City of Coshocton, Ohio Storm Water Management Plan

In accordance with Ohio EPA NPDES General Permit # OHQ000003 Facility # 0GQ00013*AG





Storm Water Management Plan
City of Coshocton, Ohio

Certification:

"As the Safety Service Director of the City of Coshocton, Ohio I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system design to ensure that qualified personnel properly gathered and evaluated information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Max Crown Safety Service Director City of Coshocton, Ohio

Updated: January 2, 2020

Overview

Storm water runoff is generated by rain or snow events, and flows untreated into bodies of surface water directly or through storm drainage systems.

As runoff drains over impervious areas such as paved streets, parking lots, rooftops, construction sites, and even well-manicured lawns, there is potential for the water to become polluted with sediment, nutrients, metals, oil and grease, bacteria, and pesticides.

As urbanization trends vastly increase with additional impervious areas, the natural infiltration of rain or snowmelt into the ground is hindered. The result is increased surface runoff. According to the Environmental Protection Agency, storm water is the third most prevalent source of impairment to America's lakes and waters.

The City of Coshocton is required to hold an Ohio EPA National Pollution Discharge Elimination System (NPDES) General Permit for Small Municipal Storm Sewer Systems (MS4). As part of the requirements of this permit the City is required to develop and maintain a Storm Water Management Plan (SWMP).

A SWMP is:

- Designed to reduce the discharge of pollutants to the maximum extent practicable (MEP) in order to protect water quality
- Required by the Ohio EPA NPDES General Permit for Small Municipal Storm Sewer Systems (MS4).

This SWMP is the basic frame work for the City of Coshocton's Storm Water Program. It follows the requirements of the current MS permit, OHQ000003 and is divided into six minimum control measures (MCM). They are:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post Construction Storm Water Management
- Pollution Prevention/Good Housekeeping

The SWMP is a living document subject to change with input from the City of Coshocton and Coshocton SWCD, and Ohio EPA requirements.

Legal Authority

The City of Coshocton has the legal authority to implement the following Storm Water Management Plan (SWMP) under Article XVIII of the Ohio Constitution, which provides municipalities the authority to exercise all powers of local self-government and to adopt and enforce within their limits land use and control measures for promoting peace, health, and safety. Development and implementation of a SWMP is required by the City of Coshocton to obtain coverage under Ohio EPA's NPDES OHQ000003 to discharge storm water from the City's MS4. The SWMP includes management practices, control techniques and engineering methods to

protect water quality and reduce the discharge of pollutants from the municipal separate storm sewer system (MS4) into surface receiving waters of the state.

Permit Coverage

Political Facts:

- Located in East-central Ohio, at the headwaters of the Muskingum River and at the confluence of the Tuscarawas and Walhonding Rivers.
- Population: 11,216 (2017 U. S. Census)
- Size is 8.08 square miles (5,171.2 acres)
- Major Routes are State Routes 541 and 16, and US 36
- County Seat of Coshocton County
- Statutory government following Ohio Revised Code instead of Charter government
- Working agreement established with Coshocton Soil & Water Conservation District to implement education of soil and water resources

The Minimum Control Measures

BMP selection:

BMPs selections are based on appropriate practices already completed by City of Coshocton Departments and Partners, those required by the most current OEPA MS4 NPDES Storm Water Permit. The BMPs were selected to help reduce to the Maximum Extent Practicable (MCP) the target pollutants. They are identified within each minimum control measure of this report. They are as follows:

- Public Education & Outreach
- Public Involvement / Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control Post –Construction Storm Water management
- Pollution Prevention / Good Housekeeping.

Decision Process

The statements within each Minimum Control Measure was concluded from working with the City of Coshocton and the Coshocton Soil and Water Conservation District, with guidance from the OEPA performance standards listed before each Minimum Control Measure. Working agreements are attached for the Coshocton Soil & Water Conservation District (A) and City Contract Engineer (B).

Evaluation Process

Each BMP activity will be evaluated through the annual reporting process to determine its effectiveness and changes that may need to be made for the future.

Public Education & Outreach- MCM 1

The City of Coshocton supports various public education and outreach activities to educate the general public, the construction industry, and students on storm water pollution.

Performance Standards At a minimum: Include more than one mechanism; Target five different storm water themes/messages over the permit term; One theme/message targeting the development community; Reach

| BMPs / Responsible Party | Audiences | Why audiences were chosen | Measureable Goals | Themes or Message | Target Pollutants | |
|--|---|--|---|---|---|--|
| Classroom Presentations / Coshocton SWCD | Students (target 4th– 6th) | Behavioral change, educate on storm water runoff & pollution prevention | Ground Water Model, Enviroscape Model, Watershed Sandbox Model | Importance of water resource protection for potable water and stream life. | Sediment, Nutrients, Chemicals, Bacteria | |
| Website Articles / Coshocton SWCD & | Homeowners & Businesses | Reach the majority of Coshocton population | Information & clean up events / Ongoing | Benefits of recycling, proper disposal of wastes, proper landscaping procedures to reduce water contamination. | Nutrients, Chemicals, Bacteria | |
| City of Coshocton | Construction Industry | Procedures for permitting sites, BMPs for construction sites. | Ongoing | Construction Structural and nonstructural BMPs protecting water resources. | Sediment, Nutrients, Chemicals | |
| Posters, Displays, Handouts, Newspaper Articles/ Coshocton SWCD | Homeowners & Businesses | Reach the majority of Coshocton population | County Fair, SWCD office, Municipal Bldg, Local Newspapers 1 / year | Benefits of recycling, proper disposal of wastes, proper landscaping procedures to reduce water contamination. | Sediment, Nutrients, Chemicals, Bacteria | |
| | Homeowners & Businesses | Reach the majority of Coshocton population | Brochure with Water Utility Bill mailing 1 / year | Chosen by City & SWCD | Time chosen by City/SWCD | |
| Direct Mailing / Coshocton SWCD | Home Sewage Treatment System (HSTS) owners | Reach the majority of Coshocton population with HSTS systems | Maintenance Guidance Brochure mailed / 1 /by end of permit cycle | Proper Maintenance of home Sewage Treatment Systems to reduce water contamination | Nutrients, Chemicals | |
| - | Dog Owners | Reach the majority of Coshocton population with dogs | 1 / by the end of permit cycle | Proper disposal of pet waste to reduce water contamination. | Nutrients, Chemicals | |
| | Construction Industry doing work in Coshocton | Ordinance changes, permitting procedures, BMPs for construction. | Info mailed on request, & newsletter 2 / by end of permit cycle | Construction structural & nonstructural BMPs protecting water resources. | Sediment, Nutrients, Chemicals | |
| 41 | Construction Industry doing work in Coshocton | Ordinance changes, permitting procedures, BMPs for construction. | 2 / by end of permit cycle. Completed by the end of the cycle. | Construction structural & nonstructural BMPs protecting water resources. | Sediment, Nutrients, Chemicals | |
| Workshop / Coshocton SWCD | Homeowners | Reach majority of Coshocton population | 1 / by end of permit cycle. Completed by the end of the cycle. | Use of rain barrels, composting, or landscaping to reduce nutrient loss & improve soil for better plant growth. | Sediment, Nutrients | |

at least 50% of the population over the permit term. Coshocton SWCD will be using time reporting system (Beehive) that includes activities and numbers involved.

Public Participation and Involvement – MCM 2

The City of Coshocton supports and encourages various public participation and involvement activities to involve the general public, students & businesses. This is tied to the Public Education and Outreach Minimum Control Measure with the concept that an educated public will more likely get involved and participate in activities geared to reducing pollutants in storm water runoff.

Performance Standards: At a minimum: Five public involvement activities over the permit term. (permit term is 5 years). The Coshocton SWCD and the City of Coshocton will work cooperate to accomplish this goal.

| BMPs / Responsible Party | Audience | Measurable Goal | | |
|--|---|--|--|--|
| Code Enforcement/Cleanup | Homeowners/Business Owners | As needed due to complaints and enforcement | | |
| Student Tree Planting / Coshocton SWCD & Tree Commission | Coshocton 6 th grade students | Educate about tree planting and benefits of trees in City of Coshocton | | |
| Solid Water Disposal & Recycling Service / Safety Service Director | Homeowners & Businesses | Amount disposed & recycled ongoing throughout the year totals at end of year | | |
| City of Coshocton Clean-ups / Various Groups | Homeowners, Businesses, Civic organizations | Record number of volunteers, amount collected and properly disposed of, 1 event each year in April directed by Safety Service Director | | |
| City of Coshocton Tree Commission / Mayor & Safety Service Director | Urban Forest Volunteers | Plant, Trim, Remove trees for healthier trees for better storm water assimilation, ongoing throughout the year. Totals recorded in the Tree City USA report. Yearly totals are documented. | | |
| Special Collections - Tire Collection by Solid Waste as grant funding available | Homeowners & Businesses | City/County of Coshocton Health Departments | | |
| Special Collections – Household Hazardous Waste / City Safety Service Director | Homeowners | Household hazardous waste collection, 1 per cycle as funding permits. | | |
| Landscaping Practices / City of Coshocton Tree Commission & Coshocton Is Blooming Organization | Homeowners & Businesses | Tree Commission: Plant, Trim, Remove trees for healthier trees for better storm water assimilation, ongoing throughout the year. Totals recorded in the Tree City USA report. Coshocton is Blooming Organization: Ongoing volunteer events preparing & maintain landscape projects. Hours and number of volunteers documented. | | |
| Signs for Outfalls in City of Coshocton City Public Works | Homeowners/Public Business Owners | Identify and map outfalls, signage for Public Education | | |
| | | | | |

Illicit Discharge Detection and Elimination – MCM 3

The detection of illicit discharges is imperative if pollution is to be eliminated from storm water runoff and receiving waters. This requires ordinances that prohibit illegal and illicit discharges into the City's (MS4) storm water conveyance system.

Performance Standards Include: Dry-weather screening of all of your storm water outfalls over the permit term; Establish priorities & specific goals for long-term system — wide surveillance of your MS4; Specific investigations of outfalls & their tributary area where previous surveillance demonstrates a high likelihood of illicit discharges; Data collected each year shall be evaluated & priorities & goals shall be revised annually based on this evaluation; Storm sewer system map shall be updated annually as needed.

