

BEST MANAGEMENT PRACTICE (BMP) TABLES
CITY OF DELAWARE STORMWATER MANAGEMENT PROGRAM

Table 1: Minimum Control Measure 1 – Public Education and Outreach

BMP (Mechanism)	Schedule and Measurable Goals	Responsible Party	Rationale/Comments
Olentangy River Festival	<p>Yearly: Coordinate and host educational festival to provide stormwater information to the public, especially families and kids.</p> <p>Measurable Goal: Record the number of contacts made, number of brochures handed out, number of participating organizations, and estimate of attendees.</p>	COD Public Utilities Department	Provide a fun, interactive opportunity for residents to learn about stormwater and natural resource conservation, and to get in the river to develop an appreciation for it.
Olentangy Watershed Forum	<p>Yearly: Coordinate and co-host an annual forum to provide residents and watershed professionals with updates on the watershed. Public Utilities should present an update on MS4 activities.</p> <p>Measurable Goal: Record the number of attendees, number of participating organizations.</p>	COD Public Utilities Department FLOW Del-Co Water Preservation Parks of Delaware County	Provide a formal opportunity for residents and watershed professionals to learn about water quality at current updates from watershed organizations.
Rain Barrel Workshops	<p>May and June: Host workshops and tabling info at First Friday events in downtown Delaware.</p> <p>Measurable Goal: Record number of attendees. Educate 20 people per year at workshops.</p>	COD Public Utilities Department	Provide an opportunity for residents to learn the benefits of rain barrels and how to use them. Capturing stormwater in rain barrels also reduces potential for erosion and total suspended solids (TSS or sediment) to enter waterways and impair surface water. TSS is a target pollutant per the Olentangy River per the

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			Olentangy TMDL and Small MS4 permit.
Citizens Academy Program	<p>Spring and Fall: Have at least one Public Utilities staff member present at academy.</p> <p>Measurable Goal: Record number of residents educated. Educate 20 residents.</p>	<p>COD Public Utilities Department COD Community Affairs Department</p>	Give residents an inside look at department operations-how and why we operate. Reduce illicit discharges from residents by educating them on MS4 system.
Newsletters	<p>Spring and Fall: Create two newsletters per year to be distributed in utility bills, each with a seasonally-appropriate stormwater message.</p> <p>Measurable Goal: Record newsletter topics and number of newsletters mailed.</p>	<p>COD Public Utilities Department COD Community Affairs Department</p>	<p>The City only distributes paper utility bills. By including a newsletter as an insert in the utility bill, we can assume that 100% of our residents are reached through this BMP.</p> <p>Newsletters will address target pollutants of the Olentangy River TMDL, to include TP, TSS, and E.Coli.</p>
Newspaper Articles	<p>Yearly: Articles can be written by City staff in advance of outreach events or to highlight SWMP programs.</p> <p>Measurable Goal: Record number of articles published, with a goal of two articles per year.</p>	<p>COD Public Utilities Department Delaware SWCD</p>	<p>This is an additional method that helps get the word out about stormwater BMPs. Include articles written by Delaware SWCD.</p> <p>Newspaper articles will address target pollutants of the Olentangy River TMDL, to include TP, TSS, and E.Coli.</p>
Brochures and Flyers	<p>Yearly: Update MS4 brochures and flyers as needed. Distribute at workshops, festivals, other tabling events.</p> <p>Measurable Goal: Record the number of brochures and flyers distributed.</p>	<p>COD Public Utilities Department</p>	<p>Providing residents with stormwater information in written format allows them to take home and reference as desired.</p> <p>Brochures and flyers will address target pollutants of the Olentangy</p>

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			River TMDL, to include TP, TSS, and E.coli.
Website and Social Media	<p>Yearly: Update website with relevant stormwater documents. Make educational posts about stormwater and notify the public of public involvement activities via social media.</p> <p>Measurable Goal: Continue to increase number of Facebook followers. Record number of followers and website views. Update website with newsletters and water quality documents as needed.</p>	<p>COD Public Utilities Department COD Community Affairs Department</p>	<p>Information given in a digital format is becoming the preferred method of receiving info. It can reach more people in a more prompt fashion than paper publications.</p> <p>Website and social media posts will address target pollutants of the Olentangy River TMDL, to include TP, TSS, and E.Coli.</p>
Community Meetings and Partnerships	<p>Monthly/Quarterly: Watershed coordinator attends partner update meetings and hosts meetings on a regular basis. Frequency depends on organization and their needs.</p> <p>Measurable Goal: Record meeting attendance, agenda, and topics.</p>	<p>COD Public Utilities Department FLOW OWA ODNR: Scenic Rivers Division KDCB Coalition Preservation Parks of Delaware County Delaware SWCD Franklin SWCD</p>	<p>Having the watershed coordinator sit on various committees and attend regular partner meetings allows the City to stay up to date on current happenings in our community, update others on COD activities, allows more informed decision making, and allows for collaboration on events and natural resource campaign.</p>
Education Materials for K-12 Students	<p>Fall: Present interactive presentation during Hands on the Land program at Stratford Ecological Center, which typically takes place in October.</p> <p>Upon Request: Present additional presentations to schools upon request.</p>	<p>COD Public Utilities Department</p>	<p>Hands on the Land reaches all Fourth Grade students in the Delaware City School District. Students can learn about stormwater runoff from a young age and educate their parents. Additional presentations educate more people.</p>

