - ✓ Dispose of wastes properly
3. If fluids leak or have spilled on an impervious surface, such as a road or parking lot, locate nearest down gradient storm drain and dike or berm the drain to prevent fluids from entering.
4. Put absorbent on the spill area.
5. After clean up, sweep up the contaminated absorbent and remove berm or dike from the storm drain.
6. If spills occur on a pervious surface such as gravel or grass, mark the area and contact the Clay Fire Department at (586)725-7771.
7. Never hose down leaks, drips, or spills.

#### **Vehicle & Equipment Washing**

1. Wash all vehicles and equipment in the designated wash rack where wash water will not drain to a storm inlet..
2. Oversized vehicles or vehicles that cannot be moved to the designated area can be washed at a commercial wash facility.
3. If washing cannot be conducted at the designated wash facility or a commercial was facility, vehicle and equipment may be rinsed with water only on a pervious surface (grass or gravel) at a location where wash water will not drain to a storm drain inlet, waterway, or wetland. Do not use soap or detergent in these areas.

#### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may not be disposed of on Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

#### **Updating and Revising**

1. Procedures shall be assessed once a year and updated as necessary.

#### **Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Road & Parking Lot Maintenance
3. SOP: Fueling Site and Vehicle/Equipment Fueling
4. SOP: Grounds Maintenance
5. SOP: Materials Storage, General
6. SOP: Incidental SpillResponse

## STANDARD OPERATING PROCEDURES (SOPs)

FUELING SITE AND VEHICLE/EQUIPMENT FUELING	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside fueling in Clay Township.
Location of SOP:	A hard copy of this SOP shall be kept at both the DPW/Water Plant. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Polly or plastic pallets
2. Spill kit and equipment for dry cleanup
3. Secondary Containment

### **Standard Operating Procedures**

1. Familiarize yourself with the location of all storm drains and conveyance facilities in all work areas.
2. Protect storm water facilities during all work to ensure that only rain water enters the drainage system. Place drain covers over storm structure if needed.
3. Only fuel vehicles at designated fuelling locations.
4. All fueling activities should be attended.
5. Equip designated fueling areas with dry clean up materials and spill kits.
6. Prior to fueling, note if any tank or fueling equipment has been damaged. Check for any leaks.
7. Clean up gasoline overflows and spills using dry methods. Prevent spills from run off or evaporation. Spread absorbent material, sweep it up with a broom and dispose of as a hazardous waste.
8. Routinely clean pumps with a damp cloth.
9. All employees who tend to fueling activities must be trained in spill response procedures.
10. When fueling small equipment from a can, fueling must be done over pavement and a funnel should be used.
11. Contractors responsible for refilling fuel tanks must follow all BMPs and safety procedures.
12. Do not top off or overfill gas tanks.
13. Provide secondary containment during refueling.
14. Keep secondary containment area dry but if water is collected regularly remove it.
15. Inspect the fueling area (tank, piping, hose, containment, etc.) and ground around the fueling area weekly.

16. Promptly repair or replace leaking connections, pipes, valves, hoses, or other leaking equipment that could contaminate stormwater.
17. Report any suspected illegal connections or illicit discharges to the storm system to the Water and Sewer Superintendent.
18. Keep storage area secure. Be sure site is locked when not in use.

#### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may *not* be disposed of in Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

#### **Records**

1. Keep records of employee and contractor training.
2. Keep records of inspections and repairs done on fueling equipment.
3. Report all spills to the proper authorities.

#### **Related Procedures**

1. SOP: Stormwater Systems Maintenance
2. SOP: Road & Parking Lot Maintenance
3. SOP: Vehicle Maintenance and Fueling
4. SOP: Grounds Maintenance
5. SOP: Materials Storage, General
6. SOP: Incidental Spill Response



## STANDARD OPERATING PROCEDURES (SOPs)

BUILDING MAINTENANCE	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work at the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dust pan)
2. Inlet protection (wattles, drain covers, berms, and/or filter fabric)
3. Containers for collecting paint wastes
4. Tarps or ground cloths

### **Standard Operating Procedures**

#### **Janitorial Practices and waste Management**

1. Never dump mop water or cleaning wastewater outside, on paved surfaces, or into storm drains. Dispose of wastewater in mop sink or other sanitary sewer drain.
2. Do not pour, transfer, or dispose of any material outdoors or near a storm drain.
3. All waste containers must be leak-tight with tight-fitting lids or covers.
4. Keep all container lids closed at all times unless adding or removing material. If possible, store waste receptacles.
5. Sweep around outdoor waste containers regularly.
6. When working in the field, collect all wastes in or other leak-proof containers and bring back to the shop for proper disposal.
7. Do not wash dumpsters with water outdoors. If a dumpster requires washing, contact the service provider and have them remove it for cleaning, or move it to the designated wash down facility for washing to sanitary sewer.
8. Minimize waste by purchasing products that have minimal packaging. Recycle cardboard, plastics, and paper products in the proper container.
9. Purchasing the least toxic cleaning product possible to accomplish the job. Purchase biodegradable cleaning products where possible.

