

## Municipal Storm Water Program Evaluation MS4 Maintenance Component Worksheet

<b>Date of Evaluation</b>	Wednesday, July 11, 2012
<b>Evaluator Name, Title</b>	Kelly McVay, DSW, NEDO
<b>MS4 Permittee</b>	City of Garfield Heights 3GQ00008*BG

**Instructions:** Use this worksheet as a guide for questioning MS4 staff and reviewing applicable documents. Keep in mind that additional questions may be necessary based on local regulations, MS4 permit requirements, implementation strategies, or water quality issues. Remember to obtain copies of any applicable documents or files, which may assist in writing the MS4 evaluation report.

Staff Interviewed		
Name	Department/Agency	Phone Number/Email
Bryan Mahoney	City of Garfield Heights Foreman of Public Service	(216) 475-1107
David Krock	City of Garfield Heights City Engineer	(216) 475-1504

MS4 Mapping			
Interview Questions	Response		
Outfalls and receiving waters mapped?	YES		
Catch basins?	YES		
Pipes, ditches, other conduits?	YES		
Public stormwater facilities (BMPs)?	NO		
Private stormwater facilities (BMPs)?	NO		
How are maps used (i.e. tracking illicit discharges)?	Outfall maps are used for illicit discharge tracking and improvements. The City is trying to track illicit discharges in locations which are easier to trace the source first, as many locations have too many points of connection before the outfall to easily find the source of the illicit discharge.		
Applicable Documents		Reviewed	Obtained
Map(s) of MS4 system		YES	YES

Notes
<p><b>MS4 Mapping</b> The Cuyahoga County Board of Health constructed the outfall map for the City. Be aware that to meet the mapping obligations of NPDES Permit #OHQ000002, i.e., the MS4 permit in effect from 2009-2014, the map must show <i>catch basins</i> and <i>publicly-owned storm sewers, ditches, conduits</i> and storm water management facilities (including <i>publicly-owned post-construction BMPs and underground retention</i>). In addition, the map must show <i>privately-owned storm water management facilities</i> constructed as post-construction BMPs for new development or redevelopment which has occurred since April 21, 2003.</p> <p><b>Illicit Discharge Detection</b> The City has found numerous illicit cross-connections and illicit discharge sources. The City has fixed some of these sources but sounded as if they had no plans for many more since they do have so many</p>

Notes
<p>issues with this in the City. The City is reminded that illicit cross-connections that are discovered, but not yet eliminated, must be reported to Ohio EPA each year in the MS4 Annual Report. In addition, the City must provide a plan with timetable for the elimination of illicit cross-connections that have not yet been eliminated.</p> <p>On the 2011 Annual Report, the City states that there were 11 outfalls with dry weather flows containing higher E.coli amounts. No list of identifies illicit connections and plans for elimination were provided with the report.</p> <p>Please be aware that the NPDES permit #OHQ000002 requires the City to perform dry weather screening at all outfalls at least once by June 2014 and that a plan should be in place to do so. <i>If any illicit discharges are detected during this screening, the city must develop a plan to eliminate them.</i> For more information on the illicit discharges from HSTSs please read Part III.B.3.e of the Ohio EPA General Storm Water NPDES Permit for small MS4s #OHQ000002 for expectations to address these sources.</p>

Catch Basin Cleaning			
Interview Question	Response		
Schedule established for inspections and cleaning?	YES		
	<p>The County cleans catch basins for the City. They have a 3-4 year cycle to clean each catch basin in the City. The City does some catch basin cleaning themselves in the case of blockage events or known problem areas.</p>		
Is cleaning and maintenance of catch basins tracked:	NO		
	<p>The County tracks the cleaning and maintenance of catch basins and gives an Annual Report of length of storm sewer cleaned to the City. The City tracks the basins they clean as well on service sheets. No documentation of this could be provided at the time of inspection.</p>		
How are spoils materials disposed of?	<p>Any catch basin cleanings or street sweepings which are collected by the City are placed together in a dumpster at the Service Department. J&amp;J collects this material and takes it for proper disposal.</p>		
Are storm drain pipes inspected?	NO		
Proactive or only in response to blockage event?	<p>The County will inspect storm drain pipes when the City has a problem and asks them to do this for them, but the City does not have camera of their own which is capable of doing this and does not inspect proactively.</p>		
Applicable Documents		Reviewed	Obtained
List of active municipal construction projects		NONE	NONE
<b>CHECK DATABASE BEFORE INSPECTION:</b>			
List of municipal projects covered under the Ohio EPA general storm water NPDES permit for construction activities			