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	<p>Measurable Goal: Record number of requests made, and presentations given, and number of students educated.</p>		
<p>Miscellaneous Outreach Presentations</p>	<p>Upon Request: Provide presentations on MS4 system to residents, universities, organizations who request them. Measurable Goal: Record the number of presentations given and residents educated.</p>	<p>COD Public Utilities Department</p>	<p>OWU or other organizations sometimes request presentations, it's important to seize these opportunities to educate more people if possible.</p>
<p>Bioretention Cells at Ohio Wesleyan University</p>	<p>Yearly: Update signs at bioretention cells as necessary. Signs will stay in place year-round to educate people on their purpose. Measurable Goal: Record estimated number of people who read signs each year.</p>	<p>COD Public Utilities Department</p>	<p>Having signs at the bioretention cells allows anyone who walks by to learn about their purpose and stormwater runoff/green infrastructure as a whole. Having bioretention cells/rain gardens in place reduces TSS. TSS is a target pollutant per the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>
<p>Public Education Display</p>	<p>April-October: Set up Rain Barrel at City Hall with plants in planter and signage in April, take down in October. Measurable Goal: Record estimated number of people who read signs each year.</p>	<p>COD Public Utilities Department</p>	<p>Having this display at the entrance to City Hall allows anyone who walks by to learn about rain barrels and their purpose.</p>

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Table 2: Minimum Control Measure 2 – Public Involvement and Participation

BMP (Mechanism)	Schedule and Measurable Goals	Responsible Party	Rationale/Comments
Annual Olentangy River Cleanup	August: Organize and host one river cleanup day per year. Measurable Goal: Keep track of amount of litter cleaned up and people who participated, with a goal of 40 volunteers.	COD Public Utilities Department KDCB	Allow public to be involved in cleaning up river, and learn about MS4 program and importance of not littering.
Miscellaneous Litter Cleanups	Upon Request: Provide location for groups looking to host their own litter cleanup. Connect them with KDCB for supplies. Keep track of amount of litter cleaned up and people who participated. Measurable Goal: Keep track of amount of litter cleaned up and people who participated, with a goal of 4 additional cleanups per year.	COD Public Utilities Department COD Public Works Department KDCB	Allow public to be involved in cleaning up river, and learn about MS4 program and importance of not littering. Empower them to do these projects on their own, as staff cannot attend every cleanup.
Rain Barrel Workshops	May and June: Host workshops and tabling info at First Friday events in downtown Delaware. Measurable Goal: Record number of attendees. Educate 20 people per year at workshops.	COD Public Utilities Department	Provide an opportunity for residents to learn the benefits of rain barrels and how to use them. Capturing stormwater in rain barrels also reduces potential for erosion and total suspended solids (TSS or sediment) to enter waterways and impair surface water. TSS is a target pollutant per the Olentangy River per the

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			Olentangy TMDL and Small MS4 permit.
Rain Barrel Discount Program	<p>Yearly: Offer discounted rain barrel kits to COD residents in the Spring or any time upon request. Advertise program in Spring newsletter.</p> <p>Measurable Goal: Record the number of rain barrels sold and number of inquiries about rain barrels. Sell 25 rain barrels per year.</p>	COD Public Utilities Department	Discount program encourages residents to buy a rain barrel and reuse stormwater, thereby reducing runoff and localized flooding. Teaches residents about MS4 program. Capturing stormwater in rain barrels also reduces potential for erosion and total suspended solids (TSS or sediment) to enter waterways and impair surface water. TSS is a target pollutant per the Olentangy River per the Olentangy TMDL and Small MS4 permit.
Storm Drain Labeling/Marking Volunteer Program	<p>Yearly: Continue labeling storm drains on an annual basis by advertising to volunteer groups.</p> <p>Measurable Goal: Record the number and location of the MS4 storm drain inlets stamped/marked annually. Label 25 storm drains per year.</p>	COD Public Utilities Department	Reduce illicit discharges by labeling storm drains with highly visible labels that state, "Don't pollute, drains to stream." This educates the public about water in storm drains not being treated before reaching waterways.
Adopt-a-Drain Volunteer Program	<p>Yearly: Advertise program to residents and OWU students. Share training video or provide in-person training on how to clean off storm drains and record data from storm drain.</p> <p>Measurable Goal: Record the location of adopted storm drains,</p>	COD Public Utilities Department OWU	Reduce illicit discharges by empowering volunteers to clean off storm drains/inlets on their own time. This provides education about the MS4 system, and allows volunteers to educate others. Also allows more frequent clearing of "problem drains" that always tend

