# Birmingham Public School
# Stormwater Management Program Plan

# Municipal Separate Storm Sewer System (MS4)
# National Pollutant Discharge Elimination System (NPDES)
# Stormwater Discharge Permit

# PERMIT NO. MI0059973

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Creation Date: January 31, 2022
Revised: May 2, 2023

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# Stormwater Management Program Plan

## 1.0 Introduction

Birmingham Public Schools is a public school district based in Birmingham, Michigan, that owns or operates a regulated Municipal Separate Storm Sewer System (MS4). This Stormwater Management Plan (SWMP) has been developed to retain authorization to discharge stormwater to surface waters and reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable and protect water quality. Birmingham Public Schools will implement and enforce this SWMP to the Maximum Extent Practicable.

This Stormwater Management Plan commits to actions throughout the permit cycle. This SWMP includes measurable goals for Best Management Practices (BMP), focusing on the six minimum measures. Measurable goals describe the actions Birmingham Public Schools will take to implement each BMP and allow Birmingham Public Schools to evaluate progress toward meeting key objectives outlined in the following sections.

Birmingham Public Schools owns and operates five (5) public properties within the boundaries of the "Detroit Urbanized Area". All Birmingham Public Schools properties are within the urbanized area based off of the 2010 Census data, and the facilities include:

1. **Berkshire Middle School**, 21707 W. 14 Mile Road, Beverly Hills, MI 48025
2. **Bingham Farms Elementary/Environmental Center,** 23400 W. 13 Mile Road, Bingham Farms, MI 48025
3. **Groves High School**, 20500 W. 13 Mile Rd., Beverly Hills, MI 48025
4. **Harlan Elementary Schools,** 3595 N. Adams Rd., Bloomfield Hills, MI 48304
5. **West Maple Elementary School,** 6275 Inkster Rd., Bloomfield Hills, MI 48301

Currently, Beverly Elementary School, Birmingham Covington School, Derby Middle School, Greenfield Elementary School, Lincoln Street Alternative School, Maintenance Facility, Midvale Early Childhood Center, Pembroke Elementary School, Pierce Elementary School, Quarton Elementary School, Seaholm High School, and the Transportation Facility, owned by BPS are on a combined sewer system and are not included on this permit application.

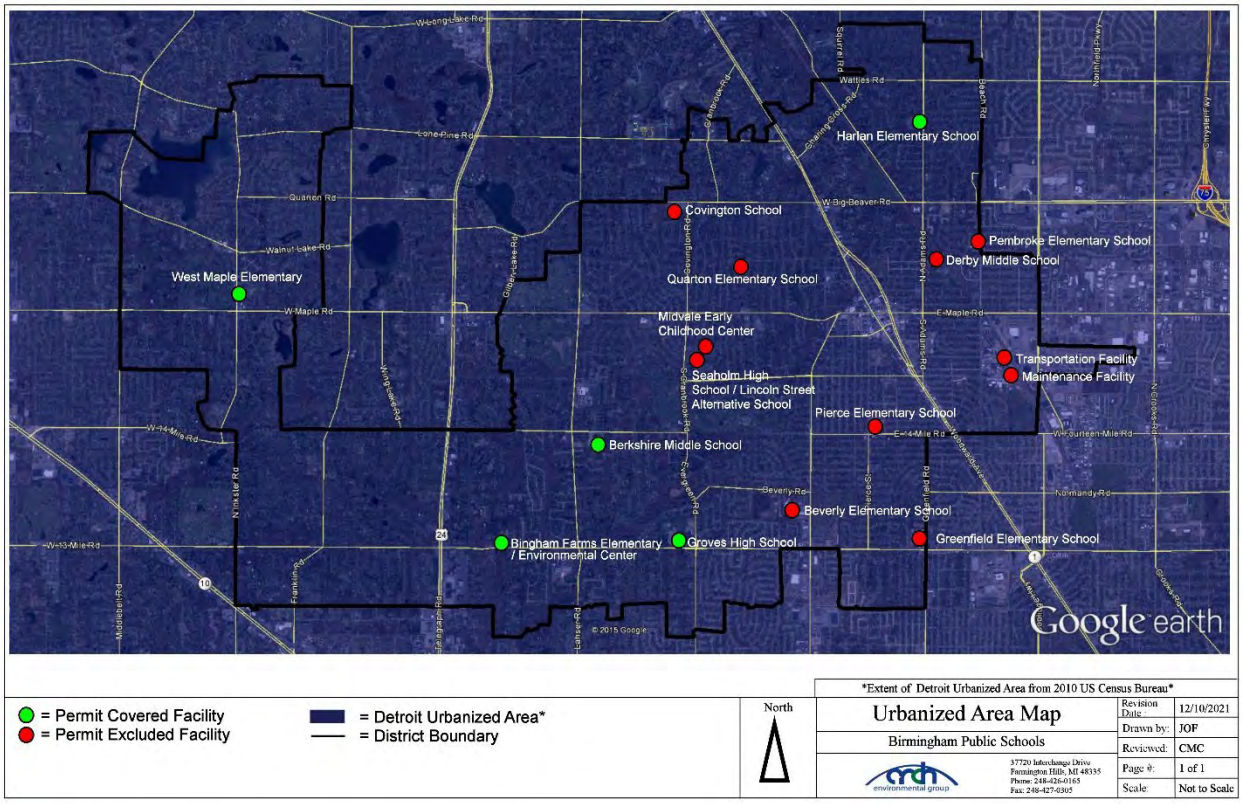


Creation Date: January 31, 2022
Revised: May 2, 2023

## 1.1 Regulated Area

A map identifying the urbanized area within the Birmingham Public Schools urbanized area as defined by the 2010 Census is provided below in Map 1.

**Map 1 – District Jurisdictional Boundary Map – Urbanized Area**[1]




## 1.2 Outfalls & Discharge Points/ Receiving Waters

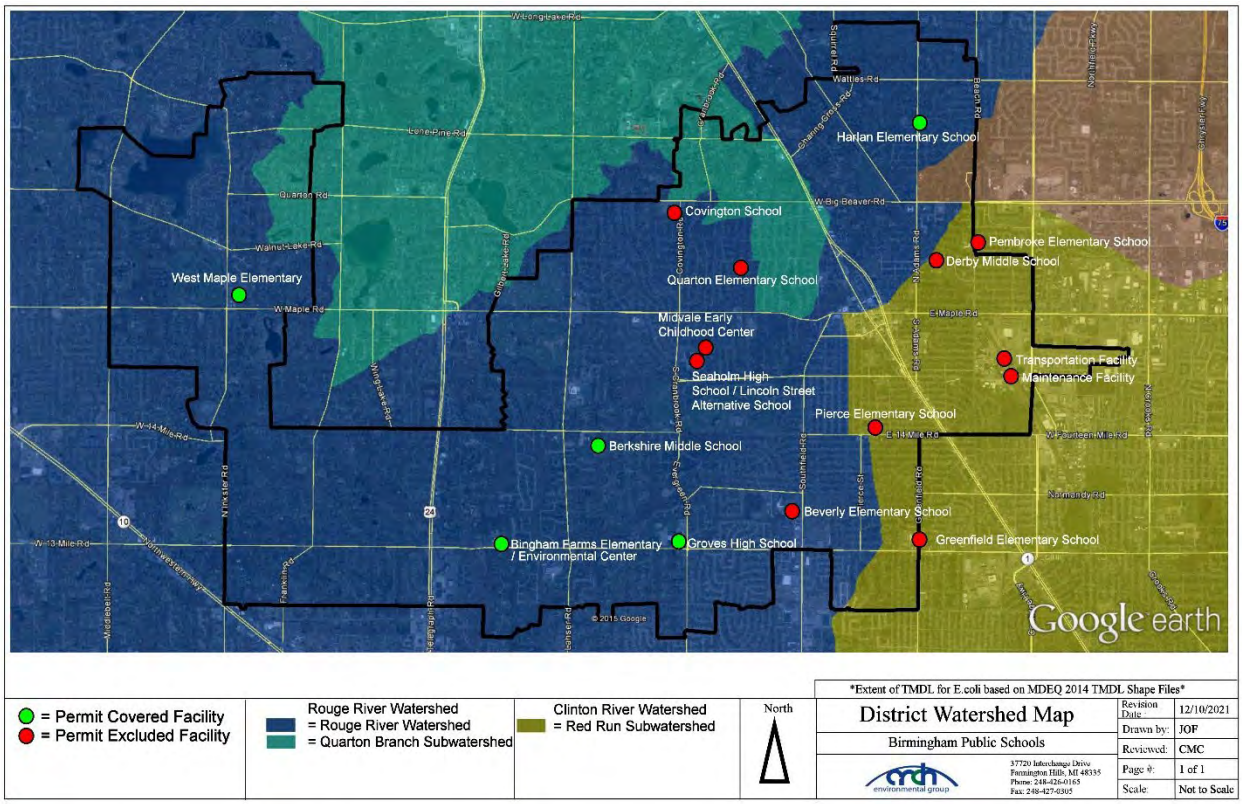
The permit authorizes the discharge of stormwater from municipal separate stormwater drainage systems to waters of the state from all existing outfalls or points of discharge.

Birmingham Public Schools has identified outfalls that discharge directly into surface waters of the state and discharge points that discharge into other MS4 drainage systems. The Birmingham Public Schools drainage system discharges directly or indirectly into the Clinton River Watershed and the Rouge River watershed as detailed in Map 2 below.

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

[1] Urbanized area boundary based on U.S. Census Bureau 2010 Urban Area Reference Maps.

### Map 2 – District Watershed Map[2]




## 1.3 Enforcement Response Procedures

The Birmingham Public Schools properties are regulated as an MS4 under the NPDES Permit program. Environmental compliance staff members from Birmingham Public Schools have the authority to inspect and monitor stormwater-related activities on campus and require full compliance with all stormwater permit requirements. Enforcement of Birmingham Public Schools policies, procedures, and best management practices (BMPs) outlined in this SWMP is the responsibility of the Stormwater Program Manager or their designee. Any questions regarding this policy and procedure will be directed to the Stormwater Program Manager.

The primary role of the Superintendent or their designee is to ensure that the ERP is followed in a timely and consistent manner and track compliance issues and schedules. To achieve compliance, the following steps may be conducted:

1. Reviews reported violation.
2. Contact business or non-district individual responsible for the violation.
3. Ensures that compliance actions taken are consistent and timely.
4. Tracks instances of noncompliance.
5. Review compliance reports and schedules to ensure that appropriate enforcement actions are taken, and compliance goals are met.

[2] Watershed boundaries based on Environmental Protection Agency MiEnviro Mapper National Hydrography Dataset Mapper 12-Digit Watersheds.

6. Conduct follow-up inspection(s) to verify the violation has been corrected.
7. Legal action may be pursued for the most serious violations including where the response to previous enforcement actions is inadequate.

The tracking of instances of noncompliance 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

Information shall be placed into the Districts Noncompliance Enforcement Tracking Sheet.

This procedure will be reviewed on an annual basis by the Stormwater Manager for any updates. A copy of the SW Illicit Discharge Regulatory Policy is included with and an example of the Municipal Separate Storm Sewer System Noncompliance Enforcement Tracking Sheet in Appendix B.

## 2.0 Stormwater Management Program Plan (SWMP) Minimum Control Measures

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

- **Public Participation/Involvement Program (PPP)**
  To share components of the SWMP and encourage participation in its review and implementation
- **Public Education Program (PEP)**
  To promote, publicize, and facilitate education for the purpose of encouraging the public to reduce the discharge of pollutants to stormwater to the maximum extent practicable.
- **Illicit Discharge Elimination Program (IDEP)**
  To detect and eliminate illicit connections and discharges to the MS4.
- **Construction Stormwater Runoff Control Program**
  To augment Part 91 rules dealing with soil erosion, offsite sedimentation, and other construction-related wastes.
- **Post-Construction Stormwater Runoff Program**
  To address post-construction stormwater runoff from projects that disturb one acre or more, including projects less than one acre that are part of a larger common plan of development that would disturb one acre or more.
- **Pollution Prevention/Good Housekeeping Program**
  To minimize pollutant runoff to the maximum extent practicable from municipal operations that discharge stormwater to the surface waters of the state.

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

## 2.1 Public Involvement/Participation Program (PPP)

Engaging and empowering the public in the effort to reduce the impacts of stormwater runoff is a key element of the public involvement/participation program.

### 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. As required, the approved Stormwater Management Program (SWMP) will be made available to the public via the district website throughout the permit cycle.
2. The stormwater webpages will include contact information for public comments.
3. The public will be notified through announcements or newsletters that a copy of the SWMP is available on the district stormwater webpage.
4. A public survey has been developed and placed on the Birmingham Public Schools stormwater webpage in an effort to provide input into stormwater implementation.
5. A link to a stormwater blog "Cleanwater Chronicles" has been added to the Birmingham Public Schools stormwater webpage. The stormwater blog explains water quality issues and promotes opportunities for public involvement.
6. Cooperation with local watershed protection groups.

### 2.1.3 Public Involvement & Participation Assessment

1. Birmingham Public Schools 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

| BMP | Implementation of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.1.4.1 Public Notice of SWMP** | Make SWMP available for public review through stormwater webpage. | Annually Throughout Permit Cycle | 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. | Birmingham Public Schools |
| | Notification in annual district newsletter, website, or school posting to publicize updated SWMP and locations for review. | | | Keep copies of official SWMP posting notifications. | |
| | Contact information will be available on the stormwater webpages to forward comments regarding the SWMP. | | | Compile and track comments from the public. | |
| **BMP #2.1.4.2 Stormwater Blog** | Post link to stormwater blog on district website. | Ongoing Throughout Permit Cycle | A link to a stormwater blog established and maintained on the district stormwater webpage to assist in distributing information and updating the public on the watershed and activities. | Copies of monthly stormwater blog postings for reporting period. | Birmingham Public Schools |
| **BMP #2.1.4.3 Stormwater Education Program Survey** | Post survey on district website. | Ongoing Throughout Permit Cycle | Survey posted on the stormwater webpages and link maintained throughout the permit term to assess community knowledge and provide input into stormwater implementation. | Results of completed surveys. | Birmingham Public Schools |
| **BMP #2.1.4.4 Participation Activities** | Engage in environmental education activities. | Ongoing Throughout Permit Cycle | Increase in public participation in environmental activities and outreach events. Participation activities include water quality issues, stormwater management initiatives, home toxics, recycling, compost, and disposal. | Reports of participation. | Birmingham Public Schools |

| BMP | Implementation of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.1.4.5 Public Involvement & Participation Program Assessment** | Evaluate the effectiveness of the public involvement program. | Annually Throughout Permit Cycle | 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. | Birmingham Public Schools |

## 2.2 Public Education Program (PEP)

Birmingham Public School's "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 Birmingham Public Schools 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 Birmingham Public Schools properties including but not limited to Birmingham Public Schools faculty, staff, contractors, and students of Birmingham Public Schools, 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 Birmingham Public Schools 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. Promote methods for managing riparian lands to protect water quality.
10. Provide training for staff.

### 2.2.2 Public Education Program Procedure

Birmingham Public 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 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. Birmingham Public Schools has developed and implemented a comprehensive "Stormwater Management" webpage on the district's website. Additionally, program posters, are strategically placed throughout school facilities. Copies of SEMCOG posters are provided in Appendix C.

## 2.2.3 Public Education Program BMP Table

| BMP Topic | Description of BMP | Timeframe | Measurable Goal & Key Messages | Measure of Assessment | Target Audience | Responsible Party |
|---|---|---|---|---|---|---|
| **BMP #2.2.3.1 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. | Ongoing Throughout Permit Cycle | Supply watershed information and promote watershed membership information. Educate the public on local water body health. | Update webpages as necessary. Confirm posting & track webpage reviews. Provide watershed membership information. | Students, faculty, and community | Birmingham Public Schools |
| | Place SEMCOG "7 Simple Steps to Clean Water" information on stormwater webpages. | | SEMCOG "7 Simple Steps to Clean Water" information and links. | Update webpages as necessary. Confirm posting & track webpage reviews. | | |
| | Review K-12 Science Curriculum to highlight items applicable to this program plan. | Curriculum Annually Throughout Permit Cycle | Review and update curriculum table, detailing number of students/grades level participating within each identified curriculum topic. | Updated curriculum table. | Faculty & students | |
| | | | Communicate with faculty regarding the resources available to reach the student audience. | Documentation of communication with faculty. | | |
| | Publicize environmental related events through email, newsletters, or social media. | Ongoing Throughout Permit Cycle | Promote public awareness on environmental issues and increase district environmental participation. | Date, time location and name of event attended. | Students, faculty and community | |
| | | | | Maintain copies of email notices (watershed announcement) of educational materials provided to district staff. | | |

| BMP Topic | Description of BMP | Timeframe | Measurable Goal & Key Messages | Measure of Assessment | Target Audience | Responsible Party |
|---|---|---|---|---|---|---|
| **BMP #2.2.3.2 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 the training video "When it Rains, it Drains…The Stormwater Question" on the district webpage. | Ongoing Throughout Permit Cycle | Educate the public on local water bodies, water quality issues, and impacts of discharges on surface waters through visual media. | Update webpages as necessary. Confirm posting & track webpage reviews. | Students, faculty, and community | Birmingham Public Schools |
| | Include information and links to USEPA and EGLE Stormwater information on district stormwater webpage. | | Provide resources to water quality issues and impacts of discharges on surface waters. | Update webpages as necessary. Confirm posting of links & track webpage reviews. | | |
| | SEMCOG posters placed strategically throughout the district. | | Maintain three (3) various SEMCOG posters at each facility. Strategic locations include Main Office, Lounge, and Receiving Area (if available). | Annual review of postings. Number of posters placed throughout district. | | |
| | General Stormwater Awareness Training | Ongoing Throughout Permit Cycle | Encourage teachers, administrative and support staff to watch the General Awareness Stormwater Video "When it Rains it Drains". | Copy of sign in sheets and Agenda (if available). | Faculty | |
| | | | Post stormwater training video on stormwater webpage. | Update webpages as necessary. Confirm posting & track webpage reviews. | Students, faculty, and community | |

| BMP Topic | Description of BMP | Timeframe | Measurable Goal & Key Messages | Measure of Assessment | Target Audience | Responsible Party |
|---|---|---|---|---|---|---|
| **BMP #2.2.3.3 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. | Ongoing Throughout Permit Cycle | Track # of calls received on hotline per year. All calls to be addressed and record outcome of calls. Goal of an overall decrease in number of illicit discharges in improper disposal of materials into MS4s. | Number of calls to the Stormwater Manager. | Students, faculty, and community | Birmingham Public Schools |
| | | | Place 24-hour environmental hot-line posters throughout the district. | Promotion/ publicizing efforts; number of posters placed throughout district. | | |
| | Pollutants & Illicit Discharges webpage; featuring information regarding sources of pollution, how pollutants cause damage, illicit discharges. How to Report/Hotline Numbers poster; describing illicit discharges and how to report illicit discharges. | | Maintain illicit discharge webpage. | Update webpages as necessary. Confirm posting & track webpage reviews. | | |
| | | | Place "How to spot illicit discharge/ How to Report-Hotline Numbers" posters placed in Receiving Rooms at each district facility. Goal is to have one poster at each facility. | Annual review of postings. Number of posters placed throughout district. | | |
| | SEMCOG posters placed strategically throughout the district. | | Goal to maintain three (3) various SEMCOG posters at each facility. Strategic locations include Main Office, Lounge, and Receiving Area (if available). | Annual review of postings. Number of posters placed throughout district. | | |
| | The district implements an active storm drain labeling/ marking program. | Update as needed Throughout Permit Cycle | Visually making a connection of storm drains to local waterways and the impacts of dumping pollutants into these drains, increase number of staff, students and visitors who can identify the connection. Mark all drains on pervious surfaces. | Annual inventory of stenciled basins. | | |