<p>3GC02540*AG - Hathaway Park (issued 6/16/2006) *NOT</p> <p>Over Drive Project *No permit required</p> <p>NOTE: Permit is only required if project disturbs 1 or more acre (5 or more acres for "routine maintenance")</p>		<p>DONE – FILE NOT</p>
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Notes
<p><b>Catch Basin Cleaning Disposal</b>  The City of Garfield Heights takes their catch basin cleanings to the Service Department where they are stored in a roll-off adjacent to the salt storage dome with street sweeping spoils before they are taken to an EPA approved landfill by J&amp;J. The roll-off for the dried spoils was uncovered and the liner was not properly in place. The City needs to tidy up their catch basin disposal process. The roll-off needs to be covered and the liner kept in place to effectively hold the materials. During the inspection there was a noticeable amount of leachate staining from the uncovered roll-off of spoils, which allows for an unauthorized discharge of leachate to the City's MS4. The discharge of this leachate is a violation of Part III.B.6.d.iii.3 of the NPDES permit. Liquids which are decanted from catch basin cleanings and street sweepings, as well as storm water which contacts stockpiles of this material is leachate, which is a wastewater and must be managed accordingly. <i>Please lid or tarp the roll-off and keep all plugs in place to prevent the discharge of this leachate.</i></p> <p><b>MS4 System Repair and Maintenance</b>  The EPA would like to see a more proactive inspection of the storm pipes in the coming years of the new permit term to help improve your MS4 program and reduce pollutants.</p> <p><b>Municipal Construction Projects</b>  The City indicated that the Hathaway Park construction project has been completed. If construction is complete or the project is no longer viable, please submit a Notice of Termination (NOT) for the project to close out NPDES permit coverage. The NOT and instructions can be obtained on the Ohio EPA Storm Water Program webpage at <a href="http://www.epa.ohio.gov/dsw/storm/stormform.aspx">www.epa.ohio.gov/dsw/storm/stormform.aspx</a>. As a reminder, coverage under the Ohio EPA General Storm Water NPDES Permit for Construction Activities is to be terminated within 45 days of when the project reaches final stabilization. Please be sure to incorporate this requirement into your procedures on all future projects.</p>

Stormwater Management Facilities Operation and Maintenance	
Interview Questions	Response
Public facilities inspected?	NO
Frequency:	There are no public stormwater management facilities in the City of Garfield Heights.
Private facilities inspected?	NO
Frequency:	The Cuyahoga Soil and Water Conservation District inspects private stormwater management facilities for the City of Garfield Heights, however, no documentation of such inspections could be provided.
Checklist used for inspections?	NO
Have maintenance standards and procedures been established for these facilities?	NO

Stormwater Management Facilities Operation and Maintenance		
Interview Questions	Response	
How is maintenance prioritized? Is data evaluated to target maintenance resources?	Cuyahoga Soil and Water Conservation District sends reports to City and to the owner of any facility which has issues or needs maintenance. Mr. Krock says that the City has not had an issue with maintenance in recent years. Problems would be dealt with as they arise in regards should they occur.	
Applicable Documents	Reviewed	Obtained
Inspection checklist	NO	NO

Notes
<p><b>Inspections of Stormwater Management Facilities</b></p> <p>No inventory or documentation of stormwater management facilities could be provided. The City says that CSWCD conducts these inspections on private facilities, as there are no public facilities, but no documentation of this was produced. The City is required to ensure long-term maintenance of stormwater management facilities. Ohio EPA requires that this program include privately-owned facilities constructed since April 21, 2003, and all publicly-owned stormwater management facilities. Storm water management facilities include best management practices (BMPs) designed to treat the Water Quality Volume (WQv), otherwise improve the quality of runoff or reduce the volume of runoff generated. BMPs include structures such as bioretention cells, permeable pavements, green roofs, enhanced water quality swales, sand filters, extended detention ponds, constructed wetlands and proprietary devices (including underground structures). Your post-construction BMP program must include the following components:</p> <ol style="list-style-type: none"> <li>1. Plan review to assure that post-construction storm water quality BMPs are being provided, are designed per required standards and have a long-term maintenance plan</li> <li>2. Tracking the location of post-construction BMPs and the party responsible for implementing the long-term maintenance plan</li> <li>3. Performing an inspection to assure that post-construction BMPs are installed per the approved plan.</li> <li>4. Periodically inspecting or otherwise verifying that the post-construction BMP is being maintained in accordance with the long-term maintenance plan. <i>A checklist is recommended to perform inspections and should be reflective of the operation and maintenance standards established by the City.</i></li> <li>5. Taking enforcement action against the responsible party if they fail to maintain the BMP as required.</li> </ol> <p>The City has not yet developed the robust long-term maintenance program for post-construction BMPs, which is a violation under Part III.B.5 of NPDES Permit #OHQ000002. Information on developing an effective long-term maintenance program for post-construction BMPs can be found from the Center for Watershed Protection at <a href="http://www.cwp.org/Resource_Library/Controlling_Runoff_and_Discharges/sm.htm">http://www.cwp.org/Resource_Library/Controlling_Runoff_and_Discharges/sm.htm</a>. (**Tool 6: Plan Review, BMP Construction, and Maintenance Checklists)</p> <p>As a reminder, Ohio EPA has required a long-term maintenance plan for all post-construction BMPs since April 21, 2003. Although it must be a stand-alone document, it is part and parcel of the Storm Water Pollution Prevention Plan (SWP3) required by the Ohio EPA General Storm Water NPDES Permit for Construction Activities. The goal of the MS4 program is to develop a local review and approval program for the SWP3. <i>This includes post-construction BMPs and their long-term maintenance plans.</i> These plans are required to provide a schedule for routine and non-routine maintenance tasks to be undertaken. Please ensure that long-term maintenance plans are being submitted as part of the SWP3 review and approval process.</p>

