

Oakland County Intermediate School District

# OaklandSchools

## Stormwater Management Program Plan

### Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System Permit

*Prepared By:*

**NOWAK & FRAUS ENGINEERS**



46777 Woodward Avenue  
Pontiac, Michigan 48342-5032  
Office (248) 332-7931  
Fax (248) 332-8257

CIVIL ENGINEERS • LAND SURVEYORS • LAND PLANNERS

# Table of Contents

Section	Page
<b>1.0</b>	<b><u>Introduction</u></b>
1.1	<b>Regulated Area</b>
	Map 1: District/Jurisdictional Boundary Map
1.2	<b>Outfall and Discharge Points/Receiving Waters</b>
	Map 2: Watershed Boundary Map
1.3	<b>Enforcement Response Procedures</b>
<b>2.0</b>	<b><u>Stormwater Management Program Plan (SWMP) Minimum Control Measures</u></b>
2.1	<b>Public Involvement/Participation Program (PPP)</b>
2.1.1	Involvement and Participation Program Objectives
2.1.2	Public Involvement and Participation Program Procedure
2.1.3	Public Involvement and Participation Program Assessment
2.1.4	Public Involvement and Participation Program BMP Table
2.2	<b>Public Education Program</b>
2.2.1	Public Education Program Objectives
2.2.2	Public Education Plan Program Procedure
2.2.3	Public Education Program BMP Table
2.2.4	Public Education Program Effectiveness
2.3	<b>Illicit Discharge Elimination Program (IDEP)</b>
2.3.1	Illicit Discharge Elimination Program Objectives
2.3.2	Facility Site Storm Sewer System Maps & Lists
2.3.3	Illicit Discharge Identification & Investigation Procedure – Field Observations
2.3.4	Illicit Discharge Identification & Investigation Procedure – Field Screening & Source Investigation
2.3.5	Illicit Discharge/Connection Elimination Procedure
2.3.6	Illicit Discharge Elimination Program Policy
2.3.7	Illicit Discharge Elimination Training
2.3.8	Illicit Discharge Elimination Program Effectiveness
2.3.9	Illicit Discharge Elimination Program BMP Table
2.3.10	Polluting Materials Emergency & Spill Response Policy & Procedures
2.4	<b>Construction Site Stormwater Runoff Control Program</b>
2.4.1	Construction Site Stormwater Management Program Objectives
2.4.2	Construction Notification Procedure
2.4.3	Part 91 Permit
2.4.4	Permit by Rule Compliance
2.4.5	Construction Site Stormwater Management – BMP Table
2.5	<b>Post Construction Stormwater Controls for New Developments &amp; Redevelopments</b>
2.5.1	Post Construction Stormwater Management Program Objectives
2.5.2	Water Quality Treatment Standard
2.5.3	Channel Protection Performance Standard
2.5.4	Site Specific Requirements
2.5.5	Site Plan Review
2.5.6	Long-Term Operation & Maintenance of Stormwater Controls
2.5.7	Post-Construction Stormwater Management– BMP Table

<b>2.6</b>	<b>Pollution Prevention/Good Housekeeping Program</b>	<b>32</b>
2.6.1	Pollution Prevention & Good Housekeeping Program Objectives	32
2.6.2	Structural Control Inventory & Schedule Table	33
2.6.3	Facility Assessment & Prioritization	34
2.6.4	Storm Sewer Structure Controls Inspection & Maintenance Policy & Procedure	35
2.6.5	Structural BMP Operation & Maintenance Manuals	38
2.6.6	Structural BMP Operation & Maintenance Waste Disposal Procedures	38
2.6.7	Pollution Prevention/Good housekeeping – Municipal Operations & Maintenance Activities	40
2.6.8	Street Sweeping Procedure, Prioritization & Schedule	41
2.6.9	Managing Vegetated Properties	43
2.6.10	Contractor Requirements & Oversight	43
2.6.11	Pollution Prevention/Good Housekeeping Training	43
2.6.12	Pollution Prevention/Good Housekeeping – BMP Table	44
<b>3.0</b>	<b><u>Training</u></b>	<b>47</b>
<b>4.0</b>	<b><u>Total Maximum Daily Loads (TMDL)</u></b>	<b>47</b>
4.1	What are TMDLs?	47
4.2	Clinton River TMDL	48
4.3	Kent Lake TMDL	48
4.4	TMDL Implementation	48
4.4.1	Prioritized TMDL Best Management Practices	48
4.4.2	TMDL BMP Table	50

## **Attachments**

Attachment “A”	Outfall/Discharge Point Receiving Water Table & Site Stormwater Structure Maps
Attachment “B”	Post Construction Stormwater Runoff Program Policy and Procedures & Municipal Separate Storm Sewer System Noncompliance Enforcement Tracking Sheet
Attachment “C”	SEMOG Posters
Attachment “D”	Inspection Field Worksheets
Attachment “E”	Illicit Discharge Illegal Spill Reporting Form

*Credit to SWMPP work by Arch Environmental Group as provided to NFE by EGLE*

# **STORMWATER MANAGEMENT PROGRAM PLAN**

## **1.0 INTRODUCTION**

This Stormwater Management Plan (SWMP) has been developed, to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable and protect water quality in accordance with the appropriate water quality requirements of Michigan Act 451, Public Acts of 1994, Part 31, and the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq.). Oakland County Intermediate School District (OS) will implement and enforce this SWMP to the Maximum Extent Practicable. In order to retain the authorization to discharge, OS is required to submit this plan with the “NPDES Application for Discharge of Stormwater to Surface Waters from a Municipal Separate Storm Sewer System (MS4)”.

This Stormwater Management Plan commits to action from 2020 through 2024. This SWMP includes measurable goals for Best Management Practices (BMP), focusing on the six minimum measures. Measurable goals describe the actions OS will take to implement each BMP and allow OS to evaluate progress toward meeting key objectives outlined in the following sections.

Oakland County Intermediate School District owns and operates five (5) public facilities of which four (4) are located within the boundaries of the “Detroit Urbanized Area”. Three (3) of these four (4) OS properties located within the urbanized area based off the 2010 Census data are included on this permit, these include:

1. Oakland Schools Northeast Campus - Pontiac
2. Oakland Schools Administration Building – Waterford
3. Oakland Schools Southwest Campus – Wixom

Currently the following Sites are not included on this permit for the reasons stated below:

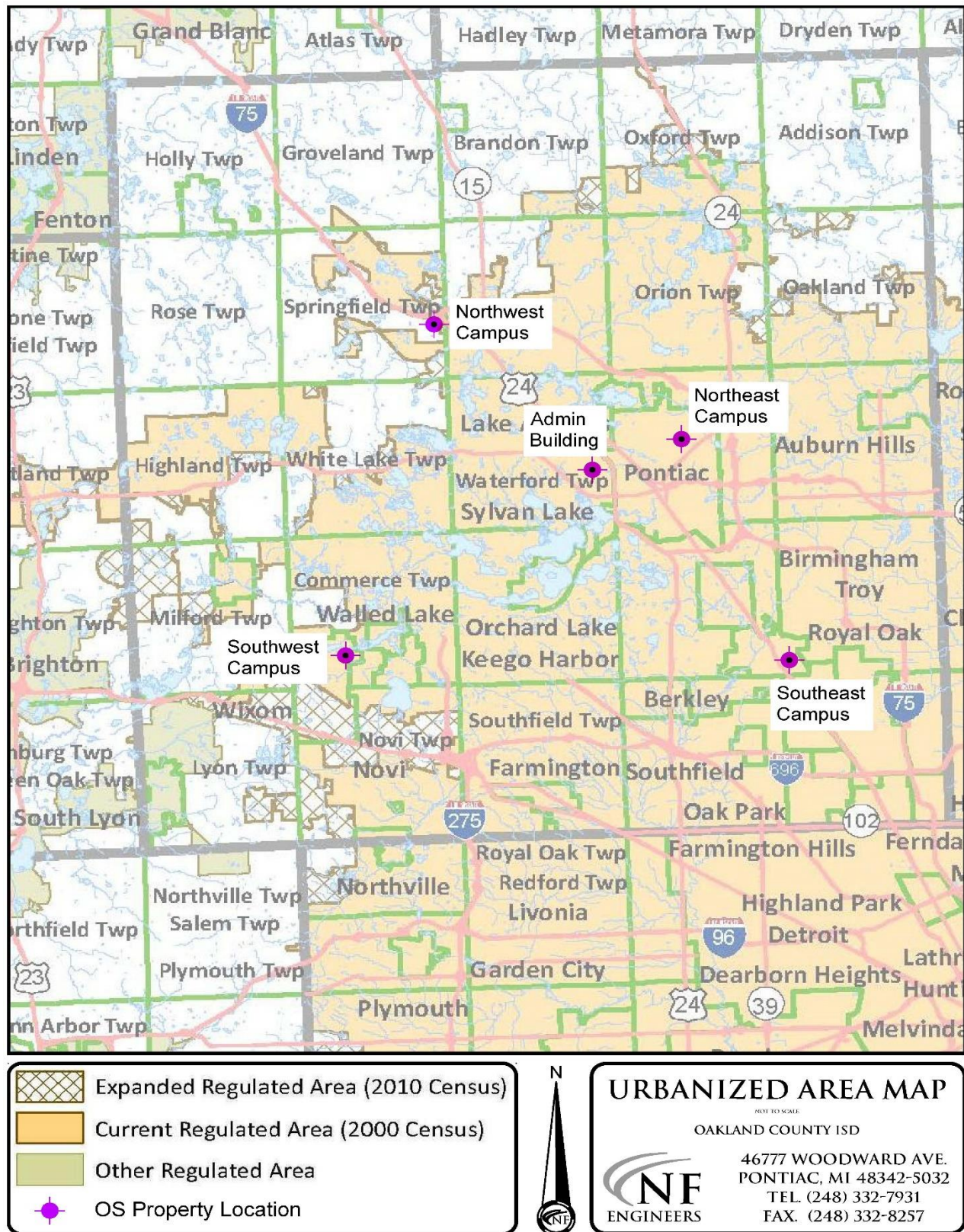
- a) Oakland Schools Northwest Campus (Clarkston) is located in Springfield Township outside of regulated urbanized area
- b) Oakland Schools Southeast Campus (Royal Oak) is on a combined sewer system
- c) Oakland Schools Visions Unlimited (Farmington Hills) property has been sold

## **1.1 REGULATED AREA**

A jurisdictional boundary map identifying the OS urbanized area as defined by the 2000 Census is provided below in Map 1.



**Map 1 – District Jurisdictional Boundary Map – Urbanized Area<sup>1</sup>**



<sup>1</sup> Urbanized area boundary based on U.S. Census Bureau 2010 Urban Area Reference Maps.

## **1.2 OUTFALLS & DISCHARGE POINTS/ RECEIVING WATERS**

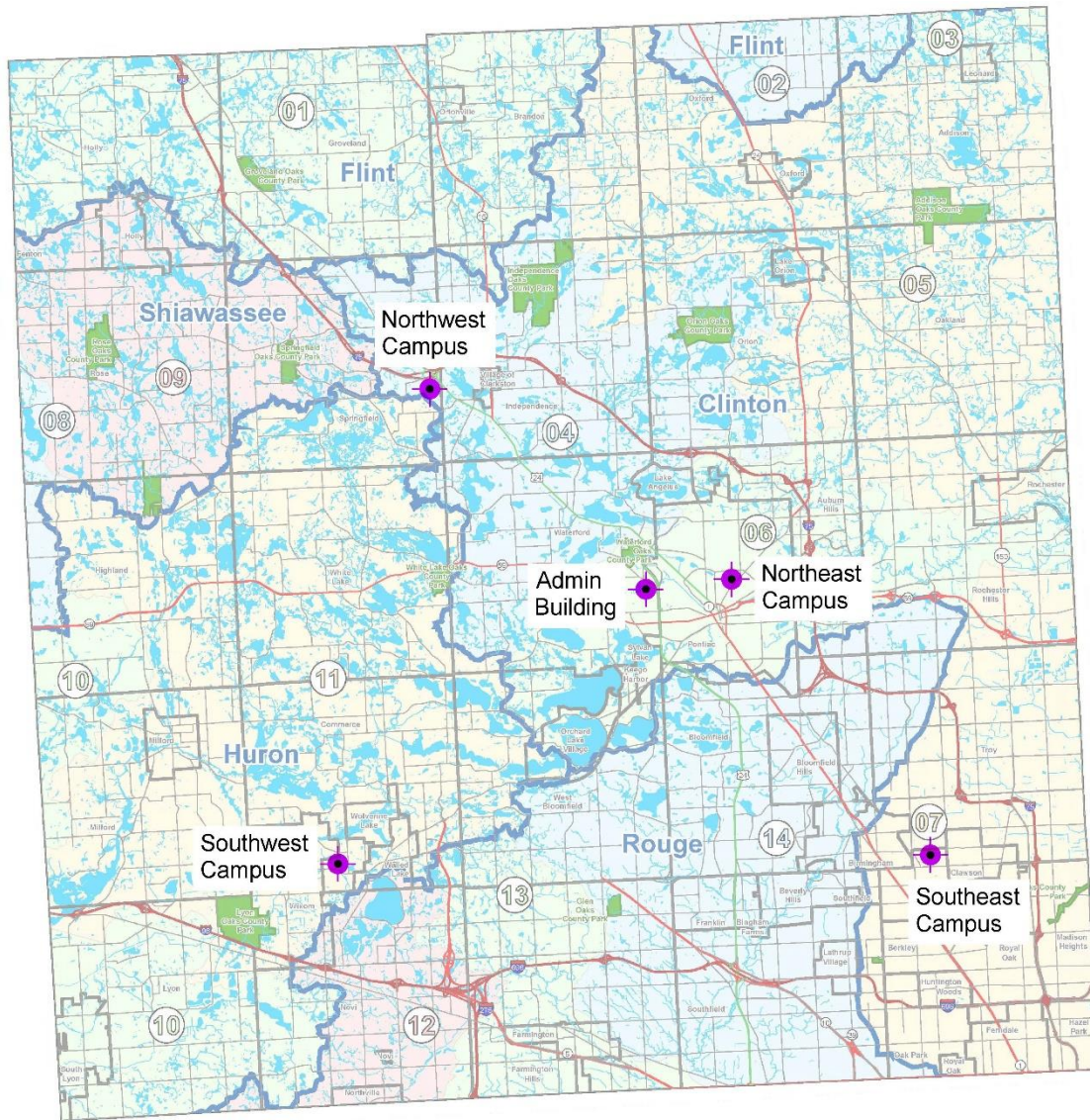
The general permit authorizes the discharge of stormwater from municipal separate stormwater drainage systems to waters of the state from all existing outfalls or points of discharge.

Oakland Schools has identified outfalls and discharge points that discharge directly into surface waters of the state and discharge points that discharge into other MS4 drainage systems. Oakland Schools' drainage system under this permit discharges directly or indirectly into the Clinton River Watershed and the Huron River watershed as detailed in Map 2 below.

Oakland Schools has completed site specific storm sewer system maps which identify outfall and discharge locations, discharge point source identification numbers, locations of discharge and receiving waters. A receiving water table and site-specific storm sewer system maps are provided in Attachment "A". Any changes to the OS storm sewer system will be reflected on the storm sewer system maps and a report provided to the EGLE during progress reporting. The district watershed boundary map is provided below in the map listed as "Map 2".



## Map 2 – District Watershed Map<sup>2</sup>



### Legend

- Major Roads
- Interstates
- U.S. Highways
- State Highways

- Major Watershed
- Waterway
- Waterbody

OS Property Location

### Flint River Watershed

- 01 - Middle Flint Subwatershed
- 02 - South Branch Flint Subwatershed

### Clinton River Watershed

- 03 - North Branch & East Pond Subwatershed
- 04 - Upper Clinton Subwatershed
- 05 - Stoney & Paint Creek Subwatershed
- 06 - Clinton Main Subwatershed
- 07 - Red Run Subwatershed

### Shiawassee River Watershed

- 08 - Shiawassee South Branch Subwatershed
- 09 - Shiawassee Subwatershed

### Huron River Watershed

- 10 - Chain of Lakes Subwatershed
- 11 - Kent Lake/Upper Huron Subwatershed

### Rouge River Watershed

- 12 - Middle 1 Subwatershed
- 13 - Upper Rouge Subwatershed
- 14 - Main 1 & 2 Rouge Subwatershed



## WATERSHED MAP

NOT TO SCALE

OAKLAND COUNTY ISD



46777 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL. (248) 332-7931  
FAX. (248) 332-8257

<sup>2</sup>Watershed boundaries based on Oakland County Drain Commissioner Watershed Location Maps

## **1.3 ENFORCEMENT RESPONSE PROCEDURES**

Oakland Schools is committed to practicing sound stormwater management practices; including observance and adherence to all local, state, and federal stormwater statutes, rules, and regulations. Enforcement of the policies, procedures, and best management practices (BMPs) outlined in this SWMP is the responsibility of the district Superintendent or their designee. OS is also fully committed to comply with the requirements of the Michigan National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit. Any questions regarding this policy and procedure should be directed to the Stormwater Manager. This procedure will be reviewed on an annual basis by the Stormwater Manager for any updates. In addition to the enforcement mechanisms noted in ordinance, additional tracking of instances of noncompliance occurs and includes the following information:

- Name
- Date
- Location of Violation (address, cross streets, etc.,)
- Business/Agency/Organization (as appropriate)
- Description of Violation
- Description of Enforcement Response
- Date Violation was Resolved

An example of the Municipal Separate Storm Sewer System Noncompliance Enforcement Tracking Sheet is included in Attachment “B”.