| BMP Topic | Description of BMP | Timeframe | Measurable Goal & Key Messages | Measure of Assessment | Target Audience | Responsible Party |
|---|---|---|---|---|---|---|
| **BMP #2.2.3.4 Promote preferred cleaning materials and procedures for car, pavement, and power washing.** | SEMCOG posters placed strategically throughout the district. | Ongoing Throughout Permit Cycle | Goal to maintain three (3) various SEMCOG posters at each facility. Strategic locations include Main Office, Lounge, and Receiving Area (if available). | Annual review of postings. Number of posters placed throughout district. | Students, faculty, and community | Birmingham Public Schools |
| | Discontinue practice of allowing school or other private groups from holding car wash fund raising project on school property. | Annually Throughout Permit Cycle | Send reminder email notice to all school Principals, Athletic Directors regarding the policy. | Copy of annual notice. | Faculty & students | |
| **BMP #2.2.3.5 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. | Ongoing Throughout Permit Cycle | Address the environmental (including water quality) and resulting from improper handling and disposal of pesticides, herbicides, and fertilizers. | Update webpages as necessary. Confirm posting & track webpage reviews. | Students, faculty, and community | Birmingham Public Schools |
| | SEMCOG posters placed strategically throughout the district. | | Goal to maintain three (3) various SEMCOG posters at each facility. Strategic locations include Main Office, Lounge, and Receiving Area (if available). | Annual review of postings. Number of posters placed throughout district. | | |

| BMP Topic | Description of BMP | Timeframe | Measurable Goal & Key Messages | Measure of Assessment | Target Audience | Responsible Party |
|---|---|---|---|---|---|---|
| **BMP #2.2.3.6 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. | Ongoing Throughout Permit Cycle | Goal to maintain three (3) various SEMCOG posters at each facility. Strategic locations include Main Office, Lounge, and Receiving Area (if available). | Annual review of postings. Number of posters placed throughout district. | Students, faculty, and community | Birmingham Public Schools |
| **BMP #2.2.3.7 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. | Ongoing Throughout Permit Cycle | 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. | Students, faculty, and community | Birmingham Public Schools |
| **BMP #2.2.3.8 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. | Ongoing Throughout Permit Cycle | 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. | Students, faculty, and community | Birmingham Public Schools |

| BMP Topic | Description of BMP | Timeframe | Measurable Goal & Key Messages | Measure of Assessment | Target Audience | Responsible Party |
|---|---|---|---|---|---|---|
| **BMP #2.2.3.9 Promote methods for managing riparian lands to protect water quality.** | Maintain a district "Riparian Zone Management" informational page on stormwater management webpages. | Ongoing Throughout Permit Cycle | 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. | Update webpages as necessary. Confirm posting & track webpage reviews. | Students, faculty, and community | Birmingham Public Schools |
| | Encourage teachers and students to participate in stream bank monitoring programs. | | Increase awareness, inspire people to take actions that lead to better river protection at home and in their communities. | Report on schools that participated in monitoring programs. | Students and faculty | |
| | Include guidance and links on Stormwater webpage on native vegetation. | Ongoing Throughout Permit Cycle | 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. | Students, faculty, and community | Birmingham Public Schools |
| **BMP #2.2.3.10 Stormwater Education Program Effectiveness Survey** | Post survey on district website | Annually Throughout Permit Cycle | A survey has been posted on the stormwater webpages and will be posted throughout the permit term to ascertain behavioral changes. | Annual results of survey. | Students, faculty, and community | Birmingham Public Schools |
| **BMP #2.2.3.11 Public Education Program Effectiveness Assessment** | Summary of annual public education activities for the "Public Education" component to evaluate the effectiveness. | Annually Throughout Permit Cycle | Determine if the public education best management practices have been implemented and identify areas of improvement. | Annual SWMP review. Summary of public education activities. Survey results review. | Students, faculty, and community | Birmingham Public Schools |

## 2.2.4 Curriculum

Birmingham Public Schools has conducted a review of the current State of Michigan K-12 science curriculum to determine which topics and grade levels have applicability toward the goals of the SWMP. The Birmingham Public Schools K-12 science curriculum has been developed as required under Michigan Department of Education "Grade Level Content Expectations". Birmingham Public Schools encourages schools to incorporate watershed awareness, pollution prevention, recycling, ecology, and energy conservation into the core curriculum throughout the district.

The current K-12th grade Earth Science curriculum provides students with a wide range of topics specifically related to this permit. A listing of current (K-12) grade level curriculum topics including grade level, curriculum code, description, and any additional activities included in the specific course work is provided in the table below.

**Stormwater Program Related Science Curriculum K-12th Grade**

| Grade | Curriculum Code | Description |
|---|---|---|
| K | K-ESS3-3 | Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. |
| 2 | 2-ESS1-1 | Use information from several sources to provide evidence that Earth events can occur quickly or slowly |
| 2 | 2-ESS2-2 | Develop a model to represent the shapes and kinds of land and bodies of water in an area. |
| 2 | 2-ESS2-3 | Obtain information to identify where water is found on Earth and that it can be solid or liquid. |
| 4 | 4-ESS2-1 | Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation |
| 5 | 5-ESS2-2 | Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. |
| 5 | 5-ESS3-1 | Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. |
| 6-8 | MS-ESS2-4 | Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity. |

| Grade | Curriculum Code | Description |
|---|---|---|
| 6-8 | MS-ESS3-1 | Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes. |
| 6-8 | MS-ESS3-3 | Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment. |
| 6-8 | MS-ESS3-4 | Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems. |
| 9-12 | HS-ESS2-5 | Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. |
| 9-12 | HS-ESS3-1 | Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity |
| 9-12 | HS-ESS3-6 | Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity. |

### 2.2.5 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.

The District has implemented a "Watershed Awareness Survey" to be used as an evaluation. The purpose of these surveys is to provide an assessment of public understanding of issues in the watershed related to pollution from stormwater runoff. Results would be used to guide Birmingham Public Schools in identifying opportunities for enhancement of the PEP. Additionally, Birmingham Public Schools will conduct an annual review of the public education best management practices to determine if they have been implemented and identify areas of improvement.

## 2.3 Illicit Discharge Elimination Program (IDEP)

The following Birmingham Public Schools 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.
7. Conduct source investigations if the source of an illicit discharge/connection is not identified by field screening.
8. Illicit discharge identification and elimination program performance & effectiveness.

### 2.3.2 Facility Site Storm Sewer System Maps and Lists

Birmingham Public Schools and consultants completed storm sewer system mapping at each of the owner 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.

**Outfalls** are discharge points where stormwater is discharged directly to surface waters of the state. Surface waters of the state include streams, lakes, ponds, county drains, and wetlands. Outfalls can be pipes, ditches, or even sheet flow from the facility. Some facilities will have an outfall where they can manually control the discharge.

**Points of Discharge** are discharge points where stormwater is discharged to a municipal or private separate storm sewer system. The visual assessment will be conducted as close to the point of discharge as possible before the storm water enters the municipal or private separate storm sewer system. Points of discharge include on-site catch basins and trench drains, in-street catch basins, and conveyances to roadside ditches.

Copies of the current facility storm sewer system maps are available at the Maintenance Facility, 2305 Cole St., Birmingham, Michigan. Additionally, copies of the storm sewer system maps and a list of the outfalls and points of discharge are provided in Appendix A.

### 2.3.3 Illicit Discharge Identification & Investigation Procedure – Field Observations

Birmingham Public Schools will conduct field observations for 100% of all outfalls and points of discharge locations during dry weather or more expeditiously if Birmingham Public Schools 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 once per permit cycle. Birmingham Public Schools will conduct DWS once during this 5-year permit cycle. Preferably, each outfall and points of discharge 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 are 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 Appendix D.

During field observations, in instances where the storm sewer outfalls and points of discharge is submerged or is connected to another enclosed sewer, the inspector will observe the nearest upstream storm sewer location or access point. Additionally, if dry weather flow is observed and it is obvious that an illicit discharge is present and the source of the discharge is obvious, Birmingham Public Schools 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 discharge point inspection, if dry weather flow is observed and the source is not obvious, the inspector who identified the discharge shall immediately 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 or dye tracing will be conducted.

If the origin of the flow is not identified during the visual upstream investigation, a grab sample is collected within 24 hours 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
- 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 may 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.

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 14 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.

### 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 are placed in the receiving/custodial areas in each facility to report concerns. Birmingham Public Schools 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, local drain commission, etc.) within the required time period(s).

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

- Suspected discharges will be investigated within 24 hours. Birmingham Public Schools will ensure enforcement actions within 7 days.
- Conduct source investigations, including applicable field screening to trace the origin of the materials within 14 days of the reported/observed illicit discharge.
    - Birmingham Public Schools will follow existing spill response procedures outlined in Section 2.3.10, 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.
- Birmingham Public Schools 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 Appendix B.

Once an illicit discharge has been confirmed from a Birmingham Public Schools 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.

Within 60 days of a confirmed illicit connection from a Birmingham Public Schools facility, Birmingham Public Schools will take steps to fix or eliminate the illicit connection. 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 Regulatory Mechanism/Policy

The district developed a “Stormwater Management – Illicit Discharge Regulatory Policy”. This illicit discharge regulatory policy was developed as a regulatory policy for prevention of pollution from storm water runoff and to protect the quality of the waters of the State of Michigan through the regulation of non-stormwater discharges to the municipal separate storm sewer system (MS4) to the maximum extent practicable as required by federal and state law. This regulatory mechanism establishes methods for controlling the introduction of pollutants into the MS4 in order to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit through the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The objectives of the regulatory mechanism are:

Department of Environment, Great Lakes, and Energy (EGLE). The objectives of the regulatory mechanism are:

1. To regulate the contribution of pollutants to the MS4 by stormwater discharges by any user.
2. To prohibit illicit connections and discharges into the MS4.
3. To establish authority to investigate, inspect, and monitor suspected illicit discharges.

Birmingham Public Schools has a board policy resolution to direct compliance with these requirements. The Birmingham Public Schools updated School Board Resolution was reviewed and passed in 2023. A copy of the updated School Board Policy is provided in Appendix B.

The Stormwater Program Manager or designee will be provided full access to all the district 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.

This policy is posted on the district stormwater webpage. Additionally, the district stormwater webpage includes information on how to notify the district if a discharge is witnessed taking place. Finally, the "Stormwater Management – Illicit Discharge Regulatory Policy" will be emailed to district staff members. The "Stormwater Management – Illicit Discharge Regulatory Policy" is available in Appendix B.

**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 waste

All activities are documented 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.

Birmingham Public School's 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 Birmingham Public Schools facility to any waterway or the municipally owned separate storm sewer system (MS4).

**Prohibitions of Illicit Discharges**

1. Prohibition of Illicit Discharges:
    a. Birmingham Public Schools 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 discharges are NOT prohibited:

a. This policy excludes prohibitions from the discharge or flows from firefighting activities to the Birmingham Public Schools 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 pumps, footing drains, and basement sump pumps.
    - Air conditioning condensation.
    - Waters from noncommercial car washing (runoff from family home).
    - Street wash water.
    - Dechlorinated swimming pool water from single, two, or three family residences. (A swimming pool operated by the permittee shall not be discharged to a separate storm sewer or to surface waters of the state without NPDES permit authorization from EGLE.)

Identifying a discharge or flow as a significant contributor is completed on a case-by-case basis and is dependent on many factors, including the type of pollutant, amount discharged, and impacts to surface waters of the state.

**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 Birmingham Public Schools. 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.

### 2.3.8 Illicit Discharge Elimination Program Effectiveness

Birmingham Public Schools 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.

The District shall evaluate:

1. Evaluate the number of illicit discharges and determine if discharges have decreased throughout the permit cycle.
2. Evaluate if the number of reported potential discharges has increased due to improved awareness.
3. Evaluate dry weather screening monitoring data to measure changes in water quality.

## 2.3.9 Illicit Discharge Elimination Program – BMP Table

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.3.9.1 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. | Maps Completed in 2008-2009<br><br>Updates Ongoing as Needed throughout Permit Cycle<br><br>Within 30 days of new outfalls, discharge points, structures, and conveyances. | 100% of facilities mapped, and 100% of storm sewer system updates mapped. | Maintain facility site maps at the Maintenance Facility, 2305 Cole St., Birmingham, Michigan. | Birmingham Public Schools |
| | | | | Update facility map with sewer system updates. Maintain maps for progress report submittal. | Birmingham Public Schools |
| **BMP#2.3.9.2 Enforcement** | Written policy to enforce elimination of illicit discharges into MS4 owned by the Permittee. | Illicit Discharge Regulatory Policy Developed and Board Resolution passed in 2023 | Illicit Discharge Regulatory Policy developed, and Board Policy Resolution reviewed and approved by the school board. | Copy of the Illicit Discharge Regulatory Policy and Approved Board Resolution | Birmingham Public Schools |
| | | | | Copy of policy available on the district stormwater webpage. | |
| **BMP #2.3.9.3 Dry Weather Screening** | Dry Weather Screening conducted once per permit cycle. Dry weather screening will be conducted by personnel trained to recognize all signs of possible illicit discharges. | DWS Scheduled to be completed once during the permit cycle | 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. | Birmingham Public Schools |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.3.9.4 Illicit Discharge Reporting** | Eliminate illicit discharges and connections through reporting, routine storm sewer system inspections and dry weather screening inspections. | Ongoing Throughout Permit Cycle | Place "How to spot illicit discharge/ How to Report-Hotline Numbers" posters placed in Receiving Rooms at each Birmingham Public Schools facility. Goal is to have one poster at each facility. | Annually verify number of posters in place throughout the district. | Birmingham Public Schools |
| | | | Advertise reporting hotline on district webpage. | Track number of calls and document calls onto Illicit Discharge/Illegal Dumping Reporting form. (Appendix B). | |
| **BMP #2.3.9.5 Unauthorized Discharge/ Illicit Discharge Complaint Response** | The District 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). This procedure is outlined in Section 2.3.10 Polluting Materials Emergency and Spill Response Policy & Procedures. | Suspected discharge will be investigated within 24 hours. Birmingham Public Schools will ensure enforcement action within 7 days. | 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. | Birmingham Public Schools |
| | | Within 14 days of reported suspected discharge. | | | |
| **BMP #2.3.9.6 Illicit Connections** | Reroute, repair, or disconnect any illicit connections. | 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. | Birmingham Public Schools |
| **BMP #2.3.9.7 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. | Once per permit cycle or during the 1st year of employment Throughout Permit Cycle | Goal of providing illicit discharge elimination training to all maintenance, transportation, custodial and skilled trade staff who work for Birmingham Public Schools. **[All Stormwater Training is outlined in Section 3.0 Training]** | Copy of sign in sheets and Agenda (if available). | Birmingham Public Schools |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.3.9.8 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. | As needed Throughout Permit Cycle | EGLE approval to discharge tracer dyes. | Documentation of EGLE approval. | Birmingham Public Schools |
| **BMP #2.3.9.9 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. | Annually Throughout Permit Cycle | Annual review of SWMP IDEP program performed. Evaluate reduced illicit discharges, increase reporting, and evaluate dry weather screening data. | Maintain copy of SWMP annual review and evaluation information for progress reporting. | Birmingham Public Schools |

## 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 Birmingham Public School's facilities.

**Policy**

Only trained and authorized personnel are permitted to respond to hazardous materials incidents! Employees must be trained in the safe use of chemicals or chemical management prior to working in a lab or cleaning up minor spills. The Stormwater Program Manager 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 and comply with all Federal, State, and local regulatory requirements for the management and reporting of all hazardous materials and/or waste releases.

If it is determined that the release poses a threat to the safety or the environment outside the facility or in excess of the threshold reporting quantities, the Stormwater Program Manager will report the release immediately or within 24 hours of knowledge of the release to:

- The EGLE Warren District Office at (586)-753-3700 during regular working hours.
- The 24-hour Michigan Pollution Emergency Alerting System (PEAS) at 1-800-292-4706 after working hours.

Any release of oil (includes gasoline, diesel fuel, used oil and mineral spirits) to navigable waters or adjoining shorelines will be reported to the immediately or within 24 hours of knowledge of the release to:

1. The 24-hour National Response Center (NRC) at 1-800-424-8802

The Stormwater Program Manager 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 Stormwater Program Manager.

**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. Minor Spill or Leak**

- Attempt to contain the spill.
- Wear proper Personal Protective Equipment (PPE) while cleaning up the spill/leak.
- Notify supervisor and call Stormwater Program Manager at (248) 866-6538.

**2. Major Spill or Leak**

- Call the Stormwater Program Manager immediately at (248) 866-6538.

- Do not attempt to clean up the spill yourself.
- Provide clean-up/rescue personnel with appropriate Safety Data Sheets (SDS) and other important information.

Refer to sections **2.3.4 Illicit Discharge Identification & Investigation Procedure – Field Screening & Source Investigation** and **2.3.5 Illicit Discharge/Connection Elimination Procedure** for implementation timeframes.

This guidance has been developed in anticipation of potential releases of hazardous materials and substances. The procedures outlined in this guidance will only be implemented by those persons who have received sufficient 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. The district 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

Birmingham Public School's 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 for 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 Birmingham Public Schools Stormwater Manager.

2. The Birmingham Public Schools Stormwater Manager (or designee) is responsible for assessing any suspected or confirmed discharge and notifying the appropriate agency.
3. Birmingham Public Schools will notify the local Part 91 agency and 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:**

Birmingham Public Schools 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).

Birmingham Public Schools 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.

Birmingham Public Schools ensures that construction activity one acre of 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

Birmingham Public Schools 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

Birmingham Public 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 Part 91 recognized County Enforcing Agency, Municipal Enforcing Agency, or 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 the 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 the 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

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.4.5.1 Notification of Deposit during Inspection** | Birmingham Public Schools will notify the local part 91 agencies or 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 Birmingham Public Schools Stormwater Manager (or designee) is responsible for assessing any suspected or confirmed discharge and notifying the appropriate agency. (Refer to section 2.4.2) | As necessary Throughout Permit Cycle | 100% discharges identified and appropriate agencies notified. Control of potential system failure. | Documentation of Construction Stormwater Operator site inspection. | Birmingham Public Schools |
| | 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. | | | 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]). | Birmingham Public Schools |
| **BMP #2.4.5.2 Part 91 Permit** | Birmingham Public Schools 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. | As necessary Throughout Permit Cycle | 100% of permits obtained. | Copy of permit and associated soil erosion and sedimentation control plans. | Birmingham Public Schools |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.4.5.3 Permit by Rule** | Construction sites between (1) acre but and five (5) acres of soil disturbance follow the provisions of the Permit by Rule, but do not need to notify the EGLE of the construction activity. | As necessary Throughout Permit Cycle | Goal of 100% of weekly and precipitation event inspection completed by certified Construction Stormwater Operator. | Copy of inspections. | Birmingham Public Schools |
| | 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. | | Goal of 100% of weekly and precipitation event inspection completed by certified Construction Stormwater Operator. | Copy of inspections. | Birmingham Public Schools |
| | | | 100% NOC obtained. | Copy of NOC | Birmingham Public Schools |

## 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).

A post-construction stormwater runoff program compliance assistance document is available via the internet at https://www.michigan.gov/documents/deq/wrd-storm-MS4-ComplianceAssistance_470350_7.pdf.