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	number of storm drains adopted, amount of debris removed, and number of participants, with a goal of 10 volunteers.		to be covered, and thereby cause frequent localized flooding. Removing leaves allows them to stay clear of storm drains and keeps excess nutrients, including TP and TSS out of our waterways which further protects aquatic life. TP and TSS are target pollutants of the Olentangy River per the Olentangy TMDL and Small MS4 permit.
Yard Waste Collection Days	<p>Yearly: Provide public collection of yard wastes regularly throughout applicable seasons.</p> <p>Measurable Goal: Record the location/area, approximate amount of yard waste/leaves collected.</p>	COD Public Works Department	Collecting leaves allows them to stay clear of storm drains and reduce localized flooding. This also keeps excess nutrients out of our waterways which further protects aquatic life. Total Phosphorous (TP) is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit. In addition, by taking yard waste to Price Farms Organics, we are recycling them to be turned into rich compost. Further, encouraging residents to use compost on their lawns instead of chemical fertilizers also reduces nutrient runoff into MS4.
Household Hazardous Waste Drop Off	Spring/Summer: Inform residents of DKMM Solid Waste District drop off day, have at least one COD staff member assist.	COD Public Utilities Department COD Public Works Department DKMM	Minimize household hazardous waste dumping in MS4 streams.

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	<p>Measurable Goal: Document the approximate amount of each type of waste collected each year.</p>		
<p>Tree Planting Program</p>	<p>Once per permit term: Host a tree planting event with PW, invite volunteers to plant trees on City property.</p> <p>Measurable Goal: Record number of trees planted and number of volunteers participated. Host one tree planting event per permit term.</p>	<p>COD Public Utilities Department COD Public Works Department</p>	<p>The establishment, proper management, and maintenance of trees have many stormwater benefits, including reduced runoff volume, stabilization of stream banks, enhanced habitat, and filtration of pollutants, including TP and TSS. Involving residents in tree planting provides an opportunity to educate them on these stormwater benefits. TP and TSS are target pollutants of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>
<p>Ohio Wesleyan University Student Interns and Volunteers</p>	<p>Spring and Summer: Educate and involve one to two interns and/or volunteers from OWU on MS4 program. Involvement may include assisting with storm net research, dry weather screening, stream sampling, E. coli monitoring, stream quality monitoring of macroinvertebrates, HSTS identification and mapping, and public outreach planning.</p> <p>Measurable Goal: Host at least one intern from OWU per year. Increase number as needed.</p>	<p>COD Public Utilities Department OWU</p>	<p>We have an MOU with OWU that states that we will involve and educate students on MS4 related projects. OWU is within the MS4/City boundary, therefore our work directly affects them. It is beneficial to both parties to utilize their students for assistance on projects, even if only for class credit for students, as it serves as a real-world learning opportunity for them.</p>

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<p>Pet Waste Collection Stations</p>	<p>Yearly: Maintain stations and make repairs as needed. Keep stocked with pet waste bags and keep trash cans cleaned out. Measurable Goal: Record the number of pet waste bags replaced at each collection station each year.</p>	<p>COD Public Works Department</p>	<p>E.coli is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit. Pet waste is a significant source of E.coli, so it is beneficial to make an effort to keep it off the ground and from running off into the river.</p>
<p>Conservation/Pollution Prevention Awards</p>	<p>Summer: Identify 1-3 individuals, businesses, and/or agricultural producers who have made significant efforts to reduce pollution and/or protect natural resources within the Olentangy Watershed. They do not have to operate/reside within City boundaries. Measurable Goal: Present award to individuals at Olentangy River Festival each year. Record names of winners and their achievements.</p>	<p>COD Public Utilities Department</p>	<p>The conservation awards have been given every year at the Olentangy River Festival, since it began. It appears that separate pollution prevention awards were recommended in the previous version of this SWMP. It would be more efficient to combine these awards, and continue to present them at the festival each year. It's important to recognize those who are making efforts to improve our watershed.</p>
<p>Public Comment on SWMP</p>	<p>Yearly: Keep updated SWMP posted on City website. The Public Utilities and Community Affairs Departments can receive public comments on the SWMP via email, phone, or social media. Measurable Goal: Record comments and make changes to the SWMP as we see fit.</p>	<p>COD Public Utilities Department COD Community Affairs Department</p>	<p>The Small MS4 Permit states that we should allow public comment on the SWMP. By posting it online, anyone can view and comment at any time.</p>