#### **Painting, Staining, Scraping, and Sandblasting**

1. Use a ground cloth securely attached to the base on the building for any scraping or sanding of the exterior surface.
2. Use a ground cloth or oversized tub for paint mixing and tool cleaning. Properly dispose of the wastes.

3. Enclose spray-painting operations with tarps or other means, as possible, to minimize wind drift and to contain overspray.
4. Clean paintbrushes and tools used to apply water-based paints in sinks plumbed to a sanitary sewer or in portable containers that can be emptied into sanitary sewer drains.
5. Brushes and tools used for oil-based paints, finishes, thinners, solvents or other materials must be cleaned over a tub or container and the cleaning wastes disposed or recycled at an approved hazardous waste facility.
6. Never clean tools over a storm drain or outside.
7. Promptly clean any spills of paints, cleaners or other maintenance chemicals or supplies.
8. When sand blasting exterior surfaces, place tarps or ground cloths beneath the work area to capture sand blasting media and debris. Enclose the sand blasting area with tarps or plastic to protect it from wind and to capture airborne particles (dust).
9. Cease all sand blasting operations on windy days.

### **Pressure Washing & Exterior Surface Cleaning**

1. Prior to pressure washing, identify where all storm drains are located; wash water must not be allowed to flow down gutters or enter storm drains.
2. Block or cover all storm drains with booms and weighted storm drain covers before pressure washing.
3. Determine where water will pool for collection. Use a wet vac to vacuum up the wastewater or allow water to evaporate.
4. Use dry cleanup methods, including sweeping, and scrapping off dried debris prior to pressure washing any surface.
5. Pressure wash with minimal water.
6. If you are not using any chemicals or detergents, the wash water can be directed to a grassy area where it can infiltrate. Verify that water is not running out of the area and encountering a paved surface.
7. If any additives are used in the wash water, the waste water must be captured for disposal to sanitary sewer.
8. Solids should be removed from the area prior to pressure washing and a filter bag or similar filtration device should be used to remove suspended solids from the wastewater.
9. A visible sheen must not be evident in the discharge. Use an absorbent pad or boom to eliminate any oil from the discharge.
10. Do not pressure wash an entire building. Spot clean, steam clean, or scrape dirty areas rather than pressure washing the entire structure.

### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuel, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may not be disposed of on Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

### **Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

GROUNDS MAINTENANCE	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Dumpster Covers
2. Tarps
3. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)

### **Standard Operation Procedures**

#### **Mowing and Landscaping Maintenance**

1. Mulch-mow grass. Sweep and dispose of any grass clippings on paved surfaces.
2. Do not dispose of green waste or clippings in waterways, ditches, or stormwater detention basins.
3. Maintain sprinkler systems at rates that do not exceed the infiltration rate of the soil. Observe any runoff on paved surfaces and reposition or adjust sprinkler heads to irrigate only pervious surfaces.
4. Sweep areas around landscape beds regularly and after applying new mulch to keep wood products from entering the storm drain system.

#### **Graveling Trails and Parking Lots**

1. Stockpiled gravel should be stored under cover with a tarp.
2. When loading graver, care should be taken not to overload vehicle.
3. Sweep area after loading to keep gravel from entering the storm water management system.
4. Take care not to cover any storm drain inlets with gravel.

#### **Non-Hazardous Waste Management and Disposal**

1. When working in the field, collect all waste in bags or other leak-proof containers and bring back to the shop for proper disposal.
2. Minimize waste by purchasing products that have minimal packaging. Recycle cardboard, plastics and paper products in the proper container.
3. Never place hazardous materials, liquids, or liquid-containing wastes in the dumpster. If liquid wastes must be disposed of in the trash, absorb them first with kitty litter or other absorbents.
4. Non-hazardous liquid waste may be disposed on in sanitary sewer.

**Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, poisons, antifreeze, brake fluid, and solvents.
2. These materials may not be disposed of on Township property.
3. Hazardous wastes must be disposed of at the St. Clair County Transfer Station.
4. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

**Updating and Revising**

1. Procedures shall be assessed once a year and updated as necessary.

**Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Vehicle Maintenance & Fueling
3. SOP: Fertilizer and Herbicides Application
4. SOP: Materials Storage, General
5. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

FERTILIZERS & HERBICIDES APPLICATION	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the course of conducting all outside operations & maintenance work in the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the DPW/Water Plant. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. Pesticide application must be done under the supervision of staff holding a Public Applicator's License
4. All employees who handle or apply fertilizers or herbicides must be trained on the most recent Material Safety Data Sheets (MSDS).

### **Equipment and Material Required**

1. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan).
2. ANSI approved sprayers.
3. Polly or plastic pallets and pails for secondary containment.
4. Proper PPE (Rubber gloves and eye protection).

### **Standard Operating Procedures**

#### **General**

1. Always follow the manufacturer's recommendations for mixing, application, and disposal.
2. Use manual or mechanical methods for weed control whenever possible.
3. When chemicals are used, use the least toxic and most biodegradable product possible.
4. Do not use pesticides on Township property.
5. Any pesticide used needed will be performed by an off-site certified company.

#### **Mixing**

1. Mix fertilizers and herbicides inside a protected area with impervious secondary containment so that spills and leaks will not contact soil or enter the storm water system.
2. Label all containers.
3. Only mix the minimum amount of product that will be needed for the immediate job.
4. If possible, use rinse water from cleaning of containers and application equipment as a dilution for the next batch.

#### **Application**

1. Follow application guidance on the product label.
2. Time the application to coincide with manufacturer's recommendation for best results. Do not spray if rain is expected.
3. Spot spray herbicides whenever possible.

4. Use herbicide only when there is vegetation to manage (do not use preventatively or more often than required).
5. Fertilizers may be broadcast sprayed, with care taken to avoid waterways or any inlet to the storm drain system.
6. Use granular materials when possible to avoid application losses.
7. Do not apply fertilizers or herbicide within 50 feet of any open water, drainage ditch, wetland, storm water basin or inlet to the storm drain system.
8. See Manager of Planning & Environmental Services to obtain an NPDES permit before spraying any herbicides in wetland mitigation areas for weed control.

#### **Cleanup**

1. Follow all manufacturers' recommendations for cleanup of the chemical.
2. Sweep paved areas where any granular product has fallen and direct product into grassy areas.
3. Cleanup any spills of product quickly using the methods described in SOP: Incidental Spill Response & Cleanup.
4. Dispose of excess chemicals and empty expired fertilizer or herbicide containers according to the instructions on the label and preferably on the target vegetation or pest.
5. If possible reuse the triple rinse from containers as dilution for the next batch.
6. Never dispose of rinse by pouring into the storm drain system.
7. Any product that cannot be disposed of through application on the target vegetation must be disposed of as Hazardous Waste.

#### **Storage**

1. Store fertilizer, herbicides, and pesticides inside a protected area with impervious secondary containment so that spills or leaks will not enter the soil or the storm drain system.
2. All containers must be clearly and accurately labeled.

#### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may not be disposed of on Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

#### **Updating and Revising**

1. Procedures shall be assessed once a year and updated as necessary

#### **Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Grounds Maintenance
3. SOP: Materials Storage, General
4. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

DPW YARD	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work at the DPW yard of the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at the DPW. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Spill kit and equipment for dry cleanup.
2. Inlet protection (wattles, drain covers, berms, and/or filter fabric).
3. Containers for collecting paint wastes.
4. Tarps or ground cloths.

### **Standard Operating Procedures**

1. Familiarize yourself with the location of all storm drains and conveyance facilities in all work areas.
2. Protect storm water facilities during all work to ensure that only rain water enters the drainage system.
3. Do not dump liquids or other materials outside.
4. Pick up outside trash and dispose of it.
5. Keep trash receptacles closed at all times.
6. Do not put liquids in trash receptacles.
7. Do not put hazardous materials in trash receptacles.
8. Keep outside work areas clean and sweep up after projects.
9. Do not hose down outside work areas.
10. Promptly clean up and contain all solids or liquid pollutant spills. Use solid absorbents and rags for clean-up of liquid spills and leaks.
11. Sweep paved maintenance and material handling areas regularly as needed, for collection of dust or debris that could contaminate stormwater.
12. Promptly repair or replace leaking connections, pipes, valves, hoses, or other leaking equipment that could contaminate stormwater.
13. Report any suspected illegal connections or illicit discharges to the storm system to the Water and Sewer Superintendent.