### 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.

Projects that change the existing footprint (e.g., increase impervious surface) or offer new opportunities for storm water control (e.g., reconstruction to the subbase layer with a change in underdrainage) are considered redevelopment projects.

The objects of this program and associated procedures are to:

- Develop and implement regulatory mechanisms to address post-construction stormwater runoff for new development and redevelopment projects, including preventing or minimizing water quality impacts.
- 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.
- Ensure post construction controls to minimize water quality impacts by following water quality treatment standards.
- Require that BMPs be designed on a site-specific basis to reduce post-development total suspended solids loading.
- Procedure to meet water quality treatment and channel protection standards of new development or redevelopment projects.
- Address “hot spots”.
- Require adequate long-term O&M of BMPs by ordinance or other regulatory means.

### 2.5.2 Post-Construction Policy and Procedure

The district has developed a “Stormwater Management - Post-Construction Policy & Procedure” to direct compliance with these requirements. The “Stormwater Management - Post-Construction Policy & Procedure” is located in Appendix B.

Development and redevelopment projects on district properties are regulated under and must comply with the Birmingham Public Schools individual NPDES permit for stormwater discharges, as issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The Stormwater Management Post-Construction Policy & Procedure has been developed to provide guidance regarding responsibilities and actions to meet the NPDES permit conditions for development and redevelopment projects on Birmingham Public Schools properties.

The post-construction plan for stormwater management on regulated sites **must** include:

- A minimum treatment volume standard to address water quality impacts.
- Channel protection criteria to address resource impairment resulting from flow volumes and rates.
- Review 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 to ensure that infiltration BMPs do not exacerbate existing conditions. 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.
- Drawings showing the location of stormwater control measures and the storm system.
- Details on the proposed stormwater control measures.
- Operation & Maintenance (O&M) requirements.
- Supporting information:

    - Calculations used for designing all components of the stormwater management systems.
    - Total suspended Solids (TSS) design removal rates and supporting manufacturer documentation, if applicable.
    - Geotechnical report including soil boring and infiltration test data.

The project team [Architecture, Engineering & Construction, Other Project Manager, Project Developer and/or Contractors] shall develop the post-construction stormwater management plan in accordance with this guideline and the NPDES permit.

Birmingham Public Schools has developed and passed a board resolution in 2023 to direct compliance with these requirements. In addition to the board policy resolution, the following sections identify specific actions to be taken by Birmingham Public Schools to ensure compliance with the applicable standards. A copy of the Birmingham Public Schools School Board Policy Resolution is provided in Appendix B.

The Stormwater Program Manager will administer and enforce the stormwater management program, including maintaining procedures, guidance, information, etc. to aid district staff and contractors in complying with the post-construction requirements for stormwater management.

### 2.5.3 Water Quality Treatment Standard

Birmingham Public Schools goal is to include water quality treatment volume standards for each new construction or redevelopment project where the area of development or redevelopment exceeds one (1) acre. One or more of the following treatment standards will be included as part:

1) Treat the first one inch of runoff from the entire site, or
2) Treat the runoff generated from 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 EGLE memo dated March 24, 2006, which is available via the internet at http://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

## 2.5.4 Channel Protection Performance Standard

Birmingham Public Schools understands that channel protection criteria are 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. More restrictive channel protection criteria may be utilized on a case-by-case basis, as appropriate.

**Rainfall Data**
The rainfall data for calculating runoff volume and peak flow rate shall be the Rainfall Frequency Atlas of the Midwest, 1992 [National Oceanic & Atmospheric Administration (NOAA) - Huff & Angel].

## 2.5.5 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).
- Inspection staff will be trained in the proper maintenance and operation of Soil Erosion and Silt Prevention measures.

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 to ensure that infiltration BMPs do not exacerbate existing conditions. 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 of surface water systems.

Pretreatment measures include:

| Stormwater Hot Spots | Minimum Pre-Treatment Options |
|---|---|
| **Vehicle service and maintenance facilities** | 1. Oil/Water Separators/Hydrodynamic Devices<br>2. Use of Drip Pans and/or Dry Sweep Material under Vehicles/Equipment<br>3. Use of Absorbent Devices to Reduce Liquid Releases<br>4. Spill Prevention Response Program |
| **Fleet storage areas for buses** | Best Management Practices |
| **Vehicle Fueling Stations** | 1. Oil/Water Separators/Hydrodynamic Devices<br>2. Water Quality Inserts for Inlets<br>3. Spill Prevention Response Program |
| **Vehicle equipment cleaning facilities** | Best Management Practices |
| **Outdoor liquid container storage** | Spill Prevention Response Program |

### 2.5.6 Site Plan Review

This policy is to establish a requirement to submit a site plan for review as required by the EGLE NPDES Stormwater Discharge Permit and ensure that water quality objectives, erosion and sediment control requirements, and BMP maintenance are considered to the maximum extent practicable.

Birmingham Public Schools shall evaluate proposed construction activities to determine:

- If the activity meets the criteria of a development or redevelopment project with an earth disturbance greater than or equal to 1 acre, or part of a common plan of development resulting in a development or redevelopment activity greater than or equal to 1 acre in size.
- Does the development or redevelopment project discharge to waters of the state, or to a county, city, or township MS4.

If the development or redevelopment project discharges directly to waters of the state, Birmingham Public Schools shall comply with the post-construction standards outlined in this SWMP.

If the development or redevelopment project discharges to a regulated county, city, or township MS4, Birmingham Public Schools shall submit the site plan for review and approval. Site plan approval by the county, city, or township

of an equivalent post-construction standard ensures acceptable compliance with the Birmingham Public Schools NPDES MS4 Stormwater Discharge Permit. Birmingham Public Schools shall obtain and maintain a copy of the site plan approval document.

If the development or redevelopment project discharges to a county, city, or township MS4 that is not regulated or require site plan review, Birmingham Public Schools shall comply with the post-construction standards outlined in this SWMP.

### 2.5.7 Long-Term Operation & Maintenance of Stormwater Controls

Ongoing operation and maintenance of the stormwater BMPs is a critical component of the Stormwater Management Plan. All structural and vegetative stormwater control measures installed as a requirement under this section of the permit shall include guidance for maintaining maximum design performance through long-term operation and maintenance.

- Update and revise the stormwater structural controls on facility site diagrams as identified during scheduled inspections or within 30 days following the completion a new facility or reconstruction/redevelopment site project.
- Follow long-term guidance for inspection and operation to maintain maximum design performance.
- Stormwater runoff facilities shall be maintained in good condition, in accordance with the approved storm water plan.

Trained staff or certified contractors will conduct routine inspection of all identified structural controls and complete maintenance, repair, or replacement, as necessary.

## 2.5.8 Post Construction Stormwater Management-BMP Table

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.5.8.1 Regulatory Mechanism** | Develop and implement regulatory mechanisms to address post-construction stormwater runoff for new development and redevelopment projects, including preventing or minimizing water quality impact.<br><br>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. | Post-Construction Policy & Procedure Developed and Board Resolution Passed in 2023 | Post-Construction Policy & Procedure developed, and Board Resolution reviewed and approved by the school board. | Copy of the Post-Construction Policy and Procedure and the Approved Board Resolution | Birmingham Public Schools |
| **BMP #2.5.8.2 Post Construction Standards** | Ensure post-construction channel protection standards and water quality treatment standards are met. | As necessary Throughout Permit Cycle | All development or redevelopment projects meet water quality and channel protection standards outlined in the districts SWMP or meets an equivalent post-construction standard for the township, city, or county. | Copy of calculations. | Birmingham Public Schools |
| **BMP #2.5.8.3 Site Specific** | Birmingham Public Schools 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. | As necessary Throughout Permit Cycle | Reduce or eliminate discharge of pollutants during construction on contaminated sites. | Documentation of additional stormwater controls. | Birmingham Public Schools |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.5.8.4 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 development or redevelopment exceeds one (1) acre. | As necessary Throughout Permit Cycle | If the development or redevelopment project discharges to a regulated county, city, or township MS4, the district shall submit the site plan for review and approval. Site plan approval by the county, city, or township of an equivalent post-construction standard ensures acceptable compliance with the districts NPDES MS4 Stormwater Discharge Permit. | Obtain and maintain a copy of the site plan approval document and copy of calculations. | Birmingham Public Schools |
| | | | If the development or redevelopment project discharges directly to waters of the state, the district shall comply with the post-construction standards outlined in this SWMP.<br><br>If the development or redevelopment project discharges to a county, city, or township MS4 that is not regulated or require site plan review, Birmingham Public Schools shall comply with the post-construction standards outlined in this SWMP. | Copy of calculations. | Birmingham Public Schools |
| **BMP #2.5.8.5 Long-Term Operation & Maintenance of Stormwater Controls** | All structural and vegetative stormwater control measures installed as a requirement under this section of the permit shall include guidance for maintaining maximum design performance through long-term operation and maintenance. | Within 30 days of following the completion a new facility or reconstruction/redevelopment site project.<br><br>Throughout Permit Cycle | Follow long-term guidance for inspection and operation to maintain maximum design performance.<br><br>Stormwater runoff facilities shall be maintained in good condition, in accordance with the approved storm water plan. | All storm sewer site maps updated. Maintain all inspection, maintenance, and repair reports conducted by staff or contractors. | Birmingham Public Schools |

## 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 operation 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 ultimate goal of Birmingham Public Schools to prevent and reduce pollutant/contaminant runoff from Birmingham Public Schools facilities to the maximum extent practicable. All BMPs are implemented at all low, medium, and high priority facilities.

### 2.6.2 Structural Control Inventory & Schedule Table

No prioritization will be needed, as all structures are 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.

The structural Control Inventory and Schedule Table for each property are in Appendix E.

### 2.6.3 Facility Assessment & Prioritization

Birmingham Public Schools 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.

Birmingham Public Schools considered the following when assessing each facility:

- Absence of any factors,
- 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,
- Identification of improperly stored materials,
- Potential for polluting activities to be conducted outside (i.e., vehicle washing),
- Proximity to water bodies,
- Poor housekeeping practices,
- Discharge of pollutants of concern to impaired waters.

For facilities that have a high potential to discharge pollutants to surface waters of the state, a Stormwater Pollution Prevention Plan (SWPPP) and/or Pollution Incident Prevention Plan (PIPP) for salt storage facilities will be implemented. The Birmingham Public Schools Bus Garage and Maintenance Facilities are on a combined sewer system and not included on this permit. The District does not currently have any facilities that have a high potential to discharge.

BMPs currently implemented by Birmingham Public Schools at facilities with medium and lower potential for the discharge of pollutants to surface waters of the state include:

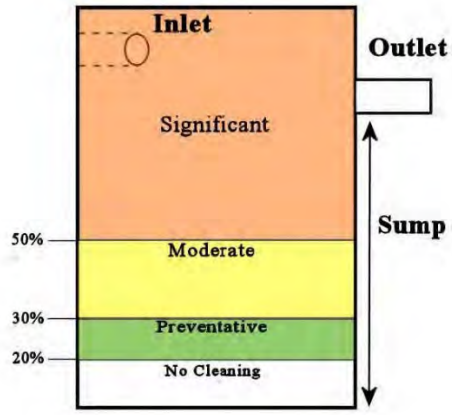
1. Good housekeeping practices,
2. Employee training,
3. Routine visual inspections,
4. Spill prevention and response.

This inventory will be updated as facilities and structural stormwater controls are added, removed, or no longer owned or operated by the applicant following routine inspections or following new construction or redevelopment projects. Priority level assessments will be revised within 30 days following the completion a new facility or reconstruction/redevelopment.

### 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, for the reduction of pollutant runoff. A schedule is included in Appendix E.
2. Visually inspect all stormwater controls identified on facility maps. Inspection includes:
    a. Structural integrity of the structure.
        - Areas of significant cracking or sinkholes.
    b. Sediment build-up.
        - Areas with high amounts of build-up sediment. A build-up of accumulated solid material that is greater than or equal to the one-third guideline established by the EPA or between 30 and 50% of the total sump depth, as established by the EGLE[3].

[3] Michigan Department of Environment, Great Lakes, and Energy EGLE NPS BMP Manual – Catch Basins




c. Color, odor, sheen, and flow.
d. Overall functionality and presence of erosion.
e. Pond evaluation.

3. Note inspection information on the inspection form. A copy of the inspection form "Structural BMP Table" is located in Appendix D.
4. When inspecting stormwater controls, review the site for non-structural BMPs currently implemented to prevent or reduce pollutant runoff at each facility. BMPs include:
    a. Review of "No Dumping" stencils at storm drains.
    b. Review of catch basins/manholes cleaned.
    c. Dumpster good housekeeping practices.
    d. Garden, green space and signage inventories.
    e. "SEMCOG" poster placement at facilities.
    f. Illicit discharge reporting numbers poster placement at facilities.
    g. "How to spot illicit discharge/ How to Report-Hotline Numbers" poster placement at facilities.
    h. Spill kit availability at facilities.
5. Following the inspection, the stormwater controls will be prioritized for cleaning and maintenance in a timely manner. 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. Refer to number 2 (b) above.
    - Areas of significant erosion.
    - Areas of significant cracking or sinkholes.
6. 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.
7. If an illicit discharge is suspected, follow the procedure outlined in Section 2.3 Illicit Discharge Elimination Program.
8. Retain inspection forms for each stormwater structural control inspected.
9. Retain documentation regarding the scheduling or completion of the repair/maintenance if completed.
10. Debris and maintenance waste removed as part of the maintenance and/or repairs shall be disposed of in accordance with the 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 30 days following the implementation of a new stormwater structural control.

### 2.6.5 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 By-products" pursuant to Part 121, Liquid Industrial By-products (Part 121) of NREPA.

Birmingham Public Schools 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 by-products), 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.

#### 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 methods 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 will be collected into a vacuum truck and treated as Liquid Industrial By-Products 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 will be collected with a vacuum truck and disposed of off-site in accordance with MI P.A. 451 Parts 115 or 121.

Birmingham Public Schools does not currently own or operate storm sewer cleaning or transportation equipment. If Birmingham Public Schools 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 By-Product 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 liquid industrial by-product under Part 121 or Part 115 of PA 451 (NREPA).

## 2.6.6 Pollution Prevention/Good Housekeeping – Municipal Operations & Maintenance Activities

Birmingham Public Schools recognizes the importance of reducing pollutant runoff from maintenance activities. The following procedure will include an assessment of the potential activities for the potential to discharge pollutants. The assessment shall identify the pollutants that could be discharged from the applicable operation and maintenance activity and the BMPs implemented or to be implemented to prevent or reduce pollutant runoff.

**PROCEDURE**

Applicable operations and maintenance activities include parking lot and sidewalk maintenance, cold weather operations, land disturbance, and landscaping. Bridge maintenance, right-of-way maintenance, maintenance of vehicles, unpaved road maintenance, and vehicle washing do not apply to Birmingham Public Schools.

**Roadways/Parking Lots**

Maintenance: Pothole, sidewalk, curb, and gutter repair.
Possible Pollutants: Fuel, oil, sediment, concrete.
BMPs to address Pollutants:

1. Contractors and in-house staff contracted to complete these jobs are informed of stormwater management practices to reduce pollution in stormwater.
2. Avoid mixing excess amounts of fresh concrete or cement.
3. Never dispose of washout into the street, storm drains, ditches, or creeks.
4. Stencil storm drains to prevent disposal of wash water.
5. Schedule patching, resurfacing and surface sealing during dry weather.
6. If it rains unexpectedly, take appropriate action to prevent pollution of stormwater runoff (e.g., divert runoff around work areas, cover materials).
7. Maintain pollution prevention/good housekeeping practices, which is to remove stockpiles (asphalt materials, sand, etc.) by the end of the day to a covered location. Alternatively, cover the piles if they cannot be moved.

Process for updating assessment: Contractor or project is assessed on an ongoing basis, and problems are addresses when found.

**Cold Weather Operations**

Maintenance: Plowing, sanding, deicing, snow pile disposal.

Possible Pollutants: Sodium, magnesium, calcium, potassium, chloride, turbidity.

BMPs to address Pollutants:

1. Keep all deicing material covered or in waterproof containers.
2. Prevent deicer drainage to storm sewers.
3. Mechanical removal of as much snow or ice as possible prior to applying deicing chemicals.
4. Proper salt storage management.
5. Maintain application equipment per manufacturer's recommendations. Calibration is not available.

Process for updating assessment: BMPs will be assessed for effectiveness within 30 days following their addition or removal.

**Landscaping**

Possible Pollutants: Wood chips, sediment, sand, and compost.

BMPs to address Pollutants:

1. Place temporary stockpiled material away from storm drains, and berm or cover stockpiles to prevent material releases into the storm drain. Alternatively, place stockpiles on permeable (grassed) areas.
2. Provide adequate buffer areas at stream banks.
3. Proper Storage, handling, and use of pesticides, herbicides, and fertilizers.

Process for updating assessment: BMPs will be assessed for effectiveness within 30 days following their addition or removal.

**Land Disturbance**

Possible Pollutants: Sediment runoff.

BMPs to address Pollutants:

1. Plan land clearing so soil is not exposed for long periods of time.
2. Place temporary stockpiled material away from storm drains, and berm or cover stockpiles to prevent material releases into the storm drain.
3. Protect against sediment flowing into drains.
4. Install sediment barriers.

Process for updating assessment: BMPs will be assessed for effectiveness within 30 days following their addition or removal.

**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.

## 2.6.7 Street Sweeping Procedure, Prioritization & Schedule

**PRIORITIZATION**

The EGLE 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. Birmingham Public Schools evaluated each facility for the presence of the following factors:

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

**PROCEDURE**

Birmingham Public Schools does not own or operate sweeping equipment. However, Birmingham Public Schools will be proactive and undertake the following activities to reduce the potential to discharge pollutants to surface waters of the state from parking lots and other impervious infrastructures.

1. Conduct seasonal efforts to remove leaves.
2. Inspect parking lot and street areas.
3. Conduct hand sweeping of debris to prevent accumulated wastes in the spring and the fall.
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 the 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 owned 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.

| Facility Name | Priority Level of Potential Discharge* (High, Med, Low) | Street Sweeping Schedule |
|---|---|---|
| **Berkshire Middle School** | Low | Hand Sweeping, Spring and Fall |
| **Bingham Farms Elementary/ Environmental Center** | Low | Hand Sweeping, Spring and Fall |
| **Groves High School** | Medium | Hand Sweeping, Spring and Fall |
| **Harlan Elementary Schools** | Low | Hand Sweeping, Spring and Fall |
| **West Maple Elementary School** | Low | Hand Sweeping, Spring and Fall |

*If required, following inspections indicating higher traffic volume, land use or sediment and trash accumulation at all low, medium, and high prioritized parking lots and streets, the District shall contract a commercial street sweeping company.