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Table 3: Minimum Control Measure 3 – Illicit Discharge Detection and Elimination Plan (IDDE)			
BMP (Mechanism)	Schedule and Measurable Goals	Responsible Party	Rationale/Comments
Update Map of Storm Sewer System	<p>Yearly: Continue to update and maintain storm system map that locates outfalls including catch basins, pipes, ditches, flood control facilities, post-construction best management practices, and names and locations of surface waters to which outfalls discharge.</p> <p>Measurable Goal: Record the % complete of the storm sewer system mapping on a yearly basis.</p>	COD Public Utilities Department COD IT Department	<p>Continue and expand mapping program already in place throughout permit period. Occasionally outfalls are found that aren't mapped, important to continue to update.</p> <p>Continue to utilize CityWorks software to update maps.</p>
Ordinance or Other Regulatory Mechanism	<p>Yearly: Prohibit illicit discharges to storm sewer system and implement enforcement procedures as necessary. Implement regulations from City Code Chapter 926 each year. Enforce the code. (Ord. No. 12-36)</p> <p>Measurable Goal: Report the number of illicit connections found, the action taken, and the number removed on yearly basis.</p>	COD Public Utilities Department	<p>Enforceable code is necessary to take concrete action when illicit discharges are found.</p>

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<p>Utilize Illicit Discharge Detection and Elimination Program (IDDE)/Dry Weather Screening</p>	<p>Yearly: Use IDDE Plan to determine if there are dry weather flows or illicit connections in City’s storm sewer system, the source of these flows, and possible methods to eliminate their sources. Use sewer television unit to locate and identify illicit connections and discharges.</p> <p>Summer: Dry weather screen 1/5 of all outfalls per year. Continue to implement program and document:</p> <ul style="list-style-type: none"> • The number and type of illicit connection found • The action taken • The number removed. <p>Year 5: Update IDDE Plan</p> <p>Measurable Goal: Report the number of illicit connections found, the action taken, and the number removed on yearly basis.</p>	<p>COD Public Utilities Department</p>	<p>Each outfall only needs to be screened once per permit term, so we are modifying this BMP to screen one fifth of all outfalls per year.</p> <p>Screening of problem outfalls should still be done on an annual basis.</p> <p>Eliminating illicit discharges is of vital importance to the health of the Olentangy River.</p>
<p>List/Map/Record Locations Of Home Sewer Treatment System (HSTS) Outfalls</p>	<p>Yearly: Continue to verify and update HSTS locations with City limits.</p> <p>Measurable Goal: Map HSTS locations on our storm sewer system map. Update map with name and location of surface waters to which outfalls discharge as HSTS are discovered.</p>	<p>COD Public Utilities Department COD IT Department Delaware Public Health District</p>	<p>E.coli is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit. Failing HSTS are a noted source of E. coli to receiving surface waters, so it is our responsibility to track where failing systems are, and work with DPHD to make sure they get repaired to eliminate illicit discharges.</p>

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Table 4: Minimum Control Measure 4 – Construction Site Stormwater Runoff Control

BMP (Mechanism)	Schedule and Measurable Goals	Responsible Party	Rationale/Comments
<p>Water Pollution and Sediment Runoff Control Regulations</p>	<p>Yearly: Continue best business practices to address the conditions of Ohio EPA’s General Permits (MS4 and Construction) – OHQ000004 and OHC000005/OHC000006. Address any enforcement issues. Continue to implement ESC regulations. Measurable Goal: Record the number of OEPA Facility permits issued during each permit year.</p>	<p>COD Public Works Department COD Public Utilities Department City Planning Commission</p>	<p>Chapter 1115 of the City Planning and Zoning Code and Ordinance 91-21 contain the Water Pollution and Sediment Runoff Control Regulations for the City. These regulations require erosion and sediment control (ESC) using a range of best management practices per the <i>OEPA Rainwater and Land Development Manual & City Engineering Design Standards: Land Development Infrastructure Design Manual</i>. Current Regulations address: - Sheet and gully erosion - Concentrated water erosion - Sloughing, landslide and dumping - Stream channel and floodplain erosion - Sediment Control Plan Content (project-specific SWP3) - Plan review, inspections, appeals, and maintenance. Total Suspended Solids (TSS) are a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit. This BMP</p>