### **Bi-Weekly Inspections**

1. Inspections should be conducted every two weeks under both rainy and dry conditions.
2. Inspect under and around equipment to establish if there is any leakage.
3. Inspect the points of discharge for the area. Note anything other than storm water present and if there is any obstruction or debris.
4. Walk the yard and pick up any trash, debris, leaves, etc. that could find its way to the outlets.
5. Inspect all significant materials located on the DPW site. Please see the SOP Material Storage, DPW Yard for a list and location of all significant materials. Inspection should be logged on Site Inspection - Materials form included in the Stormwater Management Program for Clay Township.

### **Bi-Annual Inspections**

1. Bi-annual inspections should be performed in the spring and fall.
2. Inspect under and around equipment to establish if there is any leakage.
3. Walk the yard and pick up any trash, debris, leaves, etc. that could find its way to the outlets.
4. Check all significant materials mentioned in the table provided on the SOP for Material Storage at DPW yard. Check that they're properly enclosed and that there are no deficiencies in their containers.
5. Inspect waste disposal areas and note that all waste is contained properly.
6. Thoroughly walk the yard for any misplaced containment items or signs of improperly disposed of material.
7. Inspect the points of discharge for the area. Note anything other than storm water present and if there is any obstruction or debris.
8. Inlet structures should be checked for any damage or deterioration.
9. Check downstream of the outlets for any noticeable traces of pollutants.

### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, herbicides, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may *not* be disposed of in Township property.
3. The Township shall hire a contractor of removal of hazardous wastes that the Township *cannot* safely transport.

### **Records**

1. Keep records of employee and contractor training.
2. Keep records of inspections and repairs done on fueling equipment.
3. Report all spills to the proper authorities.

### **Related Procedures**

1. SOP: Good Housekeeping for Outdoor Operations & Maintenance
2. SOP: Stormwater Systems Maintenance
3. SOP: Road & Parking Lot Maintenance
4. SOP: Vehicle Maintenance
5. SOP: Vehicle/Equipment Fueling
6. SOP: Grounds Maintenance
7. SOP: Materials Storage, General
8. SOP: Incidental Spill Response & Cleanup



## STANDARD OPERATING PROCEDURES (SOPs)

<b>MATERIALS STORAGE, DPW YARD</b>	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the course of conducting all outside operations & maintenance work in the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the DPW/Water Plant. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### Prerequisites

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.
4. Employees should read the Pollution Incident Prevention Plan for the DPW Yard.

### Inspection schedule

1. All indoor and outdoor material shall be inspected bi-weekly and logged.

### **CLAY DPW YARD**

**9625 Muskrat Run**

**Clay Twp., MI 48001**

List of materials stored on site that could pollute storm water.

	<b>Material Name</b>	<b>Handling and Storage Procedure</b>	<b>Potential for Discharge</b>
1	Gasoline	Certified self sealing gas contrainers in fireproof cabinet	Low risk
2	Paint Thinners	Stored in cabinet	Low risk
3	Oil	Stored in sealed 55 gallon drums, inside of building	Very low risk
	Windshield washer		
4	solvent	Stored in sealed 55 gallon drum, inside of building	Very low risk
5	Stone	Stored in concrete barrier bins in the yard	Low risk
6	Sand	Stored in concrete barrier bins in the yard	Low risk
7	Dirt cold patch	Stored in concrete barrier bins in the yard	Low risk
8	Rock salt	In bags on pallets in yard	Low risk

There is no storm drains located on DPW rear property. Nearest catchbasin, ditch or drain exceeds 100' from any outdoor storage material. Normal rain water soaks into the soil.