**DISPOSAL**

If a commercial street sweeper is contracted to clean a parking lot and street areas for Birmingham Public Schools, 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 will not be required.

## 2.6.8 Managing Vegetated Properties

Birmingham Public Schools has established this policy to prevent or reduce pollutant runoff from vegetated land:

1. Birmingham Public Schools requires all contracted personnel who participate in the application of pesticides, to will 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, an integrated pest management technique will be implemented.

### 2.6.9 Contractor Requirements & Oversight

Birmingham Public Schools requires contractors to comply with pollution prevention and good housekeeping BMPs. Birmingham Public Schools will perform 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
- Contractor Training
- Pre-project Meeting/Review
- Periodic Inspections

Prior to conducting work, contractors shall be provided a "Stormwater Contractor Oversight Record" form. This will allow the district to review stormwater compliance with contractors hired to perform municipal operation and maintenance activities and to obtain signatures. The "Stormwater Contractor Oversight Record" form is located in Appendix F.

### 2.6.10 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.

## 2.6.11 Pollution Prevention/Good Housekeeping –BMP Table

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.6.11.1 Structural Control Inventory** | Provide an up-to-date inventory of the number of stormwater structural controls for each facility's (i.e., catch basins, detention ponds). Update facilities potential to discharge pollutants (high, medium, low) following the update. | Updated as needed within 30 days following the completion a new facility or development/ redevelopment.<br><br>Ongoing Throughout Permit Cycle | 100% of stormwater structural controls inventoried. | Maintain list of inventories and potential to discharge priority level. Submit updated list with progress report, noting if priority levels have changed. | Birmingham Public Schools |
| **BMP #2.6.11.2 Stormwater Structural Control Inspections** | Visually inspect stormwater controls identified on facility maps. | Annually Throughout Permit Cycle | Routine schedule implemented and inspections reviewed by stormwater manager. | Maintain inspection forms/reports. | Birmingham Public Schools |
| **BMP #2.6.11.3 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. | Annually Throughout Permit Cycle | 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). | Birmingham Public Schools |
| **BMP #2.6.11.4 Prioritization of Storm Sewer Locations for Maintenance & Cleaning** | Following the inspection, the stormwater controls will 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. | Annually Throughout Permit Cycle | Prioritization locations identified. | Copy of prioritization. | Birmingham Public Schools |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.6.11.5 Cleaning & Maintenance (Catch Basin/ Manhole Cleaning)** | Birmingham Public Schools will ensure that cleaning of the catch basins/manholes occur, and 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 By-Products), and Part 115 (solid wastes). | Once per permit cycle<br>Or<br>More often if prioritized due to a build-up of accumulated solid material that is greater than or equal to the one-third guideline outlined in the Storm Sewer Structure Controls Inspection & Maintenance Policy & Procedure | Prioritized locations cleaned once per permit cycle. All waste disposed as required. | Copies of Waste Manifests. | Birmingham Public Schools |
| **BMP #2.6.11.6 Roadways & Parking Lots** | Storm drains stenciled to prevent disposal of wash water into storm drains. | As needed<br>Throughout Permit Cycle | Storm drain stencils inspected and maintained as need. | Copy of work order. Photos of stenciling. | Birmingham Public Schools |
| **BMP #2.6.11.7 Cold Weather Operations** | Proper salt storage management. Maintain storage bags/equipment in good working condition and maintain application equipment per manufacturer's recommendations. | Ongoing<br>Throughout Permit Cycle | Continue proper salt storage and management as previously implemented. | Copies of Inspection Reports noting any issues with salt storage and management. | Birmingham Public Schools |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.6.11.8 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. | As needed Throughout Permit Cycle | 100 % of applicable staff trained. | Copy of sign-in sheets and Agenda (if available). | Birmingham Public Schools |
| **BMP #2.6.11.9 Street Sweeping** | Conduct hand sweeping in the parking lots/roadways in the spring and fall. | Spring & Fall Throughout Permit Cycle | Inspections completed. | Copy of work order or schedule. | Birmingham Public Schools |
| | Street sweeping conducted by a professional sweeping company. | As needed Throughout Permit Cycle | | Copy of invoice or disposal documentation. | |
| **BMP #2.6.11.10 Vegetated Properties (Pesticides)** | Birmingham Public Schools requires all contracted personnel who participate in the application of pesticides will 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. | Ongoing Throughout Permit Cycle | Application of pesticides will only be completed by trained and licensed applicators. | Documentation of in-house staff license or copy of contractor receipt. | Birmingham Public Schools |
| **BMP #2.6.11.11 Contractor Oversight** | Birmingham Public Schools requires contractors to comply with pollution prevention and good housekeeping BMPs. Birmingham Public Schools will complete contractor notification, pre-project meeting and periodic inspections to provide oversight to ensure compliance. | As needed Throughout Permit Cycle | Contractors trained and informed of pollution prevention and good housekeeping techniques. | Copy of sign-in sheets, pre-project meeting notes or inspections. | Birmingham Public Schools & Contractors/ Vendors |
| | Prior to conducting work, contractors shall be provided a “Stormwater Contractor Oversight Record” form. | | | | |

| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #2.6.11.12 Training** | Pollution prevention and good housekeeping training. | Once per permit cycle or during the 1st year of employment<br>Throughout Permit Cycle | Goal of providing training to maintenance staff who work for Birmingham Public Schools.<br>**[All Stormwater Training is outlined in Section 3.0 Training]** | Copy of sign-in sheets and Agenda (if available). | Birmingham Public Schools |
| **BMP #2.6.11.13 Pollution Prevention & Good Housekeeping Activities Review** | Summary of annual activities for the "Pollution Prevention and Good Housekeeping". | Annually<br>Throughout Permit Cycle | Annual review of SWMP performed. Maintain copy of SWMP annual review.<br>Determine the level of district involvement and identify areas of improvement. | Maintain copy of SWMP annual review and evaluation information for progress reporting. | Birmingham Public Schools |

## 3.0 Training

Birmingham Public Schools 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 Birmingham Public Schools employees will be required to have general awareness training on the topics included in the PEP. All applicable Birmingham Public Schools 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.

Birmingham Public Schools has implemented a comprehensive staff training program based on each employee's participation and responsibilities under this program. The employee training program is categorized in three (3) separate levels summarized as follows:

**LEVEL I TRAINING-General Awareness Training**

Level I training is encouraged for all district employees, parents, and students. General Awareness training is provided in the form of an 11-minute video produced by Arch Environmental Group titled, **"When it Rains, It Drains…The Stormwater Question".** This video is also available on the stormwater webpage.

**LEVEL II TRAINING-General Awareness, Pollution Prevention & Good Housekeeping, and Illicit Discharge Reporting**

Level II training is required for all employees whose job responsibilities involve illicit discharge related activities, or indicate a potential to cause, witness, or report and illicit discharge or connection. This training includes the previously described video as well as a review of the districts Stormwater Management Program Plan and instruction on identification and notification of illicit discharges or connections. This training is provided to applicable transportation, maintenance, custodial, and food service employees.

**LEVEL III TRAINING-Maintenance and Storage Facility Stormwater Pollution Prevention Plans, Lawn Maintenance, and Structural Control Inspection, Maintenance, and Repair Training**

Level III training is provided in the form of videos, PowerPoint presentations, and hands-on training. This training is provided to district supervisors, maintenance, and lawn service staff.

**LEVEL IV (CONTRACTORS) – Contractor Training/Oversight**

Contractors employed by Birmingham Public Schools to conduct activities with a potential to impact water quality. Prior to conducting work, contractors shall be provided a "Stormwater Contractor Oversight Record" form.

## 3.1 Training Table

| BMP | Description | Measurable Goal | Target Audience | Timeframe |
|---|---|---|---|---|
| **I**<br><br>**General Awareness Training** | Encourage teachers, administrative and support staff to watch the General Awareness Stormwater Video "When it Rains it Drains". | Maintain on district website and Record attendance with sign-in sheets. Birmingham Public Schools will retain records of trainings for future review regarding SWMP. | Teachers, administrative and support staff. | Ongoing<br><br>Throughout Permit Cycle |
| **II**<br><br>**IDEP & PPGH Training** | General Awareness, Pollution Prevention & Good Housekeeping, and Illicit Discharge Elimination Program | Record attendance with sign-in sheets for each training session. Birmingham Public Schools will retain records of trainings for future review regarding SWMP. | In-house custodial, maintenance, transportation, and food service employees. | Required once during permit cycle current employees and during the 1st year of employment for new employees.<br><br>Throughout Permit Cycle |
| **III**<br><br>**Routine Storm Sewer Inspection Training** | Train appropriate employees how to conduct a storm sewer system inspection. | Record attendance with sign-in sheets for each training session. Birmingham Public Schools will retain records of trainings for future review regarding SWMP. | District supervisors, in-house maintenance, and lawn service staff. | As Needed<br><br>Throughout Permit Cycle |
| **IV**<br><br>**Contractor Training/ Oversight** | Stormwater specific training for on-site contractors. | Utilize a "Stormwater Contractor Oversight Record" form to review stormwater compliance with contractors hired to perform municipal operation and maintenance activities and to obtain signatures.<br><br>Obtain records of training for future review of the SWMP. | Contractors employed by Birmingham Public Schools to conduct activities with a potential to impact water quality. | Required at the time of employment.<br><br>Throughout Permit Cycle |

# 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.

Birmingham Public Schools 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. TMDLs assigned the discharges for Birmingham Public Schools are described in the below sections.

## 4.2 Statewide E. coli TMDL

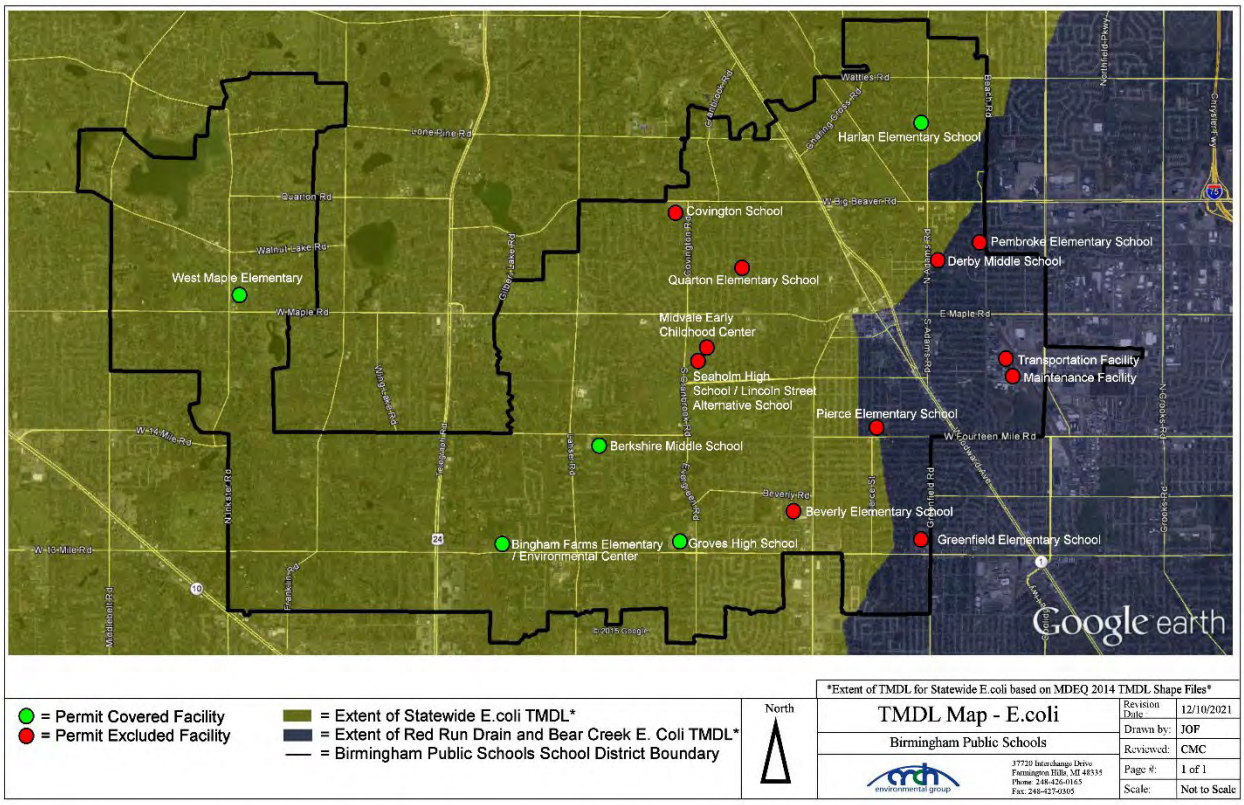
The Statewide **E. coli** TMDL was approved by the United States Environmental Protection Agency (USEPA) on July 29, 2019. This TMDL addresses all surface waters (inland lakes, Great Lakes, streams, rivers, wetlands, and beaches) in the state of Michigan that are impaired by E. coli. The goal of the TMDL is to identify problem areas, address sources of E. coli statewide, and provide guidance to restore these waters.

The targets in this TMDL are concentrations of E. coli per 100 milliliters (mL) of water, set equal to Michigan's Water Quality Standard (WQS) for recreation (described in Section 3). This target is easier to understand and communicate than a load-based target, which would vary by water body, and is also easier to measure with limited resources.

Each District facility was evaluated for the Statewide E. coli TMDL applicability using the Michigan Department of Environment, Great Lakes, and Energy TMDL Watershed Screening Tool. The following District facilities discharge stormwater either directly or indirectly to watersheds included within the Statewide TMDL boundaries as identified in Map 3 below:

1. Berkshire Middle School
2. Bingham Farms Elementary/Environmental Center
3. Groves High School
4. Harlan Elementary Schools
5. West Maple Elementary School

### Map 3 – E. Coli Total Maximum Daily Load Map[4]




## 4.3 Rouge River TMDL

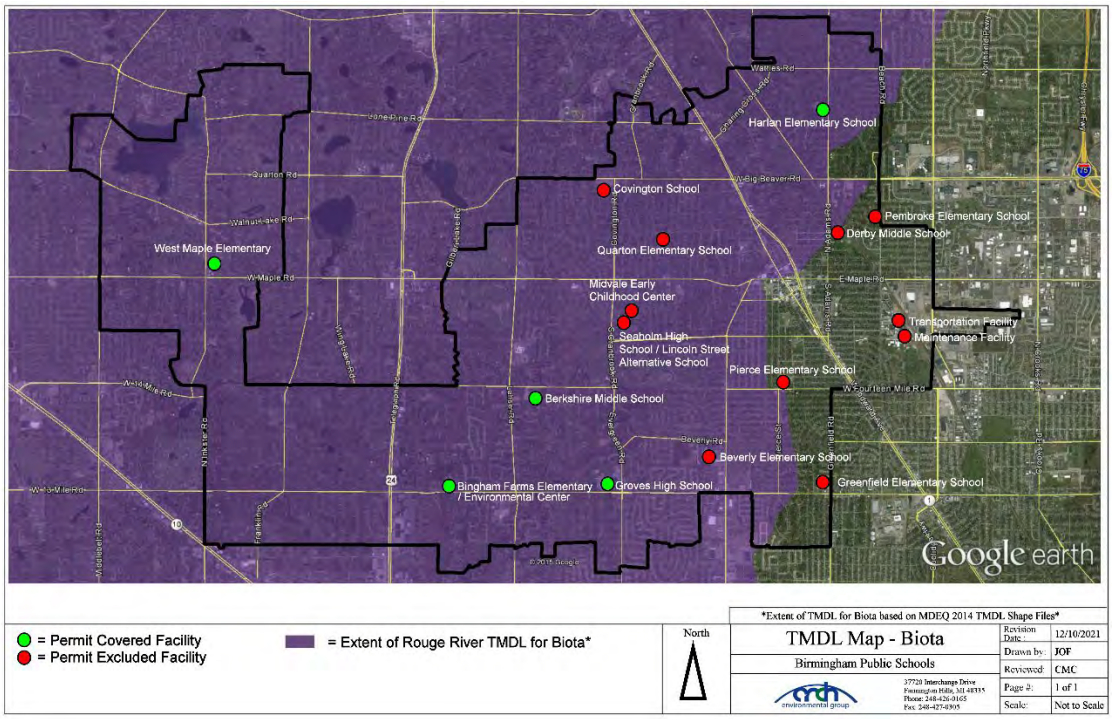
The Rouge River was placed on Section 303(d) list for **biota (sedimentation/siltation).** The rouge was placed on the list for biota due to poor macroinvertebrate and fish community levels. Surveys conducted indicated that lack of habitat along with siltation/sedimentation were the predominant issues.

The following District facilities discharge stormwater either directly or indirectly within the Rouge River TMDL boundaries as identified in Map 4 below:

1. Berkshire Middle School
2. Bingham Farms Elementary/Environmental Center
3. Groves High School
4. Harlan Elementary Schools
5. West Maple Elementary School

[4] Total maximum daily load boundaries based on Michigan Department of Environmental Quality Water Quality Standards Shapefiles.

### Map 4 – Biota Total Maximum Daily Load Map[5]




## 4.4 TMDL Implementation – Monitoring Plan

### 4.4.1 Sampling

1. The Part 4 Water Quality Standards for E. coli is 1,000 counts per 100 ml for outfall monitoring. If the monitoring results conducted in the initial round of TMDL monitoring are below the benchmark standard for E. coli, then a second round of monitoring for E. coli (within the same permit cycle) is not required.
2. To determine compliance with the Biota TMDL samples collected from designated outfall/discharge points will be analyzed for total suspended solids (TSS). The Rouge River benchmark standard for TSS is less than or equal to 80 mg/L for outfall monitoring. If the monitoring results conducted in the initial round of TMDL monitoring are below the benchmark standard for TSS for the Rouge River, then a second round of monitoring for Biota (within the same permit cycle) is not required.
3. If a designated TMDL in a receiving waterbody to which one or more district facilities discharges is being attained, outfall discharge point monitoring will not be conducted at the district facilities that discharge to that receiving waterbody.

[5] Total maximum daily load boundaries based on Michigan Department of Environmental Quality Water Quality Standards Shapefiles.

## 4.4.2 Prioritized TMDL Best Management Practices

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

**E. COLI/BIOTA**

4. Birmingham Public Schools will use its website to provide the public with information regarding pet waste (SEMCOG links). Additionally, SEMCOG pet waste posters are placed at various school buildings.
5. Birmingham Public Schools will prohibit illicit discharges, inspect, and monitor suspected illicit discharges, and enforce elimination of the illicit discharges and connections.
6. Birmingham Public Schools has reviewed all facilities for cross-connections between the sanitary and storm sewer systems.
7. Birmingham Public Schools will conduct hand sweeping in the parking lots/roadways in the spring and fall.
8. Birmingham Public Schools has established programs 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.
9. Birmingham Public Schools has implemented routine visual inspections of stormwater structural controls.
10. Birmingham Public Schools 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.