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			addresses TSS as most TSS comes from construction sites.
Review Erosion and Sediment Control Plans	<p>Yearly: Continue existing program to review site plans for construction sites. Ensure that plans address requirements of Ohio EPA's General Permits - OHC000005/OHC000006 and OHQ000004 and BMP 4.1.</p> <p>Year 5: Update City standards to address permit requirements.</p> <p>Measurable Goal: Document the number of regulated sites reviewed each year, and the revisions made to the existing program to ensure compliance with the Ohio EPA permits.</p>	<p>COD Public Works Department COD Public Utilities Department Delaware SWCD/Delaware County Engineer</p>	<p>City reviews site plans for construction sites prior to granting plan approval.</p> <p>Implement program to reduce pollutants from construction sites. Site plans are generally reviewed by the City.</p> <p>This BMP addresses TSS. TSS is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>
Inspect Active Construction Sites	<p>Yearly: Continue the existing program to inspect construction sites after plan review is complete and construction initiated.</p> <p>Measurable Goal: Document the number of sites inspected, how violations were resolved, and the number of City inspectors CPESC certified each year. Retain a CPESC certified vendor as needed.</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>City inspects active construction sites per code 903.03.</p> <p>Implement program to reduce pollutants from construction sites to address TSS. TSS is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>

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<p>Enforcement Actions</p>	<p>Yearly: Send Notice of Violation when work is not proceeding in accordance with the approved Erosion and Sediment Control Plan. A stop work order halting construction may be issued. Site activities may only resume upon remedy of deficient items, within appropriate time frame.</p> <p>Continue to implement the enforcement program each year.</p> <p>Measurable Goal:</p> <p>Document the number and details of all enforcement actions taken and the ultimate resolution of the enforcement actions each year.</p>	<p>COD Public Works Department COD Public Utilities Department City Prosecutor</p>	<p>When an inspection reveals that work is not proceeding in accordance with the approved Erosion and Sediment Control plan, a stop work order halting construction may be issued. Site activities may only resume upon remedy of deficient items, within appropriate time frame. This BMP addresses TSS. TSS is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>
<p>Workshop on Erosion and Sediment Control Regulations</p>	<p>Once per permit term: Create and hold one program/workshop each permit term. City will provide workshops or training on ESC best management practices, how to comply with the regulations, and other information relevant to developers.</p> <p>Measurable Goal:</p> <p>Document the workshop topic and the list of attendees at workshop.</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>Provide an educational opportunity to present the requirements for pollutant reduction on construction sites & proper ESC. This BMP addresses TSS. TSS is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>
<p>Update Erosion & Sediment Control Inspection Checklist; to include Concrete Truck Wash Out and Construction Site Ingress/Egress</p>	<p>Yearly: Use current SWPPP checklist. Make checklist available to builders, contractors, and City departments each year.</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>The SWPPP Inspection Checklist and BMPs can be found in City Engineering Design Standards, Land Development Infrastructure Design Manual, Chapters 15-17.</p>

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	<p>Measurable Goal: Document checklist implementation and/or usage each year.</p>		<p>This checklist mirrors language in the OEPA Construction Permit. Concrete Truck Wash Out and Construction Site Ingress/Egress can be found in the ODNR Rainwater and Land Development Manual. We should provide resources and guidelines to developers, builders, contractors, and City departments, to encourage reduction of pollutants from construction sites. This BMP addresses TSS. TSS is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>
<p>Respond To Public Complaints Regarding Construction Activities</p>	<p>Yearly: Concerns regarding construction activities can be received by any city service line, or through city council public comment procedures, and city staff will respond via phone or email to the resident as comments are received, as well as follow up with the developer for any corrective action. Measurable Goal: Significant items not addressed in an appreciable period by developer are documented.</p>		<p>Residents often see evidence of stormwater pollution before staff. It is our due diligence to follow up on these complaints. This BMP addresses TSS. TSS is a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit.</p>

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Table 5: Minimum Control Measure 5 – Post-Construction Stormwater Management