Education

The following Minimum Control Measures will address the education for Illicit Discharges: Public Education & Outreach; Pollution Prevention & Good Housekeeping.

| BMPs / Responsible | Measurable Goal |
|--|--|
| Party | Micasulable Odai |
| Ordinance / Safety Service Director | Adhere to the following: Chapter 961 Storm Water Quality Control Chapter 963 of the City of Coshocton Codified Ordinance, "Construction Site and Post Construction Soil Erosion, Sediment and Other Wastes and Storm Water Runoff", addresses discharges to the storm drain system. Chapter 965 Illicit Discharge and Connection Elimination Chapter 967 Enforcement of the Coshocton Storm Water quality Control Ordinance |
| Storm Drain System Map / Public Works Department and Coshocton SWCD District | Maintain and create a GIS Storm Drain System Map. This map was created by the Coshocton SWCD with assistance from the City or Coshocton Street Department. The map shows the location of storm drains, outfalls, and the names and location of receiving waters. The base map is complete (Attachment: C) and is being updated by SWCD/Public Works meeting monthly to GPS new storm drains and other new construction. The Coshocton SWCD plans to hire a Spring/Summer Intern in 2020 to do this work with the map updated in Summer of 2020 and yearly thereafter. Moving forward, a work order system will be used by Public Works with information shared with SWCD to update maps. This will be done at quarterly meetings between the SWCD and Public Works. Open ditches have never been addressed on the mapping system and will need to be in 2020. The map is used to document flow, trace pollution sources, and for city planning. This will be updated annually with copies of the map given to the City Service Director and Public Works. |
| HSTS Mapping and List / Joe Garrett, City of Coshocton Health Dept. & Coshocton SWCD | Procedures for Locating Priority areas: The history of the area of town that does not have sewer service and if problems found Public Works takes immediate action by following the flow if backed up. Public Works has provided a spreadsheet with houses with no city septic and this information will be add to the base map in 2020. Evaluation: Visual inspections are done by Safety Service Director and Public Works following rain events. Work with City Utilities Division to look up Water customers without sewers within City limits to get addresses; make list of names and addresses with discharge location, description of receiving waters (ditch or stream), and size of conduit/ditch on or off lot discharge. These sites should then be ground checked for issues. SWCD will GPS locations for mapping purposes by the end of the reporting cycle. |
| | |

Illicit Discharge
Detection & Elimination
Plan /
City Public Works
Department, City
Health Department, City
Inspector
Coshocton SWCD

Failing HSTSs: Addressing, Tracing, Removal & Evaluation

Complaints from citizens or City Departments are routed to the Public Works Department. Complaints are field verified followed by a resolution to the discharge. If needed, the Sanitarian, Streets Dept., and the Water and Sewer Dept. work together to trace sewage illicit discharges through dye testing, smoke testing, camera tracking and visual tracking. Field verification is made by the Sanitarian. The Sanitarian prepares and sends a letter to the landowner ordering the system be corrected. Follow up is made by the Sanitarian until the discharge is corrected. The owner is required to provide verification of the repaired system. The City Sanitarian tracks the removal of illicit discharges from failing HSTSs from complaints to corrections.

Dumping & Spills Addressing, Tracing, Removal & Evaluation:

Complaints from citizens or city departments are routed to the City Safety Service Director. Complaints are field verified followed by a resolution to the discharge. The Public Works Dept., Streets Dept., and the Water & Sewer Department work together to trace illicit discharges through dye testing, smoke testing, camera tracking, and visual tracking. Cleanup is done by the streets department.

Dry Weather Screening: Screenings are completed on all outfalls once during the permit cycle, with 20% of outfalls screenings done each year of the cycle. They will also be completed on a complaint basis. These include documented homes with septic systems, any large manufacturing facility or business that uses a large amount of water. If discharge is detected, the discharge is noted for color, odor, and floatables, or for the absence of these. A list of outfalls is kept and indicated on the storm drain map to track pollution or the justification for flow. See exempt storm water flow. Enforcement proceedings follow ordinance guidelines depending on the nature of the illicit discharge.

Storm drains are updated as they fail; these are addressed and prioritized as they come up. The City of Coshocton has the goal of inspecting every catch basin in Zones 1 and 2 in 2021 and Zones 3 and 4 in 2022.

The City of Coshocton will train all municipal staff on allowed and illicit discharges and the process to remedy.

Exempt Illicit
Discharges /
City of Coshocton &
Ohio EPA

Exempt Illicit Discharges unless otherwise detected by the MS4 or the Ohio EPA: Water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated ground water infiltration; uncontaminated pumped ground water; discharges from potable water sources; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; flow from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash water; discharges or flows from fire-fighting activities; and discharges specified in writing by the City as being necessary to protect public health and safety. Dye testing is an allowable discharge but requires a verbal notification to the City prior to the time of the test.

Construction Site Storm Water Runoff Control – MCM 4

Polluted storm water runoff from construction sites contribute to siltation and sediment build-up in City storm water conveyance systems and ultimately end up in nearby streams and rivers. Other construction wastes, such as oil and grease, concrete truck washout, debris, and construction related chemicals can also lead to the impairment of nearby streams and rivers in a short period of time. The objective of the Construction Site Runoff Control measure is to develop, implement, and enforce a program to reduce pollutants into storm water runoff from construction activities resulting in a land disturbance of greater than 1 acre.

Performance Standards Include: Pre-construction storm water pollution prevention plan review of all projects from construction activities that result in a land disturbance of greater than or equal to 1 acre; Applicable sites shall be initially inspected; Follow-up inspections shall be on a monthly basis unless you

document your procedures for prioritizing inspections such as location to a waterway, amount of disturbed area, compliance of site, etc.

| BMP / Responsible Party | Measurable Goal | | | |
|--|--|--|--|--|
| Ordinance / City of Coshocton Safety Service Director. | The Construction Site and Post Construction Soil Erosion, Sediment and Other Wastes and Storm Water Runoff ordinance (Storm Water Ordinance) has been developed and implemented to reduce pollutants in any storm water runoff in the City of Coshocton from construction activities that result in a land disturbance of 1 acre or more. See Chapter 961 – 967 of the City of Coshocton Codified Ordinances. The requirements of this ordinance are designed to meet the most current Ohio EPA NPDES General Storm Water Permit for Construction Activities. This ordinance was passed May 26, 2009. An update to this ordinance to include Demolition Construction Sites was passed on May 13, 2019. | | | |
| Compliant Process/ City of Coshocton Safety Service Director | Complaints by City personnel or the public are routed to the Safety Service Director. A field verification is made by City of Coshocton personnel or the Coshocton SWCD. Information is relayed to the Safety Service Director for enforcement proceedings should the situation warrant. | | | |
| Sediment & Erosion Control Requirements, Waste Control Requirements / City of Coshocton Safety Service Director, Coshocton SWCD, Contract Engineer | Construction BMPs must follow the most current Ohio EPA NPDES General Storm Water Permit for Construction Activities and be identified in the site Storm Water Pollution Prevention Plan (SWP3). Acceptable construction BMPs are outlined in the most current ODNR Rainwater & Land Development Manual (accessible on the ODNR website). BMPs outside the Rainwater & Land Development Manual must be approved by the Ohio EPA. | | | |
| Plan Review Procedures / City of Coshocton Safety Service Director, Coshocton SWCD, Contract Engineer. | A Storm Water Pollution Prevention Plan must be submitted to the City of Coshocton for a preconstruction review. A review is completed by Public Works using an OEPA check sheet for the most current OEPA NPDES General Strom Water Permit for Construction Activities (Attachmt:D). The City Engineer will review the SWP3 based on the Ohio EPA checklist. He will then forward to Public Works where it will be approved if sufficient or sent back to builder if necessary for update. These will be conducted on 100% of applicants with 1 acre or more disturbed or part of a greater plan of development. The SWP3 must be approved before construction begins. | | | |
| Site Inspection Procedures / Public Works Department | Inspections will be made at the site as part of the SWP3 plan review, 1 per month during construction until finished, and on complaint. Inspections are completed by the Public Works Department using the Ohio EPA Storm Water Pollution Prevention Plan form (Attachmt: E) with notes and photos taken and reports submitted to the City of Coshocton Safety Service Director. A catalog of photos are kept on the computer at Public Works and can be assessed for review. | | | |
| Enforcement Procedures / City of Coshocton Safety Service Director | Upon receiving verification of a violation, work will be stopped if repairs are not made immediately. A letter will be sent to the permit applicant. An appeal may be made within 7 days from the date of the Notice of Violation. A review of the appeal shall take place within 15 days by the City designated authority. | | | |

Post-Construction Storm Water Management – MCM 5

Areas of development and redevelopment have shown to adversely affect lakes, rivers and streams due to the increased pollutant load in storm water runoff from parking lots, rooftops, and other impervious areas. In addition, in these areas, storm water runoff moves faster creating downstream flow problems not only in storm water conveyances, but also in receiving waters where banks erode and stream channels are compromised. Post-construction practices designed to treat the "first flush" of storm water and hold the necessary volumes of water for a slower release, are needed to maintain the integrity of receiving waters and protect the infrastructure of MS4 communities.

Performance Standards Include: Pre-construction storm water pollution prevention plan review of all projects from construction activities that result in a land disturbance of greater than or equal to 1 acre to ensure that required controls are designed per requirements; Applicable sites shall be inspected to ensure

that controls are installed per requirements; Ensure that long-term operation and maintenance (O&M) plans are developed and agreements in place for all applicable sites.

| BMP / Responsible Party | Measurable Goal |
|--|--|
| Ordinance / City of Coshocton Safety Service Director | The Construction Site and Post Construction Soil Erosion, Sediment and Other Wastes and Storm Water Runoff ordinance (Storm Water Ordinance) has been developed and implemented to reduce pollutants in any storm water runoff to the City of Coshocton from post-construction activities that result in a land disturbance of 1 acre or more. See Chapter 961 - 967 of the City of Coshocton Codified Ordinances. The requirements of this ordinance are designed to meet the most current Ohio EPA NPDES General Storm Water Permit for Construction Activities. |
| Post-Construction Requirements / City of Coshocton Safety Service Director | Post-construction BMPs must follow the most current Ohio EPA NPDES General Storm Water Permit for Construction Activities and be identified in the site Storm Water Pollution Prevention Plan (SWP3). Acceptable post-construction BMPs are outlined in the most current ODNR Rainwater & Land Development Manual (accessible on the ODNR website). BMPs outside the Rainwater & Land Development Manual must be approved by the Ohio EPA. |
| Site Plan Review Procedures / City of Coshocton Safety Service Director, Coshocton SWCD, Contract Engineer | Post-construction plans are reviewed for compliance as part of the site plan review. An agreement between the City of Coshocton and the post-development landowners needs to be completed. There are no completed sites with Post Construction at this time. A long-term Operation and Maintenance agreement needs to be required of the owners of Post Construction practices on their completion. These plans will be stored at City Hall. An example will be drafted by the end of 2019 or prior if needed. |
| Site Inspection Procedures / Public Works Department | Post-construction inspections are completed as part of the routine monthly site inspections during construction, on complaint, and as identified in the maintenance agreement with the post-development landowners. |
| Enforcement Procedures / City of Coshocton Safety Service Director | Upon receiving verification of a violation, a letter will be sent to the permit applicant. An appeal may be made within 7 days from the date of the Notice of Violation. A review of the appeal shall take place within 15 days by the City designated authority. |

Pollution Prevention / Good Housekeeping for Municipal Operations – MCM 6

The pollution prevention and good housekeeping for municipal operations requires the City of Coshocton to evaluate and modify procedure and operations, if necessary, to reduce the amount of storm water pollution generated from day to day operations. The goal of this minimum control measure is to reduce pollutant runoff from municipal operations and increase employee awareness of storm water quality initiatives and provide training.