**ALL TMDLs**

1. Birmingham Public Schools will continue to use its website to provide the public information regarding local TMDL issues (phosphorous, E. coli, biota, and dissolved oxygen TMDL Best Management Practice).
2. Birmingham Public Schools will continue to 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 the stormwater management webpage.
3. The district has implemented an Illicit Discharge Regulatory Policy.
4. The district has implemented a Post-Construction Policy and Procedure.
5. The district has implemented an Enforcement Response Procedure.
6. Adequately maintains vegetation around stormwater facilities, ditches, and ponds.
7. 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 Birmingham Public Schools' targeted TMDL pollutants. Priority is given to BMPs that reduce E. coli loads and address water quality for biota. If the monitoring results conducted in the initial round of TMDL monitoring for a specific TMDL parameter was below the benchmark standard, then a second round of monitoring (within the same permit cycle) is not required for that specific parameter.

## Assessment

The EGLE 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.

Birmingham Public Schools will conduct the following for applicable TMDLs:

1. 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 during a representative (i.e., >0.25" and <1.5") wet weather event over a 24-hour period, and within 30 to 60 minutes of the start of the wet weather event in order to capture the first flush. Monitoring shall be specifically for the pollutant identified in the TMDL. TMDL Sample locations are located in Appendix G.
2. The results of the sampling will be assessed and summarized in a brief assessment report to be shared with the public if requested.
3. Based on a review of the sampling results, BMP implementation will be reviewed for effectiveness and BMPs may be updated or revised to ensure progress toward achieving TMDL pollutant load reductions.

## 4.4.2 TMDL - BMP Table

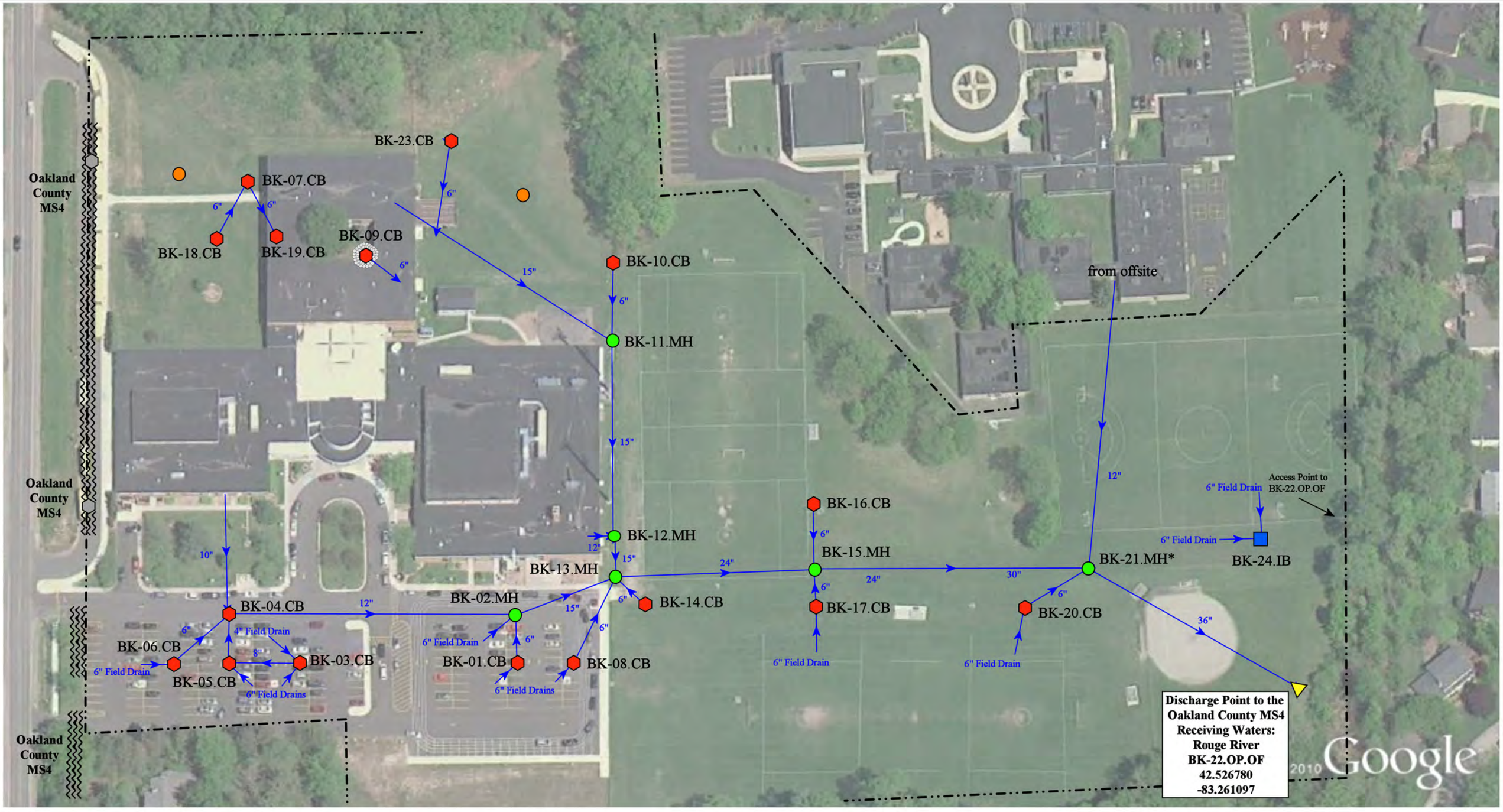
| BMP | Description of BMP | Timeframe | Measurable Goal | Measure of Assessment | Responsible Party |
|---|---|---|---|---|---|
| **BMP #4.4.2.1 Webpage** | The District will use its website to provide the public with information regarding pet waste (SEMCOG links). Additionally, SEMCOG pet waste posters are placed at various school buildings.<br><br>The District will continue to use its website to provide the public information regarding local TMDL issues (E. coli and biota (TSS) TMDL Best Management Practices). | Ongoing<br>Throughout Permit Cycle | Posters placed throughout Birmingham Public Schools facilities.<br><br>Material available on webpages. | Maintain links on webpage. Maintain copies of webpage review. | Birmingham Public Schools |
| **BMP #4.4.2.2 Outfall Monitoring** | Samples will be collected at outfall/discharge points at facilities associated with the TMDL. An effort will be made to sample water quality parameters during a representative (i.e., >0.25" and <1.5") wet weather event over a 24-hour period, and within 30 to 60 minutes of the start of the wet weather event in order to capture the first flush. Monitoring shall be specifically for the pollutant identified in the TMDL. | Twice per Permit Cycle<br>Throughout Permit Cycle | The goal is to collect samples from at least 50% of the outfall/points of discharge at facilities associated with the TMDL. | Copy of inspection paperwork and sample results. | Birmingham Public Schools |
| **BMP #4.4.2.3 Effectiveness Review** | The results of the sampling will be assessed for the effectiveness of the BMPs currently being implemented for TMDL pollutant load reduction and summarized in an assessment report. | Once per Permit Cycle<br>Throughout Permit Cycle | Report available for public review if requested. | Assessment report completed. | Birmingham Public Schools |

# Appendix A

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

## Receiving Waters Table

| Birmingham Public Schools | | | | |
|---|---|---|---|---|
| **FACILITY** | **OUTFALL/DISCHARGE POINT** | **POINT OF DISCHARGE/OUTFALL** | **RECEIVING WATERS** | **WATERSHED** |
| **Berkshire Middle School** | BK-22.OP.DP | Oakland County MS4 | Headwaters Rouge River | Rouge River |
| **Bingham Farms Elementary / Environmental Education Center** | BGF-04.CB.DP | Oakland County MS4 | Franklin Branch | Rouge River |
| | BGF-05.CB.DP | Oakland County MS4 | Franklin Branch | Rouge River |
| **Groves High School** | GHS-12.SCC.DP | Oakland County MS4 | Rouge River | Rouge River |
| | GHS-69.MH.DP | Oakland County MS4 | Headwaters Rouge River | Rouge River |
| **Harlan Elementary School** | HN-09.MH.DP | Oakland County MS4 | Headwaters Rouge River | Rouge River |
| | HN-10.SCC.DP | Oakland County MS4 | Headwaters Rouge River | Rouge River |
| | HN-16.MH.DP | Oakland County MS4 | Headwaters Rouge River | Rouge River |
| **West Maple Elementary School** | WMP-07.MH.DP | Oakland County MS4 | Franklin Branch | Rouge River |
| | WMP-10.CB.DP | Oakland County MS4 | Franklin Branch | Rouge River |




= Catch Basin
= Manhole
= Basin Drain
= Offsite MS4
= Sanitary
= Infiltration Basin
= Open Pipe Outlet
= Drainage Receptor
= Trench Drain
= Property Lines
= Buried Structure
= Stabilized Outlet
= Flow Splitter
= Hydrodynamic Separator
= Pond/Basin
= Swale/Stormwater Conveyance Channel
= Underground Detention System

North

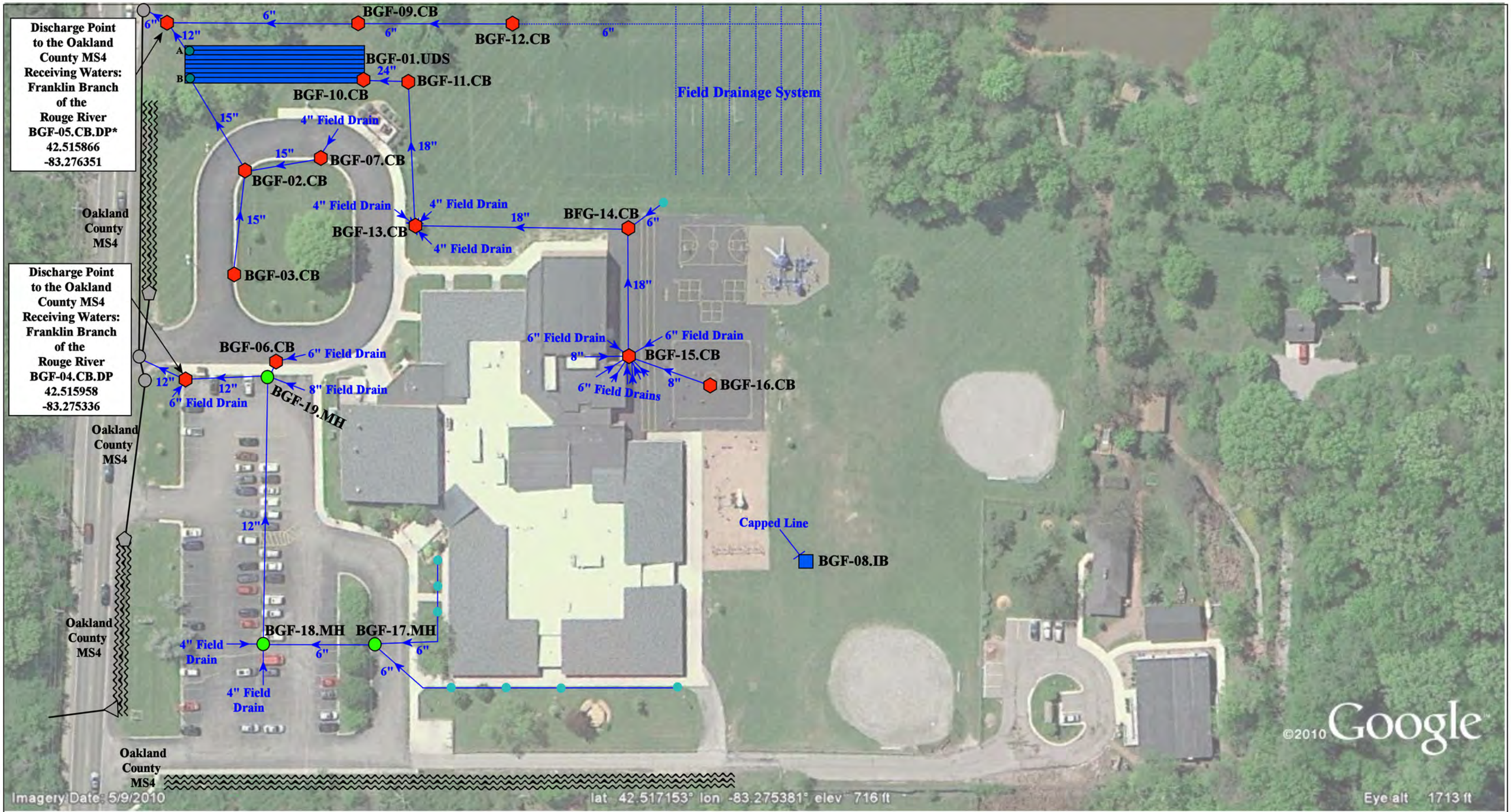
21707 W. 14 Mile Road, Beverly Hills, MI 48025

# Berkshire Middle School

Birmingham Public Schools

| | |
|---|---|
| Date: | 9/22/2022 |
| Drawn by: | KCS |
| Reviewed: | LK |
| Page #: | 1 of 1 |
| Scale: | Not to Scale |

environmental group




= Catch Basin
= Manhole
= Basin Drain
= Offsite MS4
= Sanitary
= Infiltration Basin
= Open Pipe Outlet
= Drainage Receptor
= Trench Drain
= Property Lines
= Landscape Drain
= Stabilized Outlet
= Flow Splitter
= Hydrodynamic Separator
= Pond/Basin
= Swale/Stormwater Conveyance Channel
= Underground Detention System

North

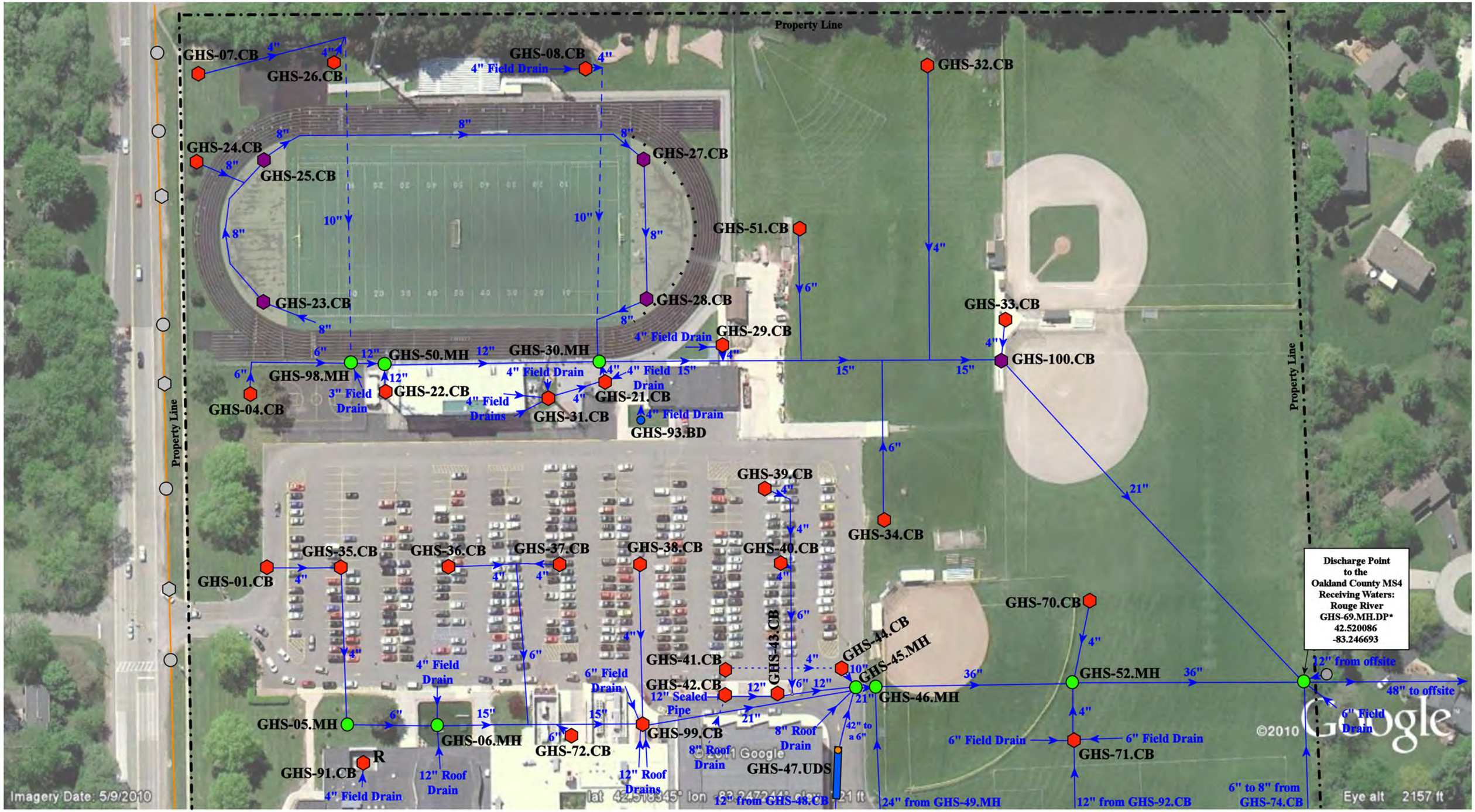
23400 13 Mile Road, Bingham Farms, Michigan 48025

# Bingham Farms Elementary School

Birmingham Public Schools


environmental group
37720 Interchange Drive
Farmington Hills, MI 48335


| | |
|---|---|
| Date: | 7/26/2022 |
| Drawn By: | SB |
| Scale: | Not to Scale |




= Catch Basin

= Manhole

= Trench Drain

= Basin Drain

= Combined Sewer System

= Cleanout

= Buried Basin

= Underground Detention System with Access Lid

* = TMDL Sampling Location

= Offsite MS4

Map 1 of 2

North

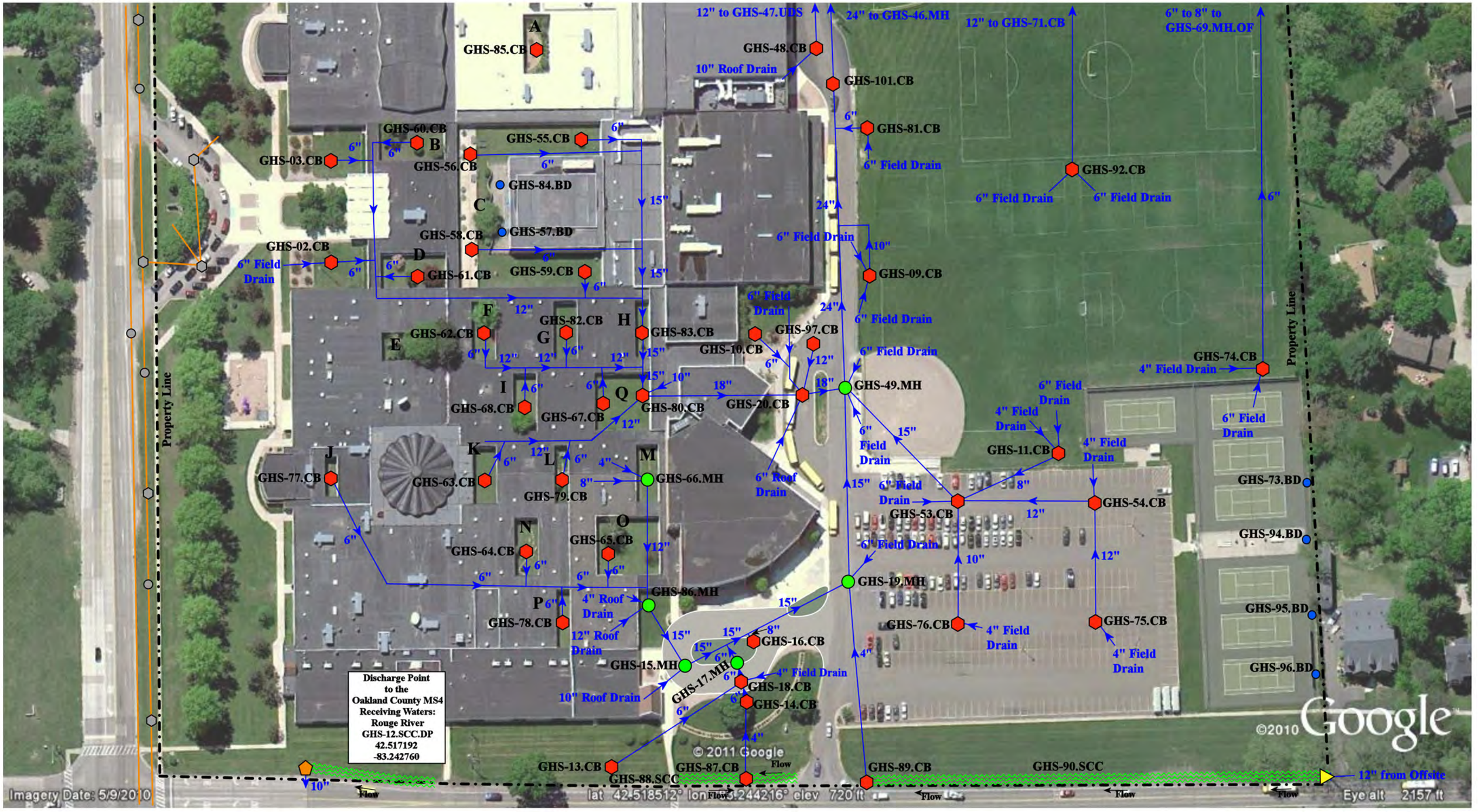
# Groves High School

Birmingham Public Schools


environmental group

37720 Interchange Drive
Farmington Hills, MI 48335


| | |
|---|---|
| Date: | 07/13/2021 |
| Drawn By: | JF |
| Scale: | Not to Scale |