### **Equipment and Materials Required**

1. Weather Proof Containers
2. Polly or plastic pallets
3. Drum covers
4. Tarps
5. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)
6. Inlet protection (wattles, drain covers, berms, and/or filter fabric)

### **Standard Operating Procedures**

#### **Outdoor Storage Areas**

1. If possible, store all containers indoors whenever possible. If they must be stored outdoors, place them in a shed or under a roof.
2. All containers and dry chemicals should be covered or have secondary containment
3. Place all containers on a plastic pallet or other device that elevates them off the ground or pavement and provides containment. This avoids contact with storm water on the ground.
4. Place containers on paved, impervious surfaces and as far from (or at lower elevation than) storm drain inlets and drainage ditches as possible.
5. Keep a spill kit near storage areas. Clean up any spill , leaks or discharges promptly.
6. Inspect all containers outdoors bi-weekly.
7. If a container is found leaking either empty the contents into a leak-tight container or place entire container inside of a larger leak-tight container. Clean up spills promptly.
8. If rain water collects in a secondary containment structure, allow the water to evaporate if possible. If not possible, verify with sight & smell that the water is not contaminated with a hazardous substance and then pump to sanitary sewer for disposal. If water is suspected of containing hazardous waste (oil sheen, odor), the water must be treated as hazardous waste and be disposed of properly.

#### **Sand, Salt, Dirt or Gravel Stockpiles**

1. Cover sand/salt piles with a tarp or store inside a building or under a roof.
2. Contain stormwater runoff from dirt, salt, and gravel stockpiles by using barriers or berms.

#### **Liquid Bulk Material Storage**

1. Provide impervious secondary containment for all Above Ground Storage Tanks (ASTs), except double-walled tanks, sufficient to contain the entire contents of the largest single tank plus an additional 4 inches of rainfall.
2. Keep drain valves in secondary containment at ASTs locked in the closed position at all times. Open for draining only under supervision.
3. Make sure an adequate spill kit with sufficient equipment and supplies is located near storage areas where spills are possible. Clean up any spills, leaks or discharges immediately.

### **Hazardous Waste Storage & Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning supplies, paints, fertilizers, and pesticides, oil, fuels, acids, poisons, brake fluid, antifreeze, and solvents.
2. These materials may not be disposed of on Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

### **Construction & Demolition Materials**

1. Stockpile only materials that have value and a high likelihood of being reused on Township projects.
2. Locate stockpiled materials far from storm drains and cover any materials that could erode or leach in stormwater.
3. Treated timber, sand, gravel, and asphalt debris must be stored under cover or tarps with provisions to avoid contact with surface runoff (placed on tarp/pallet or berm).
4. Chipped or ground wood products must be stored under cover where they will not be mobilized by stormwater.
5. Dispose of all other building demolition, land clearing, pavement maintenance, or other construction debris immediately after completing project.

### **Updating and Revising**

1. Procedures shall be assessed once a year and updated as necessary

### **Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & maintenance
2. SOP: Road & Parking Lot Maintenance
3. SOP: Vehicle Maintenance & Fueling
4. SOP: Building Maintenance
5. SOP: Ground Maintenance
6. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

MATERIALS STORAGE, GENERAL	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.

### **Equipment and Materials Required**

1. Weather Proof Containers
2. Polly or plastic pallets
3. Drum covers
4. Tarps
5. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)
6. Inlet protection (wattles, drain covers, berms, and/or filter fabric)

### **Standard Operating Procedures**

#### **Outdoor Storage Areas**

1. If possible, store all containers indoors whenever possible. If they must be stored outdoors, place them in a shed or under a roof.
1. All containers and dry chemicals should be covered or have secondary containment
2. Place all containers on a plastic pallet or other device that elevates them off the ground or pavement and provides containment. This avoids contact with storm water on the ground.
3. Place containers on paved, impervious surfaces and as far from (or at lower elevation than) storm drain inlets and drainage ditches as possible.
4. Keep a spill kit near storage areas. Clean up any spill , leaks, or discharges promptly.
5. Inspect all containers outdoors regularly.
6. If a container is found leaking either empty the contents into a leak-tight container or place entire container inside of a larger leak-tight container. Clean up spills promptly.
7. If rain water collects in a secondary containment structure, allow the water to evaporate if possible. If not possible, verify with sight & smell that the water is not contaminated with a hazardous substance and then pump to sanitary sewer for disposal. If water is suspected of containing hazardous waste (oil sheen, odor), the water must be treated as hazardous waste and be disposed of properly.

**Sand, Salt, Dirt or Gravel Stockpiles**

1. Cover sand/salt piles with a tarp or store inside a building or under a roof.
2. Contain stormwater runoff from dirt, salt, and gravel stockpiles by using barriers or berms.

**Liquid Bulk Material Storage**

1. Provide impervious secondary containment for all Above Ground Storage Tanks (ASTs), except double-walled tanks, sufficient to contain the entire contents of the largest single tank plus an additional 4 inches of rainfall.
2. Keep drain valves in secondary containment at ASTs locked in the closed position at all times. Open for draining only under supervision.
3. Make sure an adequate spill kit with sufficient equipment and supplies is located near storage areas where spills are possible. Clean up any spills, leaks or discharges immediately.