Performance Standards Include: Annual employee training; Operation and maintenance program shall include appropriate documented procedures, controls, maintenance schedules & record keeping to address Part III. B.6.diii of the OHQ000003 permit.

| BMP / Responsible Party | Measurable Goal |
|--|--|
| Employee Training | |
| Program / Publics Works Department, Coshocton SWCD | Annual storm water BMP trainings are held for all employees within the following departments: Streets; Public Works, and Water & Sewer. Trainings are provided by speakers, or training videos. Trainings are approved for continuing educations credits through the OEPA for appropriate departments. The goal is to reach > 75 % of the employees. These trainings are documented in the Public Information minimum measure. The Coshocton SWCD can provide training and obtain training videos on the following topics: Non-point Source Pollution, Drop in the Bucket, IDDE a Grate Concern, Spills and Skills, Municipal Storm Water Pollution Prevention Strom Watch, Ground Control, and Keeping Soil on Construction Sites. One of these topics will be addressed each year of |

| | the reporting cycle. A signed attendance sheet will be kept for each training to verify attendance. |
|---|--|
| City (MS4) Maintenance / Identified Departments: Streets; Public Works; Coshocton SWCD | Each department has an Operation and Maintenance Program designed to prevent and reduce storm water pollution. They address the following in part or whole as it applies to the department: City Garage SWP3 will be developed by 10/31/19 A check list will be developed for storage areas (by 11/30/19) with inspections done monthly thereafter. Vehicles & Equip.: Inspect weekly for leaks. Wash water to municipal waste. |
| | Routine maintenance completed indoors. Grassy areas : Directional mowing discharging clippings to grassy areas. Trees trimmed as needed. Herbicides not used within 300 feet of potable public water well. |
| | Storm Drains: Inspected annually or on complaint. The City is split into four Wards. Storm drains will be inspected annually in two Wards on a rotating schedule. Notes will be taken during these inspections and storm drains will be cleaned and /or repaired as needed. Storage areas: Inspected routinely for leaks / exposure including: dumpsters; salt storage; inside storage areas. Gas tanks are double walled for safety and used motor oil is recycled locally. All coolants are collected by a third party for |
| | recycling. Streets Sidewalk Parking: Swept year round as needed using a vacuum streets sweeper. Sweepings are tested before pickup by refuse hauler. To date all test have come back sufficient for disposal. Snow removal completed prior to salt & cinder applications. Salt & Cinders are applied at a ratio appropriate for road conditions maximizing the effectiveness and minimizing the necessary application rate of salt. Heavy snow fall is hauled to assigned areas within South Lawn Cemetery on an as needed basis. Disposals: Recycled (metal, oil, antifreeze, fluorescent lights) ongoing as needed; Reused (soil, clean hard fill) ongoing as needed: Landfill (solid waste) weekly; Dredged Spoil (addressed with OEPA as needed prior to disposal) – add dredged spoil to O&M Programs in 2016. Spills & Illicit Discharge: Report detected spills & discharge to appropriate |
| | personnel. |
| Police & Fire Departments/ Coshocton SWCD | Work with Police & Fire Departments to establish guidelines for Vehicle & Equipment maintenance; Storage areas; Spills & Illicit Discharge Detection & Cleanup procedures. Complete by end of 2021 |
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Reporting Requirements

The City of Coshocton will submit an Annual Report reflecting storm water activities from January 1 through December 31 of the current year. A report will be submitted to Ohio EPA Southeastern District Office and the Ohio EPA State office, by April 1st of the following year. This will continue for each year of the permit cycle. The Annual Report Form provided by Ohio EPA will be used for the reporting format and will include the following minimum control measures:

Public Education/Outreach

- Each BMP used.
- Theme addressed.
- Target audience.
- Estimate the number of people reached.

Public Involvement/Participation

- Each public involvement activity conducted.
- Brief description of the public activity and target pollutant addressed.

Number of people participating.

Illicit Discharge Detection & Elimination

- Required ordinances and updates.
- Storm water mapping updates.
- HSTS numbers & mapping updates.
- Number of outfalls dry-weather screened.
- Number of dry-weather flows identified.
- Number of illicit discharges.
- Schedule for eliminating illicit discharges that have been identified if not eliminated.

Construction Site Runoff Control

- Required ordinances with updates.
- Sediment erosion control BMPs and updates.
- Complaint process, number of complaints received and followed up on.
- Plan reviews: number of sites requiring a permit & plans reviewed.
- Inspections: number completed & average frequency.
- Enforcement: number of violation letters issued & enforcement actions taken.
- List of applicable sites within the City of Coshocton jurisdiction.

Post-Construction Storm Water management in New Development & Redevelopment

- Required ordinances with updates.
- Post Construction BMPs and updates.
- Plan reviews: number of sites requiring post construction BMPs & plans reviewed.
- Inspections: number completed & average frequency.
- Enforcement: number of violation letters issued & enforcement actions taken.
- Complaints: number of complaints received and followed up on.

Documentation for the reports are kept for 3 years per the MS4 permit.

Definitions

BMPS (Best Management Practices) - Schedule of activities, prohibitions of practices, maintenance procedures, and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the state. BMPs also include treatment requirements, operation procedures and practices to control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

CLEAN WATER ACT - The Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) and any subsequent amendments thereto.

ILLICIT DISCHARE – Refers to any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire-fighting activities. Any direct or indirect non-storm water discharge to the storm drain system except as exempted by OEPA.

IMPERVIOUS AREA – Areas that do not allow rain water or snow melt to percolate through. Examples: concrete; asphalt; rooftops.

MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM) - Publicly owned facilities by which storm water is collected and/or conveyed, including but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, ditches, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

NOI (NOTICE OF INTENT) – A document that indicates a notice of intent to be covered by a permit.

NPDES (NATION POLLUTION DISCHARGE ELIMINATION SYSTEM) - A regulatory program in the Federal Clean Water Act that prohibits the discharge of pollutants into surface waters of the United States without a permit.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER DISCHARGE PERMIT: Means a permit issued by EPA (or by a State under authority delegated pursuant to 33 USC 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES) – The administrative department of the Ohio state government^[1] charged with maintaining natural resources such as state parks, state nature preserves, state wildlife areas, state forests, and state waterways. It was created in 1949 by the Ohio Legislature.

OEPA (OHIO ENVIRONMENTAL PROTECTION AGENCY) – The administrative department of the Ohio State government responsible for protecting the environment and public health by ensuing compliance with environmental laws. Those laws and related rules outline Ohio EPA's authority and what things the Agency can consider when making decisions about regulated activities.

RAINWATER AND LAND DEVELOPMENT MANUAL - A manual describing Ohio's construction and post-construction best management practices and associated specifications. Originally issued by the Ohio Department of Natural Resources, and is now maintained by the Ohio EPA Division of Surface Water Storm Water Section. The most current edition of these standards shall be applicable with this document. It is available through the Ohio EPA.

SWMP (STORM WATER MANAGEMENT PROGRAM) – A plan managing the quantity and quality of storm water runoff from an MS4 community.

SWP3 (STORM WATER POLLUTION PREVENTION PLAN) - A plan designed to address environmental controls on construction sites during and after construction. Utilized by developers, designers, and contractors.

SWCD (SOIL AND WATER CONSERVATION DISTRICT) – Refers to the Coshocton SWCD. A unit of government dedicated to helping citizens make wise choices about how they utilize the natural resources on their property. Doing so through education or developed services in the areas of agriculture, urban storm water, wildlife, and forestry.

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Attachnest: A

COOPERATIVE WORKING AGREEMENT

Between the

COSHOCTON SOIL AND WATER CONSERVATION DISTRICT

And

THE CITY OF COSHOCTON

This Cooperative Working Agreement (CWA) is between the Coshocton Soil and Water Conservation District, referred to as the "SWCD" and the City of Coshocton.

The parties share the common objective to provide water quality awareness and protection in the City of Coshocton. The CWA establishes a framework to achieve shared goals relating to implementing The City of Coshocton's Storm Water Management Plan (SWMP).

I. ATHORITIES, STATUES, LAWS:

- 1. The SWCD organization, powers, responsibilities and authorities are contained in Section 1515.01 through 1515.29 (Chapter 1515) of the Ohio Revised Code.
- 2. The City of Coshocton organization, duties, and authorities are contained in the City of Coshocton Code of Ordinances.

II. PURPOSE AND SCOPE:

- 1. The purpose of this CWA is to form a partnership between Coshocton SWCD and the City of Coshocton, sharing resources to implement the City of Coshocton's Storm Water Management Plan (SWMP) and to provide conservation education to city residents.
- 2. The CWA defines the roles and responsibilities of the parties in addressing the need for implementing the City's SWMP and provides a means to reach more landowners in Coshocton.
- 3. This agreement is a mutual pledge of cooperation between the City of Coshocton and Coshocton SWCD to provide leadership and assistance in implementing the City of Coshocton's SWMP.

III. ROLES AND RESPONSIBILITIES:

- 1. The Coshocton SWCD has responsibility to provide local leadership in promotion of conservation of our land and water resources. The Coshocton SWCD will use the SWMP as a tool to provide city residents with an awareness of the Coshocton SWCD programs and the importance of protecting our natural resources.
- 2. The Coshocton SWCD will provide personnel to assist with conservation education, GIS inventorying, and training to implement the City of Coshocton's SWMP.
- 3. The Coshocton SWCD will provide an inventory of storm drains, manhole covers, fire hydrants, outfalls, and other items outlined in the SWMP.

- 4. The Coshocton SWCD will be responsible for completing yearly Ohio EPA Reports as required and provide the City with copies of the report. (All duties to implement the SWMP are outlined in the plan.)
- 5. The City of Coshocton will provide funding in an amount agreed to by both parties, to be used to enhance the educational program of the Coshocton SWCD and provide assistance in implementing the City of Coshocton's SWMP.

A. PERSONNEL:

1. Employment /Staffing Supervision:

- a. The Coshocton SWCD will coordinate staffing plans to include necessary disciplines for program delivery that supports and addresses priorities to implement the SWMP.
- b. Each party is responsible for the hiring, management, supervision, development, and evaluation of its own personnel, including creating an environment that supports a diverse work force.
- c. As City employees are trained, they will be asked to participate in implementing the SWMP as outlined.
- d. Overall, the supervision and performance evaluation of employees will be the responsibility of each respective party.