= Catch Basin

= Manhole

= Drainage Receptor

= Open Pipe Outlet

A - R = Courtyard ID

= Basin Drain

= Combined Sewer System

= Stormwater Conveyance Channel

Map 2 of 2

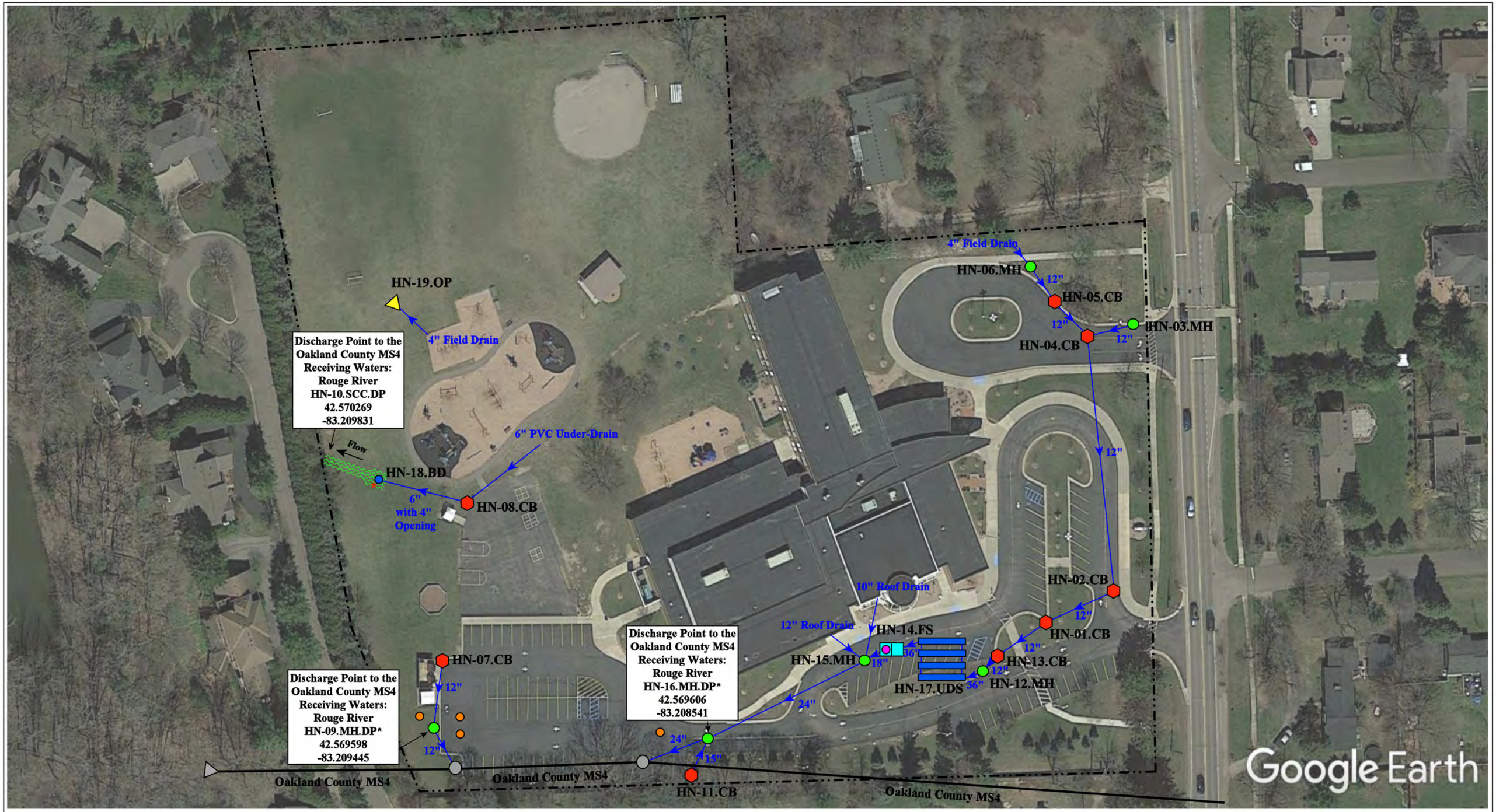
North

# Groves High School

Birmingham Public Schools


37720 Interchange Drive
Farmington Hills, MI 48335


| | |
|---|---|
| Date: | 07/13/2021 |
| Drawn By: | JF |
| Scale: | Not to Scale |




* = When Full, Basin Drain Overflows into SCC

= Catch Basin
= Manhole
= Open Pipe Outlet
= Underground Detention System
= Flow Splitter with Access Lid
= Basin Drain
= Stormwater Conveyance Channel
= Sanitary
= TMDL Sampling Location
= Property Lines

North

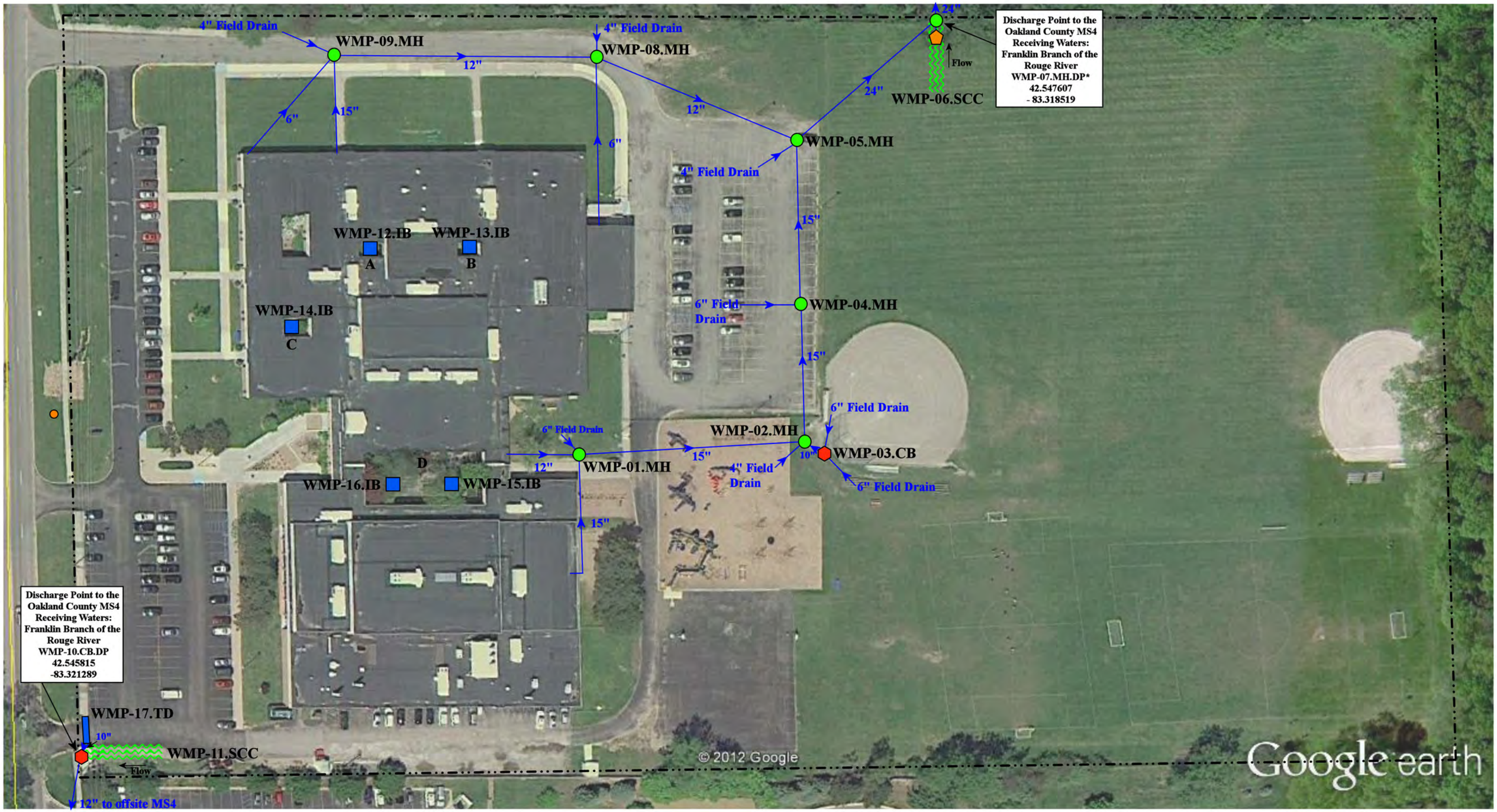
3595 Adams Road, Bloomfield Hills, Michigan 48304

# Harlan Elementary School

Birmingham Public Schools


37720 Interchange Drive
Farmington Hills, MI 48335
Phone: 248-426-0165
Fax: 248-427-0305


| | |
|---|---|
| Revision Date : | 11/17/2020 |
| Drawn by: | AS |
| Reviewed: | LK |
| Page #: | 1 of 1 |
| Scale: | Not to Scale |




= Catch Basin
= Manhole
= Basin Drain
= Offsite MS4
= Sanitary

= Infiltration Basin
= Open Pipe Outlet
= Drainage Receptor
= Trench Drain
= Property Lines

= Buried Structure
= Stabilized Outlet
= Flow Splitter
= Hydrodynamic Separator

= Pond/Basin
= Swale/Stormwater Conveyance Channel
= Underground Detention System

North

6275 Inkster Road, Bloomfield Hills, MI 48301

# West Maple Elementary School

Birmingham Public Schools


37720 Interchange Drive
Farmington Hills, MI 48335
Phone: 248-426-0165
Fax: 248-427-0305


| | |
|---|---|
| Revision Date : | 03/13/2023 |
| Drawn by: | KEM |
| Reviewed: | LK |
| Page #: | 1 of 1 |
| Scale: | Not to Scale |

# Appendix B

## Enforcement Policies and Tracking Forms

Creation Date: January 31, 2022
Revised: May 2, 2023

**District Illicit Discharge/Illegal Dumping Reporting Form**
**Birmingham Public Schools**
**Permit Number: MI0059973**

Date:_____ Time_____

Inspectors:_____

## I. ORIGIN OF REPORT

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

- ❑ Illicit Discharge Inspection (Routine)
- ❑ Facility Staff
- ❑ Citizen Complaint
- ❑ Other _____

## II. SOURCE

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

_____

_____

**2. Describe the Source:**

- ❑ Residential
- ❑ Transportation Facility
- ❑ Construction Site
- ❑ Custodial
- ❑ Other _____

**3. Facility of the Source:**_____

_____

## III. TYPE

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

- ❑ Sanitary Leak/Spill
- ❑ Paint Discharge
- ❑ Dumpster Discharge
- ❑ Cleaning Discharge
- ❑ Unhardened Cement Discharge
- ❑ Paint Discharge
- ❑ Vehicle Repair
- ❑ Vehicle Washing
- ❑ Grey Water Discharge
- ❑ Landscape Material Dumping
- ❑ Cooling Water Discharge
- ❑ Allowable Discharge
- ❑ Other _____

Provide Additional Information:_____

_____

**2. Other Sources:**

- ❑ Illicit Connection
- ❑ Construction Site
- ❑ Other _____

## IV. FOLLOW-UP AND ENFOREMENT ACTIVITIES

**1. Describe Corrective Actions:**_____

_____

**2. Describe Enforcement Action:**

- ❑ None/Incident Resolved
- ❑ Verbal Notice
- ❑ Administrative Action
- ❑ Cleaning Discharge

**3. Date Resolved:**_____

**4. Responsible Party**

**Signature:**_____

**Municipal Separate Storm Sewer System Noncompliance Enforcement Tracking**
**Birmingham Public Schools**
**Permit Number: MI0059973**

| 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 | | | | | | | | |
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| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |

# Stormwater Management – Illicit Discharge Regulatory Policy

Birmingham Public Schools
Permit Number: MI0059973
Issue date: January 31, 2022

This illicit discharge regulatory policy was developed as a regulatory policy for prevention of pollution from storm water runoff and to protect the quality of the waters of the State of Michigan through the regulation of non-stormwater discharges to the municipal separate storm sewer system (MS4) to the maximum extent practicable as required by federal and state law. This regulatory mechanism establishes methods for controlling the introduction of pollutants into the MS4 in order to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit through the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The objectives of the regulatory mechanism are:

1. To regulate the contribution of pollutants to the MS4 by stormwater discharges by any user.
2. To prohibit illicit connections and discharges into the MS4.
3. To establish authority to investigate, inspect, and monitor suspected illicit discharges.

District properties include all Birmingham Public School properties.

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**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 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.

## Prohibitions of Illicit Discharges

1. Prohibition of Illicit Discharges:
    a. Birmingham Public Schools prohibits the discharge of non-stormwater discharges into the storm drain system, including but not limited to pollutants or waters containing any pollutants.
    b. No person shall throw, drain, or otherwise discharge, cause, or allow others under its control to throw, drain, or otherwise discharge into the MS4 any pollutants or waters containing any pollutants, other than stormwater.

2. The following discharge is **not prohibited**:
    a. This policy excludes prohibitions from the discharge or flows from firefighting activities to the Birmingham Public Schools 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.
        - Air conditioning condensation.

## Prohibition of Illicit Connections

1. The construction, use, maintenance or continued existence of illicit connections to the MS4 is prohibited.
2. 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.
3. A person is considered to be in violation of this regulatory mechanism if the person connects a line conveying sewage to the MS4 or allows such a connection to continue.
4. Improper connections in violation of this regulatory mechanism must be disconnected and redirected.
5. Illicit discharge and connections will be eliminated immediately.

## Enforcement

The District Stormwater Program Manager will administer and enforce the stormwater management program, including investigate, inspect, and monitor suspected illicit discharges or illicit connections.

**If you witness or think a discharge is taking place, please contact Birmingham Public Schools at (248) 866-6538**

# Stormwater Management - Post-Construction Policy & Procedure

Birmingham Public Schools
Permit Number: MI0059973
Issue date: January 31, 2022

**Applies To:** As required by the National Pollutant Discharge Elimination System (NPDES) permit for Birmingham Public Schools, the scope of this Guideline includes all development and redevelopment projects on District properties that involve either:

a. earth disturbance of one (1) acre or greater,
   **OR**
b. earth disturbance of less than one (1) acre, but which are part of a larger common plan of development or sale that would disturb one (1) acre or more.

## Post-Construction Requirements Policy Statement

Birmingham Public Schools development and redevelopment projects on District property are regulated under and must comply with the Birmingham Public Schools NPDES permit for stormwater discharges, as issued by the Michigan Department of Environment, Great Lakes and Energy (EGLE). The Stormwater Management Post-Construction Requirements Guideline has been developed to provide guidance regarding responsibilities and actions to meet the NPDES permit conditions for development and redevelopment projects on district owned properties.

## Post-Construction Plan for Stormwater Management

The post-construction plan for stormwater management on regulated sites **must** include:

- A minimum treatment volume standard to address water quality impacts.
- Channel protection criteria to address resource impairment resulting from flow volumes and rates.
- Review 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 to ensure that infiltration BMPs do not exacerbate existing conditions. 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.
- Drawings showing the location of stormwater control measures and the storm system.
- Details on the proposed stormwater control measures.
- Operation & Maintenance (O&M) requirements.
- Supporting information
    - Calculations used for designing all components of the stormwater management systems.

- Total Suspended Solids (TSS) design removal rates and supporting manufacturer documentation, if applicable.
- Geotechnical report including soil boring and infiltration test data.

The project team [Architecture, Engineering & Construction, Other Project Manager, Project Developer and/or Contractors] shall develop the post-construction stormwater management plan in accordance with this guideline and the NPDES permit.

## *Water Quality Treatment Volume Standard*

The minimum treatment volume standard **must** be either:

a. Treat the first one (1) inch of runoff from the entire site.
   **OR**
b. Treat the runoff generated from ninety percent (90%) of all runoff-producing storms for the project site, as summarized in MDEQ's memo dated March 24, 2006 https://www.michigan.gov/documents/deq/wrd-hsu-ninety-percent_557709_7.pdf

**Total Suspended Solids**

The treatment methods must be designed on a site-specific basis to achieve the following:

a. A minimum of eighty percent (80%) removal of total suspended solids (TSS), as compared with uncontrolled runoff.
   **OR**
b. 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.

## *Channel Protection Criteria*

The channel protection criteria must maintain post-development site runoff volume and peak flow rate 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. More restrictive channel protection criteria may be utilized on a case-by-case basis, as appropriate.

## *Site Plan Review*

This policy is to establish a requirement to submit a site plan for review as required by the EGLE NPDES Stormwater Discharge Permit and ensure that water quality objectives, erosion and sediment control requirements, and BMP maintenance are considered to the maximum extent practicable.

Birmingham Public Schools shall evaluate proposed construction activities to determine:

- If the activity meets the criteria of a development or redevelopment project with an earth disturbance greater than or equal to 1 acre, or part of a common plan of development resulting in a development or redevelopment activity greater than or equal to 1 acre in size.
- Does the development or redevelopment project discharge to waters of the state, or to a county, city, or township MS4.

If the development or redevelopment project discharges directly to waters of the state, Birmingham Public Schools shall comply with the post-construction standards outlined in this SWMP.