**Hazardous Waste Storage & Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning supplies, paints, fertilizers, and pesticides, oil, fuels, acids, poisons, brake fluid, antifreeze, and solvents.
2. These materials may not be disposed of on Township property.
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

**Construction & Demolition Materials**

1. Stockpile only materials that have value and a high likelihood of being reused on Township projects.
2. Locate stockpiled materials far from storm drains and cover any materials that could erode or leach in stormwater.
3. Treated timber, sand, gravel, and asphalt debris must be stored under cover or tarps with provisions to avoid contact with surface runoff (placed on tarp/pallet or berm).
4. Chipped or ground wood products must be stored under cover where they will not be mobilized by stormwater.
5. Dispose of all other building demolition, land clearing, pavement maintenance, or other construction debris immediately after completing project.

**Related Procedures**

1. SOP: General Good Housekeeping for Outdoor Operations & maintenance
2. SOP: Road & Parking Lot Maintenance
3. SOP: Vehicle Maintenance & Fueling
4. SOP: Building Maintenance
5. SOP: Ground Maintenance
6. SOP: Incidental Spill Response

## STANDARD OPERATING PROCEDURES (SOPs)

INCIDENTAL SPILL RESPONSE & CLEANUP	
Purpose of SOP:	To prevent the discharge of pollutants to stormwater in the Course of conducting all outside operations & maintenance work At the Township of Clay.
Location of SOP:	A hard copy of this SOP shall be kept at both the Department of Water and Sewer. A hard copy and electronic copy shall be kept in the office of the Water and Sewer Superintendent.
Last Update:	August, 2019
Administrator of SOP:	Water and Sewer Superintendent

NOTE: THIS SOP APPLIES ONLY TO INCIDENTAL RELEASES OF POTENTIAL HAZARDOUS MATERIALS, WHICH MEANS SMALL SPILLS THAT ARE NOT HIGHLY TOXIC. TOWNSHIP PERSONNEL ARE NOT TRAINED TO RESPOND TO ANY UNCONTROLLED RELEASE OF POTENTIALLY HAZARDOUS MATERIALS, WHICH MEANS ANY MEDIUM OR LARGER SPILL OR SMALL SPILLS OF EXTREMELY HAZARDOUS OR DANGEROUS MATERIALS? NO TOWNSHIP EMPLOYEE SHOULD RESPOND TO ANY RELEASE OF A POTENTIALLY HAZARDOUS MATERIAL WITHOUT PROPER TRAINING.

### **Prerequisites**

1. Employees should attend training on Municipal Stormwater Pollution Prevention.
  - At least once every five years and new hires within the first year.
2. Employees should read the procedures contained in this SOP and any related SOPs listed under *Related Procedures* at the end of the SOP.
3. The Township will provide copies of the SOP to municipal hired contractors. The Township will provide oversight of contractor's activities to ensure compliance.
4. Employees should read and attend training on the Township of Clay Emergency Spill Response Plan.
5. **Any employee undertaking the actions outlined in this SOP must have received training to the First Responder Operations Level as outlined in the Emergency Spill Response Plan.**

### **Equipment & Materials Required**

1. Spill kit and equipment for dry cleanup (socks, absorbent pads, kitty litter, broom, and dustpan)
2. Inlet protection (wattles, drain covers, berms, and/or filter fabric)
3. Stormwater Management System Map
4. PPE (gloves, protective clothing, respirator– only if the employee is properly trained and fitted)
5. Material Safety Data Sheet (MSDS)

### **Standard Operating Procedures**

#### **Upland Spills**

1. Confirm that the spill is an incidental release before proceeding, if the spill is an uncontrolled release of hazardous materials as defined in the *Township of Clay Emergency Spill Response Plan (ESRP)*, this SOP does not apply and the employee should initiate an emergency response by calling 911 per the *ESRP*.
2. Consult the MSDS sheet for the product of concern. MSDS sheets are transported with all hazardous materials and are kept in a binder in each Township maintenance shop.
3. Block nearby storm drain inlets and place containment materials (boom) around the spill if it is or has the potential to become mobile.