<b>Road Maintenance</b>	
<b>Interview Questions</b>	<b>Response</b>
Streets regularly swept?  Frequency:	<b>YES</b>  The entire City is swept about 5 times per year.
Frequency based on water quality factors (e.g. proximity to streams)?	<b>NO</b>
How are spoils disposed of?	Any catch basin cleanings or street sweepings which are collected by the City are placed together in a dumpster at the Service Department. J&J collects this material and takes it for proper disposal.
Does the community collect road kill?  What do they do with the carcasses?  <b>NOTE:</b> MS4s are not obligated to collect road kill, but if they do, can be disposed in dumpsters or taken to a licensed, Class II composting facility. Cannot have pile of carcasses stacked up. This is open dumping.	<b>YES</b>  Carcasses are disposed of in a dumpster at the Service Garage. J&J picks up this dumpster for disposal.
Does the community have a leaf collection program?  What do they do with the collected leaves?  <b>NOTE:</b> Landfills have been banned from accepting yard waste, so MS4 cannot place leaves and yard waste in dumpster. Must be composted at a licensed Class IV composting facility. Communities may temporarily store leaves awaiting transport to a composting facility but leachate must be prevented from discharging.	<b>YES</b>  Leaves are taken directly to Boyas Excavating for disposal. There is no leaf storage at any City facility.
BMPs used during road maintenance activities?  Describe types of road maintenance conducted by community staff and the BMPs used	<b>NO</b>  Patching is one of the few things the City does themselves. They only do small patching for holes and have not really considered BMPs since these types of repairs are so small. They contract out nearly every other type of project.
BMP guidance available to field staff?	<b>NO</b>  A poster was provided to hang in the Service Department as an example of possible BMP guidance which can be displayed for field staff.
Deicers used by MS4?	<b>YES</b>
Type and amount of deicer and additives tracked?  What measures are being taken to minimize the application of deicers?	<b>YES</b>  Salt used, Worked with some other Cities to implement sensible salting program, spot salt down streets. Concentrate on intersections of main streets and hills. City salt usage in half problem.

Road Maintenance		
Interview Questions	Response	
Sand/salt swept up after application?  How soon?	YES  The City has salt trucks which do not continue to disperse salt when they are stopped so they do not have spills at intersections. Salt which has left the salt dome is swept up or pushed back in the bin at the end of each shift.	
Does your community operate a snow stockpile yard to store snow that has been removed from community streets and parking lots?  If YES, location of the yards:  Has your community considered implementing best management practices to control the discharge of pollutants from snowmelt associated with snow storage yards?  If YES, what BMPs have you implemented?	NO      N/A	
Applicable Documents	Reviewed	Obtained
BMP guidance	NONE	NONE
Street sweeping records	NO	NO
Deicer application records	YES	YES