## **2.0 STORMWATER MANAGEMENT PROGRAM PLAN (SWMP) MINIMUM CONTROL MEASURES**

This SWMP has been developed to describe the Best Management Practices (BMPs) OS will implement to meet the six minimum control measures and water quality requirements. The six minimum control measures include:

- **Public Participation/Involvement Program (PPP)**
- **Public Education Program (PEP)**
- **Illicit Discharge Elimination Program (IDEP)**
- **Construction Stormwater Runoff Control Program**
- **Post Construction Stormwater Runoff Program**
- **Pollution Prevention/Good Housekeeping Program**

Each BMP includes a measurable goal, implementation schedule, and measure of assessment.

## **2.1 PUBLIC INVOLVEMENT/PARTICIPATION PROGRAM (PPP)**

1. Process for making the Stormwater Management Plan available for public inspection and comment.
2. Process for inviting public involvement and participation in the implementation of SWMP best management practices and periodic review of the SWMP.

### **2.1.1 PUBLIC INVOLVEMENT/PARTICIPATION PROGRAM OBJECTIVES**

1. Process for making the Stormwater Management Plan available for public inspection and comment.
2. Process for inviting public involvement and participation in the implementation of SWMP best management practices and periodic review of the SWMP.

### **2.1.2 PUBLIC INVOLVEMENT& PARTICIPATION PROCEDURE**

1. The SWMP will be posted on the OS webpage for review and comment by the public after the application is approved by EGLE. The stormwater webpages will include the contact information to forward comments.
2. The public will be notified through announcements or newsletters that a copy of the SWMP is available on the OS stormwater webpage.

### **2.1.3 PUBLIC INVOLVEMENT& PARTICIPATION ASSESSMENT**

1. OS will review the public involvement & participation BMPs as part of annual SWMP review to determine level of district involvement and identify areas of improvement.

2.1.4 PUBLIC INVOLVEMENT & PARTICIPATION PROGRAM (PPP) BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Public Participation/Involvement Program (PPP)					
BMP #1 - Public Notice of SWMP	-Make SWMP available for public review through stormwater webpage. -Contact information will be available on the stormwater webpages to forward comments regarding the SWMP.	OS	Ongoing	Public notice published in annual district wide newsletter announcing the availability of the SWMP for review, including contact information for comments.	-Verify SWMP available on stormwater webpage, and track changes webpage posting of SWMP. -Keep copies of official SWMP posting notifications. . -Compile and track comments from the public
BMP #2 - Participation Activities	Engage in environmental education activities.	OS	Ongoing	Increase in public participation in environmental activities. Participation activities include water quality issues, stormwater management initiatives, home toxics, recycling, compost and disposal.	Reports of participation.
BMP #3 - Public Involvement & Participation Program Assessment	Evaluate the effectiveness of the public involvement program.	OS	Annually	Complete as part of annual SWMP review to determine level of district involvement and identify areas of improvement. Program activities may be adjusted based on the results of the assessment.	Copies of annual SWMP review noting any areas of needed improvement.

## **2.2 PUBLIC EDUCATION PROGRAM (PEP)**

Oakland Schools' "Public Education Program (PEP)" is designed to promote, publicize, and facilitate education for the purpose of encouraging the public to reduce the discharge of pollutants into the OS separate storm sewer system.

The term "Public" as referred in to in this program is defined to include all persons who could potentially affect the quality of stormwater discharges from OS properties including but not limited to OS faculty, staff, contractors, and students of OS, as well as area residents, visitors, public employees, local businesses, industries, construction contractors and property developers. This PEP will include a variety of mechanisms and venues to provide watershed awareness and pollution prevention education throughout the OS jurisdiction.

### **2.2.1 PUBLIC EDUCATION PROGRAM OBJECTIVES**

1. Responsibility and stewardship in their watershed.
2. Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.
3. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.
4. Promote preferred cleaning materials and procedures for car, pavement, and power washing.
5. Inform and educate the public on the proper application and disposal of pesticides, herbicides, and fertilizers.
6. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter the MS4.
7. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.
8. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.
9. Identify and educate commercial, industrial, and institutional facilities about good housekeeping.
10. Provide training for staff.

### **2.2.2 PUBLIC EDUCATION PROGRAM PROCEDURE**

Oakland Schools is targeting all community wide issues as high priority. No prioritization will be needed, as educational activities to ensure that all community wide issues are reached to the public. It is anticipated that during the course of this permit a combination of educational approaches will be used to convey the individual components of the PEP. Educational mechanisms will include tracking of watershed specific education topics in various science curriculums, cooperation with the distribution or posting of community newsletters and other watershed partner literature, and event notices. OS will develop and implement a comprehensive "Stormwater Management" webpage on the district's website. Additionally, program posters, are to be strategically placed throughout school facilities. Copies of potential SEMCOG posters are provided in Attachment "C".

2.2.3 PUBLIC EDUCATION PROGRAM BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Public Education Plan (PEP)					
BMP #1 - Promote public responsibility and stewardship in watershed.	-Watershed website. Watershed specific website hosted by district; featuring watershed map, description of watershed, and links to watershed groups. -Place SEMCOG "7 Simple Steps to Clean Water" information on stormwater webpages. -Publicize environmental related events through email, newsletters or social media.	OS	Ongoing	-Supply watershed information and promote watershed membership information. Educate the public on local water body health. -SEMCOG "7 Simple Steps to Clean Water" information and links. -Promote public awareness on environmental issues and increase district environmental participation.	-Update webpages as necessary. Confirm posting & track webpage reviews. Provide watershed membership information. -Update webpages as necessary. Confirm posting & track webpage reviews. -Maintain copies of email notices (watershed announcement) of educational materials provided to district staff.
BMP #2 - Educate the public about the connection of the MS4 to the area waterbodies and the potential impacts discharges could have on surface waters of the state.	-Posting of a training video such as “When it Rains, it Drains...The Stormwater Question” on the district webpage. -Include information and links to USEPA and EGLE Stormwater information on district stormwater webpage. -SEMCOG posters placed strategically throughout the district.	OS	Ongoing	-Educate the public on local water bodies, water quality issues, and impacts of discharges on surface waters through visual media. -Provide resources to water quality issues and impacts of discharges on surface waters. -Maintain three (3) various SEMCOG posters at each facility. Strategic locations include Monitors in Corridors, Lounge, and Receiving Area (if available).	-Update webpages as necessary. Confirm posting & track webpage reviews. -Update webpages as necessary. Confirm posting of links & track webpage reviews. -Annual review of postings. Number of posters placed throughout district.
BMP #3 - Educate the Public on Illicit Discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.	-Publicize 24-hour environmental hot-line phone numbers and instructions for reporting spills, illicit discharges, or connections. -Pollutants & Illicit Discharges webpage; featuring information regarding sources of pollution, how pollutants cause damage, illicit discharges, and how to report illicit discharges. -SEMCOG posters placed strategically throughout the district.	OS	Ongoing	-Track # of calls received on hotline per year. All calls to be addressed-outcome of calls. Goal of an overall decrease in number of illicit discharges in improper disposal of materials into MS4s. -Place 24-hour environmental hot-line posters throughout the district. -Promote public reporting and importance of proper disposal. Goal of one (1) poster per building. -Maintain three (3) various SEMCOG posters at each facility. Strategic locations include Monitors in Corridors, Lounge, and Receiving Area (if available).	-Number of calls to the Stormwater Manager. -Promotion/ publicizing efforts; number of posters placed throughout district. -Annual review of postings. Number of posters placed throughout district. -Annual review of postings. Number of posters placed throughout district.
BMP #4 – Promote preferred cleaning materials and procedures for car, pavement, and power washing.	-SEMCOG posters placed strategically throughout the district. -Discontinue practice of allowing school or other private groups from holding car wash fund raising project on school property.	OS	Ongoing	-Maintain three (3) various SEMCOG posters at each facility. Strategic locations include Monitors in Corridors, Lounge, and Receiving Area (if available).	-Annual review of postings. Number of posters placed throughout district.



Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Public Education Plan (PEP)					
BMP #5 - Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.	-Maintain a district “Good Housekeeping” informational page on stormwater management webpages. -SEMCOG posters placed strategically throughout the district.	OS	Ongoing	-Address the environmental (including water quality) and public health effects resulting from improper handling and disposal of pesticides, herbicides, and fertilizers. -Maintain three (3) various SEMCOG posters at each facility. Strategic locations include Monitors in Corridors, Lounge, and Receiving Area (if available).	-Update webpages as necessary. Confirm posting & track webpage reviews. -Annual review of postings. Number of posters placed throughout district.
BMP #6 - Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4	SEMCOG posters placed strategically throughout the district.	OS	Ongoing	Maintain three (3) various SEMCOG posters at each facility. Strategic locations include Monitors in Corridors, Lounge, and Receiving Area (if available).	Annual review of postings. Number of posters placed throughout district.
BMP #7 - Identify and promote the availability, location and requirements of facilities for collection and disposal of household hazardous wastes, travel trailer wastes, chemicals, and motor vehicle fluids.	Maintain a district “Household Hazardous Waste” informational page on stormwater management webpages.	OS	Ongoing	Address the environmental (including water quality) and public health effects resulting from improper handling and disposal of household hazardous waste, reduce the use of home toxics, keep citizens informed about the choices and responsibilities associated with purchasing, handling and disposing of toxic substances. Increase the number of residents using the program to dispose of home toxics.	Update webpages as necessary. Confirm posting & track webpage reviews.
BMP #8 - Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.	Maintain a district “Sewer Overflows and Septic Systems” informational page on stormwater management webpages.	OS	Ongoing	Educate why sewer overflows and septic systems are pollution issues. Promote proper and consistent maintenance of septic systems.	Update webpages as necessary. Confirm posting & track webpage reviews.

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Public Education Plan (PEP)					
BMP #9 - Promote methods for managing riparian lands to protect water quality.	-Maintain a district “Riparian Zone Management” informational page on stormwater management webpages. -Encourage teachers and students to participate in stream bank monitoring programs. -Include guidance and links on Stormwater webpage on native vegetation.	OS	Ongoing	-Educate on why riparian zones are important, what riparian zona management is (river friendly lawn care, riparian buffer zones, stream bank stabilization, woody debris management, river maintenance). Increase number of riparian landowners who implement BMPs -Increase awareness, inspire people to take actions that lead to better river protection at home and in their communities. -Maintain a district “Native, Non-Native, & Invasive Species” and “Why Use Native Plants?” informational page on stormwater management webpages. Increase the use of native plants and encourage the use of gardens at school facilities.	-Update webpages as necessary. Confirm posting & track webpage reviews. -Report on schools that participated in monitoring programs. -Update webpages as necessary. Confirm posting & track webpage reviews.
BMP #10 - Identify and educate commercial entities likely to contribute pollutants to stormwater runoff.	Require contractors or vendors whose activities have potential to impact water quality to train applicable staff and follow the requirements of the SWMP. Contractor shall be required to provide proof of applicable training.	OS & Contractors / Venders	Ongoing	Contractors training and informed of pollution prevention and good housekeeping techniques.	Requirements to be placed in Bid Documents and copies of proof from contractors to be placed on file along with pre-project meeting notes or inspections.
BMP#11 - Stormwater Education Program Effectiveness Survey	Post survey on district website	OS	Annually	A survey will be posted on the stormwater webpages and will be posted throughout the permit term to ascertain behavioral changes.	Annual results of survey.
BMP#12 - Public Education Program Assessment	Summary of annual public education activities for the “Public Education” component to evaluate the effectiveness.	OS	Annually	Determine the level of education provided and identify areas of improvement.	Annual SWMP review. Summary of public education activities.
BMP#13 - Michigan Green Schools Program	This program was signed into law at the state level in 2006. The program encourages public and private schools to participate in energy savings and environmental activities to be designated as “Michigan Green Schools”.	OS	Annually	Achieve participation from all listed Oakland Schools	Number of Oakland Schools in program

#### **2.2.4 PUBLIC EDUCATION PROGRAM EFFECTIVENESS**

The effectiveness of the public education program will be evaluated based on progress made towards meeting the BMP objectives described above. OS is not currently a participant in the CRWC collaborative public education plan; however, OS will join the CRWC Stormwater Community and participate in all future CRWC surveys to evaluate impacts of the collaborative public education plan. This idea is in the preliminary planning stages and will be further addressed in upcoming progress reports.

### **2.3 ILLICIT DISCHARGE ELIMINATION PROGRAM (IDEP)**

The following OS Illicit Discharge Elimination Program is designed to identify, locate, prohibit and effectively eliminate illicit discharges, including discharges of sanitary wastewaters, to the permitted separate stormwater drainage systems.

#### **2.3.1 ILLICIT DISCHARGE ELIMINATION PROGRAM (IDEP) PROGRAM OBJECTIVES**

1. Establish authority to investigate, inspect and monitor suspected illicit discharges.
2. Maintain maps of the MS4, points of discharge, and outfalls.
3. Prohibit non-stormwater discharge into the MS4.
4. Provide regular training to staff.
5. Instruct contractors to prevent dumping into the MS4.
6. Conduct routine dry weather screening.
  - a. Conduct source investigations if the source of an illicit discharge/connection is not identified by field screening.
7. Illicit discharge identification and elimination program performance & effectiveness.

#### **2.3.2 FACILITY SITE STORM SEWER SYSTEM MAPS AND LISTS**

OS and consultants completed storm sewer system mapping at each of the owned operated properties identified in Section 1.0 of this Stormwater Management Plan. Storm sewer system maps include detailed information of the storm sewer system, including the locations of outfalls, points of discharge, and waters of the State that receive the discharges. The maps include a unique identification number for each storm sewer location identified on the map. Latitude and longitude are also noted for outfall and points of discharge location. Storm sewer system information will be maintained and updated and reported in Progress Reports.

Copies of the storm sewer system maps and a list of the outfalls and points of discharge are provided in Attachment "A".

#### **2.3.3 ILLICIT DISCHARGE IDENTIFICATION & INVESTIGATION PROCEDURE - FIELD OBSERVATIONS**

OS will conduct field observations for 100% of all outfalls and discharge locations during dry weather or more expeditiously if OS becomes aware of a non-stormwater discharge. Outfalls and points of discharge will be inspected by personnel trained to recognize all signs of possible illicit discharges. Dry weather screening will occur at least once every 5 years. OS's next 5-year dry weather screening cycle will be conducted starting between year 2021 and year 2022. Preferably, each outfall or discharge point will be inspected and evaluated following a period of at least 48-72 hours of dry weather.

The field observations will focus on visual inspection for the following:

- Outfall/point of discharge number
  - Date/name of inspector
  - Date of last rainfall
  - Presence or absence of flow
  - Presence or absence of standing water
  - Water clarity and color
  - Presence of oil sheen, trash and or other floatable materials
  - Presence of bacterial sheen or slimes
  - Excessive vegetative growth
  - Odor
  - Suds
  - Presence of oil
- ❖ These Characteristics to be documented even if no flow is observed at the time of the inspection.

All field observations are detailed on a “Screening Inspection Log”. A copy of the Screening Inspection Log is provided in Attachment “D”.

If, at the time of the outfall or point of discharge inspection, dry weather flow is observed and it is obvious that an illicit discharge is present and the source is obvious, OS will document the observations and the source and follow-up with applicable parties. Once a potential discharge is indicated at an outfall or point of discharge, additional inspection, field screening and source investigation activities are conducted.

#### **2.3.4 ILLICIT DISCHARGE IDENTIFICATION & INVESTIGATION PROCEDURE – FIELD SCREENING & SOURCE INVESTIGATION**

At the time of the outfall or point of discharge inspection, if dry weather flow is observed and the source is not obvious or identified during the regular field observations, then the inspector who identified the discharge shall, within two weeks of the initial discovery, will conduct an upstream source investigation to determine the origin of the flow. The initial investigation includes visual and olfactory observations upstream from the outfall/point of discharge. If necessary, relevant indicator field screening, video camera inspection and/or dye tracing will be conducted.

If the origin of the flow is not identified during the upstream investigation; within 24 hours of the observed dry weather flow, a grab sample is collected from the discharge for indicator field screening analysis. Indicator monitoring/field screening is the secondary tool utilized for dry weather flow without obvious indicators such as very high turbidity, strong odors or visible discharge. Screening may include some or all of the indicator parameters:

- Temperature
- pH

- Detergents (i.e., surfactants)
- Chlorine
- Ammonia (NH<sub>3</sub>-N)
- Turbidity
- Conductivity

Indicator parameters used to assess the dry weather flow shall be determined by the visual and olfactory observations and upstream source investigation.

Additional grab samples will be collected and delivered for external laboratory analysis only if additional test parameters are required for the source investigation. The laboratory analysis parameters for grab samples are determined by the type of contamination suspected at the time of the source investigation. A copy of the Stormwater Sampling and Analysis Protocol Screening is included in Attachment “D”.

Laboratory indicator parameters are based on EGLE guidance and as specified in the reference sources identified above. The selected laboratory parameters are:

- Fluoride
- Coliform
- E-coli
- Potassium
- Color
- Ammonia

The exact procedure for tracking the illicit discharge will depend on the particular facts of each incident. At the time of the identification of the observed dry weather flow, the flow will be tracked upstream until the source is isolated. Once the source has been isolated down to a specific site location, the work will become source confirmation. If the source is not confirmed, additional fieldwork, building evaluation, or dye testing may be necessary. Additional source investigations will be conducted within 30 days of the original observed dry weather flow.