4. Don the appropriate PPE, as specified in the MSDS sheet. Only use a respirator if you have been properly trained and fitted for a personal respirator, and are using the appropriate cartridge for the spilled chemical
5. Place absorbents on the spill and sweep the dry material into a containment vessel.
6. Dispose of the material as hazardous waste.
7. Notify the Department of Water and Sewer Superintendent of the spill and initiate cleanup as soon as practical.

NOTE: If a spill is too large to clean up easily with absorbent from the spill kit and a broom, it is not an incidental release and this SOP does not apply. The employee should consult the *ESRP* and initiate a response for an uncontrolled release.

### **In-Water Spills**

1. For small spills that can be contained with materials in the spill kit, deploy containment boom and absorbent pads.
2. Notify the MDEQ 24-hour Spill Response & Reporting Line at (800) 424-8802. For marine spills, also notify the U.S. Coast Guard at 313-586-9680. Provide the following information:
  - ✓ Reporting Party
  - ✓ Contact Phone Number
  - ✓ Responsible Party
  - ✓ Time of Spill
  - ✓ Materials Released
  - ✓ Approximate Quantity
  - ✓ Location
  - ✓ Clean-up Status
  - ✓ Resource Damages
3. Contact a cleanup contractor, if needed to complete the in-water cleanup.
4. For any spill involving flammable liquid (i.e. fuel), any spill involving more than a minor and very small area of sheen, or any spill of a substance representing an immediate hazard to life or the aquatic environment, call 911 and initiate the *ESRP* emergency response actions.

### **Hazardous Waste Disposal**

1. Hazardous wastes should be labeled as such and may include cleaning products, paints, fertilizers, and pesticides, oil, fuels, acids, poisons, antifreeze, brake fluid, and solvents.
2. These materials may not be disposed of on Township property
3. The Township shall hire a contractor for removal of hazardous wastes that the Township *cannot* safely transport.

### **Updating and Revising**

1. Procedure shall be assessed once a year and updated as necessary.

### **Related Procedures**

1. Township of Clay Emergency Response Plan.

**APPENDIX C**  
**TOWNSHIP OF CLAY**  
**STORMWATER MANAGEMENT SYSTEM**

**OPERATIONS AND MAINTENANCE PLAN**

**EMERGENCY SPILL RESPONSE PLAN**



STORMWATER POLLUTION PREVENTION &  
SPILL RESPONSE PLAN  
FOR  
THE TOWNSHIP OF CLAY

Plan Implementation Date: March 2014

Revision Date(s): August, 2019

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**Facility's Responsible Person(s)** in charge of spill response planning, implementation and maintenance of this plan:

<u>Name</u>	<u>Phone #</u>
JON DEBOYER	810-794-9303
LANSE SURREY	810-794-9303
BILL SALLEE	810-794-9303

**RESPONSIBILITIES**

- The “**Facility Responsible Person**” has primary responsibility for coordinating the response to emergencies, including chemical spills.
- **Superintendent/Foreman** should ensure that employees are familiar with these procedures and receive any necessary training.
- **All employees** should follow these procedures in the event of a chemical spill.

**EMERGENCY CONTACT NUMBERS**

The following telephone numbers should be posted near telephones and in other conspicuous locations:

- Outside emergency services (police, fire department, ambulance service): 911
- Hospital: [River District , East China, MI 810-329-7111, Port Huron Hospital, Port Huron, MI 810-987-5000]
- Facility Responsible Person: Jon DeBoyer
- Alt. Facility Responsible Person: Lance Surrey
- Alt. Facility Responsible Person: Bill Sallee
- Poison Control Center: 800-222-2222
- Regional EPA Office: 800-621-8431
- MDEQ: 586-753-3759 Kris Donaldson
- OSHA area office: 1-800-321-OSHA (6742)
- National Response Center: 1-800-424-8802
- St. Clair County Office of Emergency Management: 810-989-6965
- St. Clair County Illicit Discharge Hotline: 810-987-7253
- St. Clair County Disaster Preparedness Team: 810-989-6965
- St. Clair County Dispatch (non-emergency): 1-810-985-8115
- Others: Clay Township Dispatch 810-794-9381

## **CLEAN-UP PROCEDURES**

Spilled chemicals should be effectively and quickly contained and cleaned up. Employees should clean up spills themselves *only if properly trained and protected*. Employees who are not trained in spill cleanup procedures should report the spill to the Responsible Person(s) listed above, warn other employees, and leave the area.

In the event of spills greater than normal, contact the appropriate responders listed in the Emergency Contact Numbers listed above.