Notes
<p><b><u>Street Sweeping Spoils Disposal</u></b> Street sweeping spoils are disposed of with the catch basin cleanings. See notes above for Catch Basin Cleanings for further information regarding this issue.</p> <p><i>*Also, the City needs to track the amount of material removed from the City's streets so the total amount can be placed in the City's annual report for 2012. Please be sure to report the total per calendar year (January to December) in the annual report for 2012 as stated in Part IV.C.2 on reporting of the Ohio EPA General Storm Water NPDES Permit for small MS4s #OHQ000002.</i></p> <p><b><u>Road Maintenance</u></b> The City does not appear to have given much thought about incorporating the use of storm water BMPs during road maintenance activities. Possible BMPs include the use of storm drain inlet protection to keep sediment out of the storm sewer system when saw cutting for curb replacements and checking the weather forecast before road striping to be sure that paint can dry before it rains. Although the City of Garfield Heights does not conduct any of these activities themselves at this time, please be aware that the NPDES permit requires road maintenance crews and third-party contractors that conduct road maintenance on your behalf to implement storm water pollution prevention practices at the work. Road maintenance crews should be trained in all sediment and erosion controls and controls for other wastes that are commonly implemented at construction sites.</p> <p><b><u>Deicer Usage</u></b> Please be aware that the Annual Report requires information to be reported on a January to December calendar year basis. Please be sure to report the total salt used per calendar year (January to December) in the annual report for 2012 as stated in Part IV.C.2 on reporting of the Ohio EPA General Storm Water NPDES Permit for small MS4s #OHQ000002. This may require you to adjust how you summarize salt usage data, as most communities have typically been tracking usage on a winter season basis.</p>

Flood Management			
Interview Questions	Response		
Inventory of flood management structures completed?	NO The City of Garfield Heights does not have any flood management structures.		
Structures been assessed for stormwater retrofit?	NO No structures exist.		
New structures include water quality considerations?	N/A No new structures have been build or planned.		
Applicable Documents		Reviewed	Obtained
Inventory		NONE	NONE

Notes
<p><b>Stormwater Retrofits</b> The City's public stormwater management facilities should be looked at for possible retrofit opportunities so that they treat the Water Quality Volume (WQv). The current MS4 permit (OHQ000002) does not require the City to implement retrofit projects, but they are an important piece of the storm water management puzzle for older, developed parts of the community. Current post-construction requirements only affect areas where new development or redevelopment disturbs 1 or more acre of land. This program will not create BMPs in previously-developed areas unless they are being redeveloped and the 1-acre threshold is met. As such, US EPA is evaluating whether retrofits should be required in future generations of the MS4 permit.</p> <p>It is important to look for retrofit opportunities by making a list of potential water quality enhancement projects and focusing on the implementation of green infrastructure. Typically, retrofitting the outlet structures of existing detention and retention basins to provide extended detention of the WQv is the easiest and most feasible type of retrofit project. However, <b>preferred retrofit projects include installing bioretention cells in existing parking lots or along residential streets, resurfacing with permeable pavement and establishing incentive programs for rain gardens, rain barrels and other forms of downspout disconnection in residential neighborhoods.</b></p>

Facilities Operation & Maintenance														
Interview Questions	Response													
Inventory of MS4 facilities complete (i.e. facilities owned and operated by the MS4)?	NO													
<p><b>Types of facilities included</b> <i>These need their own NPDES storm water permit for industrial activities, if there is a discharge of runoff from these operations:</i></p> <ul style="list-style-type: none"> <li>• Landfills Type: _____</li> <li>• Airports</li> <li>• Shipping Ports or Marinas</li> <li>• Steam Electric Power Plants</li> <li>• Wastewater Treatment Plants ≥ 1 MGD or with a pretreatment program</li> </ul>	<table border="1"> <thead> <tr> <th>Response</th> <th>SWP3 Developed?</th> </tr> </thead> <tbody> <tr> <td>NO</td> <td>N/A</td> </tr> </tbody> </table>	Response	SWP3 Developed?	NO	N/A									
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	<p><b>NOTE:</b> No permit or SWP3 required if facility has no exposure. However, even if a No Exposure Certification has been submitted for the facility, inspect to verify validity.</p>													