2. Employee Development/Training:

- a. The parties will work together to determine the needed training to implement the City of Coshocton's SWMP and issue oriented training needed to achieve the priorities.
- b. Coshocton SWCD will train and provide refresher training each year for all City employees as outlined in the SWMP.

IV. DELIVERING SERVICES:

It is mutually agreed:

1. Resource Digital Layers

The parties will work together to identify, define, and coordinate the implementation of the SWMP and the creation of database layers. They will cooperate in gathering and validating the information to assure the date meets the needs of each party.

2. To provide accountability the parties will work together to include the implementation of the SWMP as part of the District's Annual Report, report to Ohio EPA, and distribute to the public.

V. FUNDING:

1. The City of Coshocton will provide funding for SWCD assistance in an amount agreed upon by both parties; at the beginning of this contract the amount being \$15,000 yearly. These funds will be used to implement the education and outreach portion of the City of Coshocton SWMP.

VI. FACILITIES AND RECORDS:

A. Working Space:

1. Coshocton SWCD will provide office space for the employee (s) that provide education and technical expertise for the implementation of the SWMP.

B. Records:

- 1. Each party will adhere to its respective requirements for access and use of public records.
- 2. Each party will adhere to its respective legal requirements in maintaining, updating, and disposal of public records.
- 3. The release of information will be in accordance with the Ohio Sunshine Law, Federal Freedom of Information Act, Federal Privacy Act, and other applicable court cases.
- 4. The City of Coshocton will provide the needed information to the Coshocton SWCD to submit reports to the Ohio EPA on the items listed in the SWMP that the City of Coshocton has the responsibility to complete.

VII. EQUIPMENT AND SUPPLIES:

It is mutually agreed:

- 1. All parties will limit to "official business only" the use of equipment and supplies provided by the parties.
- 2. Each party will assume responsibility for damage or loss of equipment owned by another party when such damage or loss is due to willful negligence of an employee.
- 3. The City of Coshocton will be responsible for providing funding for the necessary supplies and equipment costs to implement the SWMP.

VIII. CIVIL RIGHTS:

The parties will be in compliance with the nondiscrimination provision contained in Titles VI and VII of the Civil Rights Act of 1964 as amended, the Civil Rights Restoration Act of 1987 (Public Law 100-259) and other nondiscrimination statues, namely Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, Americans and Disabilities Act of 1990, and in accordance with regulations of the Secretary of Agriculture (7 CRF-15, Subparts A&B) which provide that no person in the U.S. shall on grounds of race, color, national origin, age, sex, marital status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance from the Department of Agriculture or any agency thereof.



| IA, | This agreement can be modified at any time by muterminated by any party giving 30 days written not | itual consent of all parties or can be |
|-----|--|--|
| X. | SIGNATORIES: | |
| | This agreement was officially reviewed and approve Soil and Water Conservation District Board of Supand the City of Coshocton on 12, 201 | pervisors on December 12, 2019 |
| | | |
| | Coshocton Soil and Water Conservation Distric | et |
| | Irea Vater | 12-12-19 |
| | Chairperson | Date |
| | | |
| | City of Coshocton | 4 E |
| | My K Cion | 12/13/19 |
| | Mayor/City Service Director | Date |



Attachment: B

CITY OF COSHOCTON

:

AND

MEMORANDUM OF UNDERSTANDING

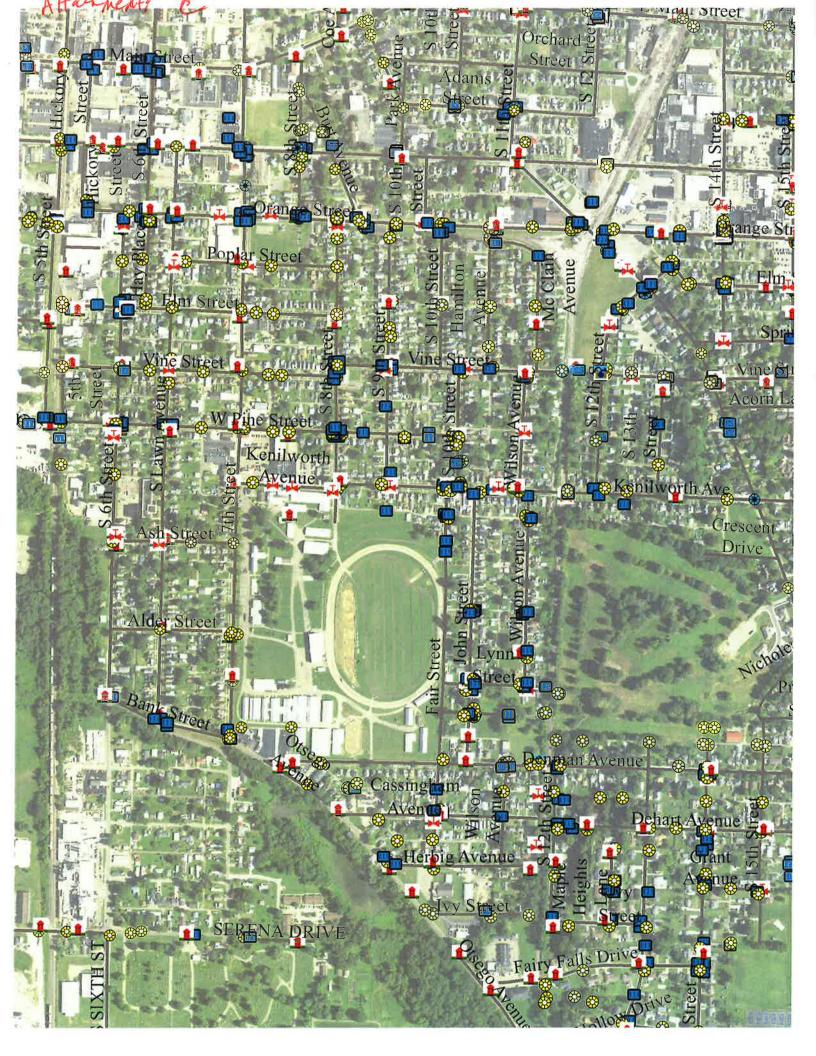
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HITCHENS & ASSOCIATES

This Memorandum of Understanding provides that the City of Coshocton has agreed to retain Hitchens & Associates to be the City Engineer in order to provide engineering services to the City. These services include but are not limited to review and approval of all storm water management plan related activities in order for the City to be in full compliance with EPA regulations. Hitchens & Associates agrees to perform said duties and bill the City at an hourly rate to be negotiated by the parties.

City of Coshocton Mayor

Hitchens & Associates







Construction General Permit OHC000005 Storm Water Pollution Prevention Plan Checklist

State of Ohio Environmental Protection Agency Division of Surface Water

| Facility Name: | Date Received: |
|----------------|----------------|
| SWP3 Reviewer: | Date Reviewed: |

| Part III.G.1 - Site Description | | | | |
|--|---|---|-----|---------------------------------------|
| Does the SWP3 describe, show or include: | Y | N | N/A | Comments |
| (a) the nature and type of construction activity | | | | |
| (e.g., low density residential, shopping mall, highway, etc.)? | | | | · · · · · · · · · · · · · · · · · · · |
| (b) the area of the site to be disturbed | | * | | |
| (c) the impervious area and percent imperviousness created by the | | | | |
| construction activity? | | | | |
| (d) storm water calculations, (pre and post-construction volumetric | | | | |
| runoff coefficients and resulting water quality volume; design | | | | |
| details for post-construction storm water facilities and pretreatment | | | | |
| practices (e.g. drainage areas, capacities, elevations, outlet details | | | | |
| and drain times) and if applicable, explanation of the use of existing | | | | |
| post-construction facilities? | | | | |
| (e) any existing data describing the soil? | | | | |
| any information on the quality of the storm water discharge from | | | | |
| the construction site? | | | | |
| (f) any information about prior land uses at the site (e.g., was the | | | | |
| property used to manage solid or hazardous waste)? | | | | <u> </u> |
| (g) a description of the condition of on-site streams (e.g. prior | | | | |
| channelization, bed instability or headcuts, channels on public | | | | |
| maintenance, or natural channels)? | | | | |
| (h) an implementation schedule which describes the sequence of | | | | |
| major construction operations (i.e., grubbing, excavating, grading, | | | | |
| utilities infrastructure installation and others) and the | | | | |
| implementation of erosion, sediment and storm water management | | | | Li . |
| practices or facilities to be employed during each operation of the | | | | |
| sequence? | | | | |
| (i) the name(s) or location(s) of the initial and subsequent surface | | | | |
| water bodies receiving the storm water discharge? | | | | |
| the areal extent and description of the wetland or other special | | | | |
| aquatic sites which will be disturbed and/or will receive the storm | | | | |
| water discharges? | | | | |
| (j) a detail drawing of a typical individual lot showing sediment and | | - | | |
| erosion controls or storm water control practices? (This does not | | | | - 8 |
| remove responsibility to designate control practices in a SWP3 for | | | | |
| critical areas such as steep slopes, stream banks, drainage ways & | | | | |
| riparian zones.) | | | | |
| (k) the location and description of storm water discharges associated | | | | |
| with dedicated asphalt and/or concrete batch plants covered by the | | | | |
| NPDES construction storm water general permit? | _ | _ | | |
| (1) a cover page identifying the name and location of the site, the | | | | (% |
| name and contact information for site operators and SWP3 | | | | |
| authorization agents as well as preparation date, start date, and | | | | |
| completion date? | | = | | |
| (m) a log documenting grading & stabilization activity as well as | | | | |
| SWP3 amendments that occur after construction commencement? | | | | |