Once the elimination of an illicit connection or illicit discharge has occurred, an elimination report detailing the corrective actions with attached work orders, photos or dye tracing results will be compiled for documentation purposes. Field inspections will continue until it can be reported that no illicit connection or discharge is present at that outfall/point of discharge. Information regarding specific techniques are provided in the Stormwater Sampling and Analysis Protocol Screening included in Attachment “D”.

### **2.3.5 ILLICIT DISCHARGE/CONNECTION ELIMINATION PROCEDURE**

Illicit discharges and connections are identified through reporting, routine storm sewer system inspections and dry weather screening inspections. A “How to Spot Illicit Discharges” poster along

with a “How to Report/Hotline Numbers” posters to be placed in the receiving/custodial areas in each facility to report concerns. OS’s goal is to evaluate all potential unauthorized or suspected illicit discharge to the municipal separate storm sewer system (MS4) and perform any necessary notifications and reporting to the applicable agencies (i.e., EGLE, WRC, etc.) within the required time period(s).

OS will evaluate and conduct the following actions regarding reported or observed illicit discharges/illegal dumping spills into the storm drainage system.

- If, in the opinion of OS, immediate action to address the suspected discharge is indicated, OS will ensure that the site is investigated within one week.
- Conduct source investigations, including applicable field screening to trace the origin of the materials within two weeks of the reported/observed illicit discharge.
  - OS will follow existing spill response procedures outlined in Section 2.3, under Spill response, Policy & Procedures, if required.
- Once the source has been isolated down to a specific site location, the work will become source confirmation
- If the responsible party is identified, educate the party on the impacts of their actions, explain the stormwater requirements and provide information regarding Best Management Practices.
- Evidence of illicit discharges traced to other MS4 jurisdictions will be provided to the responsible MS4 operator along with any collected data to assist that MS4 operator in completing their investigations to correct the illicit discharge or connection.
- OS will cooperate with the MS4 operator in determining the source or type of illicit discharge and/or connection and will follow-up to ensure that appropriate action has been completed by the MS4 operator to eliminate the discharge.
- Continue inspection and follow-up activities until the illicit discharge activity has ceased.
- Document all activities utilizing the Illicit Discharge/Illegal Dumping Reporting form. A copy of the Illicit Discharge/Illegal Dumping Reporting form is located in Attachment “E”.

Once an illicit discharge has been confirmed from an OS facility, the discharge will be corrected using the most expedient method possible based on the type and configuration of the discharge or connections. Other illicit discharges or releases of polluting materials will be corrected through administrative measures including employee training, placement of signs or markings, policy revisions, or any other steps necessary to eliminate the continued release of polluting materials to the MS4.

Unless specific circumstances arise, which requires additional time, OS will take steps to fix or eliminate the illicit connection within 30 days of a confirmed illicit connection from an OS facility. These steps include a review of corrective methods to be used to repair or eliminate the connection, determine the length of time the repair or elimination will take to complete, the cost of the

elimination, the pollution potential and consider how the removal of the illicit connection will be confirmed. Corrective methods include capping, closing, or re-routing illicit connections to the sanitary sewer or other collection systems.

### **2.3.6 ILLICIT DISCHARGE ELIMINATION PROGRAM POLICY**

Prevention of pollution from storm water runoff and the protection of the quality of the waters of the State of Michigan are of utmost importance to Oakland Schools. OS does not have regulatory authority to create or enforce ordinances.

The OS Stormwater Manager or designee will be provided full access to all OS facilities and properties owned and operated by the district as required to inspect, investigate, and monitor suspected or confirmed illicit discharges or connections to the MS4.

**Illicit Discharge** means any discharge to, or seepage into the separate stormwater drainage system that is not composed entirely of stormwater or uncontaminated groundwater except discharges pursuant to an NPDES permit. Illicit discharges include but are not limited to the following:

- Dumping of motor vehicle fluids
- Improper disposal of household hazardous wastes
- Grass clippings
- Leaf litter
- Pet & other animal wastes
- Unauthorized discharges of sewage
- Industrial wastes
- Restaurant wastes
- Vehicle & equipment wash waters
- Any non-stormwater wastes

Document all activities utilizing the Illicit Discharge/Illegal Dumping Reporting form.

**Illicit Connection** means a physical connection to the MS4 separate stormwater system that primarily conveys non-stormwater discharges other than uncontaminated groundwater into the MS4 separate storm sewer system; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections.

Oakland Schools (OS) policy is to eliminate all illicit connections or discharges from their facilities and restrict the discharge of polluting substances to the separate storm sewer system. The process to achieve these goals will consist of the inspection and screening of all storm sewer systems and elimination of any improper connection from any OS facility to any waterway or the municipally owned separate storm sewer system (MS4).

### **Discharge Prohibitions**

1. Prohibition of Illicit Discharges. OS prohibits the discharge of non-stormwater discharges into the storm drain system, including but not limited to pollutants or waters containing any pollutants.
2. The following discharge is not prohibited.
  - a. This policy excludes prohibitions from the discharge or flows from firefighting activities to the OS MS4. Discharge or flows from firefighting activities will be addressed only if they are identified as significant sources of pollutants to surface waters of the state.
  - b. The following activities are not prohibited under this policy unless they are determined to be significant sources of pollutants to surface waters of the state:
    - Water line flushing and discharges from potable water sources.
    - Landscape irrigation runoff, lawn water runoff, and irrigation waters.
    - Diverted stream flows and flows from riparian habitats and wetlands.
    - Rising groundwater and springs.
    - Uncontaminated groundwater infiltration and seepage.
    - Uncontaminated pumped groundwater, except groundwater cleanups specifically authorized by NPDES permits.
    - Foundation drains, water from crawl space sumps, footing drains, and basement sump pumps.
    - Air conditioning condensation.
    - De-chlorinated swimming pool water from single, two, or three family residences. (swimming pools operated by OS shall not be discharges to the separate storm sewer system or a surface water of the state without NPDES permit authorization).

### **Prohibition of Illicit Connections**

1. Improper connections in violation of this regulatory mechanism must be disconnected and redirected.
2. Illicit discharge and connections will be eliminated.
3. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited by OS. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

### **2.3.7 ILLICIT DISCHARGE ELIMINATION TRAINING**

A training program is an important component of to an effective IDEP. Training is required for all employees whose job responsibilities involve illicit discharge related activities, or indicate a potential



to cause, witness, or report an illicit discharge or connection. Training is discussed in detail in Section 3.0 of this SWMP.

BMP Operation and Maintenance (O&M) guidance manuals have been developed for each facility and include a listing of all structural and non-structural controls along with specific guidance and instructions for each BMP. BMP O&M manuals include schedules for routine inspection and maintenance as well as policies and procedures for collection, transportation, and disposal of wastes collected during maintenance operations

### **2.3.8 ILLICIT DISCHARGE ELIMINATION PROGRAM EFFECTIVENESS**

OS is required to track implementation of the illicit discharge elimination program stormwater management items and evaluate its effectiveness. Documentation of these items includes documentations of actions taken to eliminate illicit discharges. The following are examples of the types of performance measures and effectiveness measures that may be used to evaluate the effectiveness of the IDEP program. The following information will be reviewed annually and will be used to focus and modify activities to maximize environmental benefits of the plan.

- Verify the distribution of public education posters.
- Number of outfalls/discharge points screened.
- Number of illicit connections found.
- Number of illicit connections eliminated.
- Number and type of discharges that are investigated.
- Actions conducted to follow-up discharges that are identified or reported.
- Number of scheduled clean-outs and routine maintenance work conducted.

2.3.9 ILLICIT DISCHARGE ELIMINATION PROGRAM – BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Illicit Discharge Elimination Plan					
BMP #1 - Facility Storm Sewer System Maps	Provide an up to date storm sewer system map. The maps shall identify the storm sewer system, location of outfalls and points of discharge, and names and locations of the surface waters of the state receive the discharge.	OS	Maps Completed  Updates Ongoing as Needed	100% of facilities mapped, and 100% of storm sewer system updates mapped.	-Maintain facility site maps at Administration Building. -Update facility map with sewer system updates. Maintain maps for progress report submittal.
BMP#2 - Enforcement	Written policy to enforce elimination of illicit discharges into MS4 owned by the Permittee.	OS	Ongoing	Policy to be completed and approved	Approved policy made available to the public and EGLE as required
BMP #3 - Dry Weather Screening	Dry Weather Screening conducted every 5 years. Dry weather screening will be conducted by personnel trained to recognize all signs of possible illicit discharges.	OS	2020 – 2021 and Ongoing	100% of outfalls and point of discharges inspected and evaluated following a period of 48-72 hours of dry weather. Outfalls/points of discharges re-inspected if necessary.	Maintain dry weather screening inspection logs/reports.
BMP #4 - Illicit Discharge Reporting	Eliminate illicit discharges and connections through reporting, routine storm sewer system inspections and dry weather screening inspections.	OS	Ongoing	-Place “How to spot illicit discharge/ How to Report-Hotline Numbers” posters in Receiving Rooms at each OS facility. Goal is to have one poster at each facility. -Advertise reporting hotline on district webpage.	-Annually verify number of posters in place throughout the district. -Track number of calls and document calls onto Illicit Discharge/Illegal Dumping Reporting form. (Attachment “E”).
BMP #5 - Unauthorized Discharge/ Illicit Discharge Complaint Response	OS will immediately evaluate any potential unauthorized or suspected illicit discharge to the municipal separate storm sewer system (MS4) and perform any necessary notifications and reporting to the applicable agencies (i.e., EGLE, local drain commission, etc.) within the required time period(s).	OS	-Within 30 days of reported suspected discharge.  -In the opinion of OS, if immediate action to the suspected discharge is indicated, follow up in 1 week.	100% of unauthorized or suspected illicit discharges evaluated (field observation, field screening, and source investigation) and eliminated.	Documentation of relevant field observations, field screening or source investigations.

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Illicit Discharge Elimination Plan					
BMP #6 - Illicit Connections	Reroute, repair, or disconnect any illicit connections.	OS	Within 60 days of identified illicit connection	Take steps to eliminate 100% of identified illicit connections.	Work order, receipt or report detailing the illicit connection correction activities.
BMP #7 - Illicit Discharge Elimination Training	Train staff on the identification and reporting of illicit discharges or improper connections and the cleanup/notification procedures for spills of polluting materials.	OS	Once per permit cycle or during the 1st year of employment Ongoing	Goal of providing illicit discharge elimination training to all maintenance, transportation, custodial and skilled trade staff who work for OS. [All Stormwater Training is outlined in Section 3.0 Training]	Copy of sign in sheets and Agenda (if available).
BMP #8 - Notice of Intent to Discharge Tracer Dyes	Maintain approval from the EGLE for authorization to discharge tracer dyes in surface waters per General Rule 97 to conduct source investigations.	OS	As Needed	EGLE approval to discharge tracer dyes.	Documentation of EGLE approval.
BMP #9 - Spill/Non-Stormwater Release Response	Use of Oakland County WRC spill response procedures that address pollution discharges impacting surface waters, county drains and facility pollutant spills. The spill response procedure addresses containment, source identification, source removal, notification and reporting.	OS	Annually	Continue to perform Spill Response, as appropriate, per Spill Response Procedures	WRC Spill response procedures available from OCWRC upon request
BMP #10 IDEP program Performance & Effectiveness	Review performance measures to evaluate the effectiveness of the IDEP program. Items include; posting of IDEP public education posters, number of outfalls/discharge points screened, number of illicit connections found, number of illicit connections eliminated, number and type of violations investigated, and number of scheduled clean-outs and routine maintenance work conducted.	OS	Annually	Annual review of SWMP IDEP program performed.	Maintain copy of SWMP annual review and evaluation information for progress reporting.

### **2.3.10 POLLUTING MATERIALS EMERGENCY AND SPILL RESPONSE POLICY AND PROCEDURES**

#### **Purpose**

This policy and associated procedures have been developed to define appropriate and safe response procedures for spill or accidental releases of hazardous materials or substances at all Oakland County Schools' facilities.

#### **Policy**

Oakland Schools will comply with all Federal, State, and local regulatory requirements for the management and reporting of all hazardous materials and/or waste releases.

The Maintenance Department will maintain responsibility for monitoring any changes in regulatory requirements regarding hazardous materials and waste spills or accidental releases. This policy will be revised as necessary based upon any changes in the regulatory requirements or internal experiences. All hazardous materials spills or releases will be thoroughly investigated by the Director of Maintenance and Operations. The Director of Maintenance and Operations will be responsible for developing, maintaining, and implementing procedures for managing significant or hazardous materials spill response and associated employee education and training for compliance with the policy and procedures.

The Director of Maintenance and Operations will immediately report any release of any polluting materials from the MS4 to surface waters or groundwater of the state, unless a determination is made that the release is not in excess of the threshold reporting quantities in the Part 5 Rules.

If it is determined that the release poses a threat to the safety or the environment outside the facility, the Director of Maintenance and Operations will report the release during regular working hours to the **EGLE District Office at (586)-753-3700**, or after hours to the 24-hour **Michigan Pollution Emergency Alerting System (PEAS) at 1-800-292-4706** immediately or within 24 hours of knowledge of the release. Any release of oil (includes gasoline, diesel fuel, used oil and mineral spirits) to navigable waters or adjoin shorelines will be reported to the 24-hour **National Response Center (NRC) at 1-800-424-8802** immediately or within 24 hours of knowledge of the release. In the event the spill takes place after working hours, site personnel will contact the assigned coordinator to notify the Director of Maintenance and Operations that an incident has occurred.

The Director of Maintenance and Operations will be responsible for developing, maintaining, and implementing procedures for managing significant or hazardous materials spill response and associated employee education and training for compliance with the policy and procedures. The Director of Maintenance and Operations is responsible for notifying EGLE and/or other local, state, or

federal regulatory agencies in the event that a release to the MS4 or surface waters occurs at levels above the threshold reporting quantities referenced in the PA 451 Part 5 rules.

### **Emergency Spill Response Procedures**

Each facility having the potential for the release of a hazardous material or substance shall have trained and knowledgeable staff members to respond and/or implement spill response procedures for that facility. Spill containment materials such as absorbent pigs, pads, booms, diking materials, storm drain covers, etc. are to be stored and maintained at all facilities for use by trained employees in the event of a spill or accidental release. The following general guidelines are to be implemented as applicable in managing spills and accidental releases:

- 1. For spills in which there is no immediate dangers to employees, students, or the general public and does not represent a danger of contamination to a sanitary sewer, storm sewer, of the ground:**
  - A. Contain spill to the smallest area possible.
  - B. Review the Material Safety Data Sheet for determination of proper spill handling, and appropriate personal protective equipment selection.
  - C. Place compatible absorbent material or spill pads on the area.
  - D. Clean up and containerize the absorbent materials.
  - E. Contact the Maintenance and Operations Department for waste disposal instructions and additional cleaning requirements.
- 2. For a spill that represents an immediate danger to employees, students, or the general public and/or has the potential to impact the sanitary sewer, storm sewer, or the ground:**
  - A. Notify the Maintenance and Operations Department.
  - B. If there is the treat of fire, explosion, or if any person(s) exhibits severe symptoms of exposure, contact 911 to initiate local emergency services.
  - C. Alert anyone in the area and begin evacuation procedures.
  - D. Use absorbent socks, booms, or other absorbents to dike the spill area if safe to do so and secure the area from unauthorized personnel. Refer to the Material Safety Data Sheet to determine the proper personal protective equipment.
  - E. Remove all sources of ignition for releases of flammable or combustible materials.
  - F. The Maintenance and Operations Department will initiate all notification procedures and contact the contracted emergency response contractor to mitigate and remediate the release.
  - G. Complete the "Hazardous Material or Waste Spill Exposure Form" for all exposed persons.
  - H. The Director of Operations will assess the spill and notify all agencies as required.
- 3. Spills of Elemental Mercury**
  - A. Contact the Maintenance and Operations Department immediately.

- B. Remove all personnel from the immediate spill area without traveling through the spill area, and if possible, close the door and lower the thermostat in the affected room.
- C. Keep all potential contaminated persons in a close area to the spill but outside of the affected area to minimize additional exposure to mercury vapors.
- D. Remove and containerize any potentially contaminated clothing or other articles from affected persons.
- E. The Director of Operations will contact the appropriate emergency response contractor to clean- up the spill and properly decontaminate and/or dispose of all contaminated articles.

This guidance has been developed in anticipation of potential releases of hazardous materials and substances. The procedures outlined in this guidance should only be implemented by those persons who have received proper training and are competent in the handling of the released material.

As appropriate, illicit discharges or releases of polluting materials will be corrected through administrative measures including employee training, placement of signs or markings, policy revisions, or any other steps necessary to eliminate the continued release of polluting materials to the MS4. OS will conduct follow-up inspections and sampling as needed to ensure that appropriate action has been completed.

## **2.4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM**

OS' goal is to establish procedures for construction stormwater runoff control to meet minimum measure requirements to maximum extent practicable.

**Construction** refers to actions that result in a disturbance of the land, including clearing, grading, excavating, and other similar activities.

**Construction-related activities** are activities that support the construction project such as stockpiles, borrow areas, concrete truck washouts, fueling areas, material storage areas and equipment storage areas.