If the development or redevelopment project discharges to a regulated county, city, or township MS4, Birmingham Public Schools shall submit the site plan for review and approval. Site plan approval by the county, city, or township of an equivalent post-construction standard ensures acceptable compliance with the Birmingham Public Schools NPDES MS4 Stormwater Discharge Permit. Birmingham Public Schools shall obtain and maintain a copy of the site plan approval *document*.

If the development or redevelopment project discharges to a county, city, or township MS4 that is not regulated or require site plan review, Birmingham Public Schools shall comply with the post-construction standards outlined in this SWMP.

### *Operations & Maintenance Plans*

All structural and vegetative stormwater control measures installed as a requirement under this section of the permit shall include a plan for maintaining maximum design performance through long-term operation and maintenance.

## Enforcement

The Birmingham Public Schools Stormwater Program Manager will administer and enforce the stormwater management program, including maintaining procedures, guidance, information, etc. to aid district staff and contractors in complying with the post-construction requirements for stormwater management.

# Birmingham Public Schools
# Board of Education
# Resolution in Support of Stormwater Management Plan

**WHEREAS** Birmingham Public Schools owns and operates facilities within the boundaries of the "Detroit" urbanized area which discharges stormwater though a municipal separate storm sewer system (MS4) to surface waters of the State of Michigan; and

**WHEREAS** The Michigan Department of Environment, Great Lakes, and Energy maintains oversight and regulatory authority for compliance with the terms and conditions of the NPDES Municipal Separate Storm Sewer System discharge permit; and

**WHEREAS** Birmingham Public Schools has applied for and received permit coverage to discharge stormwater from Birmingham Public Schools facilities to the MS4; and

**WHEREAS** Birmingham Public Schools agrees to comply with the NPDES Municipal Separate Storm Sewer System discharge permit requirements, and

**WHEREAS** Birmingham Public Schools has developed a Stormwater Management Program Plan (SWMP) outlining the policies, procedures, and best management practices to be employed by the district to comply with the permit requirements, and

**WHEREAS** the conditions of the NPDES Municipal Separate Storm Sewer System discharge permit require Birmingham Public Schools to develop policies and procedures that prohibit illicit discharges to their stormwater system and to implement appropriate enforcement procedures and actions to detect and eliminate such illicit discharges, and

**WHEREAS** Birmingham Public Schools agrees to prohibit the discharge of non-stormwater discharges into the storm drain system, including but not limited to pollutants or waters containing any pollutants, and

**WHEREAS** Birmingham Public Schools agrees to eliminate illicit discharges and illicit connections, and

**WHEREAS** Birmingham Public Schools agrees to prohibit the construction, use, maintenance or continued existence of illicit connections to the storm drain system. 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, and

**WHEREAS** Birmingham Public Schools agrees to obtain a Part 91 permit from the appropriate state, county, or local governmental soil erosion permitting agency for new development and redevelopment projects that disturb one or more acres, and

**WHEREAS** Birmingham Public Schools agrees to obtain a construction site permit from the local municipality or other governing unit for new development and redevelopment projects that disturb one or more acres, and

**WHEREAS** Birmingham Public Schools agrees to inspect, operate, and maintain structural controls for the purpose of reducing pollutant contribution, control runoff, and decrease or eliminate stream bank erosion due to stormwater runoff, and

**WHEREAS** Birmingham Public Schools agrees to comply with the requirements of the State of Michigan Permit (Rule 323.2190) for stormwater discharge from construction activity.

**THEREFORE,** be it resolved that the Birmingham Public Schools Board of Education is highly committed to practicing sound environmental principals including the reduction of pollutants to surface waters though discharges of stormwater. The Board hereby approves and instructs the district Superintendent to enforce the above listed policies and procedures for illicit discharge elimination, control of stormwater runoff and long-term

operation and maintenance of structural controls as part of the overall Birmingham Public Schools Stormwater Management Program Plan.

Duly passed and approved by the Birmingham Public Schools Board of Education, Oakland County, Michigan this _____ day of _____.

**Approved:**

_____
President

**Attest:**

_____
Secretary

# Appendix C

**SEMCOG Posters & Illicit Discharge Poster**

# 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, MDEQ, Environmental Health Department, Drain Commissioner's Office
- **Suspicious dumping or discharges from pipes**
  District Stormwater Coordinator, MDEQ, 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, MDEQ, 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**
- 24 Hour Spill Hot Line – Arch Environmental Group **1-248-522-2821**

**Non-Emergency**

- School District Contact Number _____
- DEQ 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**

# KEEP OUR WATER CLEAN



onewater

mionewater.com

# IF YOU SEE POLLUTION, REPORT IT

# KEEP OUR WATER CLEAN

onewater

mionewater.com



# CLEAN UP AFTER YOUR PETS

# BUILD ON WATER QUALITY

onewater

mionewater.com

# DISPOSE OF ALL GREASE IN THE TRASH

# BUILD ON WATER QUALITY

onewater

mionewater.com

# ONLY RAIN DOWN THE STORM DRAIN

# 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.**

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, you're not just fertilizing your lawn

Our Water. Our Future.

Ours to Protect



## Fertilize sparingly and caringly

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.**

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.

# Seven Simple Steps to Clean Water

Our Water. Our Future.

Ours to Protect

1. Help keep pollution out of storm drains
2. Fertilize sparingly and caringly
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.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.

Ours to Protect




## 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.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, 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.**

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, 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.**

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 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.**

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.

# Vehicle Fluid Tips

**Pollution prevention**



Keep lids closed



Avoid placing near floor drains



Keep tops of barrels clean



Clean out secondary containment pallets monthly




Containers should have a clear, readable label



Keep floor clean (of spills and oil dry)

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Southeast Michigan Council of Governments




# Keeping it Clean

## Municipal operations for clean water

## Dumpsters and loading docks



Keep dumpster lids closed and inspect for leaks.
Never place hazardous wastes in a dumpster or trash bin.
Do not hose out the dumpster interior or loading docks. Apply absorbent over any fluids spilled in the dumpster.
Check loading and unloading equipment regularly for leaks.



## Vehicle and equipment fueling

Look for and report leaks on vehicles when adding fuel.
Use secondary containment when transferring fuel from the tank truck to the fuel tank. Cover storm drains in the vicinity during transfer.
Place spill cleanup materials where they are readily accessible.
Clean up small spills with absorbent materials rather than hosing down the area. Remove the absorbent materials promptly and dispose of in the trash.

## Vehicle and equipment washing



Take vehicles to a commercial car wash. These facilities collect and treat the wastewater.
If you wash vehicles onsite, wash equipment and vehicles ONLY in designated facilities where the wash water drains to the sanitary sewer system or is collected and recycled.
Clean parts in a self contained unit. Make sure that the parts washer is not connected to the storm drain.
Use steam cleaning and pressure washing instead of solvents.



## Vehicle parking and equipment storage

Inspect parking and storage areas for leaks.
Store vehicles and equipment inside or under cover to prevent precipitation from washing pollutants into the storm drain.
Store vehicles on a paved area that you can street sweep regularly to remove drips, leaks, and dirt.
Drain all fluids from wrecked cars when they arrive to prevent any spills or leaks.

## Vehicle and equipment maintenance



Keep accurate maintenance logs and up-to-date inventory of materials.
Perform vehicle maintenance in covered, designated service bays where spills and leaks can be properly contained.
Recycle spent fluids. Do not dump down the drain or in the trash.
Avoid hosing down your work areas. Use rags for small spills, a damp mop for general cleanup, and dry absorbent for larger spills.



## Chemical management – preventing leaks and spills

Fit oil and chemical storage containers with secondary containment structures to contain spilled materials.
Store materials indoors. If you do have outdoor storage areas, keep them covered to prevent rain from contacting the material.
Cover and/or contain, through erosion control practices, stockpiles of raw materials (e.g., salt, soil) to prevent polluted stormwater runoff.
Inspect storage areas regularly for spills and leaks. Keep containers and other storage devices in good condition without leaky seams or corrosion.

## Chemical management – when a spill occurs



If a spill occurs, notify the key spill response personnel. If the material is hazardous, contact the local fire department.
Never wash a spill into the storm drain or leave it without cleaning it up. Contain spills and block the nearby storm drain.
Clean up non-hazardous spills by using a rag, damp cloth, or absorbent materials.

SEMCOG

Funding provided, in part, by the Rouge River National Wet Weather Demonstration Project grant #XP993743-06, and SEMCOG, the Southeast Michigan Council of Governments.

# Aggregate Storage Tips

**Pollution prevention**



Keep salt covered



Keep cold patch materials covered



Keep aggregate materials in bins



Avoid placing materials near storm drains



Keep material areas swept



Catch basin cleanings and street sweepings must be contained

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Southeast Michigan Council of Governments

# Appendix D

**Inspection Field Worksheets**

# Routine Storm Sewer System Inspection Table

| | | | | |
|---|---|---|---|---|
| **Building:** | | | **Client:** | |
| **Inspectors:** | | | **Start Date:** | |
| | | | **Inspection Type:** | |

| ID # | Type | Inspected | Standing Water | Color | Odor | Structure Staining | Suds | Oil Sheen | Bacterial Sheen | Sewage | Algae | Slimes | Abnormal Vegetation | Flow Observed | Velocity of Flow | Color of Flow | Blockages | Erosion | Needs Cleaning? | Structural Issues | Structural Trend | Stenciled |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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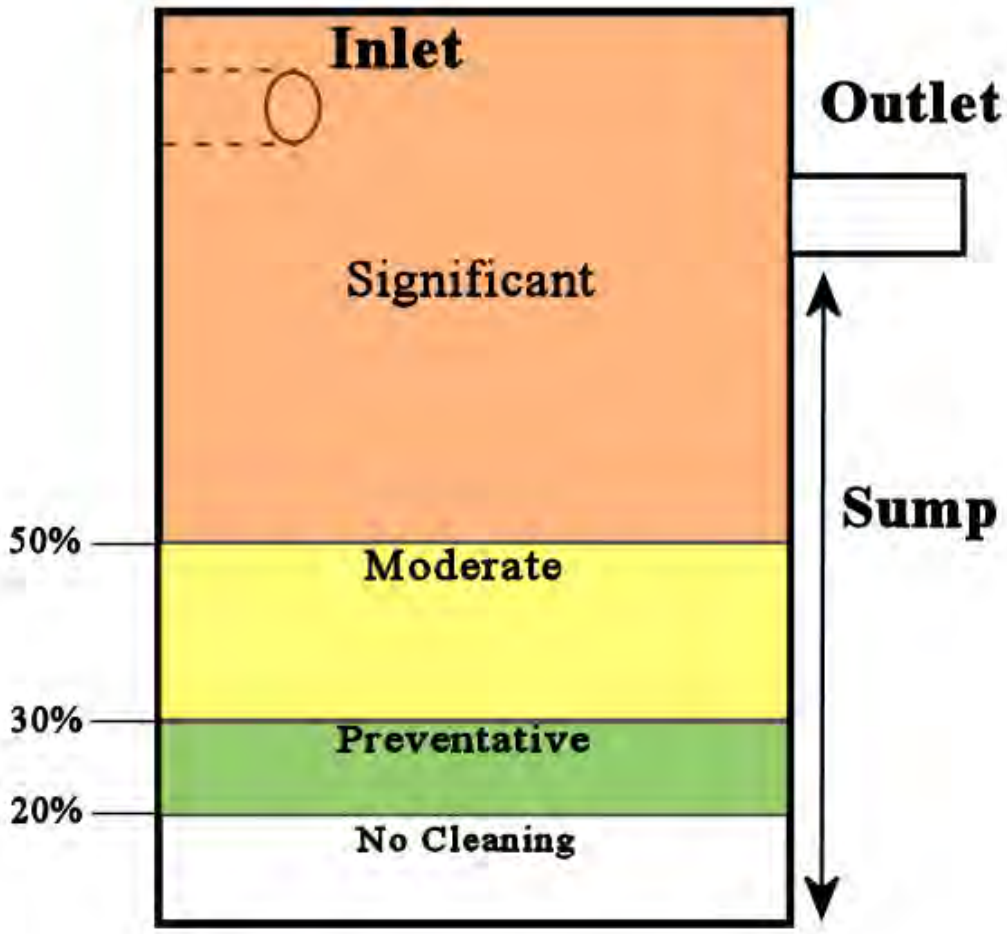
environmental group

# Routine Storm Sewer System Inspection Table

| | | | | | |
|---|---|---|---|---|---|
| **Building:** | "School/Location" | | **Client:** | "School District" | |
| **Inspectors:** | "Inspectors Name" | | **Start Date:** | "Start Date" | "End Date" |
| | | | **Inspection Type:** | "Routine Storm Sewer Inspection or other" | |

| ID # | Type | Inspected | Standing Water | Color | Odor | Structure Staining | Suds | Oil Sheen | Bacterial Sheen | Sewage | Algae | Slimes | Abnormal Vegetation | Flow Observed | Velocity of Flow | Color of Flow | Blockages | Erosion | Needs Cleaning? | Structural Issues | Structural Trend | Stenciled |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| "Storm Structure ID" Ex. ADM-01.CB(ADM represents building such as Admin, 01=number of structure, and CB=structure type. | Type of Structure (Catch Basin, Manhole, Pond, Swale, Pipe, etc.) | Was it inspected this round. (Yes or No) | Was there standing water in the structure? ( Yes or No) | What color is the standing water if present? (Clear, Cloudy, Brown, White, etc.) | Does the basin have a noticeable odor? (Yes or No) | Is there staining on the interior of the structure? (Yes or No) This could be staining caused by a current illicit discharge, remnants of a past illicit discharge, or natural staining from iron oxidizing bacteria etc. | Are there suds present in the structure (organic suds - caused by aeration/natural causes, soapy suds, or no) | Is there oil sheen present on the water surface in the structure? (Significant - indicative of an illicit discharge, OR No) | Is there bacterial sheen on water surface of the structure? (Yes or No) - We ask this to confirm that a sheen in a photo was bacterial instead of oil. | Is evidence of sewage present in water in structure? (toilet paper, poo, etc.) - (Yes or No) | Is Algae growth present in the structure? (Yes or No) | Are there slimes present in the structure? (Yes or No) | Is there abnormal veg. growth in structure? (Yes or No) | Was there water flow observed in the structures pipes? (No, Trickle(light flow), Intermittent(Indicative of a sump), or continuous(usually occurs during/after a rain event)) | What is the estimated velocity of the water flow if present? (N/A, Trickle, slow, moderate, or substantial) Substantial occurs during or after a rain event. | What is the color of the flow within the structure? (N/A, Brown, Yellow, Clear, Cloudy, etc.) Used to be sure there is no evidence of illicit activities during or after rain events. | Are any pipes blocked? (Yes or No) This would be evident if there was a visible blockage in a pipe OR if the water level in the structure is high. | Is there erosion occurring around the structure? (Yes or No) | Does the structure have sediment build-up in the sump or bottom? (Significant - for 50% full sump depth below outpipe or higher, moderate - for 30% to 50% sump depth below outpipe, preventative - for 20% to 30% sump depth, OR no cleaning for below 20%. Or Cleaned) | Are there any issues with the structure itself and how severe is it? - This could be for cracking on the interior/exterior, sink holes, erosion, etc. (Significant, Moderate, Preventative, or None, Repaired-since last inspection, or Partial Repair) | If there is a structural issue, is the structural issue worsening since the previous inspection? (Stable - appears the same/hasn't worsened, Improving - appears better/usually for a repair or for erosion lessening, OR deteriorating - the condition has worsened) | Does the structure have a "No Dumping - Drains to River" stencil in place? (No - means it needs one, Yes - it has one, Update - it has one, but it is fading, OR N/A - the structure is in the grass) |

environmental group


Inlet
Outlet
Significant
Sump
50%
Moderate
30%
Preventative
20%
No Cleaning

# Pond Inspection Form

| | | | |
|---|---|---|---|
| **Building:** | | **Client:** | |
| **Inspectors:** | | | |
| | | | |
| **Date of Inspection:** | | | |

## Structure Information:

| | | | |
|---|---|---|---|
| Structure ID: | | Number of Inlet(s) (OP): | |
| Pond Type: | | Number of Outlet(s) (DR): | |
| Age of Pond: | | Number of Stabilized Outlets (SO): | |

## Inlet(s)/Outlet(s) (OP/DR) Observations:

| | | | |
|---|---|---|---|
| Are there any structural issues with the inlet(s)/outlet(s) (OP/DR)? | | Structural Comments: | |
| Is there excess sediment buildup at the inlet(s)/outlet(s) (OP/DR)? | | Are the inlet(s)/outlet(s) (OP/DR) below the water level? | |

Are the inlet(s)/outlet(s) (OP/DR) accessible or overgrown with vegetation?