Facilities Operation & Maintenance		
Interview Questions	Response	
<i>These do not need their own permit, but do have to develop an SWP3 unless noted as N/A:</i>		
<ul style="list-style-type: none"> <li>• Impound Lots</li> <li>• Leaf Collection Yards <ul style="list-style-type: none"> <li>✓ No discharge of leachate permitted</li> </ul> </li> <li>• Maintenance Yards <ul style="list-style-type: none"> <li>➤ How many do they operate? <u>  1  </u></li> <li>➤ List facility names/locations:</li> </ul> </li> </ul>	<u>Response</u>	<u>SWP3 Developed?</u>
	NO	N/A
	NO	N/A
	YES	NO
<p style="text-align: center;"><b>Service Garage</b> 13600 McCracken Road</p>		
	<u>Response</u>	<u>SWP3 Developed?</u>
<ul style="list-style-type: none"> <li>• Composting Operations <ul style="list-style-type: none"> <li>✓ No discharge of leachate permitted</li> </ul> </li> <li>• Solid Waste Transfer Stations or Operations <ul style="list-style-type: none"> <li>✓ Under landfill permit if community owns the transfer station and the landfill where waste will be taken</li> <li>✓ If not, then SWP3 is only needed if vehicle maintenance, equipment washing or fueling activities occur at the transfer station, or if a portion of the facility is involved with recycling or composting</li> </ul> </li> <li>• Parks &amp; Cemeteries <ul style="list-style-type: none"> <li>➤ How many in UA? <u>  5  </u></li> <li>➤ List facility names/locations:</li> </ul> <p style="text-align: center;"><b>NO LIST PROVIDED</b></p> </li> <li>• Parking Lots <ul style="list-style-type: none"> <li>➤ How many do they operate? <u>          </u></li> <li>➤ List facility name/locations:</li> </ul> </li> <li>• Bus Terminals</li> <li>• Vehicle Maintenance Garages <ul style="list-style-type: none"> <li>➤ How many do they operate? <u>  2  </u></li> <li>➤ List facility name/locations:</li> </ul> <p style="text-align: center;"><b>Service Department</b> 13600 McCracken Road</p> <p style="text-align: center;"><b>Fire Station</b> 5115 Turney Road</p> </li> </ul>	NO	N/A
	NO	N/A
	YES	N/A
	Mowers are all stored at the Service Department or Rec Center and not work or washing is done on them at the parks.	
	NO	N/A
	None other than what is attached to buildings.	
	NO	N/A
	YES	NO
	*SWP3 (or, in case of airport and shipping port, NPDES permit for industrial storm water) required only if vehicle maintenance, equipment cleaning or deicing operations occur.	

<b>Facilities Operation &amp; Maintenance</b>	
<b>Interview Questions</b>	<b>Response</b>
<p>Facilities inspected?</p> <p><b>NOTE:</b> Go through list above where YES is response and write in answers for each activity.</p> <p>Frequency:</p> <p><b>NOTE:</b> Go through list above where YES is response and write in answers for each activity.</p>	<p><b>NO</b></p> <p>No formal inspections have been conducted.</p>
<p>Checklist used?</p> <p><b>NOTE:</b> Go through list above where YES is response and write in answers for each activity. Checklist should be part of SWP3.</p>	<p><b>NO</b></p>
<p>Staff which perform the inspections (department or agency):</p> <p><b>NOTE:</b> Go through list above where YES is response and write in answers for each activity. Checklist should document name of inspector.</p>	<p>No formal inspections have been conducted.</p>
<p>Is there a designated stormwater contact person for each facility?</p> <p><b>NOTE:</b> Go through list above where YES is response and write in answers for each activity. Name in SWP3 should match name given. If not, SWP3 must be updated.</p>	<p><b>NO</b></p> <p>NO SWP3s have been created and no stormwater contact has been designated.</p>
<p>Describe enforcement procedures used to address noncompliance on a MS4-owned facility, i.e., what disciplinary measures are taken against those that do not implement standard operating procedures?:</p>	<p>The City would call the Police Department and have the offender ticketed if something was being dumped down the storm drain. The City would go by union rules for further enforcement on employees.</p>
<p>Parking lots owned/operated by the permittee swept?</p> <p>Frequency?</p> <p>Do you operate any asphalt parking lots?</p> <p>Do you use any coal tar-based sealants on those asphalt parking lots?</p> <p><b>NOTE:</b> Some MS4s have banned the use of coal tar-based sealants in their communities. Research from the University of New Hampshire Stormwater Center and by the City of Austin, TX, has shown these sealants contaminate soil and runoff with PAHs and benzo(a)pyrene, a known carcinogen. If a sealant must be used, asphalt-based sealants are preferred.</p>	<p><b>YES</b></p> <p>Parking lots associated with City buildings are swept 4-5 times per year.</p> <p><b>YES</b></p> <p><b>NO</b></p> <p>The City no longer uses any sealants due to their budget cuts.</p>