### **2.4.1 CONSTRUCTION SITE STORMWATER MANAGEMENT PROGRAM OBJECTIVES**

- A. Process to notify the Part 91 Agency appropriate staff when soil or sediment is discharged to the MS4 from a construction activity.
  - The procedure shall allow for the receipt and consideration of complaints or other information submitted by the public or identified internally as it relates to construction stormwater runoff control.

- B. Procedure for when to notify the EGLE when soil, sediment, or other pollutants are discharged to the MS4.
  - Other pollutants include pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed.
- C. Procedure for ensuring that construction activity one acre or greater in total land disturbance obtains a Part 91 Permit.

#### **2.4.2 CONSTRUCTION NOTIFICATION PROCEDURE**

The EGLE certified construction stormwater operator inspector conducting site inspections will normally detect any soil or sediment entering the MS4.

##### **In the event an inspector identified a discharge during an inspection:**

1. The inspector shall document all details of the soil erosion and sedimentation control deficiency and report to the Director of Operations/OS Stormwater Manager.
2. The Director of Operations/OS Stormwater (or designee) is responsible for assessing any suspected or confirmed discharge and notifying the appropriate agency.
3. OS will notify EGLE when significant runoff of soil, sediment, or other pollutants such as pesticides, petroleum derivatives, construction chemicals, or solid wastes from the construction site discharges to the MS4 or surface waters of the state within 24 hours of discovery or as otherwise required by the issuing agency.

##### **In the event of a public complaint:**

OS will track the receipt of complaints submitted by the public or noted by staff during regular course of business of soil, sediment, or other pollutants such as pesticides, petroleum derivatives, construction chemicals, and solid wastes are being discharged into the MS4.

The tracking will include:

- Name of person providing the complaint.
- Location (address or nearest cross street).
- Description of follow up (e.g., date referred to the Part 91 enforcing agency).

OS will notify the Part 91 Agency, when soil, sediment, and other pollutants such as pesticides, petroleum derivatives, construction chemicals, and solid wastes are discharged into MS4.

OS ensures that construction activity one acre or greater in total earth disturbance with the potential to discharge to the MS4 does obtain a Part 91 Permit and State of Michigan Permit by Rule.

### **2.4.3 PART 91 PERMIT**

OS will ensure that any construction activity that result in a land disturbance meeting the following criteria:

- Greater than or equal to one (1) acre, or
- Disturb less than one (1) acre that is part of a common plan of development or sale.

Will obtain a Part 91 Permit through the site plan review process with the appropriate county or municipal permitting agency.

### **2.4.4 PERMIT BY RULE COMPLIANCE**

Oakland Schools shall comply with the State of Michigan Permit by Rule (Rule 323.2190) for stormwater discharge from construction activity. Sites disturbing one (1) to five (5) acres with a point source discharge to the waters of the state receive automatic storm water coverage upon securing a SESC permit from the appropriate county or municipal permitting agency, or being designated an Authorized Public Agency (APA) under the authority of Part 91.

1. Construction sites with at least one (1) acre but less than five (5) acres of soil disturbance with a surface water discharge, must obtain a county or municipal SESC permit, and are required to follow the provisions of the Permit by Rule, but do not need to notify EGLE of the construction activity.
2. Construction sites disturbing over five (5) acres with a point source discharge to the waters of the state must obtain a county or municipal SESC permit and submit a Notice of Coverage (NOC) and other pertinent documents and the appropriate fee to EGLE.

Requirements of Permit by Rule include, but are not limited to:

- Weekly site inspections conducted by a Certified Construction Stormwater Operator.
- Inspection within 24 hours of a precipitation event that results in a discharge from the site by a Certified Construction Stormwater Operator.



2.4.5 CONSTRUCTION SITE STORMWATER MANAGEMENT-BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Construction Stormwater Runoff Control					
BMP #1 - Notification of Deposit during Inspection	<p>-OS will notify EGLE when runoff from the construction site discharges significant pollutants to the MS4 or surface waters of the state within 24 hours of discovery or as otherwise required by the issuing agency. The OS Stormwater Manager (or designee) is responsible for assessing any suspected or confirmed discharge and notifying the appropriate agency.</p> <p>-Track complaints submitted by the public or noted by staff during regular course of business of soil, sediment, or other pollutants such as pesticides, petroleum derivatives, construction chemicals, and solid wastes are being discharged into the MS4.</p>	OS	As Necessary	100% discharges identified and appropriate agencies notified. Control of potential system failure.	<p>-Documentation of Construction Stormwater Operator site inspection.</p> <p>-Documentation of public complaint (Name of person providing the complaint, location [address or nearest cross street] description of follow up [e.g., date referred to the Part 91 enforcing agency]).</p>
BMP #2 - Part 91 Permit	OS will ensure that any construction activity that result in a land disturbance greater than or equal to one (1) acre or disturb less than one (1) acre that is part of a common plan of development or sale will obtain a Part 91 Permit through the site plan review process.	OS	As Necessary	100% of permits obtained.	Copy of permit and associated soil erosion and sedimentation control plans.
BMP #3 - Permit by Rule	<p>-Construction sites between (1) acre and five (5) acres of soil disturbance follow the provisions of the Permit by Rule, but do not need to notify EGLE of the construction activity.</p> <p>-Construction sites disturbing over five (5) acres with a point source discharge to the waters of the state must follow provisions of the Permit by Rule and submit a Notice of Coverage (NOC) and other pertinent documents and the appropriate fee to the EGLE.</p>	OS	As Necessary	<p>-Goal of 100% of weekly and precipitation event inspection completed by certified Construction Stormwater Operator.</p> <p>-Goal of 100% of weekly and precipitation event inspection completed by certified Construction Stormwater Operator.</p> <p>-100% NOC obtained.</p>	<p>-Copy of inspections.</p> <p>-Copy of inspections.</p> <p>-Copy of NOC S</p>

## **2.5 POST CONSTRUCTION STORMWATER CONTROLS FOR NEW DEVELOPMENTS & REDEVELOPMENTS**

Post-construction storm water runoff is the storm water that would flow from a project site to the Municipal Separate Storm Sewer System (MS4) after completion of a development or redevelopment project (not during the project).

### **2.5.1 POST CONSTRUCTION STORMWATER MANAGEMENT PROGRAM OBJECTIVES**

The post-construction stormwater run-off controls are necessary to maintain or restore stable hydrology in receiving waters by limiting surface runoff rates and volumes and reducing pollutant loadings from sites that undergo development or significant redevelopment.

The objects of this program and associated procedures are to:

- a. Develop and implement regulatory mechanisms to address post-construction stormwater runoff for new development and redevelopment projects, including preventing or minimizing water quality impacts.
- b. Develop and implement regulatory mechanisms for projects that disturb one or more acre, including projects less than an acre that are part of a larger common plan of development or sale and discharge into the applicants MS4.
- c. Ensure post construction controls to minimize water quality impacts by following water quality treatment standards.
- d. Require that BMP's be designed on a site-specific basis to reduce post-development total suspended solids loading.
- e. Procedure for the use of Infiltration BMP's to meet water quality treatment and channel protection standards of new development or redevelopment projects.
- f. Address "hot spots".
- g. Submit site development plans for review and approval.
- h. Require adequate long-term O&M of BMPs by ordinance or other regulatory mean

In addition to Local, County and State Requirements, the following sections identify specific actions to be taken by OS to ensure compliance with applicable standards.

### **2.5.2 WATER QUALITY TREATMENT STANDARD**

OS will include water quality treatment volume standards for each new construction or redevelopment of projects where the area of disturbance exceeds one (1) acre. One or more of the following treatment standards should be included as part:

1. Treat the first one inch of runoff from the area of new construction or redevelopment.
2. Treat the runoff generated ninety percent (90%) of all runoff-producing storms for the project site.

The source of the rainfall data for the water quality treatment standard of requiring the treatment of the runoff generated from the ninety percent (90%) of all runoff-producing storms is:

- The MDEQ memo dated March 24, 2006, which is available via the internet at:

[https://www.michigan.gov/documents/deq/wrd-hsu-ninety-percent\\_557709\\_7.pdf](https://www.michigan.gov/documents/deq/wrd-hsu-ninety-percent_557709_7.pdf)

Treatment methods shall be designed on a site-specific basis to achieve the following:

1. A minimum of eighty percent (80%) removal of total suspended solids (TSS), as compared with uncontrolled runoff, or
2. Discharge concentrations of TSS not to exceed 80 milligrams per liter (80mg/L).

A minimum treatment volume standard is not required where site conditions are such that TSS concentrations in storm water discharges will not exceed 80mg/L.

Treatment methods shall be designed on a site-specific basis to reduce the discharge of sedimentation or TSS from the site. Such methods may include:

1. Standpipe filters in storm water detention basins
2. Sediment filter tanks
3. Catch basin sumps
4. Aqua-Swirls®
5. Treatment trains
6. Rain Gardens
7. Pervious pavement systems

### **2.5.3 CHANNEL PROTECTION PERFORMANCE STANDARD**

Oakland Schools understands that channel protection criteria is necessary to maintain post-development stormwater runoff volumes and peak flow rates at or below existing levels for all storms up to the 2-year, 24-hour event. "Existing Levels" means the runoff volume and peak flow rate for the last land use prior to the planned new development or redevelopment.

Where more restrictive channel protection criteria already exists or is needed to meet the goals of reducing runoff volume and peak flows to less than existing levels on lands being developed or redeveloped, OS will consider use of the more restrictive criteria rather than the standard permit requirements.

A post-construction stormwater runoff program compliance assistance document is available via the internet at:

[www.michigan.gov/documents/deq/wb-storm-ms4-runoffvolume\\_331235\\_7.xls](http://www.michigan.gov/documents/deq/wb-storm-ms4-runoffvolume_331235_7.xls).

### **2.5.4 SITE –SPECIFIC REQUIREMENTS**

Because each site has its' own special circumstances and conditions the following BMPs will be considered as appropriate according to site conditions.

- Reduce runoff from the site to greatest extent possible (provide holding basins, divert water through grassed swales).
- Prevent spills and discharges.

- Control waste such as building materials, concrete washout, chemicals, litter, and sanitary waste.
- Phasing will be considered to limit amount of exposed soils.
- Interim soils stabilization methods are to be considered (temporary seeding, mulching etc.).
- Buffer preservation (avoid exposing soils to property limits).

Construction plans will be reviewed for sites with known soil and/or groundwater contamination, including potential “hot spots” and evaluate the use of infiltration BMPs to meet water quality treatment and channel protection criteria. Hot spots include areas with the potential for significant pollutant loading such as vehicle service and maintenance facilities, vehicle equipment cleaning facilities, fleet storage areas for buses, and outdoor liquid container storage.

Additional water quality standards or pretreatment measures may be required in addition to those included in the water quality criteria in order to remove potential pollutant loadings from entering either groundwater or surface water systems.

Pretreatment measures include:

Stormwater Hot Spots	Minimum Pre-Treatment Options
Vehicle service and maintenance facilities	<ol style="list-style-type: none"> <li>1. Oil/Water Separators/Hydrodynamic Devices</li> <li>2. Use of Drip Pans and/or Dry Sweep Material under Vehicles/Equipment</li> <li>3. Use of Absorbent Devices to Reduce Liquid Releases</li> <li>4. Spill Prevention Response Program</li> </ol>
Fleet storage areas for buses	BMPs that are part of a Stormwater Pollution Prevention Plan (SWPPP)
Vehicle Fueling Stations	<ol style="list-style-type: none"> <li>1. Oil/Water Separators/Hydrodynamic Devices</li> <li>2. Water Quality Inserts for Inlets</li> <li>3. Spill Prevention Response Program</li> </ol>
Vehicle equipment cleaning facilities	BMPs that are part of a Stormwater Pollution Prevention Plan (SWPPP)
Outdoor liquid container storage	Spill Prevention Response Program

### **2.5.5 SITE PLAN REVIEW**

This policy is to establish requirement to submit a site plan for review as required by the EGLE NPDES Phase II Stormwater Discharge Permit. OS will prepare and submit a written application, including a site plan for review and approval of post-construction stormwater runoff BMPs, for all new construction or redevelopment projects where the area of disturbance exceeds one (1) acre. The application will be completed in a form and manner as prescribed by the local municipality or governing unit in which the property is located. The site plan will be reviewed by the appropriate local municipal, county, state or other governmental agency. The review of the stormwater site plan will provide local municipal, county, state or other governmental agency with the ability to ensure that water quality objectives, erosion and sediment control requirements, and BMP maintenance are adequately considered.

The goal of the site plan review is to:

- Minimize clearing and grading.
- Protect waterways.
- Limit soil exposure.
- Protect steep slopes and cuts.

### **2.5.6 LONG-TERM OPERATION & MAINTENANCE OF STORMWATER CONTROLS**

Oakland Schools will identify all stormwater controls and mechanisms for all new construction or redevelopment projects where the area of disturbance exceeds one (1) or more acres. OS will develop “BMP Operation and Maintenance” guidance manuals for each property, including:

- Develop a map of each facility identifying the location and type of structural controls, if any exist.
- Develop a guidance manual that will provide a listing of structural controls including a site diagram showing the location of each control, instructions for inspection and operation, and the inspection and/or maintenance schedules for each control mechanism.
- Stormwater runoff facilities, after construction and approval, shall be maintained in good condition, in accordance with the approved storm water plan.
- Update and revise the stormwater structural controls on facility site diagrams as identified during scheduled inspections or within 60 days following the completion a new facility or reconstruction/redevelopment site project.

The Director of Maintenance & Operations will ensure that local work instructions are developed based on BMP and O&M Guidance Manuals. OS trained staff or certified contractors will conduct routine inspection of all identified structural controls and complete maintenance, repair, or replacement as necessary.

2.5.7 POST CONSTRUCTION STORMWATER MANAGEMENT-BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Post-Construction Stormwater Runoff Controls for Development and Redevelopment					
BMP#1 - Stormwater Standards	To ensure that new and redevelopment projects incorporate water quality protection, besides standard requirements described herein, OS will also use Oakland County Water Resource Commission (WRC) Standards as a minimum requirement. WRC updated its stormwater standards effective March 27, 2015. The revised standards require detention of the 100- year storm and require a sediment forebay or a manufactured stormwater treatment system. The standards are available on the WRC section of the OC Web site at: <a href="http://www.oakgov.com/water">www.oakgov.com/water</a> . The WRC is anticipating that the existing design standards will be updated to also incorporate additional Low Impact Development/Green Infrastructure BMPs and to meet the requirements of the latest NPDES MS4 Permit.	OS	Ongoing and As Necessary	Besides following standards outlined herein, OS shall also use the latest WRC Standards as a minimum requirement while meeting all other Local and State Standard Requirements	Use of updated stormwater standards or other related policies to be assessed and verified for each new project with approvals by each Governing Agency.
BMP #2 - Post Construction Standards	Ensure post-construction channel protection standards and water quality treatment standards are met.	OS	As Necessary	All applicable site plans are reviewed by the appropriate local municipal, county, state or other governmental agency.	Copy of site plan.
BMP #3 - Site Specific	OS will review construction plans for sites with known soil and/or groundwater contamination, including potential “hot spots” and evaluate the use of infiltration BMPs to meet water quality treatment and channel protection criteria.	OS	As Necessary	Reduce or eliminate discharge of pollutants during construction on contaminated sites.	Documentation of additional stormwater controls.
BMP #4 - Site Plan Review	Prepare and submit a written application, including site plan for construction of storm water management systems for all new construction or redevelopment projects where the area of disturbance meets or exceeds one (1) acre.	OS	As Necessary	All applicable site plan are reviewed by the appropriate local municipal, county, state or other governmental agency.	Copy of reviewed plans.
BMP #5 - Operation & Maintenance	All OS owned sites will have an O&M guidance manual including location, description, instructions for inspection, repair, and maintenance, and a schedule for each BMP.	OS	-As Necessary -Within 30 days of following the completion a new facility or reconstruction/redevelopment site project.	Ensure O&M requirements are met for all OS owned BMPs.	Keep copies of BMP O&M plans and all inspection, maintenance, and repair reports conducted by staff or contractors.

## **2.6 Pollution Prevention & Good Housekeeping Program**

Develop, implement, and ensure compliance through a program of operation & maintenance of BMPs, with the ultimate goal of preventing or reducing pollutant runoff to the maximum extent practicable from operations that discharge stormwater to surface waters of the state.

### **2.6.1 POLLUTION PREVENTION & GOOD HOUSEKEEPING PROGRAM OBJECTIVES**

- a. Maintain an up-to-date inventory of owned facilities and stormwater structural controls.
- b. Procedure for updating and revising inventory of stormwater structural controls.
- c. Procedure for assessing each facility for the potential to discharge pollutants.
- d. Develop an SOP (SWPPP) for all facilities with a high potential for pollutant runoff.
- e. Procedure identifying BMPs currently implemented or to be implemented to prevent or reduce pollutant runoff at each facility with medium and lower potential to discharge.
- f. Procedure for prioritizing of catch basins/manholes for maintenance and cleaning.
- g. Schedule for routine catch basin/manhole inspection, maintenance and cleaning.
- h. Provide the geographic location of stormwater structures.
- i. Procedure for dewatering, storage and disposal of materials extracted from storm sewer cleaning.
- j. Procedure for inspecting and maintaining storm water controls.
- k. Procedure for new structural controls to be designed and implemented in accordance with post- construction stormwater runoff control performance standards.
- l. Best management practices for operation and maintenance activities.
- m. Procedure for street sweeping.
- n. Procedure for pesticide application.
- o. Training.
- p. Contractor requirements and oversight.