## Pond Structure Observations:

| | | | |
|---|---|---|---|
| Is there grass along the sides of the pond cut between 4" and 9"? | | Is there excess vegetation along the sides of the pond (not grass)? | |
| Are there signs of erosion along the side slopes, berms and/or emergency spillway? | | Is there evidence of animal burrows around the sidewalls of the pond? | |

## Pond Vegetation Observations:

| | | | |
|---|---|---|---|
| How much emergent vegetation is present in the pond bottom? | | Vegetation Comments: | |
| Is emergent vegetation made up of native or invasive species? | | Is there decomposing vegetation or organic matter decaying on the pond bottom? | |

## General Pond Observations:

| | | | |
|---|---|---|---|
| Is the pond free of trash/other debris? | | Types of trash/debris present: | |

General Comments:

**Arch Environmental Group**
**37720 Interchange Drive,**
**Farmington Hills MI 48370**

**Phone: (248) 426-0135**
**Fax: (248) 426-0136**
**www.archenvgroup.com**

# Pond Inpsection Table Description

| | |
|---|---|
| **ID #** | Enter structure ID |
| **Type** | Select from the following options: Retention Pond, Detention Pond, Retention Basin, Detention Basin |
| **Inspected** | Select Yes or No. If unable to inspect the structure, please make a comment under "General Comments" as to why you could no inspect the structure |
| **Approximate Age of the Pond** | This can be found using the history function in Google Earth for the site. Remember, this is an approximate age determination. We are interested in this information because pond life spans are between 15 and 20 years |
| **Number of Inlet(s) (OP)** | Select the number of inlet pipe(s) from the drop down menu |
| **Number of Outlet(s) (DR)** | Select the number of outlet pipe(s) from the drop down menu |
| **Number of Stabilized Outlet(s) (SO)** | Select the number of stabilized outlet(s) from the drop down menu |
| **Are there any structural issues with the inlet(s)/outlet(s) (OP/DR)?** | Examples include detached pipes, missing riprap around the inlet(s), missing stone around DR, etc.<br>Select one of the following options: None, Preventative, Moderate, Signficant, or Repaired.<br>Preventative = beginning signs of deterioration<br>Moderate = signs of deterioration present but does not hinder the function of the structure<br>Significant = deterioration has hindered the function of the structure as it was designed |
| **Structural Comments** | Describe the structural issues observed |
| **Is there excess sediment buildup at the inlet(s)/outlet(s) (OP/DR)?** | Examples include pipes that are buried under sediment or sediment levels higher than the bottom of the inlet(s)/outle |
| **Are the inlet(s)/outlet(s) (OP/DR) below the water level?** | This could be a sign that the MS4 is backed up causing water to back up into the pond. If you suspect that, please investigate if that is the case. If the MS4 is not backed up, this could be a sign that the pond is not functioning as designed |
| **Are the inlet(s)/outlet(s) (OP/DR) accessible or overgrown with vegetation (native or invasive)?** | Overgrown vegetation at the inlet(s)/outlet(s) can prevent water from freely flowing in/out of the structure |
| **Is the grass along the sides of the pond cut between 4" and 9"?** | This is an ideal height range of grass around the pond to stabilize the sidewalls of the pond and to prevent erosion around the side walls of the pond |
| **Is there excess vegetation along the sidewalls of the pond (not grass)** | Does the area look overgrown and unkept? Select from the following options: Yes or No |
| **Are there signs of erosion along the side slopes, berms and/or emergency overflow?** | Select from the following options: Yes or no |
| **Is there evidence of animal burrows around the sidewalls of the pond?** | Select from the following options: Yes or No. Animal burrows can destabilize the sidewalls of the pond |
| **How much emergent vegetation is present in the pond bottom?** | Select from the following options: 0%-25%, 25%-50%, or 50%-100%. Use your best judgement to determine this percentage. Ideally, the pond bottom should be made up of around 25% emergent vegetation<br>Emergent Vegetation Definition: Aquatic plants that grow with their roots under water but their leaves and stems above the surface of the water |
| **Is emergent vegetation made up of native or invasive species (phragmites or purple loosestrife)?** | See reference page in the Pond Inspection Reference page for photos of Phragmites and Purple Loosestrife to see if it is present. |
| **Vegetation Comments** | If there are invasive species present, please write which ones are present |
| **Is there vegetation or organic matter decaying on the pond bottom?** | Select from the following options: Yes, No, or Unknown. If you can tell, great, this could have impact on DO or could cause flow issues through the pond |
| **Is the pond free of trash/other debris?** | Select from the following options: Yes or No. This can include trash/inorganic debris or organic material (like grass clippings, leaves, etc.) |
| **Types of trash/debris present** | Select from the following options: Trash, Natural Debris (organic material) or N/A |
| **General Comments** | Please add any other comments that you feel are important to note about the pond condition |

# Screening Inspection Log

| | | | |
|---|---|---|---|
| **Building:** | | **Client:** | |
| **Inspectors:** | | **Date** | |
| | | **Inspection Type:** | |

**Structure Information:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ID Number: | | Structure Type | | Lat: | | Long: | |
| Discharge Point/Outfall: | | Location: | | | | | |
| Outfall Dimensions | | | | | | | |

**Observations:**

**Standing Water Characteristics**

| | |
|---|---|
| Standing Water: | |
| Color: | |
| Odor: | |
| Suds: | |
| Staining: | |
| Oil Sheen: | |
| Sewage: | |
| Bacterial Sheen: | |
| Floatables: | |
| Slimes: | |
| Abnormal Growth: | |

**Flow Characteristics**

| | |
|---|---|
| Flow Observed: | |
| Source of Flow: | |
| Velocity of Flow: | |
| Color of Flow: | |
| Flow Odor | |

**Maintenance**

| | |
|---|---|
| Cleaning: | |
| Blockages | |
| Structural Issues | |
| Structural Trend | |
| Stenciling: | |

**Additional Comments:**

**Sample ID And Information**

| | |
|---|---|
| Sample Collected? | |
| Permit Cycle: | |
| Last Rain Event: | |
| Current Weather: | |
| Screening Location Type: | |
| Other Screening Activities Conducted: | |
| Outfall Characterization: | |
| Sample sent to Lab: | |

| Field Analysis: | Results: | Units: | Initials: |
|---|---|---|---|
| pH: | | pH units | |
| Temperature: | | Celsius | |
| Surfactants: | | mg/L | |
| Ammonia: | | mg/L | |
| Chlorine: | | mg/L | |
| Turbidity: | | NTU | |
| Conductivity: | | uohm/cm | |

**Equipment Calibration:**

Date: Cal. By:

**Photo ID:**

**Arch Environmental Group**
**37720 Interchange Drive,**
**Farmington Hills MI 48370**

**Phone: (248) 426-0135**
**Fax: (248) 426-0136**
**www.archenvgroup.com**

# TMDL Screening Inspection Log

| | | | |
|---|---|---|---|
| **Building:** | | **Client:** | |
| **Inspectors:** | | **Date** | |
| | | **Inspection Type:** | |

**Structure Information:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ID Number: | | Structure Type | | Lat: | | Long: | |
| Type: | | Location: | | | | | |
| Outfall Dimensions | | | | | | | |

**Observations:**

**Standing Water Characteristics**

| | |
|---|---|
| Standing Water: | |
| Color: | |
| Odor: | |
| Suds: | |
| Staining: | |
| Oil Sheen: | |
| Sewage: | |
| Bacterial Sheen: | |
| Algae: | |
| Slimes: | |
| Abnormal Growth: | |

**Flow Characteristics**

| | |
|---|---|
| Flow Observed: | |
| Source of Flow: | |
| Velocity of Flow: | |
| Color of Flow: | |
| Flow Odor | |

**Additional Comments:**

| **Sample ID And Information** | | **Lab Analysis:** | **Results:** | **TMDL Threshold:** | **Units:** | **Photo ID:** |
|---|---|---|---|---|---|---|
| Sample ID: | | pH: | | 6.5 - 9 | pH units | |
| Time Collected: | | Temperature: | | N/A | Celsius | |
| Last Rain Event: | | E. coli: | | 1000 | CFU per 100mL | |
| Current Weather: | | Total Phosphorus: | | Watershed Dependent | ug/L | |
| Screening Location Type: | | Total Suspended Solids: | | Watershed Dependent | mg/L | |
| Total Rainfall (Inches): | | Dissolved Oxygen: | | Watershed Dependent | mg/L | |
| | | Other: | | | | |
| Outfall Characterization: | | | | | | |
| Sample sent to Lab: | | | | | | |

**Arch Environmental Group**
**37720 Interchange Drive,**
**Farmington Hills MI 48370**

**Phone: (248) 426-0135**
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**www.archenvgroup.com**

**DMB-**SESC_Eform

# SOIL EROSION AND SEDIMENTATION CONTROL (SESC) INSPECTION REPORT

**DEPARTMENT OF MANAGEMENT AND BUDGET**
**INFRASTRUCTURE SERVICES, DESIGN AND CONSTRUCTION DIVISION**
Second Floor, Stevens T. Mason Building
P.O. Box 30026, Lansing, Michigan 48909
This report is required to document soil erosion and sedimentation control on State of Michigan projects. (Authority: Part 91, PA 451)

| REPORT NUMBER | SESC PERMIT NUMBER | REPORT DATE | | PERIOD (FROM WHEN - TO WHEN) |
|---|---|---|---|---|
| INDEX NUMBER(S) | AGENCY NUMBER | FILE NUMBER | CONTRACT NUMBER | DEPARTMENT/UNIVERSITY/COLLEGE |
| PROJECT NAME | | | | |
| CONTRACTOR | | | | |
| PROFESSIONAL | | | | |

A. REASON FOR INSPECTION: ☐ Regular Inspection ☐ Post-Rain Event Inspection (explain below)

☐ Weekly ☐ Daily

B. CURRENT WEATHER CONDITIONS:

☐ Sunny ☐ Cloudy ☐ Partly Cloudy ☐ Windy Temperature_____

Precipitation: ☐ Rain ☐ Snow ☐ Sleet ☐ Hail Other (explain) _____

C. DESCRIBE SEVERE WEATHER (if applicable):

D. DESCRIBE WEATHER CONDITIONS SINCE LAST INSPECTION (Date of Last Inspection _____):

E. ARE THE CONTROLS INSTALLED ACCORDING TO THE PLANS AND SPECIFICATIONS? ☐ Yes ☐ No (Describe):

F. ARE THE CONTROLS IN PLACE FUNCTIONING PROPERLY? ☐ Yes ☐ No (Describe):

G. ARE THE CONTROLS BEING PROPERLY MAINTAINED? ☐ Yes ☐ No (Describe):

H. INDICATE THE SESC CONTROLS IN PLACE ON SITE (According to the DMB SESC Keying System):

| Best Management Practice | Present (check) | Number or Lin Ft of Controls | Best Management Practice | Present (check) | Number or Lin Ft of Controls |
|---|---|---|---|---|---|
| **Erosion Controls:** | | | **Erosion/Sediment Controls:** | | |
| (E1) Selective Grading & Shaping | ☐ | | (ES31) Check Dam | ☐ | |
| (E2) Grubbing Omitted | ☐ | | (ES32) Stone Filter Berm | ☐ | |
| (E3) Slope Roughening & Scarification | ☐ | | (ES33) Filter Rolls | ☐ | |
| (E4) Terraces | ☐ | | (ES34) Sand Fence | ☐ | |
| (E5) Dust Control | ☐ | | (ES35) Dewatering | ☐ | |
| (E6) Mulch | ☐ | | (ES36) Diversion Dike/Berm | ☐ | |
| (E7) Temporary Seeding | ☐ | | (ES37) Diversion Ditch | ☐ | |
| (E8) Permanent Seeding | ☐ | | (ES38) Cofferdam/Sheet Pilings | ☐ | |
| (E9) Mulch Blankets | ☐ | | (ES39) Streambank Biostabilization | ☐ | |
| (E10) Sodding | ☐ | | (ES40) Polymers | ☐ | |
| (E11) Vegetated Channels | ☐ | | (ES41) Wattles | ☐ | |
| (E12) Rip Rap | ☐ | | **Sediment Controls:** | | |
| (E13) Gabion Walls | ☐ | | (S51) Silt Fence | ☐ | |
| (E14) Energy Dissipator | ☐ | | (S52) Catch Basin Sediment Guard | ☐ | |
| (E15) Temporary Slope Drain | ☐ | | (S53) Stabilized Construction Access | ☐ | |
| (E16) Slope Drain | ☐ | | (S54) Tire Wash | ☐ | |
| (E17) Cellular Confinement Systems | ☐ | | (S55) Sediment Basin | ☐ | |
| (E18) Plastic Sheets | ☐ | | (S56) Sediment Trap | ☐ | |
| (E19) Temporary Drainageway/ Stream Crossing | ☐ | | (S57) Vegetated Buffer/Filter Strip | ☐ | |
| (E20) Temporary Bypass Channel | ☐ | | (S58) Inlet Protection Fabric Drop | ☐ | |
| (E21) Live Staking | ☐ | | (S59) Inlet Protection Fabric Fence | ☐ | |
| OTHER | ☐ | | (S60) Inlet Protection Stone | ☐ | |

I. WHAT CORRECTIVE ACTIONS SHOULD BE TAKEN BY THE CONTRACTOR?

J. BY WHAT DATE MUST THESE ACTIONS BE IMPLEMENTED: _____

K. OBSERVATIONS / COMMENTS:

_____ _____

Signature of Inspector Date

cc:

# Appendix E

## Property Structural Controls Inventory, Inspection, & Maintenance Schedule

Creation Date: January 31, 2022
Revised: May 2, 2023

# Birmingham Public Schools – Berkshire Middle School
# Structural Control Inventory, Inspection, & Maintenance Schedule

| Facility | Priority Level of Potential Discharge (High, Medium, Low) | Type of Structural Control | Number of Controls | Inspection/Maintenance Schedule |
|---|---|---|---|---|
| **Berkshire Middle School**<br><br>21707 West 14 Mile Rd.<br>Beverly Hills, MI. 48025 | Medium | Catch Basin/Manholes | 22 | Inspect Annually, Clean Once per Permit Cycle or if Build-Up of Accumulated Solid Material is Between 30 and 50% of the Total Sump Depth. |
| | | Open Pipe Outlet | 1 | Inspect Annually, Maintain as Needed |
| | | Infiltration Basin | 1 | Inspect Annually, Maintain as Needed |

**Revision Date: December 10, 2021**

# Birmingham Public Schools – Bingham Farms Elementary School / Environmental Center Structural Control Inventory, Inspection, & Maintenance Schedule

| Facility | Priority Level of Potential Discharge (High, Medium, Low) | Type of Structural Control | Number of Controls | Inspection/Maintenance Schedule |
|---|---|---|---|---|
| **Bingham Farms Elementary School/ Environmental Center**<br><br>23400 West 13 Mile Rd.<br>Bingham Farms, MI. 48025 | Low | Catch Basin/Manholes | 17 | Inspect Annually, Clean Once per Permit Cycle or if Build-Up of Accumulated Solid Material is Between 30 and 50% of the Total Sump Depth. |
| | | Infiltration Basin | 1 | Inspect Annually, Maintain as Needed |
| | | Landscape Drain | 8 | Inspect Annually, Maintain as Needed |
| | | Underground Detention System | 1 | Inspect Annually, Maintain as Needed |

**Revision Date: December 10, 2021**

# Birmingham Public Schools – Groves High School
# Structural Control Inventory, Inspection, & Maintenance Schedule

| Facility | Priority Level of Potential Discharge (High, Medium, Low) | Type of Structural Control | Number of Controls | Inspection/Maintenance Schedule |
|---|---|---|---|---|
| **Groves High School**<br><br>20500 West 13 Mile Rd.<br>Beverly Hills, MI. 48025 | Medium | Catch Basin/Manholes | 90 | Inspect Annually, Clean Once per Permit Cycle or if Build-Up of Accumulated Solid Material is Between 30 and 50% of the Total Sump Depth. |
| | | Open Pipe Outlet | 1 | Inspect Annually, Maintain as Needed |
| | | Drainage Receptor | 1 | Inspect Annually, Maintain as Needed |
| | | Basin Drain | 6 | Inspect Annually, Maintain as Needed |
| | | Stormwater Conveyance Channel | 3 | Inspect Annually, Maintain as Needed |
| | | Underground Detention System | 1 | Inspect Annually, Maintain as Needed |

**Revision Date: December 10, 2021**

# Birmingham Public Schools – Harlan Elementary School

## Structural Control Inventory, Inspection, & Maintenance Schedule

| Facility | Priority Level of Potential Discharge (High, Medium, Low) | Type of Structural Control | Number of Controls | Inspection/Maintenance Schedule |
|---|---|---|---|---|
| **Harlan Elementary School**<br><br>3595 N. Adams Rd.<br>Bloomfield Hills, MI. 48304 | Low | Catch Basin/Manholes | 14 | Inspect Annually, Clean Once per Permit Cycle or if Build-Up of Accumulated Solid Material is Between 30 and 50% of the Total Sump Depth. |
| | | Open Pipe Outlet | 1 | Inspect Annually, Maintain as Needed |
| | | Basin Drain | 1 | Inspect Annually, Maintain as Needed |
| | | Stormwater Conveyance Channel | 1 | Inspect Annually, Maintain as Needed |
| | | Underground Detention System | 1 | Inspect Annually, Maintain as Needed |
| | | Flow Splitter | 1 | Inspect Annually, Maintain as Needed |

**Revision Date: December 10, 2021**

# Birmingham Public Schools – West Maple Elementary School
# Structural Control Inventory, Inspection, & Maintenance Schedule

| Facility | Priority Level of Potential Discharge (High, Medium, Low) | Type of Structural Control | Number of Controls | Inspection/Maintenance Schedule |
|---|---|---|---|---|
| **West Maple Elementary School**<br><br>6275 Inkster Rd.<br>Bloomfield Hills, MI. 48301 | Low | Catch Basin/Manholes | 9 | Inspect Annually, Clean Once per Permit Cycle or if Build-Up of Accumulated Solid Material is Between 30 and 50% of the Total Sump Depth. |
| | | Open Pipe Outlet | 1 | Inspect Annually, Maintain as Needed |
| | | Trench Drain | 1 | Inspect Annually, Maintain as Needed |
| | | Infiltration Basin | 5 | Inspect Annually, Maintain as Needed |
| | | Landscape Drain | 1 | Inspect Annually, Maintain as Needed |
| | | Stormwater Conveyance Channel | 2 | Inspect Annually, Maintain as Needed |

**Revision Date: December 10, 2021**

# Appendix F

## Contractor Oversight & Employee Training Documentation

Creation Date: January 31, 2022
Revised: May 2, 2023

# IDEP/PPGH STORMWATER TRAINING RECORD

**Client**
Birmingham Public Schools
Permit Number: MI0059973

**Location**

**Date**

**Illicit Discharge Elimination Program (IDEP)**: Training on techniques for identifying illicit discharges and connections, Training on procedures for reporting, responding to, and eliminating an illicit discharge or connection and the proper enforcement response.
**Pollution Prevention & Good Housekeeping**: Training on BMPs that are important such as good housekeeping, spill response, materials storage and handling, landscape maintenance, street maintenance, fleet maintenance, and garages.

| Employee Name | Employee Signature | Job Title/Department |
|---|---|---|
| | | |
| | | |
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| | | |
| | | |
| | | |

**Instructor Name**

**Instructor Signature**

Arch Environmental Group, Inc.
248-426-0165

# Birmingham Public Schools
# STORMWATER CONTRACTOR OVERSIGHT RECORD

Birmingham Public Schools (BPS) shall implement the procedure requiring contractors hired by the BPS to perform municipal operation and maintenance activities that comply with the BPS pollution prevention and good housekeeping program and contractor oversight to ensure compliance with the BPS National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Storm Water Discharge Permit, Section A. Limitations and Monitoring Requirements, #7 Contractor Requirements and Oversight.

1. Identify the potential pollutant-generating activities and pollutants expected to be exposed to stormwater.
2. Describe the location where the potential pollutant-generating activities will occur.
3. Identify the person responsible for implementing the pollution prevention practice or practices for each pollutant-generating activity.

Please initial each line of the procedure.

_____ Prevent and respond to leaks, spills and other releases;

_____ Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities;

_____ Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including the clean-up of stucco,
paint, form release oils, and curing compounds. Collection and proper disposal in a manner to prevent contact with stormwater and prevent discharge of these pollutants.

_____ Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water and other types of washing (e.g., locating activities away from surface waters and stormwater inlets or conveyance and directing wash waters to sediment basins or traps, using filtration devices such as filter bags or sand filters or using similarly effective controls);

_____ Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters;

_____ Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials and wastes including (i) building products such as asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures; (ii) pesticides, herbicides, insecticides, fertilizers, and landscape materials; and (iii) construction and domestic wastes such as packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, Styrofoam, concrete, and other trash or building materials;

_____ Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, and sanitary wastes.

_____ Report any other discharge from the potential pollutant-generating activities not addressed above to Birmingham Public Schools.

_____
Name of Business

_____ _____
Business Representative Date

# Appendix G

## TMDL Sample Location Table

# TMDL Sample Locations

| Birmingham Public Schools | | | | |
|---|---|---|---|---|
| **Facility** | **Point of Discharge** | **Receiving Waters** | **Watershed** | **Parameter** |
| **Berkshire Middle School** | BK-21.MH (Representative of BK-22.OP.DP) | Rouge River | Rouge River | E. coli, Biota |
| **Bingham Farms Elementary / Environmental Center** | BGF-05.CB.DP | Franklin Branch | Rouge River | E. coli, Biota |
| **Groves High School** | GHS-69.MH.DP | Rouge River | Rouge River | E. coli, Biota |
| **Harlan Elementary School** | HN-09.MH.DP | Rouge River | Rouge River | E. coli, Biota |
| | HN-16.MH.DP | Rouge River | Rouge River | E. coli, Biota |
| **West Maple Elementary School** | WMP-07.MH.DP | Franklin Branch | Rouge River | E. coli, Biota |