| Part III.G.1.n - Site Map Requirements | | | | * |
|--|----------|---|-----|----------|
| Does the SWP3 site map show: | Y | N | N/A | Comments |
| (i) limits of earth-disturbing activity of the site including associated | | | | |
| off-site borrow or spoil areas that are not addressed by a separate | | | | |
| NOI and associated SWP3? | | | | |
| (ii) soils types depicted for all areas of the site, including locations | | | | |
| of unstable, highly erodible and/or known contaminated soils? | | | | |
| (iii) existing and proposed contours to delineate drainage | | | | |
| watersheds expected during and after major grading activities as | | | | |
| well as the size of each drainage watershed, in acres? | | | | |
| (iv) location of any delineated boundary for required riparian | | | | |
| setbacks? | | | | |
| (v) conservation easements for areas designated as open space, | | | | |
| preserved vegetation or otherwise protected from earth disturbing | 1 | | | |
| activities with a description of any associated temporary or | l | | | |
| permanent fencing or signage? | | | | |
| (vi) surface water locations including springs, wetlands, streams, | | | | |
| lakes, water wells, etc., on or within 200 feet of the site, including | | | | |
| the boundaries of wetlands or stream channels and first subsequent | | | | |
| named receiving water(s) the permittee intends to fill or relocate for | | | | |
| which the permittee is seeking approval from the Army Corps of | | | | |
| Engineers and/or Ohio EPA? | | | | |
| (vii) the location of existing and planned buildings, roads, parking | | | | |
| facilities, and utilities? | | | L . | |
| (viii) include the location of all erosion and sediment control | | | | |
| practices, including the location of areas likely to require temporary | | | | |
| stabilization during site development? | | | | |
| (ix) location of sediment traps and basins noting their sediment | | | | |
| storage volume and dewatering (detention) volume and contributing | | | | |
| drainage area? | | | | |
| (x) location of permanent storm water management practices (new | | | | |
| & existing) as well as pretreatment practices to be used to control | 1 | | | |
| pollutants in storm water after construction operations have been | 1 | | | |
| completed along with the location of existing and planned drainage | | | | *: |
| features (e.g. catch basins, culverts, ditches, swales, surface inlets | l | | | |
| and outlet structures)? | <u> </u> | | | |
| (xi) areas designated for the storage or disposal of solid, sanitary, | | | | |
| and toxic wastes (including dumpster areas), areas designated for | | | | |
| cement truck washout, and areas for vehicle fueling? | _ | | | |
| (xii) location of designated construction entrances where the | | | | |
| vehicles will access the construction site? | | | | |
| (xiii) location of any areas of proposed floodplain fill, floodplain | | | | |
| excavation, stream restoration or known temporary or permanent | | | | , |
| stream crossings? | | | | |

| Part III.G.2 - Sediment & Erosion Controls | | | | |
|--|---|---|-----|----------|
| (a) Preservation Methods | Y | N | N/A | Comments |
| (1) Has every effort been made to preserve the natural riparian setback adjacent to streams or other surface water bodies? (E.g. preserving existing vegetation, vegetative buffer strips, and existing soil profile and topsoil; and designating tree preservation areas or | | | | |
| other protective clearing or grubbing practices. | | | | |

| (2) II | 1 | T | T | |
|--|-----|-----|------|----------|
| (2) Have efforts been made to phase in construction activities to | | | | Δ. |
| minimize the amount of land disturbance at one time? | - | - | | |
| (3) Will any portions of the site be left undisturbed (e.g., tree | | | | |
| preservation areas)? | 77 | NT. | BT/A | |
| (b) Erosion Control Practices | Y | N | N/A | Comments |
| (1) Does the SWP3 include erosion controls to provide cover over | 1 | | | |
| disturbed soils? | _ | | | |
| (2) Does the SWP3 describe the control practices used to re- | | | | |
| establish suitable cover (e.g. vegetation) on disturbed areas after | | | | |
| grading? | - | | | |
| (3) Does the SWP3 specify the types of stabilization measures to be | l | | | |
| employed for any time of the year? | | | | |
| (b)(i) & Part II.B (Table 2): Temporary Stabilization | Y | N | N/A | Comments |
| For disturbed areas within 50 feet of a stream remaining dormant for | | | | |
| over 14 days, will temporary erosion controls be applied within 2 | - 5 | 1 | | |
| days? | _ | | | 2 |
| For disturbed areas over 50 feet away from a stream remaining | | | 6 | |
| dormant for over 14 days, will temporary erosion controls be | | | | |
| applied within 7 days? | _ | | | |
| For disturbed areas that will be left idle over winter, will temporary | | | | |
| erosion controls be applied prior to onset of winter weather? | | | | |
| (b)(i) & Part II.B (Table 1): Permanent Stabilization | Y | N | N/A | Comments |
| For disturbed areas within 50 feet of a stream at final grade, will | | | | |
| permanent erosion controls be applied within 2 days of reaching | | | | |
| final grade? | | | | |
| For disturbed areas remaining dormant for over 1 year or at final | | | | |
| grade, will permanent erosion controls be applied within 7 days of | | | | |
| the most recent disturbance? | | | | |
| (b)(ii) Permanent Stabilization of Conveyance Channels | | | | |
| Will operators undertake special measures to stabilize channels and | | | | |
| outfalls and prevent erosive flows? | | | | |
| (c) Runoff Control Practices - Does the SWP3 incorporate | Y | N | N/A | Comments |
| (1) measures to reduce flow rates on disturbed areas (e.g., riprap, | | | | |
| rock check dams, & pipe slope drains)? | | | | |
| (2) measures to divert runoff from disturbed areas and steep slopes? | | | | |
| (d) Sediment Control Practices | Y | N | N/A | Comments |
| (1) Will sediment control devices be implemented for all areas | | | | |
| remaining disturbed for over 14 days? | | | | |
| (2) Are detail drawings of the sediment controls to be used included | | | | |
| in the SWP3? | | | | ** |
| (d)(i) Timing of Installing Sediment Controls. | Y | N | N/A | Comments |
| Does the SWP3 specify that sediment controls will be implemented | | | | |
| prior to grading and within 7 days of grubbing? | | | | |
| Does the SWP3 require additional sediment controls or | | | | |
| modifications for changing slopes and topography? | | | | 2 |
| (d)(ii) Sediment Settling Ponds | Y | N | N/A | Comments |
| Does the SWP3 include the use of a sediment settling pond? | | 14 | THE | Communic |
| NOTE: This is required for areas with concentrated runoff or when | | | | 8 |
| the capacity of sediment barriers or inlet protection has been | | | | |
| exceeded. | | | | * |
| Are alternatives proposed in lieu of a required settling pond? These | | | | |
| must be equivalent to a sediment settling pond effectiveness. | | | | |
| Is the dewatering volume appropriately sized (67 yd ³ or 1800 ft ³ per | | | | |
| acre of drainage area)? | | | | |
| uoto of dramage area; | | | | |



| Is the depth of the dewatering volume for each sediment settling | | | | |
|---|---|---|-----|----------|
| pond ≤5 feet? | | | | |
| Will the dewatering volume drain in 48 hours to 72 hours? | | | | |
| Is a skimmer specified in the SWP3? | | | | |
| Has a sediment storage zone volume been provided (≥ 1000 ft³ per | | | | |
| disturbed acre or based on RUSLE calculations? | | | | |
| Is the length to width ratio of the settling pond $\geq 2:1$? | | | | |
| NOTE: Greater distances from storm water inlet of the pond to the | | | | |
| outlet increase effectiveness of sediment settlement. | | | | |
| Is clean-out of the sediment storage zone specified in the SWP3? | | | | |
| (E.g. when sediment occupies 50 percent of the sediment storage | | | | |
| zone and prior to conversion to a post-construction BMP.) | | | | |
| Have public safety concerns been considered in pond design and | | | | |
| alternative sediment controls? | | | | |
| (d)(iii) Sediment Barriers & Diversions | Y | N | N/A | Comments |
| Are sediment barriers or diversions used to intercept sheet flow? | | | | |
| NOTE: Sediment barriers are suitable for sheet flow and not for | | | | |
| concentrated storm water flow. | | | | |
| Are alternative sediment barriers, used in lieu of silt fence, at least | | | | |
| 12-inches in diameter? | | | | |
| Are diversions used to keep runoff away from steep slopes or | | | | |
| concentrated flow? | | | | |
| Do sediment barriers meet the maximum drainage area limits of | | | | |
| table 3 or the Rainwater and Land Development manual? | | | | |
| table 5 of the Ramwater and Barra Beverepment manaar. | | | | |
| table 5 of the Ram water and Barta Beveropment mandar. | | | • | |

| (d)(iv) Inlet Protection | Y | N | N/A | Comments |
|---|---|----|-----|----------|
| Do drain inlets and curb inlets drain into a sediment settling pond? | | | | |
| Inlets not connected to a sediment settling pond are limited to runoff | | | | tt. |
| from \leq one acres? | | | | |
| Does inlet protection meet acceptable standards? | | | | |
| (d)(v) Stream Protection | Y | N | N/A | Comments |
| No structural sediment controls are proposed for use in streams. | | | | |
| Have efforts been made to limit construction disturbance or activities on stream banks, and the width or number of stream | | 60 | | |
| crossings? NOTE: If work along a stream bank is necessary, a non- | | | | |
| erodible pad or non-erodible stream diversion dams (sand bags) | | | | ** |
| must be installed. If stream crossings are necessary, a non-erodible | | | | |
| stream crossing must be installed. | | | | |

| | Y | N | N/A | Comments |
|---|---|---|-----|----------|
| Does the SWP3 include the installation of a structural post- | | | | |
| construction BMP. NOTE: Projects that do not significantly grade | | | | |
| or impact pervious areas or install impervious surface such as park | | | | |
| lands do not require the installation of post-construction BMPs. | | | | |
| Is the construction activity a linear project (e.g., pipeline or utility | | | | |
| line installation) that does not result in the installation of additional | | | | |
| impervious surface? NOTE: If yes, then the installation of structural | | | | |
| post-construction BMPs is not required. | | | | |
| Maintenance Plans | Y | N | N/A | Comments |
| Has a long-term maintenance plan been developed or included in the | | | | |
| SWP3 for maintenance of the structural post-construction BMP? | | | | |