It is the goal of Oakland Schools to prevent and reduce pollutant/contaminant runoff from OS facilities to the maximum extent practicable. All BMPs are implemented at all low, medium and high priority facilities.

## 2.6.2 STRUCTURAL CONTROL INVENTORY & ASSESSMENT TABLE

Prioritization has been provided; however, OS intends for all structures to be inspected and maintained equally. All structural controls will have routine inspection, maintenance schedules, and long-term procedures which adequately control, to the maximum extent practicable, pollution removal and control. Structural control effectiveness will be determined based on the results of these inspections and repaired, upgraded, or replaced as indicated.

Outlined in the table below is a list of Oakland Schools facilities with a discharge of stormwater to surface waters of the state. The estimated number of stormwater structural controls is identified for each site, along with the priority level of potential discharge of pollutants to waters of the state.

Oakland Schools Facility Name	Estimated # of Stormwater Structural Controls*	Priority Level of Potential Discharge (High, Med, Low)	Presence of Assessment Factors**	BMP's Implemented to reduce pollutant runoff at Med or Low priority facilities
Oakland Schools Intermediate School District Administration Building	36	Low	0	<ul style="list-style-type: none"> <li>Catch basin cleaning</li> <li>Detention/retention pond, vegetated swale and constructed wetland inspections and maintenance</li> <li>Street sweeping</li> </ul>
Oakland Schools - Northeast Campus (Pontiac)	19	Med	1, 3	<ul style="list-style-type: none"> <li>Catch basin cleaning</li> <li>Detention/retention pond and sediment basin inspections and maintenance</li> <li>Oil/water separator inspections and maintenance</li> <li>Street sweeping</li> </ul>



Oakland Schools Facility Name	Estimated # of Stormwater Structural Controls*	Priority Level of Potential Discharge (High, Med, Low)	Presence of Assessment Factors**	BMP's Implemented to reduce pollutant runoff at Med or Low priority facilities
Oakland Schools - Southwest Campus (Wixom)	7	Low	1, 3	<ul style="list-style-type: none"> <li>• Catch basin cleaning</li> <li>• Detention/retention pond inspections and maintenance</li> <li>• Oil/water separator inspections and maintenance</li> <li>• Street sweeping</li> </ul>

### 2.6.3 FACILITY ASSESSMENT & PRIORITIZATION

OS has identified all applicant owned facilities with a discharge of stormwater to surface waters of the state, and during mapping of each facility, inventoried the number of stormwater structural controls (i.e. catch basins, detention basins, etc.) at each site. Each location was assessed to determine high, medium and low potential to discharge pollutants to surface waters of the state.

\*\*For facilities that have a medium or low potential for the discharge of pollutants to surface waters of the state, each facility was evaluated for the presence of the following factors:

1. Absence of any factors
2. Presence of urban pollutants stored at the site (i.e. sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, or other site-specific pollutants)
3. Identification of improperly stored materials
4. Potential for polluting activities to be conducted outside (i.e. vehicle washing)
5. Proximity to waterbodies
6. Poor housekeeping practices
7. Discharge of pollutants of concern to impaired waters

Best Management Practices (BMPs) were identified for each facility with low or medium potential to discharge pollutants to surface waters of the state. For all low facilities where no assessment factors are present, catch basin cleaning and street sweeping will be performed as indicated in the applicable procedures for these activities. For all medium facilities, the appropriate BMPs were considered based on the assessment factor present to prevent or minimize the potential for pollutants from entering surface waters of the state.

BMP's currently implemented by Oakland Schools at facilities with medium and lower potential for the discharge of pollutants to surface waters of the state include:

1. Good housekeeping practices
2. Employee training
3. Routine visual inspections
4. Spill prevention and response

This inventory will be updated every five (5) years (upon reapplication for stormwater permit coverage) to reassess facilities and structural stormwater controls that have been added, removed, or are no longer owned or operated by the applicant. Priority level assessments will be revised within 30 days prior to discharging stormwater at a new facility, or when new the storage of materials, equipment, or vehicles changes at a facility.

#### **2.6.4 STORM SEWER STRUCTURE CONTROLS INSPECTION & MAINTENANCE POLICY & PROCEDURE**

1. Develop a schedule for inspecting and maintaining catch basins and stormwater controls at each facility, the reduction of pollutant runoff. The "Structural Controls & Inspection/Maintenance Schedule" is provided below.
2. Visually inspect all stormwater controls identified on facility maps. Items to be reviewed during the inspection include structural integrity of the structure, sediment build-up, flow, overall functionality and erosion. A copy of the inspection form "Structural BMP Table" is located in Attachment "D".
3. Note inspection information on the inspection form.
4. When inspecting stormwater controls, review the site for BMPs currently implemented to prevent or reduce pollutant runoff at each facility. BMP's may include:
  - Review of "No Dumping" stencils at storm drains.
  - Review of catch basins/manholes cleaned.
  - Dumpster good housekeeping practices.
  - Garden, green space and signage inventories.
  - SEMCOG poster placement at facilities.
  - Illicit discharge reporting numbers poster placement at facilities.
  - How to spot illicit discharge posters placement at facilities.
  - Spill kit availability at facilities.
5. Document BMPs identified during inspection.

6. Following the inspection, the stormwater controls should be prioritized for cleaning and maintenance. Prioritize locations based on the following:
  - Drainage structures that are designated as consistently generating the highest volumes of trash and/or debris.
  - Areas with high amounts of build-up sediment and areas of significant erosion.
  - Areas of significant cracking or sinkholes.
7. Once the inspection is complete, the stormwater manager or designated person will review the report and determine if a work order or other item is needed to work with relevant departments or contractors to fix any problems.
8. If an illicit discharge is suspected, follow the procedure outlined in Section 2.3 Illicit Discharge Elimination Program.
9. Retain inspection forms for each stormwater structural control inspected.
10. Retain documentation regarding the scheduling or completion of the repair/maintenance if completed.
11. Debris and maintenance wastes removed as part of the maintenance and/or repairs shall be disposed of in accordance with Structural BMP Operation & Maintenance Waste Disposal procedures.

Furthermore, staff members conducting maintenance and grounds activities are provided IDEP and pollution prevention/good housekeeping training. All structural controls will have routine inspection, maintenance schedules, and long-term procedures which adequately control, to the maximum extent practicable, pollution removal and control. Structural control effectiveness will be determined based on the results of these inspections and repaired, upgraded, or replaced as indicated. This procedure will be reviewed on an annual basis and updated as needed or 60 days following the implementation of a new stormwater structural control.

## STRUCTURAL CONTROLS & INSPECTION/MAINTENANCE SCHEDULE

Responsible Party	Structural Control Type	Inspection Schedule	Maintenance Schedule	Documented Procedures for Inspection and Maintenance
OS	Catch Basins/Inlets	Cleaned every 2 years by contractor	Vactored every 2 years by contractor	WRC Standards
	Detention/Retention Ponds	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	WRC Standards
	Oil/Water Separator	Visual inspection annually	Vactored out annually	WRC Standards
	Vegetated Swale	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	WRC Standards

Responsible Party	Structural Control Type	Inspection Schedule	Maintenance Schedule	Documented Procedures for Inspection and Maintenance
OS	Constructed Wetlands	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	WRC Standards
	Catch Basins/Inlets	Cleaned every 2 years by contractor	Vactored every 2 years by contractor	No formal procedure in place
	Detention/Retention Ponds	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	No formal procedure in place
	Oil/Water Separator	Visual inspection annually	Vactored out annually	No formal procedure in place
	Vegetated Swale	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	No formal procedure in place
	Constructed Wetlands	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	No formal procedure in place
	Infiltration Trenches/Basins	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	No formal procedure in place
	Sediment Basins	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	No formal procedure in place
	Swirl Concentrator	Visual inspection every Spring and Fall	Appropriate maintenance done, as needed	No formal procedure in place
	Oil/Grit Separator	Visual inspection annually	Vactored out annually	No formal procedure in place
	Street Sweeping	N/A	Parking lots hand swept each Spring	No formal procedure in place

**PROCEDURE:**

1. A schedule for inspection and maintenance at each facility that has stormwater structural controls is provided in the table above.
2. Debris and maintenance wastes removed as part of the maintenance and/or repairs of the stormwater structural controls shall be properly disposed of.

**OTHER:**

Any questions on this policy and procedure should be directed to the appropriate agency's Storm Water Manager.

### **PROCESS FOR UPDATING/REVISING THIS PROCEDURE:**

This procedure shall be reviewed once per permit cycle by the appropriate agency's Stormwater Manager for any updates to streamline the requirements.

### **2.6.5 STRUCTURAL BMP OPERATION & MAINTENANCE MANUALS**

Structural BMP operation, inspection, and maintenance manuals shall be developed for each OS facility to ensure that they are well maintained and continue to function properly. BMP guidance manuals shall include a description of each BMP located at the specific facility, a map showing the type and location of each structure, schedule for inspection based on the specific structures, along with instructions for proper operation and recommended maintenance. The manuals shall be reviewed annually to ensure that updated maps, BMP information sheets, and current inspection sheets are available.

### **2.6.6 STRUCTURAL BMP OPERATION & MAINTENANCE WASTE DISPOSAL PROCEDURES**

Waste materials generated from operation, maintenance, and cleaning activities associated with storm sewer systems has typically been discharged back into the storm sewer system. This type of discharge is unauthorized per Part 31, Water Resources Protection (Part 31) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and is therefore illegal. The combined solid and liquid waste stream (solid/liquid waste) from cleaning storm sewer systems is legally defined as "Liquid Industrial Waste" pursuant to Part 121, Liquid Industrial Wastes (Part 121) of NREPA.

OS will ensure that all waste materials generated during operation and maintenance of structural stormwater controls are properly characterized, transported, and disposed as required under State of Michigan PA 451 Part 111 (hazardous wastes), Part 121 (liquid industrial wastes), and Part 115 (solid wastes). At a minimum, the following procedures will be implemented for wastes generated from cleaning or maintaining storm sewer structural controls.

#### **Structural BMP Operation & Maintenance Waste Characterization**

Prior to conducting cleaning or maintenance to storm sewer structural controls, the contractor and their certified stormwater operator will complete a waste generation determination. This determination will include a visual inspection of the structure and identification of any waste materials to be generated during the cleaning or maintenance process. The certified operator will document a description of materials currently in the structure and other observations used to determine if potential contaminants are present.

Visual observations and physical characteristics to be examined and documented as part of the waste characterization protocols include identification or the presence of:

- Oil or petroleum sheens
- Sedimentation or solids
- Odors
- Color
- Staining

- Vegetation conditions
- Floatables
- Other damage to the structure or observations identifying potential contaminants

Visual observations will be recorded, and an assessment completed determining if additional evaluation or testing will be required prior to removal of the wastes. Contaminated materials will be characterized using physical & chemical analysis as required to determine if the resulting wastes are hazardous wastes regulated under part 111 of PA 451 (NREPA). Non-hazardous contaminated materials will be removed and managed as “Liquid Industrial Waste” as required under part 121 of PA 451 (NREPA).

### **Waste Disposal Methods for Non-Contaminated Materials**

Non-contaminated waste materials generated during cleaning or maintenance of storm sewer structures will be properly disposed using one of the following methods:

1. Have the waste transported to drying beds to separate the solid/liquid waste. This is usually performed at a publicly owned treatment plant or at a privately-owned permitted facility where the liquid portion of the waste stream is separated from the solids and treated.
2. Request permission from the local wastewater treatment plant operator to discharge the combined solid/liquid waste into the sanitary system. Most treatment plants will require pre-treatment prior to the discharge. All applicable local ordinance provisions must be followed.
3. When conducting catch basin maintenance activities where the above options are not available, the following method can be used as long as there are no discharges to surface waters during dry weather conditions.
  - 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 the water, it should be collected into a vacuum truck and treated as waste under Part 121 or Part 115 of PA 451 (NREPA).
  - Using a sump pump, or any other pumping mechanism, remove the majority of water in the sump of the basin without disturbing the solid material below. Do not use pumps connected to the vacuum truck’s holding tank.
  - The clear water may then be directly discharged to one of the following:
    - Sanitary system (with prior approval from local sewer authority).
    - Curb and gutter.
    - Back into the storm sewer system as long as it is contained within the system during dry weather condition 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 remaining liquid/solid in the sump should be collected with a vacuum truck and disposed of off-site in accordance with MI P.A. 451 Parts 115 or 121.

OS does not currently own or operate storm sewer cleaning or transportation equipment. If OS contracts with a private contractor to transport liquids generated from cleaning of catch basins or

other structures, that contractor must be registered and permitted as a Uniform Liquid Industrial Waste Hauler under the provisions of HMTA.

#### **Waste Disposal Methods for Contaminated Materials**

Waste materials generated during operation and maintenance of storm sewer systems found or suspected to be contaminated with pollutants or hazardous substances will be characterized, packaged, marked, labeled, stored, transported, and disposed as a regulated waste under Part 121 or Part 115 of PA 451 (NREPA).

### **2.6.7 POLLUTION PREVENTION/GOOD HOUSEKEEPING MUNICIPAL OPERATIONS & MAINTENANCE ACTIVITIES**

#### **Policy:**

The purpose of this policy is to establish the procedure for assessing the potential for pollutants from operation and maintenance activities at Oakland Schools (OS)-owned or operated facilities that discharge to surface waters of the state.

#### **Background:**

The EGLE NPDES Phase II Stormwater Discharge Permit Application requires a procedure for identifying operation and maintenance activities that have the potential to discharge pollutants to surface waters of the state. The assessment shall identify all pollutants that could be discharged from each applicable operation and maintenance activity and the BMPs being implemented or to be implemented to prevent or reduce pollutant runoff.

#### **Operation and maintenance activities assessment:**

The operation and maintenance activities that are conducted at or within OS facilities with a discharge of stormwater to surface waters of the state have been evaluated for the potential to discharge pollutants such as:

- sediment,
- nutrients,
- metals,
- hydrocarbons,
- pesticides,
- chlorides,
- trash,
- bacteria, or
- other site-specific pollutants that could be discharged from those activities are identified.

The BMPs that are implemented to reduce pollutant runoff for each operation and maintenance activity are identified in the table below.

OS Operation and Maintenance Activity	Potential Pollutants that could be Discharged	BMP's Implemented to Reduce Pollutant Runoff
Cold Weather Operations: -Plowing -Salt Application -Snow Pile Disposal	<ul style="list-style-type: none"> <li>• Sediment</li> <li>• Metals</li> <li>• Hydrocarbons</li> <li>• Chlorides</li> </ul>	<ul style="list-style-type: none"> <li>• Routinely calibrate spreaders</li> <li>• Minimize the use of salt and/or sand to the maximum extent practicable</li> <li>• Mechanical removal of as much snow/ice as possible prior to applying deicing chemicals</li> <li>• Snow pile areas shall be concentrated within grassed areas to the maximum extent practicable</li> </ul>
Vehicle Washing and Maintenance (i.e. vactor trucks, truck fleet, televising trucks, etc.)	<ul style="list-style-type: none"> <li>• Sediment</li> <li>• Nutrients</li> <li>• Metals</li> <li>• Hydrocarbons</li> <li>• Chlorides</li> <li>• Trash</li> </ul>	<ul style="list-style-type: none"> <li>• Trucks and vehicles are taken to a commercial carwash or cleaned indoors where wash water discharges to the sanitary sewer system</li> </ul>
Landscape Maintenance	<ul style="list-style-type: none"> <li>• Sediment</li> <li>• Nutrients</li> <li>• Trash</li> </ul>	<ul style="list-style-type: none"> <li>• Contractors are used for pesticide applications. Oakland Schools requires contractors to be certified pesticide applicators through MDARD.</li> <li>• Manage invasive plant species to improve water quality and wildlife habitat.</li> <li>• Maintain no-mow and fertilizer-free buffer zones adjacent to waterways.</li> </ul>

#### **Assessment:**

Pollution prevention inspections ensure that these BMPs are carried out properly. Any issues identified during the inspections will be reviewed and addressed by the Stormwater Manager.

### **2.6.8 STREET SWEEPING PROCEDURE, PRIORITIZATION & SCHEDULE**

#### **Prioritization**

The EGLE NPDES Phase II Stormwater Discharge Permit requires a procedure for prioritizing owned streets, parking lots, and other impervious infrastructure for street sweeping based on the potential to discharge pollutants.

OS evaluated each facility for the presence of the following factors:

- Absence of any factors
- Potential for polluting activities to be conducted outside
- Proximity to water bodies



- Traffic volume
- Land use

#### **Procedure**

OS does not own or operate sweeping equipment. OS will be proactive regarding

1. Conduct seasonal efforts to remove leaves.
2. Inspect parking lot and street areas.
3. Conduct hand sweeping of debris to prevent accumulated wastes.
4. Waste disposal areas will be kept free of litter and debris.
5. Analyze sediment, removed from an inlet cleaning if it is suspected of being contaminated with a hazardous material, prior to disposal. Sediment or materials determined to be hazardous waste will be disposed of in accordance with Section 2.6.6 Structural BMP Operation & Maintenance Waste Disposal procedures.
6. Contract out street cleaning when appropriate.