Facilities Operation & Maintenance			
Interview Questions	Response		
Do you have any combined sewer systems?	YES		
If yes, do you have any combined sewer overflows? <ul style="list-style-type: none"> <li>➤ How many? _____</li> <li>➤ Do you track frequency and volume?</li> </ul>	YES		
Are you aware of any illicit cross connections between your sanitary sewer and MS4?	NO INFORMATION PROVIDED		
If so, what is your plan to eliminate this illicit discharge?	YES		
Have you investigated the extent of infiltration and inflow into storm sewer system?	The City is currently working on a project to get bids to fix about 15 illicit discharge sources. A lot of the sources for illicit discharges have not been found due to the complexity of the system and the amount of connections prior to each outfall. The City is currently working with the Health Department to hone in on these areas and find the source of the problems.		
What methods have been used to conduct this investigation?	NO		
What are your plans to repair and eliminate this source of illicit discharge?	The City has previously been more concerned with infiltration from storm sewer into the sanitary sewer and not the other way around. The City has separate manholes for the storm and sanitary lines in their over-under system so no plates are required. The sanitary line is below the storm line.		
Sewer spill and cleanup procedures in place?	NO		
Applicable Documents		Reviewed	Obtained
Facility inventory		NO	NO
Facility SWPPP		NONE	NONE

Notes
<p><b><u>Inventory</u></b>  An inventory of public/private-owned stormwater management facilities built since April 21, 2003 is part of the new mapping requirements of NPDES permit #OHQ000002. This inventory must be completed by the end of your next permit term, i.e., June 2014.</p> <p><b><u>Storm Water Pollution Prevention Plans (SWP3s)</u></b>  A Storm Water Pollution Prevention Plan (SWP3) must be developed and implemented for the following facilities:</p> <ul style="list-style-type: none"> <li>• Service Department</li> <li>• Fire Station</li> </ul> <p>The Ohio EPA General Storm Water NPDES Permit for Small MS4s #OHQ000002 requires the City of Garfield Heights to develop and begin implementing the SWP3 for these facilities within 2 years of permit renewal, i.e., by June 2011.</p>

Notes
<p>The City indicated that vehicle washing occurs at the Fire Station which would require a SWP3 to be developed for the facility. The above facilities must be inspected at a frequency specified in the SWP3. Ohio EPA recommends that facilities be inspected monthly. A comprehensive site evaluation must be conducted at least once per year and a record of that inspection and its findings must be kept with the SWP3. If this annual inspection reveals deficiencies in the SWP3 or BMPs that are ineffective, the SWP3 must be revised to correct the problems. The SWP3 should contain a checklist to provide consistency to facility inspections. The SWP3 should also identify who is responsible for facility inspections as well as a storm water contact person for the facility. For guidance on developing a <u>site map</u>, please reference Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000005 <u>Part 5.1.2s</u>. Also refer to the following website for information on developing SWP3s for these facilities:  <a href="http://www.epa.ohio.gov/dsw/permits/GP_IndustrialStormWater.aspx">http://www.epa.ohio.gov/dsw/permits/GP_IndustrialStormWater.aspx</a></p>

Pesticides, Herbicides & Fertilizers			
Interview Questions	Response		
Certified applicators used?	N/A		
Integrated Pest Management (IPM) practices used?	N/A		
Storage location of pesticides, herbicides, and fertilizers:	None stored at City facilities.		
BMPs used during application:	N/A		
Fertilizer/pesticide application plan utilized?	N/A		
Applicable Documents		Reviewed	Obtained
Fertilizer/pesticide application plan		N/A	N/A

Notes
<p><u>Pesticide, Herbicide and Fertilizer Application</u>  The City of Garfield Heights does not apply any pesticides, herbicides, or fertilizers.</p>

Standards, BMPs, & Outreach	
Interview Questions	Response
BMP technical guidance document available to maintenance staff?	<p style="text-align: center;"><b>YES</b></p> <p>A book from Health Department which outlines some Pollution Prevention/Good Housekeeping procedures is available to maintenance staff.</p>
MS4 use contractual staff to complete MS4 maintenance activities?	<p style="text-align: center;"><b>YES</b></p> <p>The City contracts out any larger road repair projects or have the County do it for them.</p>
BMP guidance materials provided to contracted staff?	<b>NO</b>
Requirement to consider stormwater impacts and utilize appropriate BMPs in contracts?	<p style="text-align: center;"><b>YES</b></p> <p>The Overdrive project contract requires that a SWP3 be developed and followed according to Ohio EPA standards.</p>

Standards, BMPs, & Outreach			
Interview Questions		Response	
Materials used to educate the public regarding stormwater impacts on MS4 property (if applicable, i.e. public spaces):		<p>Pet waste: NONE. It was suggested that the City add signage to relate this issue to storm water pollution.</p> <p>Litter reduction: NONE. It was suggested that signage be added to trash bins to tie the problem into water quality.</p>	
Applicable Documents		Reviewed	Obtained
BMP manual or guidance document		YES	NO
Contract language for MS4 operation and maintenance activities		YES	YES