| NOME WILL A LAND IN THE RESERVENCE OF THE PARTY OF THE PA | T | 1 | | |
|--|-----|---|-------|----------|
| NOTE: The long-term maintenance plan must be developed and | | | | |
| provided to the post-construction site operator. | - | - | | |
| Does the long-term maintenance plan include the following? | 1 | | | |
| (1) an entity designated for storm water inspection and maintenance | | | | |
| responsibilities? | 1 | _ | | |
| (2) the routine and non-routine maintenance tasks to be undertaken? | | | | |
| (3) a schedule for inspection and maintenance? | | | | |
| (4) any necessary legally binding maintenance easements and | | | | |
| agreements? | | | | |
| (5) construction drawings or excerpts showing the facility plan view | | | | |
| and profile, as well as details of the outlet(s)? | | | | |
| (6) a map showing all access and maintenance easements? | | | | |
| (7) a description of how pollutants will be removed and disposed | | | | |
| of? | | | -0. | |
| Does the SWP3 include a structural post-construction BMP | | | | |
| designed to release the water quality volume over a 24-hour to 48- | | | | |
| hour time period? | | | | |
| Calculation of Water Quality Volume (WQv) | Y | N | N/A | Comments |
| Is the calculation of the WQv,shown? | Ė | Ť | 1071 | |
| With correct values used for the following: | | | | |
| (a) runoff coefficient (Rv), where $Rv = 0.05 + 0.9i$ | | | | |
| i = ratio of impervious surface | | | | |
| (b) precipitation depth (P = 0.9 inches)? | | | | |
| (c) and the drainage area (A) to the BMP? | | | | |
| If the structural post-construction BMP will be used for sediment | | - | | |
| storage, does it include a sediment accumulation volume of at least | | | | |
| 20% of the WQv? | | | | |
| If a regional storm water BMP will be used to meet the post- | | | | |
| construction requirements, does it: | 6-2 | | -0.4 | |
| (1) meet the design requirement for treating the WQv? | | | | |
| (2) have a legal agreement established with the BMP owner for | _ | | | |
| long-term maintenance? | | | | |
| Table 4a Do extended detention practices show an appropriate | | | | |
| minimum drain time that shall not discharge more than the first half | | | | |
| of the WQv in less than one-third of the drain time? | | | | |
| NOTE: Dry = 48 hr; Wet, wetland, permeable pavement, | | | | |
| underground storage, and sand/media filtration min. 24, <72 hr. | | | | |
| Table 4a Do extended detention practices show appropriate design | | | | |
| features? | | | | |
| | 5.4 | | | |
| Wetland and wet basins: permanent pool = 1WQv Draw and and basins and investor to the pool = 0.2WQv | | | | |
| Dry, wet and wetland: sediment storage = 0.2WQv | | | | |
| Dry: forebay and micro-pool or acceptable pretreatment and a metastad audict | | | | |
| and a protected outlet. | | | | |
| Underground storage: acceptable pretreatment capable of ≥ | | | | |
| 50%TSS. | | | | |
| Table 4b Do planned infiltrating practices show an appropriate maximum drain time? | | | | = |
| | | | | |
| Note: Bioretention and infiltration basin ≤ 24; infiltration trench, | | | | |
| permeable pavement and underground storage ≤ 48 hours. | - | | - | |
| Table 4b Do planned infiltrating underground storage practices | | | | |
| (for credit) show acceptable of pretreatment of ≥ 80% TSS. | W.7 | | BT/ A | |
| Small Construction Activities ≤ 2 Acres | Y | N | N/A | Comments |
| If the SWP3 proposes to use an alternative BMP instead of a Table | | | | |
| 4a or 4b practice, | | | l | |



| (1) does the SWP3 provide justification on why a standard BMP is | | | | |
|---|---|----|-------|----------|
| infeasible and their use would prevent the project? | | | | |
| (2) Is the alternative BMP acceptable to the local MS4 or | | | | |
| jurisdiction? | | | | |
| Transportation Projects | Y | N | N/A | Comments |
| For (public road construction activities), are the post-construction | 1 | | | |
| BMPs designed consistent with the Ohio Department of | | | | |
| Transportation's "Location and Design Manual, Volume Two?" | | | | |
| Offsite Mitigation of Post-Construction | Y | N | N/A | Comments |
| If the SWP3 is proposing to use an offsite post-construction BMP, | 1 | 1 | 14/21 | Comments |
| then does the SWP3 include: | | | | |
| (1) a maintenance agreement or policy is established to ensure | | | | |
| operations and treatment long-term? | | | | |
| (2) the offsite location discharges to the same HUC-12 watershed | | | | |
| unit? | | | | |
| (3) the mitigation ratio of the WQv is 1.5 to 1 or the WQv at the | 1 | | | |
| point of retrofit, whichever is greater? | | | | |
| Previously Developed Areas (Redevelopment) | Y | N | N/A | Comments |
| For construction of a previously developed area, was one of the | 1 | 1 | 14/21 | Comments |
| following options used to as a post-construction practice: | | | | |
| (a) 20% net reduction in the site's volumetric runoff | 1 | | | |
| coefficient? | | | | |
| (b) a BMP sized to treat 20% of the WQv for the previously | | | | 16 |
| developed area using a standard BMP from Tables 4a or | | | | _ |
| 4h? | | | | |
| For construction involving both previously developed and | | | | |
| undeveloped land, was equation 3 shown to calculate the WQv? | | | | |
| $WQv = 0.9$ inches * A * $[(Rv_1 * 0.2) + (Rv_2 - Rv_1)]/12$ | | | | |
| Runoff Reduction Practices: | Y | N | N/A | Comments |
| | 1 | 11 | IN/A | Comments |
| If the SWP3 proposes to use runoff reduction methods to reduce the | | | | |
| WQv or size of post-construction practices, are one of the following | | | | 1 |
| acceptable practices being used with appropriate credit? | | | | |
| • Green Roof | | | | |
| Impervious Surface Disconnection | | | | |
| Rainwater Harvesting | | | | |
| Bioretention Area/Cell | | | | |
| Infiltration Basin | | | | |
| Infiltration Trench | | | | |
| Permeable Pavement (Infiltration) | | | | |
| Underground Storage (Infiltration) | | | | |
| Grass Swale | | | | |
| Sheet Flow to Filter Strip | | | | |
| Sheet Flow to Conservation Area | | | | |
| Do practices meet Ohio EPA's Rainwater and Land Development | | | | |
| Manual specifications? | | | | |
| Is any runoff reduction practice(s) used to meet the groundwater | | | | |
| recharge requirements for the Big Darby Creek Watershed shown in | | | | |
| recharge calculations? | | | | |
| Is any runoff reduction practice used meet post-construction | | | | |
| requirement for areas that cannot drain to a structural practice (e.g., | | | | |
| backyards of residential lots) shown in calculations? | | | | |
| Alternative Post-Construction BMPs | Y | N | N/A | Comments |

| If the SWP3 proposes to use alternative post-construction BMPs to those of Tables 4a and 4b practices, has approval been obtained from Ohio EPA? (Attach correspondence & Alt. Practice Form) | | |
|---|--|--|
| | | |

| Part III.G.2.f - Surface Water Protection | Y | N | N/A | Comments |
|--|---|---|-----|----------|
| Does the site contain any streams, rivers, lakes, or wetlands? | | | | |
| If so, has the U.S. Army Corps of Engineers been contacted for a | | | | |
| determination of impacts requiring Clean Water Act 401 or 404 | | | | |
| permitting? (Attach any reference numbers) | | | | |
| For storm water discharges from BMPs into wetlands, have | | | | |
| appropriate BMPs been proposed to treat and diffuse flows? | | | | |

| Part III.G.2.g - Other Controls | | | | |
|---|----------|-------|----------|-------------------------|
| (Non-sediment pollutant controls, tracking, dust, wastes, de | ewat | ering | g, and e | contaminated sediments) |
| Handling of Toxic or Hazardous Materials | Y | N | N/A | Comments |
| (1) The SWP3 considers and addresses potential toxic or hazardous | | | | . 25 |
| wastes and their proper disposal? | | | | |
| (2) The SWP3 addresses the need and methods to exclude waste | | | | |
| materials or wastewater (e.g. from washout) from storm water or | | | | |
| waters of the state? and of responding to chemical spills and leaks | | | | |
| (e.g. directs to onsite Spill Prevention Control and Countermeasure (SPCC) plan). | | | | , |
| (3) The SWPPP addresses potential materials and responses to | | | | |
| chemical spills and leaks (e.g. directs to onsite Spill Prevention | | | | |
| Control and Countermeasure (SPCC) plan). | | | | |
| Waste Disposal | Y | N | N/A | Comments |
| Covered and leak-proof containers are planned for disposal of | | | | |
| debris, trash, hazardous or petroleum wastes? | | | | |
| As applicable, the SWP3 states that all waste will comply with | | | | |
| applicable state or local waste disposal requirements and provisions | | | | |
| address issues such as open burning, sanitary wastes and | | | | |
| construction and demolition debris? | | | | |
| Clean Hard Fill | Y | N | N/A | Comments |
| (1) If disposal of bricks, hardened concrete, and/or soil is planned, | | | | |
| are these materials required to be free from contamination that may | | | | |
| leach to waters of the state? | | | | |
| (2) If clean construction wastes will be disposed into the property, | | | | |
| have are there any local prohibitions from this type of disposal? | | | | |
| Construction Chemical Compounds | Y | N | N/A | Comments |
| (1) Does the SWP3 designate areas used for mixing or storage of | 1 | 14 | 14/74 | Comments |
| compounds such as fertilizers, lime, asphalt, or concrete? | | | | |
| (2) If so, are these areas located away from watercourses, drainage | \vdash | | | |
| ditches, field drains, or other storm water drainage areas? | | | | |
| Equipment Fueling & Maintenance | Y | N | N/A | Comments |
| (1) Does the SWP3 designate areas used for fueling or performing | Ė | | 11//1 | Vanillelle |
| vehicle maintenance that provide separation from watercourses, | | | | |
| drainage ditches, field drains, or other storm water drainage areas? | | | | |
| (2) If applicable, has a spill prevention control and | | | | |
| countermeasures (SPCC) plan been developed? | | | | |

February 2019

| NOTE: An SPCC plan is required for sites which have the | | | | |
|--|----------|-----|------|----------|
| following: | | | | |
| Aboveground oil/fuel storage capacity of more than 1,320 | 1 | | 1 | |
| gallons in all containers 55 gallons or greater in volume, or | | | | |
| • Underground oil/fuel storage capacity of more than 42,000 | | | | - |
| gallons. | | | | |
| Concrete Wash Waters | Y | N | N/A | Comments |
| (1) Does the SWP3 designate areas used for concrete chute | | | | |
| cleaning or other concrete wash waters that are these areas located | | | | |
| away from watercourses, drainage ditches, field drains, or other | | | | |
| drainage areas? | | | | |
| Trench & Ground Water Control | Y | N | N/A | Comments |
| Does the construction site have an onsite trench or pond that must | | | | |
| be dewatered? | | | | |
| If so, does the SWP3 call for the discharge of potentially turbid | | | | |
| water through a filter bag, sump pit, or other sediment removal | | | | |
| device? | | | | |
| Contaminated Soils | Y | N | N/A | Comments |
| If applicable, does the SWP3 address proper handling and disposal | | | | |
| of soils contaminated by petroleum or other chemical spills? | | | | |
| NOTE: Contaminated soils must be treated and/or disposed in Ohio | | | | |
| EPA approved solid waste management facilities or hazardous | | | | *** |
| waste treatment, storage or disposal facilities. | | | | |
| If the facility contains contaminated soil, which of the following | | | | |
| practices will be used to prevent contamination from being | | | | |
| released? | | | 1 | |
| (1) Berms, trenches, and pits used to collect contaminated runoff | | | 1 | |
| and prevent discharges; | . | | | |
| (2) Runoff is planned to be pumped into a sanitary sewer (requires | | | | · |
| prior approval of the sanitary sewer operator) or into a container for | | | | |
| transport to an appropriate treatment/disposal facility; | | | ļ | 4) |
| (3) Areas of contamination are planned for covering with tarps or | | | | - |
| other methods that prevent storm water from coming into contact | | | | |
| with the material. | | | | |
| Spill Reporting Requirements | Y | N | N/A | Comments |
| (1) The SWP3 describes procedures in the event of a small release | | | | |
| (less than 25 gallons) of petroleum waste? NOTE: Petroleum- | | | 1 | |
| based and concrete curing compounds must have special handling | | | | |
| procedures. | | | | |
| (2) The SWP3 describe what to do in the event of a larger release | | | | |
| (25 or more gallons) of petroleum waste? NOTE: Ohio EPA (1- | | | 1 | |
| 800-282-9378), the local fire department, and the local emergency | | | | |
| planning committee (LEPC) must be contacted within 30 minutes of | | | | |
| a spill of 25 or more gallons. | F7 | NY. | NY/A | |
| Open Burning | Y | N | N/A | Comments |
| (1) If applicable, does the SWPPP restrict open burning to legal | | | | |
| limits (as defined in OAC 3745-19)? | | 1 | 1 | |
| Dust Controls/Suppressants | Y | N | N/A | Comments |
| (1) If dust suppressants are proposed in the SWP3, are application | | | | |
| areas away from catch basins for storm sewers or other drainage | | | 1 | |
| ways? NOTE: Used oil may not be used as a dust suppressant | | | - | |
| Air Permitting Requirements | Y | N | N/A | Comments |
| (1) If applicable (e.g. mobile concrete batch plants, mobile asphalt | | | 1 | |
| plants, concrete crushers, and large generators) have appropriate | | | | |