This prioritization will be updated as facilities and structural stormwater controls are added, removed, or no longer owner or operated by the applicant following routine inspections, or as traffic volume, land use or sediment and trash accumulation increases.

#### **Prioritization Levels & Schedule**

All low, medium, and high prioritized parking lots and streets are inspected on the same schedule in an effort to reduce pollutants.

<b>Oakland Schools Facility Name</b>	<b>Priority Level of Potential Discharge (High, Med, Low)</b>	<b>BMP's Implemented to reduce pollutant runoff at Med or Low priority facilities</b>
Oakland Schools Intermediate School District Administration Building (Waterford)	Low	Annual Hand Sweeping each Spring with Bimonthly Inspections, Hand Clean as Needed
Oakland Schools Northeast Campus (Pontiac)	Med	Annual Hand Sweeping each Spring with Bimonthly Inspections, Hand Clean as Needed
Oakland Schools Southwest Campus (Wixom)	Med	Annual Hand Sweeping each Spring with Bimonthly Inspections, Hand Clean as Needed

### **Disposal**

If a commercial street sweeper is contracted to clean parking lot and street areas for OS, the street sweeping activities are subject to the solid waste requirements. Solid waste must be managed under Part 115 requirements. Dispose of the solid waste in a licensed landfill. The contractor hired to do the street sweeping is responsible for proper disposal of the waste material. The contracted sweeping will not be completed when streets are wet, so dewatering of the collected debris should not be required.

### **2.6.9 MANAGING VEGETATED PROPERTIES**

OS has established this policy to prevent or reduce pollutant runoff from vegetated land.

1. OS will require all contracted personnel who participate in the application of pesticides to be trained and licensed by the State of Michigan under the Commercial Pesticide Application Certification Program for relevant categories as applicable, to prevent or reduce pollutant runoff from vegetated land.
2. Whenever practicable, integrated pest management techniques will be implemented.

### **2.6.10 CONTRACTOR REQUIREMENTS & OVERSIGHT**

OS to require contractors to comply with pollution prevention and good housekeeping BMPs. OS will perform periodic inspections and one or all of the following activities for applicable contractors and projects to comply with all pollution prevention and good housekeeping BMPs as appropriate and comply with pollution as well as provide oversight to ensure compliance:

- Contractor Notification
- Require Proof from Contractor of all Applicable Training
- Pre-project Meeting/Review

### **2.6.11 POLLUTION PREVENTION/GOOD HOUSE KEEPING TRAINING**

A training program is an important component to effective pollution prevention. Training is required for all employees whose job responsibilities involve municipal or maintenance activities. Training is discussed in detail in Section 3.0 of this SWMP.

2.6.12 POLLUTION PREVENTION/GOOD HOUSEKEEPING –BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Pollution Prevention and Good Housekeeping for Municipal Operations					
BMP #1 - Structural Control Inventory	Provide an up to date inventory of the number of stormwater structural controls for each facilities (i.e. catch basins, detention ponds). Update facilities potential to discharge pollutants (high, medium, low) following the update.	OS	-Ongoing and As Necessary -Initial Update Completed Further Updates as Needed Within 60 days following the completion a new facility or reconstruction/ redevelopment.	100% of stormwater structural controls inventoried.	Maintain list of inventory and potential to discharge priority level. Submit updated list with progress report, noting if priority levels have changed.
BMP #2 - SWPPP Development & Implementation (SOP)	No PPP's needed - polluting material inventory conducted by WRC on June 25, 2013 and was below threshold quantities that would require a PPP; vehicle maintenance training program takes place indoors; drainage troughs inside go through an oil/water separator and then to the sanitary sewer system.	N/A	N/A	N/A	N/A
BMP #3 - Stormwater Structural Control Inspections	Visually inspect stormwater controls identified on facility maps.	OS	Annually	Routine schedule implemented and inspections reviewed by stormwater manager.	Maintain inspections form/reports regarding inspections Conducted at spring walk-through.
BMP #4 - Review for BMP's Implemented	While inspecting stormwater controls, review the site for BMPs currently implemented to prevent or reduce pollutant runoff at each facility; such as storm drain stencils, garden areas, areas cleaned, areas repaired, SEMCOG poster placement, Illicit discharge education posters, and spill kits.	OS	Annually	Annual inspections completed and reviewed by stormwater manager.	Documentation of inspection findings (number of posters, number of spill kits, inventory of gardens, pictures of stencils, pictures of spill kits).
BMP #5 - Prioritization of Storm Sewer Locations for Maintenance & Cleaning	Following the inspection, the stormwater controls should be prioritized for cleaning and maintenance. Prioritize locations based on (1) drainage structures that are designated as consistently generating the highest volumes of trash and/or debris, (2) areas with high amounts of build-up sediment, (3) areas of significant cracking or sinkholes.	OS	Annually	Prioritization locations identified.	Copy of prioritization.
BMP #6 - Cleaning & Maintenance (Catch Basin/ Manhole Cleaning)	OS will ensure that all waste materials generated during operation and maintenance of structural stormwater controls are properly characterized, transported, and disposed as required under State of Michigan PA 451 Part 111 (hazardous wastes), Part 121 (liquid industrial wastes), and Part 115 (solid wastes).	OS	Bi-Annually Every 2-Years and As Needed	Prioritized locations cleaned once per permit cycle. All waste disposed as required.	Copies of Waste Manifests.

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Pollution Prevention and Good Housekeeping for Municipal Operations					
BMP #7 - BMP Operation & Maintenance (O&M) Guidance Manuals	Maintain existing schedules, maps and inspection reports in current Operation & Maintenance Manuals. Develop Manuals for new facilities.	OS	Annually	Manuals reviews and updated annually.	Manuals up to date and available for review.
BMP #8 - Roadways & Parking Lots	Storm drains stenciled to prevent disposal of wash water into storm drains.	OS	As Needed	Storm drain stencils inspected and maintained as need.	Copy of work order and/or photos of stenciling.
BMP #9 - Cold Weather Operations	Proper salt storage management. Maintain storage bags and equipment in good working condition.	OS	Ongoing	Continue proper salt storage and management as previously implemented.	Copy of comprehensive inspection report.
BMP #10 - Vehicle Washing	-All vehicle washing, and maintenance is to be performed indoors where drains connecting to the sanitary system can receive all wastes. -Alternatively, rinse grass from lawn care equipment on permeable (grassed) areas. . -School car wash fundraising events will not be permitted on school grounds.	OS	Ongoing	-100 % of applicable staff trained on were to wash vehicles. -100 % of applicable staff trained on were to wash vehicles. -Notice sent to staff regarding policy.	Copy of email, policy or newsletter.
BMP #11 - Vehicle Maintenance	-All drains within maintenance garages will be dye tested to assure that no drains flow into the separate storm sewer system. -Oil-water separators will be inspected routinely and serviced as necessary to maintain efficiency. -Recycle used motor oil, diesel oil, other vehicle fluids, and vehicle parts whenever possible.	OS	-Annually -Annually -As Needed	-100% of floor drains inspected. -Oil-water separators cleaned and functioning properly. -Reduction in amount of disposed material and amount of material shipped for off-site disposal.	-Copy of inspection report. -Copy of invoices or shipping papers. -Copy of invoices or shipping papers.
BMP #12 – Bank Inspection	Inspect banks along properties to identify erosion or potential erosion problems and check for water clarity conditions. Properly maintain buffer areas.	OS	Annually	100% of bank inspections completed.	Copy of annual walkthrough inspection report

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Pollution Prevention and Good Housekeeping for Municipal Operations					
BMP #13 - Land Disturbance	Place temporary stockpiled material away from storm drains, and berm or cover stockpiles to prevent material releases into the storm drain. Protect against sediment flowing into drains.	OS	As Needed	100 % of applicable staff trained.	Copy of sign in sheets and Agenda (if available).
BMP #14 - Street Sweeping	-Yearly Sweeping -Bimonthly inspections of streets and parking lots; clean as needed. -Street sweeping conducted by a professional sweeping company.	OS	-Annually Every Spring -Bimonthly Inspections -Sweep As needed	Inspections completed.	-Copy of work order or schedule. -Copy of invoice or disposal documentation.
BMP #15 - Vegetated Properties (Pesticides)	OS shall require all contracted personnel who participate in the application of pesticides to be trained and licensed by the State of Michigan under the Commercial Pesticide Application Certification Program for relevant categories as applicable, to prevent or reduce pollutant runoff from vegetated land.	OS	Ongoing	Application of pesticides will only be completed by trained and licensed applicators.	Documentation of in-house staff license or copy of contractor receipt.
BMP #16 - Contractor Oversight	-OS shall require contractors to comply with pollution prevention and good housekeeping BMPs. OS will complete contractor notification, pre-project meeting and periodic inspections to provide oversight to ensure compliance. -Direct contractors to online “Contractor Training” prior to conducting work. [All Stormwater Training is outlined in Section 3.0 Training]	OS & Contractors/ Vendors	As Needed	Contractors training and informed of pollution prevention and good housekeeping techniques.	Copy of sign in sheets, pre-project meeting notes, inspections or bid specifications.
BMP #17 - Training	Pollution prevention and good housekeeping training.	OS	Once per permit cycle or during the 1st year of employment	Goal of providing training to maintenance staff who work for OS. [All Stormwater Training is outlined in Section 3.0 Training]	Copy of sign in sheets and Agenda (if available).
BMP #18 - Pollution Prevention & Good Housekeeping Activities Review	Summary of annual activities for the “Pollution Prevention and Good Housekeeping” component.	OS	Annually	Annual review of SWMP performed. Maintain copy of SWMP annual review.	Maintain copy of SWMP annual review and evaluation information for progress reporting.

### **3.0 TRAINING**

OS will provide education and training for applicable employees and contractors using a variety of methods depending on their specific job function. At a minimum, all applicable OS employees will be required to have general awareness training on the topics included in the PEP. All applicable OS employees will be required to attend or otherwise obtain general awareness training at least once per permit cycle or during the 1st year of employment. OS will develop, distribute, and monitor an employee training program addressing storm water management at all required Campuses. Elements of the training session will include (among other things):

- Campus storm water system design and function
- Regulatory obligations and compliance strategies
- Potential adverse impacts to storm water runoff due to site operations and activities
- Requirements prohibiting employees from contributing to storm water pollution
- How to avoid contaminating storm water runoff, including spill prevention and response

Training requirements will vary depending upon job duties. A separate program will be developed to address storm water issues affecting Maintenance and Buildings and Grounds employees; with another being developed for the general campus community who has only limited potential impact on the storm water system. Programs will be classroom, on-line, or both, depending upon the target audience. Training sessions will be scheduled at each campus for each target audience. Participation will be mandatory during the first year of the program. Refresher courses will be administered at intervals that will depend on the target group's compliance record and understanding of the topic. New employees will be required to participate in the appropriate training session based upon their job assignments as determined by the Manager of Environmental Health and Safety. All training records will be maintained by OS.

### **4.0 TOTAL MAXIMUM DAILY LOAD (TMDL) RESTRICTIONS**

#### **4.1 WHAT ARE TMDLS**

When a lake or stream fails to meet federal water quality standards, the Clean Water Act requires that a "Total Maximum Daily Load (TMDL)" limit be developed. Studies are completed to determine the sources impacting the water body and to develop goals so that the water body can meet the applicable standards.

A TMDL describes the process used to determine how much of a particular pollutant a lake or stream can assimilate and sets pollution reduction targets for the water body.

OS will review and prioritize BMPs currently implemented or to be implemented during the permit cycle to make progress toward achieving the pollutant load reduction requirement in each TMDL identified.

#### **4.2 CLINTON RIVER TMDL**

The Clinton River was placed on Section 303(b) list for **E. coli** due to impairment of recreational uses as indicated by the presence of elevated levels of **E. coli**. Illicit discharges are most likely a significant source of **E. coli** in the Clinton River watershed. Illicit connections can be a source of **E. coli** during both wet and dry weather. The watershed is entirely within a highly populated urban area.

The following Oakland County School facilities discharge stormwater either directly or indirectly within the Clinton River Watershed boundaries:

1. Oakland Schools Northeast Campus - Pontiac
2. Oakland Schools Administration Building – Waterford

### **4.3 KENT LAKE TMDL**

Based on water quality monitoring studies, in 1998 the Michigan Department of Environmental Quality (MDEQ) listed Kent Lake as threatened on the State’s 303(d) list of impaired waters requiring Total Maximum Daily Load (TMDL) establishment. The reason for the threatened status was cited as excess nonpoint source **Phosphorus** loading in the sub-watershed that eventually enters Kent Lake.

The following Oakland County School facilities discharge stormwater either directly or indirectly within the Kent Lake Watershed boundaries:

1. Oakland School Southwest Campus - Wixom

### **4.4 TMDL IMPLEMENTATION**

#### **4.4.1 PRIORITIZED TMDL BEST MANAGEMENT PRACTICES**

The below lists stormwater BMPs that are targeted to improve water quality impairments associated by the TMDL.

##### **E. COLI**

1. OS will use its website to provide the public with information regarding pet waste (SEMCOG links). Additionally, SEMCOG pet waste posters will be placed at various school buildings
2. OS will prohibit illicit discharges, inspect, and monitor suspected illicit discharges, and enforce elimination of the illicit discharges and connections.
3. OS will review all facilities for cross-connections between the sanitary and storm sewer systems.
4. Annual hand sweeping of parking lot and curb areas each Spring with Bimonthly Inspections and hand cleaned as needed.
5. OS will follow OCWRC standards for soil erosion and sediment control from new or redevelopment construction. Such developments require permits and inspections for practices to keep exposed soils on site or controlled from runoff.
6. OS shall implement routine visual inspections of stormwater structural controls.
7. OS will remove excessive sediments from structural sediment removal systems to maintain the maximum designed performance. Sediments will be disposed of offsite in accordance with Parts 115 or 121.

##### **PHOSPHORUS**

1. OS will implement prevention BMP’s such as leaf and compost collection programs, pet waste management programs, etc.
2. OS will use its website to provide the public with information regarding pet waste (SEMCOG links). Additionally, SEMCOG pet waste posters will be placed at various school buildings.

3. OS will determine how to incorporate Low Impact Development into new development and re-development as these projects arise.
4. OS will implement structural BMPs as opportunities arise.
5. Annual hand sweeping of parking lot and curb areas each Spring with Bimonthly Inspections and hand cleaned as needed.
6. OS will follow OCWRC standards for soil erosion and sediment control from new or redevelopment construction. Such developments require permits and inspections for practices to keep exposed soils on site or controlled from runoff.

#### **ALL TMDLs**

1. OS will use its website to provide the public information regarding local TMDL issues
2. OS will educate staff, faculty, and students using various venues including the **“Seven Simple Steps to Clean Water”** program educational materials developed by the various watershed groups specifically related to these issues on a stormwater management webpage.
3. OS to require implementation of the stormwater standards for construction.
4. Adequately maintains vegetation around stormwater facilities, ditches, and ponds.
5. Provide training to applicable staff and confirm training from contractors including restrictions on the use of phosphorous containing fertilizers, soaps, cleaners and other chemicals that could impact the separate storm drain system.

#### **Procedure**

Prioritization of BMPs is based on OS targeted TMDL pollutants. Priority is given to BMPs that reduce E. coli and Phosphorus loads and increase oxygen levels.

#### **Assessment**

The EGLE Phase II Stormwater Discharge Permit Application requires a monitoring plan for assessing the effectiveness of the BMPs currently being implemented, or to be implemented, in making progress toward achieving the TMDL pollutant load reduction requirement. Monitoring shall be specifically for the pollutant identified in the TMDL. Monitoring may include wet weather outfall/discharge point monitoring and dry-weather screening. A summary of the monitoring results and conclusions related to TMDLs will be provided during progress reporting.

OS will conduct the following for applicable TMDLs:

1. Samples will be collected at least twice during the permit cycle; including previous monitoring. The goal is to collect samples from at least 50% of the outfall/discharge points at facilities associated with the TMDL. An effort will be made to sample water quality parameters within 30 to 60 minutes of the start of a representative wet weather event (i.e. >0.25" and <1.5" over a 24-hour period).
2. The results of the sampling will be assessed and summarized in a brief report to be shared with the public via the stormwater webpage at least once during the permit cycle.
3. Based on a review of the sampling results, BMP implementation will be reviewed and BMPs may be updated or revised to ensure progress toward achieving TMDL pollutant load reductions.



4.4.2 TMDL - BMP TABLE

Best Management Practice (BMP) Action/Activity	BMP Description/Method of Implementation	Responsible Party	Schedule	Measurable Goal(s)	Method of Evaluating Effectiveness
Prioritized TMDL Best Management Practices					
BMP #1 Webpage	-OS will create a website to provide the public with information regarding pet waste (SEMCOG links). Additionally, SEMCOG pet waste posters will be placed at various school buildings. -OS will create a website to provide the public information regarding local TMDL issues (E.coli and Phosphorus TMDL Best Management Practice).	OS	Ongoing	-Posters placed throughout OS facilities. -Material available on webpages.	Maintain links on webpage. Maintain copies of webpage review.
BMP #2 Sampling	Samples will be collected outfall/discharge points at facilities associated with the TMDL. An effort will be made to sample water quality parameters during a representative wet weather event (i.e. >0.25” and <1.5” over a 24-hour period).	OS	Twice Per Permit Cycle	The goal is to collect samples from 50% of the outfall/discharge points at facilities associated with the TMDL.	Copy of inspection paperwork and sample results.
BMP #3 Sample Summary	The results of the sampling will be assessed and summarized in a brief report to be shared with the public via the stormwater webpage at least once during the permit cycle.	OS	Once per Permit Cycle	Report available for public review.	Report completed and available on webpage.