Notes
<p><b>Technical Guidance and Specifications for Maintenance Staff</b></p> <p>The City needs to improve the dissemination of technical guidance to its maintenance staff on storm water pollution prevention matters. The City should look for posters that can be hung in work areas or lunchrooms, or guidebooks that can be taken out into the field with maintenance crews. A poster was given to the City during the inspection as an example. This will help reinforce employee training. Once prepared, the City will need to train staff on the SWP3 for the Service Department and the Fire Station and should look to adopt standards and specifications for storm water pollution prevention implementation in all its municipal operations with the potential to ease pollutants in storm water runoff (e.g., <i>prohibiting the Fire Department from washing vehicles outside and providing inlet protection near sediment storage areas.</i>). Existing guidance manuals you may find useful to meet this goal include the <i>Rainwater and Land Development</i> manual (ODNR, 2006) and the <i>Municipal Pollution Prevention/Good Housekeeping Manual #9</i> (Center for Watershed Protection, September 2008). This manual is available as a free download on their website at <a href="http://www.cwp.org/formmaker/Download-Form_RedirectFormPage.html">http://www.cwp.org/formmaker/Download-Form_RedirectFormPage.html</a>.</p> <p><b>Contracted Staff</b></p> <p>The City contracts out most road maintenance activities. Please be sure to include language requiring pollution controls in all contracts and requests for proposal (RFPs) where the activities are a potential source of storm water pollution. The operations of third party service providers should be reviewed periodically by the City to ensure that the required pollution controls are being implemented.</p>

Staff Education and Training			
Interview Questions		Response	
Staff trained to identify potential storm water pollution sources which would result in an illicit discharge?		NO	
Frequency:		The Cuyahoga County Board of Health provides annual training sessions, however, only 2 employees attended last year. More of the Service Department employees may go to a training session every 2-3 years at a City facility.	
Materials used to train staff:		CCBH uses videos and PowerPoint to train employees.	
Applicable Documents		Reviewed	Obtained
Training materials		YES	YES

## Notes

### MS4 Staff Training

Although a PowerPoint used to train employees by the Board of Health was provided, no sign-in sheets could be produced proving that any employees attended. The first generation of the MS4 permit required the City to develop an employee training program to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances and storm water system maintenance.

*Please note that NPDES permit #OHQ000002 requires the City to conduct at least one employee training event on these topics per year. The 2011 Annual Report for the City of Garfield Heights reported that only two employees attended Pollution Prevention/Good Housekeeping training and the City indicated that a full Service Department staff training session only occurs every few years. If key management staff attends a storm water education event, it is expected that the information learned will be shared with the appropriate staff so that they can conduct their job duties without causing storm water pollution. The City should also look to incorporate training on storm water pollution prevention in any new employee training program that may exist if that employee's job duties have the potential to create storm water pollution or include illicit discharge identification and elimination.*

The Lake County (OH) Stormwater Management Department has developed a series of Toolbox Talks that can be used during staff meetings to train maintenance staff on a single storm water pollution prevention topic at a time. This tool is intended to provide training by eliciting discussion amongst the staff and can be completed in less than 15 minutes per topic. Please contact Tim Miller, Director of the LCSMD at (440) 350-5900 for further information.

**FIELD INSPECTION WORKSHEET**  
**MS4 SWMP Evaluation**  
**MS4 Maintenance Facility Field Inspection Worksheet**

<b>Permittee:</b> City of Garfield Heights – Service Department	
<b>Address of facility:</b> 13600 McCracken Road	<b>Size of facility:</b> 3-4 acres
<b>Date of visit:</b> 7/11/2012	<b>Time of visit:</b> 10:00am
<b>Provide the name(s) and title(s) of permittee staff present during inspection</b>	
<b>Name</b>	<b>Title</b>
<i>David Krock</i>	<i>City Engineer</i>
<i>Bryan Mahoney</i>	<i>Foreman of Public Service</i>
<b>Evaluator Observations:</b>	
<b>SWPPP or stormwater plan</b>	
Has the maintenance facility developed a SWPPP or stormwater plan?	<b>NO</b>
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	No plan has been developed.
Does the permittee conduct and document periodic inspections of the facility?	<b>NO</b>
Are storm drains labeled and free of debris?	Storm drains are not labeled and sediment had entered two drains behind the salt dome and one trench drain along the main drive.
<b>Vehicle maintenance, fueling and washing</b>	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	<b>YES</b> , all vehicle maintenance is conducted in the service garage where drains are connected to sanitary sewer.
Are fueling stations properly designed with spill kits nearby?	The fueling station has automatic shutoff valves and a spill kit containing oil dry at the pumps. The emergency shut off button is located inside the maintenance garage. Signage should be added indicating the location of this emergency shutoff button so it may be quickly found should a problem arise. It was also recommended that more items be added to these spill kits, such as mats to cover the nearby storm drain which the area drains to in the event of a spill.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	<b>YES</b> , all vehicle washing is conducted in a wash bay where drains are connected to sanitary sewer.
<b>Material storage</b>	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	Various pieces of metal and other scrap items were stored outside behind the salt storage dome. Significant oil staining was seen in this area. Oily parts or items which contain oil must be stored within secondary containment. The oily scraps must be removed and the area remediated.  Gravel, fill, asphalt, and other materials are stored behind the salt dome. Although they are currently in three walled cement bins, dirt trailing towards the nearby storm drains indicated that the grading does not allow for runoff from these piles to be contained to their bins. Sediment controls must be added to this area to ensure that these particulates are not entering the MS4. The area should be swept up so that no more sediment is trailing into the storm drains.
<b>Hazardous waste management</b>	