| measures been taken to ensure that all air pollution permits have been obtained? | | | | |
|--|---|---|-----|--|
| (2) In the case of applicable restoration or demolition projects, a | | | | |
| notification will be submitted to Ohio EPA, Division of Air | | | | |
| Pollution Control to determine if asbestos corrective actions are | | | | |
| required? | | | | |
| Process Wastewater/Leachate Management | Y | N | N/A | Comments |
| All process wastewaters (e.g., equipment washing, leachate | | | | |
| associated with on-site waste disposal, and concrete wash-outs) be | | | | |
| collected and disposed of properly (e.g., to a publicly-owned | | | | |
| treatment works)? NOTE: The NPDES construction storm water | | | | |
| general permit only authorizes the discharge of storm water and | | | | |
| certain uncontaminated non-storm waters. The discharge of non- | | | | |
| storm waters to waters of the state may be in violation of local, | | | | |
| state, and federal laws or regulations. | | | | ii |
| | | | | |
| Additional Concerns | Y | N | N/A | Comments |
| For construction activities involving the installation and/or | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines. | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines. Does the SWP3 include measures for implementing good | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines. Does the SWP3 include measures for implementing good housekeeping practices? | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines. Does the SWP3 include measures for implementing good housekeeping practices? Does the SWP3 promote the use of protected storage areas for | Y | N | N/A | Comments |
| For construction activities involving the installation and/or replacement of a centralized sanitary system, (including sewer extensions) or a sewerage system (except those serving one, two, and three family dwellings) and potable water lines, a PTI application was submitted to Ohio EPA? NOTE: Coverage under the NPDES construction storm water general permit does not alone authorize the installation of such sanitary sewerage systems or potable water lines. Does the SWP3 include measures for implementing good housekeeping practices? | Y | N | N/A | Comments |

| Part III.G.2.h - Maintenance | | | ,, | |
|---|---|-----|-----|----------|
| | Y | N | N/A | Comments |
| The SWPPP describes adequate repair and maintenance | | | | |
| procedures for each temporary and permanent control practice | 1 | | | |
| planned in order to ensure continued function. | | | | |
| D. ATTI CALL II | | | | |
| Part III.G.2.i - Inspections | | | | T ex |
| | Y | N | N/A | Comments |
| The SWP3 states that only "qualified inspection personnel" will | | - 1 | | |
| perform the inspections? | | | | |
| The SWP3 requires construction site inspections to be | | | | |
| performed once every 7 calendar days; and after every rain | | | | |
| event \geq 0.5-inch in a 24-hour period by the end of next calendar | | | | |
| day (excluding non-working weekends & holidays)? | | | | |
| The SWP3 states that the inspection frequency may be reduced | | | | |
| to monthly for dormant sites if: | | | | |
| the entire site is temporarily stabilized or | | | | |
| runoff is unlikely due to weather conditions for | | | | |
| extended periods of time (e.g., frozen ground)? | | | 17 | |
| Does the SWP3 include an inspection checklist (to be completed | | | | |
| and signed after every inspection) that includes: | | | | |
| • the inspection date; | | | | |
| names, titles, and qualifications of inspectors; | | | | |

| weather for the period since the last inspection (e.g., | |
|---|---|
| beginning, duration, & rainfall amount of each storm | |
| event and whether a discharge occurred); | |
| weather and a description of any discharges occurring | |
| at the time of the inspection; | |
| location(s) of discharges of sediment or other | |
| pollutants from the site; | |
| location(s) of BMPs that need to be maintained; | ¥ |
| location(s) of BMPs that failed to operate as designed | |
| or proved inadequate for a particular location; | |
| location(s) where additional BMPs are needed that did | |
| not exist at the time of inspection; | |
| and corrective action required including any changes to | |
| the SWP3 necessary and implementation dates | |
| The SWP3 details the areas to inspect (disturbed areas; material | |
| storage areas; erosion and sediment controls; discharge | |
| locations; and vehicle entrance/exit locations)? | |
| Does the SWP3 state that inspection records will be kept for 3 | |
| years after termination of construction activities? | |
| Does the SWP3 specify the time within which BMPS must be | |
| repaired, maintained or a new functional BMP installed? | |
| (Within 3 days of inspection for non-sediment pond BMPs, and | |
| within 10 days of inspection for sediment ponds to be repaired | |
| or cleaned out and replacing a BMP not meeting the intended | |
| function or missing from the site.) | |

Attachment: E



Construction Site Inspection Checklist for OHC000005

By making use of some simple Best Management Practices (BMPs) a construction site operator can do his or her share to protect Ohio's water resources from the harmful effects of sediment. The topography of the site and the extent of the construction activities will determine which of these practices are applicable to any given site, but the BMPs listed here are applicable to most construction sites. For details on the installation and maintenance of these BMPs, please refer to the current *Rainwater and Land Development*, *Ohio EPA's Standards for Storm Water Management Land Development and Urban Stream Protection*. The manual is available at http://epa.ohio.gov/dsw/storm/technical_guidance.

Temporary Stabilization

This is the most effective BMP. All disturbed areas that will lie dormant for over 14 days must be stabilized within 7 days of the date the area becomes inactive. The goal of temporary stabilization is to provide cover, quickly. Areas within 50 feet of a stream must be stabilized within 2 days of inactivity. This is accomplished by seeding with fast-growing grasses then covering with straw mulch. Apply only mulch between November 1 and March 31. To minimize your costs of temporary stabilization, leave natural cover in place for as long as possible. Only disturb areas you intend to work within the next 14 days.

Construction Entrances

Construction entrances are installed to minimize off-site tracking of sediments. A stone access drive should be installed at every point where vehicles enter or exit the site. Every individual lot should also have its own drive once construction on the lot begins.

Sediment Ponds

Sediment ponds are required for construction areas with concentrated runoff or when the design capacity of silt fence or inlet protection is exceeded. There are two types of sediment ponds: sediment basins and sediment traps. A sediment trap is appropriate where the contributing drainage area is 5 acres or less. The outlet is an earthen embankment with a simple stone spillway. A sediment basin is appropriate for drainage areas larger than 10 acres. The outlet is an engineered riser pipe with a skimmer or similar device used to dewater the pond at the surface. Often a permanent storm water management pond, such as a retention or detention basin, can be modified to act as a sediment basin during construction. All sediment ponds must be installed within 7 days of first grubbing the area they control, provide a minimum dewatering zone of 67 cubic yards per acre of total contributing drainage area and a sediment settling zone of 34 cubic yards per disturbed acre below the level of the outlet. Sediment basins must be designed to drain the dewatering zone over a 48-hour period.

Sediment Barriers

This is typically used at the perimeter of a disturbed area. It's only for small drainage areas on relatively flat slopes or around small soil storage piles. Not suitable where runoff is concentrated in a ditch, pipe or through streams. For large drainage areas where flow is concentrated, collect runoff in diversion berms or channels and pass it through a sediment pond prior to discharging it from the site. Combination barriers constructed of silt fence supported by straw bales or silt fence embedded within rock check dams may be effective within small channels. As with all sediment controls, sediment barriers must be capable of pooling runoff so that sediment can settle out of suspension. Sediment barriers must be installed within 7 days of first grubbing the area it controls.

Inlet Protection

This must be installed on all yard drains and curb drains when these inlets do not drain to a sediment trap or basin. Even if there is a sediment trap or basin, inlet protection is still recommended, as it will increase the overall sediment removal efficiency. These are best used on roads with little or no traffic. If working properly, inlet protection will cause water to pond. If used on curb inlets, streets will flood temporarily during heavy storms. Check with your municipality before installing curb inlet protection. They may prefer an alternate means of sediment control such as silt fence or ponds.

Permanent Stabilization

All areas at final grade must be permanently stabilized within 7 days of reaching final grade. This is usually accomplished by using seed and mulch, but special measures are sometimes required. This is particularly true in drainage ditches or on steep slopes. These measures include the addition of topsoil, erosion control matting, rock rip-rap or retaining walls. Permanent seeding should be done March 1 to May 31 and August 1 to September 30. Dormant seeding can be done from November 20 to March 15. At all other times of the year, the area should be temporarily stabilized until a permanent seeding can be applied.

Non-Sediment Pollution Control

Although sediment is the pollutant of greatest concern on most construction sites, there are other sources of pollution. Most of these BMPs are easy to implement with a little bit of planning and go a long way toward keeping your site clean and organized. Please be sure to inform all contractors how these BMPs affect their operations on the site, particularly those that will be working near a stream.