## Attachment “A”

**Outfall/Discharge Point Receiving Water Table & Site Stormwater  
Structure Maps**

FACILITY NAME	OUTFALL NO.	RECEIVING WATERS	EASTING	NORTHING
Oakland County Intermediate School District ms4 Discharge Points				
Oakland Schools Northeast Campus	01	Galloway Creek	13420068.0402	427532.7877
Oakland Schools Northeast Campus	02	Galloway Creek	13419801.9261	427529.6543
Oakland Schools Northeast Campus	03	Galloway Creek	13419558.5172	427459.3158
Oakland Schools Administration Building	01	Augusta Drain, Clinton River	13401439.6879	420876.4628
Oakland Schools Administration Building	02	Augusta Drain, Clinton River	13401999.5251	420783.2366
Oakland Schools Administration Building	03	Augusta Drain, Clinton River	13402687.4792	420841.6416
Oakland Schools Southwest Campus	01	Norton Creek	13352808.627	379744.811
<b><u>OTHER BUILDINGS</u></b>				
Oakland Schools Northwest Campus		No Offsite Stormwater Discharge	N/A	N/A
Oakland Schools Southeast Campus		Discharges to 12 Towns Drain (Combined Sewer)	N/A	N/A



OUTFALL  
No. 01

OUTFALL  
No. 02

OUTFALL  
No. 03

OAKLAND SCHOOLS  
NORTHEAST CAMPUS

OUTFALL STRUCTURE  
LOCATION MAP

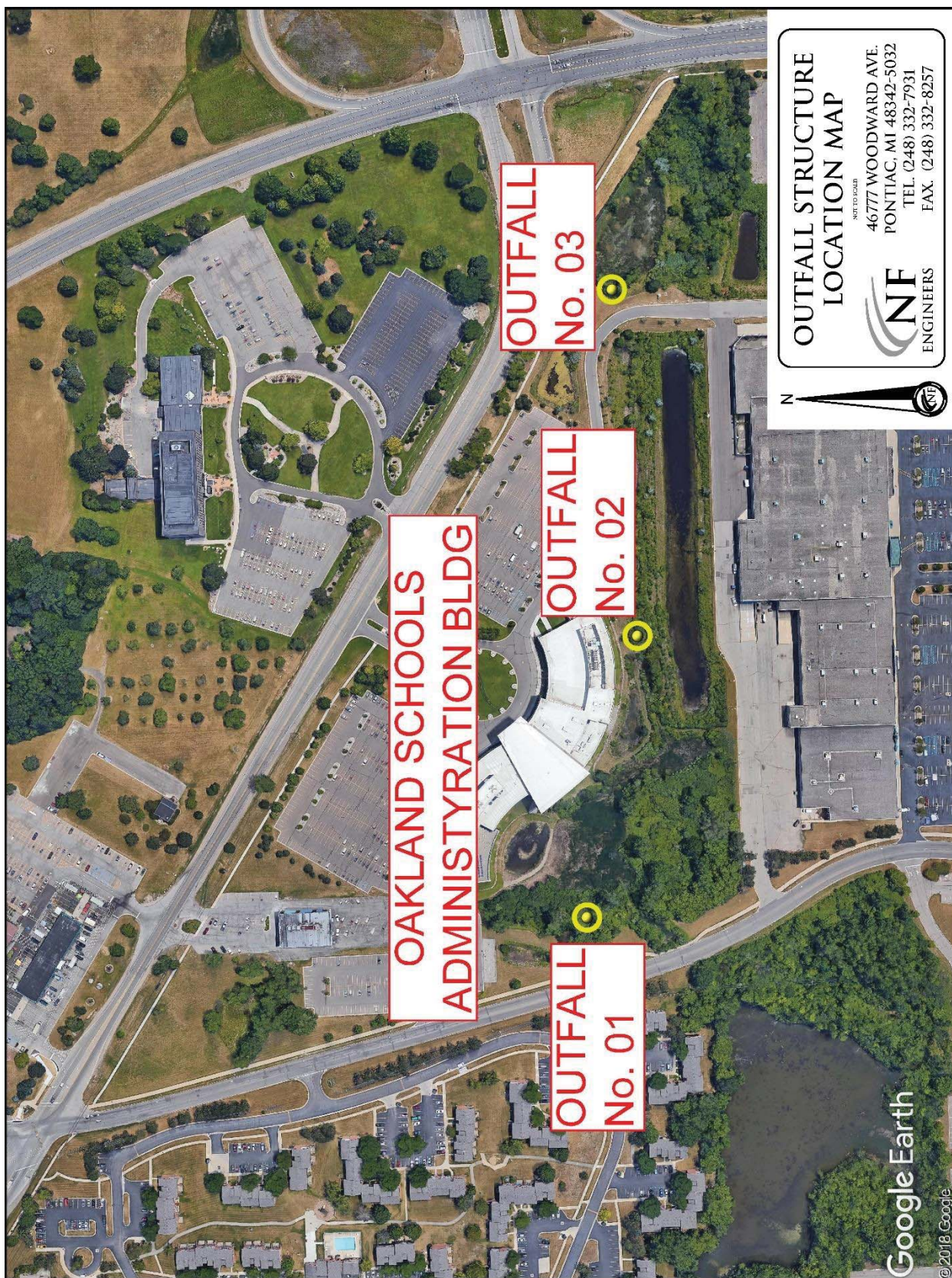
NOT TO SCALE

**NF**  
ENGINEERS

46777 WOODWARD AVE.,  
PONTIAC, MI 48342-5032  
TEL (248) 332-7931  
FAX (248) 332-8257

N





OAKLAND SCHOOLS  
ADMINISTRATOR BLDG

OUTFALL  
No. 03

OUTFALL  
No. 02

OUTFALL  
No. 01

**OUTFALL STRUCTURE  
LOCATION MAP**

NOT TO SCALE

**NF**  
ENGINEERS

46777 WOODWARD AVE.,  
PONTIAC, MI 48342-5032  
TEL (248) 332-7931  
FAX (248) 332-8257





OUTFALL  
No. 01



OAKLAND SCHOOLS  
SOUTHWEST CAMPUS



OUTFALL STRUCTURE  
LOCATION MAP

NOT TO SCALE

46777 WOODWARD AVE.  
PONTIAC, MI 48342-5032  
TEL. (248) 332-7931  
FAX. (248) 332-8257

**NF**  
ENGINEERS

Google Earth

## Attachment “B”

**Post Construction Stormwater Runoff Program  
Policy and Procedures  
&  
Municipal Separate Storm Sewer System  
Noncompliance Enforcement Tracking Sheet**

Municipal Separate Storm Sewer System Noncompliance Enforcement Tracking  
Oakland County Intermediate Schools District

Report Number	Name	Date	Location of Violation	Business/ Organization	Description of Violation	Description of Enforcement Response	Compliance Schedule Date	Date Violation Resolved
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								



# Post-Construction Stormwater Runoff Program Policy & Procedures



Oakland County Intermediate School District  
Oakland County, Michigan

August 1, 2019

## **Table of Contents**

1.0	Purpose and Overview
2.0	Water Quality Treatment Performance Standards
3.0	Channel Protection Performance Standard
4.0	Site Specific Criteria
5.0	Site Plan Review
6.0	Long Term Operation & Maintenance of BMPs
7.0	Summary

## **1.0 PURPOSE AND OVERVIEW**

Prevention of pollution from stormwater runoff and the protection of the quality of the waters of the State of Michigan are of utmost importance to the Oakland County Intermediate School District (OS). OS currently owns and operates separate storm sewer systems that discharge to surface waters or other municipal storm sewer systems (MS4).

The post-construction stormwater run-off controls are necessary to maintain or restore stable hydrology in receiving waters by limiting surface runoff rates and volumes and reducing pollutant loadings from sites that undergo development or significant redevelopment.

This policy is to establish the post construction stormwater runoff control standards. The objects of this program and associated procedures are to:

- a. Develop and implement regulatory mechanisms to address post-construction stormwater runoff for new development and redevelopment projects, including preventing or minimizing water quality impacts.
- b. Develop and implement regulatory mechanisms for projects that disturb one or more acre, including projects less than an acre that are part of a larger common plan of development or sale and discharge into the applicants MS4.
- c. Ensure post construction controls to minimize water quality impacts by following water quality treatment standards.
- d. Require that BMP's be designed on a site-specific basis to reduce post-development total suspended solids loading.
- e. Procedure for the use of Infiltration BMP's to meet water quality treatment and channel protection standards of new development or redevelopment projects.
- f. Address "hot spots".
- g. Submit site development plans for review and approval.
- h. Require adequate long-term O&M of BMPs by ordinance or other regulatory mean

The following sections identify specific actions to be taken by OS to ensure compliance with the applicable standards.

## **2.0 WATER QUALITY TREATMENT PERFORMANCE STANDARDS**

This policy is to establish OS goal to include water quality treatment volume standards for each new construction or redevelopment of projects where the area of disturbance exceeds one (1) acre as required by the EGLE NPDES Phase II Stormwater Discharge Permit. One or more of the following treatment standards should be included as part:

1. Treat the first one inch of runoff from the area of new construction or redevelopment, or
2. Treat the runoff generated ninety percent (90%) of all runoff-producing storms for the project site.

The source of the rainfall data for the water quality treatment standard of requiring the treatment of the runoff generated from the ninety percent (90%) of all runoff-producing storms is:

- The MDEQ memo dated March 24, 2006, which is available via the internet at [https://www.michigan.gov/documents/deq/wrd-hsu-ninety-percent\\_557709\\_7.pdf](https://www.michigan.gov/documents/deq/wrd-hsu-ninety-percent_557709_7.pdf)

Treatment methods shall be designed on a site-specific basis to achieve the following:

1. A minimum of eighty percent (80%) removal of total suspended solids (TSS), as compared with uncontrolled runoff, or
2. Discharge concentrations of TSS not to exceed 80 milligrams per liter (80mg/L).

A minimum treatment volume standard is not required where site conditions are such that TSS concentrations in stormwater discharges will not exceed 80mg/L.

Treatment methods shall be designed on a site-specific basis to reduce the discharge of sedimentation or TSS from the site. Such methods may include:

1. Stand-pipe filters in storm water detention basins
2. Sediment filter tanks
3. Catch basin sumps
4. Aqua-Swirls®
5. Treatment trains
6. Rain Gardens
7. Pervious pavement systems

### **3.0 CHANNEL PROTECTION PERFORMANCE STANDARDS**

This policy is to establish OS goal to address runoff rate and volume of discharges as required by the EGLE NPDES Phase II Stormwater Discharge Permit.

Oakland County Intermediate School District understands that channel protection criteria is necessary to maintain post-development stormwater runoff volumes and peak flow rates at or below existing levels for all storms up to the 2-year, 24-hour event. "Existing Levels" means the runoff volume and peak flow rate for the last land use prior to the planned new development or redevelopment.

Where more restrictive channel protection criteria already exists or is needed to meet the goals of reducing runoff volume and peak flows to less than existing levels on lands being developed or redeveloped, OS will consider use of the more restrictive criteria rather than the standard permit requirements.

A post-construction stormwater runoff program compliance assistance document is available via the internet at [www.michigan.gov/documents/deq/wb-storm-ms4-runoffvolume\\_331235\\_7.xls](https://www.michigan.gov/documents/deq/wb-storm-ms4-runoffvolume_331235_7.xls).

## **4.0 SITE SPECIFIC CRITERIA**

This policy is to establish OS goals to establish site specific requirements as required by the EGLE NPDES Phase II Stormwater Discharge Permit. Because each site has its' own special circumstances and conditions the following BMPs will be used as appropriate according to site conditions.

- Reduce runoff from the site to greatest extent possible (provide holding basins, divert water through grassed swales).
- Prevent spills and discharges.
- Control waste such as building materials, concrete washout, chemicals, litter, and sanitary waste.
- Phasing will be considered to limit amount of exposed soils.
- Interim soils stabilization methods are to be considered (temporary seeding, mulching etc.).
- Buffer preservation (avoid exposing soils to property limits).
- Inspection staff will be trained in the proper maintenance and operation of Soil Erosion and Silt Prevention measures.

OS will review construction plans for sites with known soil and/or groundwater contamination, including potential "hot spots" and evaluate the use of infiltration BMPs to meet water quality treatment and channel protection criteria. Hot spots include areas with the potential for significant pollutant loading such as vehicle service and maintenance facilities, vehicle equipment cleaning facilities, fleet storage areas for buses, and outdoor liquid container storage.

Additional water quality standards or pretreatment measures may be required in addition to those included in the water quality criteria in order to remove potential pollutant loadings from entering either groundwater or surface water systems.

Pretreatment measures include:

<b>Stormwater Hot Spots</b>	<b>Minimum Pre-Treatment Options</b>
<b>Vehicle service and maintenance facilities</b>	1. Oil/Water Separators/Hydrodynamic Devices. 2. Use of Drip Pans and/or Dry Sweep Material under Vehicles/Equipment 3. Use of Absorbent Devices to Reduce Liquid Releases 4. Spill Prevention Response Program
<b>Fleet storage areas for buses</b>	BMPs that are part of a Stormwater Pollution Prevention Plan (SWPPP)
<b>Vehicle Fueling Stations</b>	1. Oil/Water Separators/Hydrodynamic Devices 2. Water Quality Inserts for Inlets 3. Spill Prevention Response Program
<b>Vehicle equipment cleaning facilities</b>	BMPs that are part of a Stormwater Pollution Prevention Plan (SWPPP)
<b>Outdoor liquid container storage</b>	Spill Prevention Response Program

## **5.0 SITE PLAN REVIEW**

This policy is to establish requirements to submit a site plan for review as required by the EGLE NPDES Phase II Stormwater Discharge Permit. OS will prepare and submit a written application, including a site plan for review and approval of post-construction stormwater runoff BMPs, for all new construction or redevelopment projects where the area of disturbance exceeds one (1) acre. The application will be completed in a form and manner as prescribed by the local municipality or governing unit in which the property is located. The site plan will be reviewed by the appropriate local municipal, county, state or other governmental agency. The review of the stormwater site plan will provide OS with the ability to ensure that water quality objectives, erosion and sediment control requirements, and BMP maintenance are adequately considered.

The goal of the site plan review is to:

1. Minimize clearing and grading.
2. Protect waterways.
3. Limit soil exposure.
4. Protect steep slopes and cuts.

## **6.0 OPERATION & MAINTENANCE OF STORMWATER CONTROLS**

Oakland County Intermediate School District will identify all stormwater controls and mechanisms for all new construction or redevelopment projects where the area of disturbance exceeds one (1) or more acres. OS will develop *"BMP Operation and Maintenance"* guidance manuals for each property, including:

- Develop a map of each facility identifying the location and type of structural controls, if any exist.
- Develop a guidance manual that will provide a listing of structural controls including a site diagram showing the location of each control, instructions for inspection and operation, and the inspection and/or maintenance schedules for each control mechanism.
- Storm water runoff facilities, after construction and approval, shall be maintained in good condition, in accordance with the approved storm water plan.
- Update and revise the stormwater structural controls on facility site diagrams as identified during scheduled inspections or within 60 days following the completion a new facility or reconstruction/redevelopment site project.

The Director of Maintenance and Operations will ensure that local work instructions are developed based on BMP and O&M Guidance Manuals. OS trained staff or certified contractors will conduct routine inspection of all identified structural controls and complete maintenance, repair, or replacement as necessary.

## **7.0 SUMMARY**

The Oakland County Intermediate School District is committed to practicing sound stormwater management practices and to observance and adherence to all local, state and federal stormwater policies to the greatest extent possible. OS strives to be a good steward of the lands and waterways located within its jurisdiction. The goal of this ***“Post-Construction Stormwater Runoff Program, Policy & Procedures”*** resolution is to implement and enforce a program to minimize stormwater discharges and to improve the water quality into the drainage system from new and redevelopment projects.

## Attachment “C”

**SEMCOG Posters**



# How to Spot Illicit Discharges

## Sanitary Sewer Discharge

### Observations:

- Sanitary Debris
- Staining on pipe
- Heavy Foam
- Gray or Discolored Water
- Odors (sewage, chlorine, rotten eggs and detergents)



## Illegal Dumping, Spills, or Floor Drain

### Connection Observations:

- Oily Sheen
- Trash, non-sanitary debris
- Petroleum odors
- Stained sediment, rocks, and vegetation
- Vehicle bay washout



## Agricultural Runoff, Fertilizers, or Sanitary Sewer Waste Observations:

- Algae growth at or near outlet
- Heavy vegetation at or near outlet



## What to Report

- **Spills and Contamination to lakes, river and streams**  
District Stormwater Coordinator, EGLE, Environmental Health Department, Drain Commissioner's Office
- **Suspicious dumping or discharges from pipes**  
District Stormwater Coordinator, EGLE, Environmental Health Department, Drain Commissioner's Office
- **Sewage on the ground or in surface water**  
District Stormwater Coordinator, Environmental Health Department
- **Large number of dead fish in waterways**  
District Stormwater Coordinator, EGLE, Environmental Health Department
- **Failing or leaking septic systems**  
District Stormwater Coordinator, Environmental Health Department
- **Construction site soil erosion to waterways**  
District Stormwater Coordinator, local SESC Enforcing Agency
- **Polluted runoff from storage piles/dumpsters entering waterways**  
District Stormwater Coordinator, Environmental Health Department, Drain Commissioner's Office

## Important Numbers

### Emergency Call 9-1-1

- Pollution Emergency Alerting System (PEAS)

**1-800-292-4706**

### Non-Emergency

- School District Contact Number
- EGLE Environmental Assistance Center **1-800-662-9278**
- Eaton County Drain Commissioner **1-800-292-4706**
- Genesee County Drain Commissioner **1-810-732-2940**
- Livingston County Department of Public Health **1-517-546-9858**
- Macomb County Public Works **1-877-679-4357**
- Oakland County Water Resources **1-248-858-0958**
- Washtenaw County Drain Commissioner **1-724-222-6860**
- Wayne County Department of the Environment **1-888-223-2363**



# Seven Simple Steps to Clean Water

Our Water. Our Future.