The following general guidelines should be followed for evacuation, spill control, notification of proper authorities, and general emergency procedures in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

### **1. Evacuation**

Persons in the immediate vicinity of a spill should *immediately* evacuate the premises (except for employees with training in spill response in circumstances described below). If the spill is of “medium” or “large” size, or if the spill seems hazardous, immediately notify emergency response personnel.

### **2. Spill Control Techniques**

Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

**NOTE:** If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazard waste.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. MSDSs, adsorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers, and “caution-keep out” signs are common spill response items.

### **3. Spill Response and Cleanup**

Chemical spills are divided into three categories: Small, Medium and Large. Response and cleanup procedures vary depending on the size of the spill.

**Small Spills:** Any spill where the major dimension is less than 18 inches in diameter. Small spills are generally handled by internal personnel and usually do not require an emergency response by police or fire department HAZMAT teams.

- Quickly control the spill by stopping or securing the spill source. This could be as simple as up righting a container and using floor-dry or absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary.
- Put spill material and absorbents in secure containers if any are available
- Consult with Facility Responsible Person and the MSDS for spill and waste disposal procedures.
- In some instances, the area of the spill should **not** be washed with water. Use Dry Cleanup Methods and *never* wash spills down the drain, into a storm drain or onto the driveway or parking lot.

- Both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

**Medium Spills:** Spills where the major dimension exceeds 18 inches, but less than 6 feet. Outside emergency response personnel (police and fire department HAZMAT teams) should usually be called for medium spills. Common sense, however, will dictate when it is necessary to call them.

- Immediately try to help contain the spill at its source by simple measures only. This means quickly up righting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert Emergency Responders at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of spill.
- Evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise Emergency Responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDSs and questions about the facility. Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with MSDSs, absorbents, and containers
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The response for large spills is similar to the procedures for medium spills, except that the exposure danger is greater.

**Large Spills:** Any spill involving flammable liquid where the major dimension exceeds 6 feet in diameter; and any “running” spill, where the source of the spill has not been contained or flow has not been stopped.

- Leave the area and notify Emergency Responders (911). Give the operator the spill location, name of chemical spilled, and approximate amount.
- From a safe area, attempt to get MSDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, because an evacuation that

would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.

- Only emergency response personnel, in accordance with their own established procedures, should handle spills greater than 6 feet in any dimension or that are continuous. Remember, once the emergency responders or HAZMAT team is on the job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Provide information for reports to supervisors and responders, just as in medium spills.

### **REPORTING SPILLS**

All chemical spills, regardless of size, should be reported as soon as possible to the Facility Responsible Person. The Responsible Person will determine whether the spill has the potential to affect the environment outside the facility and must be reported to Emergency Responders (911). **Examples of spills that could affect the outside environment include spills that are accompanied by fire or explosion and spills that could reach nearby water bodies.**

Accidental releases of certain toxic substances must be reported to the Michigan Office of Emergency Management: and the St. Clair County Disaster Preparedness Team, as required by the Emergency Planning and Community Right-to-Know Act. The Responsible Person will also make this determination.

### **LABEL SPILL KITS**

- Label each spill kit prominently with the words “SPILL KIT” or “ABSORBENTS” etc.
- Label or stencil the necessary emergency telephone number(s) or pager number(s) of persons to be contacted in case of a spill or leak that is beyond the training and equipment available on or near each spill locker:

**Facility Responsible Person/Phone Number:** JON DEBOYER/810-794-9303

**State 24-Hour Emergency Spill Reporting Hot-Line:** **1 (877) 518-5608**

- Stencil the following warning *PROMINENTLY* on each spill locker:

**“WARNING: NEVER HOSE DOWN A SPILL!!  
CLEAN IT UP PROMPTLY AND DISPOSE OF THE  
WASTE PROPERLY.”**

### **SPILL KIT INVENTORY**

List the spill response equipment that will be maintained in designated locker (refer to MSDSs to determine recommended clean-up methods and supplies)

<b>Locker Location</b>	<b>Absorbents</b>	<b>Tools</b>	<b>PPE</b>	<b>Other Supplies</b>
- - - - -	Floor Dry absorbent Rolls of sheets Containers of neutralizing agent	Flat Shovel Broom Dust pan Waste container Squeegee	Impervious Gloves Goggles, Aprons, Boots, Dust mask,	Warning Tape, Warning labels

PERSON RESPONSIBLE FOR MAINTAINING THIS INVENTORY: Chris Hiltunen Water Plant Superintendent