Inspection Sheet

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

GENERAL INSPECTION INFORMATION

| Inspector Title | | Inspector Name | e: | | |
|---|---|---|---|--------------|----|
| mapector ritie. | 71 | Qualifications/0 | Certifications: | | |
| | 9 | Storm Events of the Last 7 | Days | | |
| Storm Event Date | Storm Event Time | Storm Event Duration | Total Rainfall Amount (inches) (inches) (inches) (inches) | | |
| | Weathe | r Information at the Time of | of Inspection | • | |
| Temperature | Climate (Sunny, Clou | dy, Rain)? | Is Storm Water Being D | Discharged?_ | |
| | | Sketch or Small Site Ma | <u>ıp</u> | | |
| reflect current site o | | | | | |
| Key things to look f | | NSTRUCTION ENTRA | ANCES | | |
| Key things to look f | | NSTRUCTION ENTRA | ANCES | | |
| | for | | | Yes | No |
| Has the drive been | for n constructed by placing o | nstruction entra | | Yes | No |
| Has the drive been Is the stone 2-inch | for n constructed by placing on diameter? | geotextile fabric under the | stone? | | No |
| Has the drive been Is the stone 2-inch Has the stone been | for n constructed by placing on diameter? | geotextile fabric under the inches, with a width of 10 | stone? | | No |
| Has the drive been Is the stone 2-inch Has the stone been feet (30 feet for If the drive is plan | for n constructed by placing of a diameter? en placed to a depth of 6 or entrances onto individual | geotextile fabric under the inches, with a width of 10 al sublots)? liversion berm been cons | stone? feet and a length of at le | ast | No |
| Has the drive been Is the stone 2-inch Has the stone been feet (30 feet for the drive is plant divert runoff away) | for n constructed by placing on diameter? en placed to a depth of 6 or entrances onto individuate ced on a slope, has a conform the street or water or | geotextile fabric under the inches, with a width of 10 al sublots)? liversion berm been cons | stone? feet and a length of at le tructed across the drive | ast to | No |
| Is the stone 2-inch Has the stone bee 50 feet (30 feet for If the drive is pla divert runoff away If drive is placed a | for n constructed by placing on diameter? en placed to a depth of 6 or entrances onto individual ced on a slope, has a confrom the street or water racross a ditch, was a culve | geotextile fabric under the inches, with a width of 10 al sublots)? liversion berm been cons resource? | stone? feet and a length of at le tructed across the drive ff to flow across the drive | ast to | No |
| Has the drive been Is the stone 2-inch Has the stone been feet (30 feet for the drive is plant divert runoff away) If drive is placed and | for n constructed by placing on diameter? en placed to a depth of 6 or entrances onto individual ced on a slope, has a confrom the street or water racross a ditch, was a culve | geotextile fabric under the inches, with a width of 10 al sublots)? liversion berm been cons resource? ert pipe used to allow rund | stone? feet and a length of at le tructed across the drive ff to flow across the drive | ast to | No |



SEDIMENT PONDS

Key things to look for ...

| | | Yes | NO |
|-----|---|-----|----|
| 1. | Are concentrated flows of runoff directed to a sediment pond? | | |
| 2. | Is sheet-flow runoff from drainage areas that exceed the design capacity of silt fence (generally 0.25 acre or larger) directed to a sediment pond? | | |
| 3. | Is runoff being collected and directed to the sediment pond via the storm sewer system or via a network of diversion berms and channels? | | |
| 4. | Is the sediment pond dewatering zone appropriately sized (67 cubic yards per acre of total drainage area)? | | |
| 5. | Is the sediment pond sediment settling zone appropriately sized (34 cubic yards per acre of disturbed area)? | | |
| 6. | Is the sediment basin designed to be dewatered at the surface through the use of a skimmer or another similar surface water dewatering device? | | |
| 7. | Is the sediment basin designed so that the dewatering zone will drain in no less time than 48 hours? | | |
| 8. | Have the embankments of the sediment pond and the areas that lie downstream of the pond been stabilized? | | |
| 9. | For sediment traps, is there geotextile under the stone spillway and is the spillway saddle-shaped? | | |
| 10. | For sediment traps, which dewater 100% between storms, is the dewatering pipe end-capped, no larger than 6 inches in diameter, perforated and double-wrapped in geotextile? | | |
| 11. | Is the length-to-width ratio between inlet(s) and outlet at least 2:1? NOTE : If not, a baffle should be added to lengthen the distance. | | |
| 12. | Is the depth from the bottom of the basin to the top of the primary spillway no more than 3 to 5 feet? | | |
| 13. | For a modified storm water pond being used as a sediment pond, is the connection between the riser pipe and the permanent outlet water-tight? | | |
| 14. | Was the basin installed prior to grading the site? | | |
| 15. | Is it time to clean-out the sediment pond to restore its original capacity? Generally, sediment should be removed from the sediment settling zone once it's half-full. Stabilize the dredged sediments with seed and mulch. | | |
| Not | e areas where repairs or maintenance is needed or where this practice needs to be applied: | | |
| - | | | |
| _ | * 4 | | |
| | | | |
| | 8 | | |
| | | | |
| _ | | | |

E

SEDIMENT BARRIERS

| K | ey tillings to look for | | | |
|------------------|--|-----|----|--|
| | | Yes | No | |
| 1. | Is the silt fence at least 4" to 6" into the ground? | | | |
| 2. | Is the silt fence trench backfilled to prevent runoff from cutting underneath the fence? | | | |
| 3. | Is the silt fence pulled tight so it won't sag when water builds up behind it? | 14 | | |
| 4. | Are the ends brought upslope of the rest of the silt fence so as to prevent runoff from going around the ends? | | | |
| 5. | Is the silt fence placed on a level contour? If not, the fence will only act as a diversion. | | | |
| 6. | Have all the gaps and tears in the silt fence been eliminated. | | | |
| | Is the sediment barrier controlling an appropriate drainage area? Refer to Chapter 6 of <i>Rainwater</i> manual. RULE OF THUMB : Design capacity for 100 linear feet of sediment barrier is 0.5 acres for slopes < 2%, 0.25 acres for slopes 2% to 20%, & 0.125 acres for slopes 20% or more. Generally, no more than 0.25 acres should lie behind 100 feet of sediment barrier at 2% to 20% slope, i.e., the distance between the barrier and the top of the slope behind it should be no more than 125 feet. The allowable distance increases on flatter slopes and decreases for steeper slopes. All non-silt fence sediment barriers must be at least 12-inches in diameter. | 19 | | |
| N | ote areas where repairs or maintenance is needed or where this practice needs to be applied: | | | |
| - | | | | |
| | | | | |
| INLET PROTECTION | | | | |
| K | ey things to look for | | | |
| | | Yes | No | |
| 1. | Does water pond around the inlet when it rains? | | | |
| 2. | Has the fabric been replaced when it develops tears or sags? | | | |
| 3. | For curb inlet protection, does the fabric cover the entire grate, including the curb window? | | | |
| 4. | For yard inlet protection, does the structure encircle the entire grate? | | | |
| 5. | Is the fabric properly entrenched or anchored so that water passes through it and not under it? | | | |
| 6. | For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales. | | | |
| 7. | Is sediment that has accumulated around the inlet removed on a regular basis? | | | |
| N | ote areas where repairs or maintenance is needed or where this practice needs to be applied: | , | 3 | |
| | | | | |
| | | | | |



TEMPORARY STABILIZATION

| | Key things to look for | | | |
|--|---|-----|--|--|
| | | Yes | No | |
| 1. | . Are there any areas of the site that are disturbed, but will likely lie dormant for over 14 days? | | | |
| 2. | . Have all dormant, disturbed areas been temporarily stabilized in their entireties? | | | |
| 3. | . Have disturbed areas outside the silt fence been seeded or mulched? | | | |
| 4. | . Have soil stockpiles that will sit for over 14 days been stabilized? | | | |
| 5. | . Has seed and mulch been applied at the proper rate? In general, seed is applied at 3 to 5 lbs per 1000 sq ft and straw mulch is applied at 2-3 bales per 1000 sq ft. | • | | |
| 6. | . Has seed or mulch blown away? If so, repair. | | | |
| N | ote areas where repairs or maintenance is needed or where this practice needs to be applied: | | | |
| | | | | |
| 9 | * | | | |
| | PERMANENT STABILIZATION | | | |
| K | Key things to look for | | | |
| | | | | |
| | | Vec | No | |
| 1. | Are any areas at final grade? | Yes | No | |
| | Are any areas at final grade? Has the soil been properly prepared to accept permanent seeding? | Yes | No | |
| 2. | | | No | |
| 2. 3. | Has the soil been properly prepared to accept permanent seeding? Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwate</i>) | | No | |
| 2. 3. 4. | Has the soil been properly prepared to accept permanent seeding? Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwater</i> manual)? | r | No | |
| 3. 4. 5. | Has the soil been properly prepared to accept permanent seeding? Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwater</i> manual)? If rainfall has been inadequate, are seeded areas being watered? For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has | | No | |
| 3. 4. 6. | Has the soil been properly prepared to accept permanent seeding? Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwater</i> manual)? If rainfall has been inadequate, are seeded areas being watered? For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap? | | No | |
| 3. 5. 7. | Has the soil been properly prepared to accept permanent seeding? Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwater</i> manual)? If rainfall has been inadequate, are seeded areas being watered? For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap? NOTE: Rock check dams may be needed to slow the flow of runoff. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the | | No Control of the con | |
| 3. 4. 6. 7. 8. | Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwater</i> manual)? If rainfall has been inadequate, are seeded areas being watered? For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap? NOTE: Rock check dams may be needed to slow the flow of runoff. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel? For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom | | No | |
| 3. 4. 6. 7. 8. | Has the soil been properly prepared to accept permanent seeding? Has seed and mulch been applied at the appropriate rate (see Chapter 7 of the <i>Rainwater</i> manual)? If rainfall has been inadequate, are seeded areas being watered? For drainage ditches where flow velocity exceeds 3.5 ft/s from a 10-year, 24-hour storm has matting been applied to the ditch bottom? If the flow velocity exceeds 5.0 ft/s, has the ditch bottom been stabilized with rock rip-rap? NOTE: Rock check dams may be needed to slow the flow of runoff. Has rock rip-rap been placed under all storm water outfall pipes to prevent scouring in the receiving stream or erosion of the receiving channel? For sites with steep slopes or fill areas, is runoff from the top of the site conveyed to the bottom of the slope or fill area in a controlled manner so as not to cause erosion? | | No | |



NON-SEDIMENT POLLUTION CONTROL

Key things to look for ...

| | | Yes | No |
|----|---|-----|--|
| 1. | Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain. | 3 1 | The statement of the st |
| 2. | Is waste and packaging disposed of in a dumpster? Do not burn them on site. | | |
| 3. | Are fuel tanks and drums of toxic and hazardous materials stored within a diked area or trailer and away from any watercourse, ditch or storm drain? | | |
| 4. | Are streets swept as often as necessary to keep them clean and free from sediment? NOTE: Sediment should be swept back onto the lot - not down the storm sewers. | | |
| 5. | Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain? | | |
| 6. | Have stream crossings been constructed entirely of non-erodible material? | | |
| 7. | If an area of the site is being dewatered, is it being pumped from a sump pit or is the discharge directed to a sediment pond? NOTE : if you must lower ground water, the water may be discharged to the receiving stream as long as the water remains clean. Be sure not to co-mingle the clean ground water with sediment-laden water or to discharge it off-site by passing it over disturbed ground. | 11 | |
| N | ote areas where repairs or maintenance is needed or where this practice needs to be applied: | | |
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