1. Help keep pollution out of storm drains

2. Fertilize sparingly and carefully

3. Carefully store and dispose of household cleaners, chemicals, and oil

4. Clean up after your pet

5. Practice good car care

6. Choose earth friendly landscaping

7. Save water

Our Water. Our Future. Ours to Protect.

Find out more at [www.semco.org](http://www.semco.org).



# Remember, you're not just walking the dog

Our Water. Our Future.



Ours to Protect



## Clean up after your pet

Did you know that pet waste has bacteria that makes our lakes and rivers unsafe for swimming and other recreational activities?

That happens when **pet waste left on sidewalks or yards gets washed into storm drains**

or roadside ditches that lead directly to our lakes and rivers.

What can you do? Simple.

No matter where you are **dispose of your pet's waste promptly** in the toilet or trash.

Find out more at [www.semcog.org](http://www.semcog.org).



# Remember, you're not just getting rid of weeds and pests

Our Water. Our Future.



Ours to Protect



## Choose earth-friendly landscaping

Did you know you can **protect your kids, pets, and the environment** from the harmful effects of herbicides & pesticides by choosing earth-friendly landscaping? These chemicals wash off our lawns and gardens into our storm drains, which lead to our lakes and rivers.

What can you do? Simple.

**Spot treat for specific pests and weeds or remove by hand.** Mulch around plants. **Water your lawn only when it needs it.** Attract butterflies and birds by **adding plants that are native to Southeast Michigan.**

**Find out more at [www.semcog.org](http://www.semcog.org).**

Brought to you by the Southeast Michigan Partners for Clean Water.

Support provided by SEMCOG, the Southeast Michigan Council of Governments (313-961-4266) and the Rouge River National Wet Weather Demonstration Project.



# Remember, it's not just toxic to you

Our Water. Our Future.



## Carefully store and dispose of household cleaners, chemicals, and oil

Did you know that many **household products are dangerous to our pets, kids, and the environment?**

These materials get into our lakes and rivers if washed or dumped into a storm drain or roadside ditch.

What can you do? Simple.

**Proper disposal is key.** Take household cleaners, pesticides, gasoline, antifreeze, used oil, and other dangerous products to your **community's household hazardous waste collection day.** Contact your community for more information on these events.

Find out more at [www.semcoq.org](http://www.semcoq.org).



# Remember, you're not just fertilizing your lawn

Our Water. Our Future.



Ours to Protect



## Fertilize sparingly and carefully

Storm drains found in our streets and yards empty into our lakes and streams. So, **when we fertilize our lawn we could also be fertilizing our lakes and streams**. While fertilizer is good for our lawn, it's bad for our water. Fertilizer in our lakes and streams causes algae to grow.

Algae can form large blooms and uses up oxygen that fish need to survive. With 1.5 million homes in Southeast Michigan, all of us need to be aware of the far-reaching effects of our lawn care practices.

**What can you do?** Simple. Use a **no or low phosphorus fertilizer**, select a **slow release** fertilizer where at least half of the nitrogen is water insoluble (check the ingredients on the label), keep fertilizer away from lakes, streams, and storm drains, and **sweep excess fertilizer** back onto your lawn. Not only will our lakes and streams thank you, but so will your pocketbook!

Find out more at [www.semcog.org](http://www.semcog.org).



# Remember, you're not just washing your car

Our Water. Our Future.



Ours to Protect



## Practice good car care

Did you know there are over four million vehicles in Southeast Michigan? **Practicing good car care helps protect our lakes and streams.**

How? Storm drains and roadside ditches lead to our lakes and streams. So, if motor fluids or dirty water from washing our cars are washed or dumped into the storm drain, it pollutes our local waterways.

What can you do? Simple. **Keep your car tuned and fix leaks** promptly, **recycle used motor oil** and other fluids, **take your car to the carwash or wash your car on the grass.**

Find out more at [www.semcog.org](http://www.semcog.org).



# Remember, it ALL drains to our lakes and rivers

Our Water. Our Future.



Ours to Protect



## Keep pollution out of storm drains

Storm drains and roadside ditches lead to our lakes and streams. **So, any oil, pet waste, leaves, or dirty water from washing your car or other outside activities** that enters a storm drain gets into our lakes and streams.

How can you help? Simple. **Use a broom instead of a hose** to clean your driveway. Keep leaves, grass clippings, and trash away from the storm drain, and **never dump motor oil, pet waste, or dirty, soapy water** down the storm drain.

**Remember, only rain in the drain!**

Find out more at [www.semcog.org](http://www.semcog.org).



## Attachment “D”

### Inspection Field Worksheets

## Storm Sewer Structure Operation Maintenance Waste Characterization Disposal Record

**Building:**

**Client:**

**Address:**

**Inspectors:**

## Visual Observations

[illegible]

## Structural BMP Table

Inspectors:	Building:	

Client:		
Start Date:	<div></div>	<div></div>
Inspection Type:		

[illegible]

## Screening Inspection Log

Building:				Client:			
Inspectors:				Date:			
				Inspection Type:			
Structure Information:							
ID Number:		Structure Type		Lat:		Long:	
Type:		Location:					
Outfall Dimensions:							
Observations:							
<u>Standing Water Characteristics</u>		<u>Flow Characteristics</u>		<u>Maintenance</u>			
Standing Water:		Flow Observed:		Cleaning:			
Color:		Source of Flow:		Blockages:			
Odor:		Velocity of Flow:		Structural Issues:			
Suds:		Color of Flow:		Structural Trend:			
Staining:		Flow Odor:		Stenciling:			
Oil Sheen:		<u>Additional Comments:</u>					
Sewage:							
Bacterial Sheen:							
Algae:							
Slimes:							
Abnormal Growth:							
<u>Sample ID And Information</u>		<u>Field Analysis:</u>	<u>Results:</u>	<u>Units:</u>	<u>Initials:</u>	<u>Photo ID:</u>	
Sample Collected?		pH:		pH units			
Round:		Temperature:		Celsius			
Last Rain Event:		Surfactants:		mg/L			
Current Weather:		Ammonia:		mg/L			
Screening Location Type:		Chlorine:		mg/L			
Other Screening Activities Conducted:		Turbidity:		NTU			
Outfall Characterization:		Conductivity:		uohm/cm			
Sample sent to Lab:		<u>Equipment Calibration:</u>					
		Date:	Cal. By:				

# Illicit Discharge Investigation Checklist

Building \_\_\_\_\_  
Client \_\_\_\_\_  
Date \_\_\_\_\_

Illicit Connection On Site? \_\_\_\_\_

## Locations Inspected

### Boiler Room

Floor Drains \_\_\_\_\_  
Sump Pump \_\_\_\_\_  
Slop Sinks \_\_\_\_\_  
Toilets \_\_\_\_\_  
Sinks \_\_\_\_\_  
Laundry \_\_\_\_\_  
Pool Discharge \_\_\_\_\_  
Other Drains \_\_\_\_\_  
Comments \_\_\_\_\_

### Pool Room

Floor Drains \_\_\_\_\_  
Sump Pump \_\_\_\_\_  
Slop Sinks \_\_\_\_\_  
Toilets \_\_\_\_\_  
Sinks \_\_\_\_\_  
Laundry \_\_\_\_\_  
Pool Discharge \_\_\_\_\_  
Other Drains \_\_\_\_\_  
Comments \_\_\_\_\_

### Bathrooms

Floor Drains \_\_\_\_\_  
Sump Pump \_\_\_\_\_  
Slop Sinks \_\_\_\_\_  
Toilets \_\_\_\_\_  
Sinks \_\_\_\_\_  
Laundry \_\_\_\_\_  
Pool Discharge \_\_\_\_\_  
Other Drains \_\_\_\_\_  
Comments \_\_\_\_\_

### Other

Floor Drains \_\_\_\_\_  
Sump Pump \_\_\_\_\_  
Slop Sinks \_\_\_\_\_  
Toilets \_\_\_\_\_  
Sinks \_\_\_\_\_  
Laundry \_\_\_\_\_  
Pool Discharge \_\_\_\_\_  
Other Drains \_\_\_\_\_  
Comments \_\_\_\_\_

### Custodial Area

Floor Drains \_\_\_\_\_  
Sump Pump \_\_\_\_\_  
Slop Sinks \_\_\_\_\_  
Toilets \_\_\_\_\_  
Sinks \_\_\_\_\_  
Laundry \_\_\_\_\_  
Pool Discharge \_\_\_\_\_  
Other Drains \_\_\_\_\_  
Comments \_\_\_\_\_

### Other

Floor Drains \_\_\_\_\_  
Sump Pump \_\_\_\_\_  
Slop Sinks \_\_\_\_\_  
Toilets \_\_\_\_\_  
Sinks \_\_\_\_\_  
Laundry \_\_\_\_\_  
Pool Discharge \_\_\_\_\_  
Other Drains \_\_\_\_\_  
Comments \_\_\_\_\_

## Stream Habitat Walk - General Site Information

<b>Site</b>			
<b>Stream Name</b>			
<b>County</b>			
<b>State</b>			
<b>Investigators</b>			
<b>Date</b>			
<b>Site Description</b>			
<b>Number of Regions</b>	Text		
<b>Weather in the past 24 Hours?</b>			
<b>Current Weather</b>			

## In Stream Characteristics

<b>Region ID</b>					
<b>Check which Stream Habitats are present (you can select more than one):</b>					
	Pool(s)		Riffle(s)		Run(s)
<b>Nature of particles in the stream bottom at site:</b>					
	None/Little	Some	Most		
Silt/Clay/Mud					
Sand (<0.1")					
Gravel (0.1-2")					
Cobbles (2-10")					
Boulders (>10")					
Bedrock (solid)					
<b>Pick the category that best describes the extent to which gravel, cobbles, and boulders on the stream bottom are embedded (sunk) in silt, sand, or mud</b>					
<b>Presence of logs or large woody debris in stream:</b>					
<b>Presence of naturally occurring organic material (leaves and twigs) in stream:</b>					
<b>Water Appearance</b>					

**Water Odor:**


**Streambank and Channel Characteristics**

**Approximate Depth of Run(s):**

--

**Approximate Depth of Pool(s):**

--

**Approximate Width of Stream Channel:**

0	Feet	Estimated
---	------	-----------

**Stream Velocity**

0	Feet/Second	Estimated
---	-------------	-----------

**Looking upstream (100 yds), pick the description that best fits the shape of the stream bank and the channel:**

Left Stream Bank	Right Stream Bank
Left Extent of Artificial Bank Modifications	Right Extent of Artificial Bank Modifications

**Shape of the Channel**

--	--	--

**Looking upstream, describe the stream side cover.**

Left	Water's Edge	Right
	Trees	
	Bushes, shrubs	
	Tall Grasses, Ferns, etc	



	Lawn	
	Boulders/Rocks	
	Gravel/Sand	
	Bare Soil	
	Pavement/Structures	
<b>Left</b>	<b>Top of bank out 25 yds</b>	<b>Right</b>
	Trees	
	Bushes, shrubs	
	Tall Grasses, Ferns, etc	
	Lawn	
	Boulders/Rocks	
	Gravel/Sand	
	Bare Soil	
	Pavement/Structures	
<b>Pick the category that best describes the extent to which vegetation shades the stream at your site</b>		
<b>Looking upstream, note the general conditions. Note if condition is present or significant.</b>		
<b>Left</b>	<b>Stream Banks</b>	<b>Right</b>
	Natural stream side plant cover	
	Banks collapsed / eroded	
	Garbage/junk adjacent to stream	
	Foam or sheen on bank	
<b>Left</b>	<b>Channel</b>	<b>Left</b>
	Mud, silt or sand in or entering stream	

	Garbage/Junk in the stream	
<b>Left</b>	<b>Other</b>	<b>Right</b>
	Yard Waste on bank	
	Livestock in or with unrestricted access to stream	
	Actively Discharging Pipes	
	Other Pipes entering the stream	
	Diches entering the stream	
<b>Land uses in the local watershed can potentially have an impact on a stream. Check if present or if having an impact on the stream.</b>		
<b>Residential</b>		
	Single-Family Housing	
	Multifamily Housing	
	Lawns	
	Commercial/Institutional	
<b>Roads / Access</b>		
	Paved Roads or Bridges	
	Unpaved Roads	
<b>Construction Underway</b>		
	Housing Development	
	Commercial Development	
	Road Bridge Construction/Repair	
<b>Agricultural</b>		
	Grazing Land	
	Feeding Lots or Animal Holding Areas	
	Cropland	
	Inactive Agricultural Land/Fields	

<b>Recreation</b>			
	Power Boating		
	Golfing		
	Camping		
	Swimming/Fishing/Canoeing		
	Hiking/Paths		
<b>Other</b>			
	Mining or gravel pits		
	Logging		
	Industry		
	Oil and gas drilling		
	Trash Dump		
	Landfill		
<b>Wildlife in or around the stream? (Mark all that apply)</b>			
	Amphibians		Waterfowl
	Reptiles		Mammals
<b>Fish in the Stream?</b>			
<b>Are there any barriers to fish movement?</b>			
	Beaver Dams		Waterfalls >1 ft
	None		Dams
	Road Barriers		Other
<b>Aquatic Plants in the Stream? (mark all that apply)</b>			
	None		Occasional
	Plentiful		Attached
	Free Floating		Stream Margin
	Pools		Near Riffle

**Extent of Algae in Stream? (Mark all that apply)**

	None		Occasional
	Plentiful		Light Coating
	Heavy Coating		Brownish
	Greenish		Other

**Are there any filamentous (string-like) algae?**

	None		Occasional
	Plentiful		Brownish
	Greenish		Other

**Are there any detached "clumps" or "mats" of algae floating on the water's surface?**

	None		Occasional
	Plentiful		Brownish
	Greenish		Other

**General comments:**

## Attachment “E”

**Illicit Discharge Illegal Spill Reporting Form**

**District Illicit Discharge/Illegal Dumping Reporting Form  
Oakland County Intermediate School District**

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

Inspectors: \_\_\_\_\_

**I. ORIGIN OF REPORT**

**1. Describe the reason for conducting the investigation.**

- |   |   |
|---|---|
| <input type="checkbox"/> Illicit Discharge Inspection (Routine) | <input type="checkbox"/> Facility Staff |
| <input type="checkbox"/> Citizen Complaint                      |   |
| <input type="checkbox"/> Other _____                            |   |

**II. SOURCE**

**1. Describe location of source of discharge (company name, address, cross streets, physical features, etc.)**

\_\_\_\_\_

**2. Describe the Source:**

- |  |  |
|--|--|
| <input type="checkbox"/> Residential       | <input type="checkbox"/> Transportation Facility |
| <input type="checkbox"/> Construction Site | <input type="checkbox"/> Custodial               |
| <input type="checkbox"/> Other _____       |  |

**3. Facility of the Source:** \_\_\_\_\_

\_\_\_\_\_

**III. TYPE**

**1. Describe the type of material discharged:**

- |  |   |
|--|---|
| <input type="checkbox"/> Sanitary Leak/Spill         | <input type="checkbox"/> Paint Discharge            |
| <input type="checkbox"/> Dumpster Discharge          | <input type="checkbox"/> Cleaning Discharge         |
| <input type="checkbox"/> Unhardened Cement Discharge | <input type="checkbox"/> Paint Discharge            |
| <input type="checkbox"/> Vehicle Repair              | <input type="checkbox"/> Vehicle Washing            |
| <input type="checkbox"/> Grey Water Discharge        | <input type="checkbox"/> Landscape Material Dumping |
| <input type="checkbox"/> Cooling Water Discharge     | <input type="checkbox"/> Allowable Discharge        |
| <input type="checkbox"/> Other _____                 |   |

Provide Additional Information: \_\_\_\_\_

\_\_\_\_\_

**2. Other Sources:**

- |   |
|---|
| <input type="checkbox"/> Illicit Connection |
| <input type="checkbox"/> Construction Site  |
| <input type="checkbox"/> Other _____        |

**IV. FOLLOW-UP AND ENFORCEMENT ACTIVITIES**

**1. Describe Corrective Actions:** \_\_\_\_\_

\_\_\_\_\_

**2. Describe Enforcement Action:**

- |   |   |
|---|---|
| <input type="checkbox"/> None/Incident Resolved | <input type="checkbox"/> Verbal Notice      |
| <input type="checkbox"/> Administrative Action  | <input type="checkbox"/> Cleaning Discharge |

**3. Date Resolved:** \_\_\_\_\_

**4. Responsible Party**

Signature \_\_\_\_\_