BMP (Mechanism)	Schedule and Measurable Goals	Responsible Party	Rationale/Comments
<p>Integration of Stormwater Management Regulations/Stormwater Drainage Manual with OEPAs Construction General Permit (CGP)</p>	<p>Year 4: Evaluate the effectiveness of the regulation and drainage standards and revise as necessary.</p> <p>Year 5: Enact revisions to City regulations and drainage standards and manual.</p> <p>Measurable Goal: Document the effectiveness of the regulations and standards each year. Describe any revisions to regulations during each year.</p>	<p>COD Public Utilities Department City Planning Commission City Council COD Public Works Department</p>	<p>This BMP addresses TSS, TP, and E. coli, which are target pollutants of the Olentangy River per the Olentangy TMDL and Small MS4 permit. This BMP filters out the listed pollutants. Selection of post-construction structural BMPs have been integrated with the BMPs required in the CGP. Coordination and design criteria are necessary to align the MS4 and CGP permits. City has developed Phase II compliant post-construction stormwater regulations defining structural and nonstructural measures required to minimize water quantity and quality impacts of stormwater runoff on receiving streams. The regulations affect both new and redevelopment activities within the urbanized portion of the City. Amendments should be made any time a new OEPA Construction General Permit is issued. (This has been done for the next Permit coming out in 2023, OHC000006).</p>

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			These BMPs can be found in the <i>City Engineering Design Standards: Land Development Infrastructure Design Manual, Chapters 15-17, and Appendix G: Stormwater Best Management Practices O&M Agreement.</i>
Extended Dry Detention Basin	<p>Yearly: Implement most appropriate BMPs for each project requiring a SWPPP.</p> <p>Year 4 – 5: Evaluate the effectiveness of the regulation and the BMP and revise as necessary.</p> <p>Measurable Goal: Document the effectiveness of the standard each year. Describe any revisions to standard during each year.</p>	<p>COD Public Utilities Department COD Public Works Department COD Planning Department</p>	<p>This BMP addresses TSS, TP, and E. coli, which are target pollutants of the Olentangy River per the Olentangy TMDL and Small MS4 permit. This BMP filters out the listed pollutants. The City’s requirements for settling basins mirror the OEPA Construction General Permit. These include wet extended detention basins, constructed extended detention wetlands, dry extended retention basins, permeable pavement, underground storage, sand & other media filtration, bioretention cells, infiltration basins, infiltration trenches.</p>
Integration of Environmental Resources Elements of the Comprehensive Plan (May 10, 2021): Goal E. Objectives, p. 192	<p>Year 1: Consider the incorporation of these elements into City codes, regulations and potential manual, if they aren’t incorporated already.</p> <p>Year 2: Collect and organize current sub-divisions regulations, erosion and sedimentation control requirements, drainage</p>	<p>COD Public Utilities Department City Planning Commission City Council COD Public Works Department</p>	<p>This BMP addresses TSS, TP, and E. coli, which are target pollutants of the Olentangy River per the Olentangy TMDL and Small MS4 permit. This BMP filters out the listed pollutants. Environmental Resources Elements of the Comprehensive Plan (May 10, 2021): Goal E. Objectives, p. 192</p>

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	<p>requirements, Comprehensive Plan – environmental components, current drainage design requirements.</p> <p>Year 3: Identify elements to be incorporated into City codes, ordinances and regulations</p> <p>Year 4: Incorporate the elements into City codes, ordinances and regulations.</p> <p>Year 5: Review and record impact of elements on development in the City.</p> <p>Measurable Goal: Successfully incorporate the elements into City planning codes and regulations by Year 4. Review and record impact of elements on development in the City in Year 5.</p>		<p>Many of these BMPs are already incorporated into City Engineering Design Standards, Land Development Infrastructure Design Manual, Chapters 15-17.</p> <ul style="list-style-type: none"> • Encourage Low Impact Development (LID) • Conserve natural areas wherever possible • Minimize the development impact on hydrology • Maintain runoff rates and duration from the site • Allow green roofs on large format flat roofed buildings • Encouraging sustainable design of ponds or other water features • Integrating bioswales, rain gardens, or other stormwater retention interventions • Minimize impervious surfaces • Discourage development of significant slopes
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			<ul style="list-style-type: none"> • Mitigate development on poorly drained soils • Prohibit development in the floodplain • Preserve trees and reforest areas with tree buffers • Enhance greenspace • Buffer waterways • Allow more compact development and thereby limit sprawl • Promote the establishment of conservation easements within the 100-year floodplain • Promote re-forested buffers of 120 feet in width along the main stem of the Olentangy River • Promote forested buffers of 60 and 30 feet in width along major and minor water tributaries respectively • Propose developing an environmental analysis map for all new development
<p>Measures for Reducing Impervious Cover</p>	<p>Year 1: Consider the incorporation of these elements into City codes and regulations, if they aren't</p>	<p>COD Public Utilities Department City Planning Commission City Council</p>	<p>City Planning Department/Commission may assist with formation and</p>

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	<p>already. The City proposes to develop guidance to encourage minimizing creation of new impervious area as practical for new and redevelopment projects.</p> <p>Years 2 and 3: Consider organizing and creating language for inclusion in the City zoning code.</p> <p>Year 4: Consider Incorporating revisions to the City planning codes and regulations</p> <p>Year 5: Review and record impact of zoning code revisions on development in the City.</p> <p>Measurable Goal: Successfully consider incorporating the revisions to the City planning codes and regulations by Year 4. Consider reviewing and recording impact of revisions on development in the City in Year 5.</p>	<p>COD Public Works Department</p>	<p>development of amendments. The City has begun coordination and preliminary efforts to update the Floodplain regulations and will assess the impervious area issue during development of revisions.</p>
<p>Conservation Residential Subdivisions</p>	<p>Year 1: Consider the incorporation of these elements into City codes and regulations. The City may develop guidance to consider conservation design practices as practical for new and redevelopment projects.</p> <p>Years 2 and 3: Consider organizing and creating language for inclusion in the City zoning code.</p>	<p>COD Public Utilities Department City Planning Commission City Council COD Public Works Department</p>	<p>The City has authority to zone land use in accordance with a comprehensive plan and zoning resolution. Therefore, the City, to the extent practicable, should consider conservation subdivisions as consistent with their zoning resolutions. As the City reviews or updates zoning codes</p>

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	<p>Year 4: Consider incorporating revisions to the City planning codes and regulations</p> <p>Year 5: Consider reviving and recording impact of zoning code revisions on development.</p> <p>Measurable Goal: Successfully consider incorporating the revisions to the City planning codes and regulations by Year 4. Consider reviewing and recording impact of revisions on development in the City in Year 5.</p>		<p>conservation design concepts may be considered.</p>
<p>Riparian Setbacks</p>	<p>Yearly: Promote re-forested buffers to the maximum extent practicable.</p> <p>Measurable Goal: Document program implementation</p>	<p>COD Public Utilities Department City Planning Commission City Council COD Public Works Department</p>	<p>This BMP addresses TSS, a target pollutant of the Olentangy River per the Olentangy TMDL and Small MS4 permit. This BMP assists with ESC. The City has the authority to zone land use in accordance with their comprehensive plan and zoning resolution. Therefore, the City, to the maximum extent practicable, will promote re-forested buffers of 120 feet in width along the main stem of the Olentangy River.</p> <p>The City will promote forested buffers of 60 and 30 feet in width along major and minor water tributaries respectively.</p>

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Table 6: Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations

BMP (Mechanism)	Schedule and Measurable Goals	Responsible Party	Rationale/Comments
Storm Drain, Catch Basin Cleaning and Ditch Cleaning	<p>Yearly: Continue existing program. City storm drains, catch basins, and ditches are cleaned to minimize clogging of catch basins. Storm drains and catch basins are inspected and cleaned out once a year.</p> <p>Measurable Goal: Record the linear feet of storm drains/ditches and the number of catch basins and other structures cleaned out annually.</p>	<p>COD Public Utilities Department COD Public Works Department</p>	<p>Storm drains, catch basins, and ditches require continuous maintenance to function properly.</p>
Street Sweeping	<p>Yearly: Carry out City-wide street sweeping program. City street curb and gutter sweeping to minimize the discharge pollutants from the roadway system. Review environmentally sound alternatives for the disposal of collected materials.</p> <p>Measurable Goal: Record the quantity of street sweepings disposed of annually.</p>	<p>COD Public Works Department</p>	<p>Sweeping streets keeps natural and manmade debris out of storm drains and therefore waterways.</p>

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<p>Salt Storage and Applications</p>	<p>Yearly: Continue existing de-icing materials storage and application practices. Perform post-event clean-up:</p> <ul style="list-style-type: none"> a. At loading Areas b. During field over applications <p>Measurable Goal:</p> <p>Document number of tons of salt applied annually and post event clean-up activities on a yearly basis.</p>	<p>COD Public Works Department</p>	<p>City uses an average of 1600 tons of mixed salt (66% salt and 33% grit) per season. Salt-brine is stored and used to pre-treat roadways surfaces. City salt applications are controlled by strict application guidelines to minimize amount and still maintain motorist safety. Salt is stored in covered domes at City maintenance facilities. Also, grit and beet juice are used to reduce amount of salt used on roadways depending upon temperature. Salt storage systems minimizes contamination of surface and groundwater. Application rates established to use road salt efficiently while maintaining motorist safety.</p>
<p>Oil/Water Separators</p>	<p>Yearly: Continue use and maintenance of existing oil/water separator at municipal facilities.</p> <p>Measurable Goal: Record the frequency of cleaning and the method of proper disposal of captured material.</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>Oil is a pollutant that should be kept out of storm drains, and can easily be done with existing infrastructure.</p>
<p>Controls For Reducing Or Eliminating Pollutant Discharges From Facilities</p>	<p>Yearly: Implement recommended controls as resources permit on an annual basis.</p> <p>Year 5: Assess City facilities to ensure that current facilities comply with all local, state, and</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>Site reviews are recommended to be completed to assess additional controls that may be required to minimize discharges from facilities to the maximum extent practicable.</p>

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	<p>federal regulations for stormwater management.</p> <p>Measurable Goal: Document the number of BMPS or controls implemented or in use at each facility yearly.</p>		
<p>City Staff Training Program On Pollution Prevention</p>	<p>Yearly: Conduct training as needed for employees, to include stormwater management</p> <p>Year 5: Review O&M activities at each City facility and document findings and recommendations. Update O&M procedures</p> <p>Measurable Goal: Report annually on number of employees receiving training.</p>	<p>COD Public Works Department COD Public Utilities Department COD Parks & Natural Resources Department</p>	<p>Need to implement training component to prevent or reduce pollutant runoff from community operations. Combine with annual staff IDDE training.</p>
<p>Maintenance Of Detention/Retention Basins</p>	<p>Yearly: Implement the inspection of residential subdivision detention basins</p> <p>Year 5: Review and update maintenance procedures for basins and draft a policy on maintenance of un-maintained private basins. Procedures outline inspection information to be collected, recorded and tracked. outlines maintenance responsibility of private detention/retention basins. Consider drafting subdivision</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>Detention/Retention Basins must work properly, and therefore be maintained, in order for all additional measures to be worthwhile.</p>

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	<p>guidance document for proper basin maintenance.</p> <p>Measurable Goal: Document number maintained during permit year.</p>		
Fleet Maintenance	<p>Yearly: Currently recycle vehicle fluids and materials - oil, transmission fluid, antifreeze, and tires. Continue to implement recycling program at annual DKMM Solid Waste District Hazardous Waste Recycling Event.</p> <p>Measurable Goal: Document program changes and amount of fluids and materials recycled each year.</p>	COD Public Works Department	<p>Important to properly dispose of hazardous wastes to eliminate discharges to MS4.</p> <p>All chemicals with MSDS are stored in maintenance garages. Disposal of these materials is provided by a contractor who is required to disposal of material in accordance with local, state, and federal laws.</p>
Vehicle Washing	<p>Yearly: Vehicle washing is done in a garage so that wash fluid does not discharge to MS4.</p> <p>Measurable Goal: Document the review of facility washing areas and BMP implementation yearly.</p>	<p>COD Public Works Department COD Public Utilities Department</p>	<p>Eliminate discharge of soapy water to MS4. Soapy wash water can carry dirt and oils which are pollutants to watershed.</p>
Fertilizer Usage	<p>Yearly: Apply fertilizers in necessary areas while following all label instructions. Do not apply excess fertilizers. Review locations where less fertilizer could be used.</p> <p>Measurable Goal: Document pounds of fertilizer used on City property each year.</p>	COD Parks & Natural Resources Department	<p>Fertilizers must be used at City Parks, Golf Course, and other public-facing areas to maintain a neat appearance. Staff will make efforts wherever possible to reduce fertilizer usage, and use responsibly by making sure they don't end up on impervious surfaces where they could run off into surface waters.</p>

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<p>Non-Point Source Pollution Water Quality Projects</p>	<p>Yearly: Evaluate areas that could benefit from stream restoration, wetland creation, etc. to filter out pollutants and keep them from entering surface waters. Update 9-Element plan with new projects. Measurable Goal: Complete one water quality project per permit term.</p>	<p>COD Public Utilities Department COD Parks & Natural Resources Department</p>	<p>Water quality (319h) grants from Ohio EPA are available to us since we completed a 9-Element Plan. It's important to continue to update the plan with potential projects that could improve water quality. H2Ohio grants are also available for wetland creation or restoration or stream restoration. This BMP addresses TSS, TP, and E. coli, which are target pollutants of the Olentangy River per the Olentangy TMDL and Small MS4 permit. This BMP filters out the listed pollutants.</p>
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