<p>Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?</p>	<p>Used oil containers were not labeled. All containers which hold used oil must be labeled as "Used Oil".</p> <p>Drums of hazardous material stored next to the material piles are marked as having unknown contents. One empty drum was stored without a lid. Only drums which are closed and in good condition may be stored outdoors. Open drums must be stored indoors to prevent the collection of water and release of pollutants.</p>
<p><b>Waste management</b></p>	
<p>Are waste bins covered with waste properly disposed in containers?</p>	<p>A construction debris dumpster near the salt storage dome was uncovered. This dumpster should be covered to prevent the formation and release of leachate.</p> <p>The street sweeping spoils and catch basin cleaning roll-off was also uncovered and the liner was falling into the container, making it ineffective. Staining around the roll-off indicated leaks had occurred and a lot of water had accumulated in the dumpster. The liner should be reinstalled to serve its purpose and the container covered to prevent water from collecting.</p>
<p>How is landscape waste stored?</p>	<p>No landscape waste is stored on site.</p>
<p><b>Spill response</b></p>	
<p>Does the facility have a spill response plan, and are spill kits readily available?</p>	<p>No spill response plan has been devised. Oil dry was located in the garage and near the fueling stations.</p>
<p><b>Employee training</b></p>	
<p>What type of stormwater training does maintenance staff receive?</p>	<p>Storm water training has only been provided for 2 employees of the Service Department. Employee training on storm water pollution prevention practices and identifying pollution sources must be provided to all employees whose job duties have an impact on storm water runoff quality.</p>
<p><b>Notes or additional information:</b></p>	
<p><b><u>Storm Water Pollution Prevention Plan (SWP3)</u></b>  The City of Garfield Heights is required to develop a SWP3 for this facility. The SWP3 must contain a map indicating the location of potential pollutant sources, the control measures (best management practices) implemented to minimize or eliminate the discharge of pollutants, and the drainage systems and patterns. The City should show all catch basins, storm sewers and points of discharge for storm water from this facility and delineate drainage areas to each outfall. Refer to Part 5.1 of the Ohio EPA General NPDES Permit for Industrial Activities #OHR000005 to determine other required content of the SWP3. This permit can be downloaded from our website at <a href="http://www.epa.ohio.gov/dsw/permits/GP_IndustrialStormWater.aspx">http://www.epa.ohio.gov/dsw/permits/GP_IndustrialStormWater.aspx</a>. In developing the SWP3, the City must evaluate where all water is draining throughout the facility, including an assessment of non-storm water discharges. The goal is to certify that there are no illicit discharges from the facility to the MS4.</p> <p><b><u>Salt Storage</u></b>  Some salt which was bulging out of the salt dome was partially covered and surrounded with hay bales as containment. It appeared that all salt had been well maintained to the area within the hay bales. Another tarp should be added to completely cover all of the salt which could not fit under the roof to prevent the formation of contaminated runoff. More guidance on interim salt storage is provided at <a href="http://www.epa.ohio.gov/portals/35/storm/Interim_Salt_Storage_Guidance.pdf">http://www.epa.ohio.gov/portals/35/storm/Interim_Salt_Storage_Guidance.pdf</a>.</p> <p><b><u>Street Sweeping and Catch Basin Cleaning Spoils</u></b>  The roll-off container which holds the catch basin cleanings and street sweeping spoils needs to be covered. During the inspection there was a noticeable amount of collected water inside the container as well as staining from leachate</p>	

leaking from the uncovered roll-off of re-saturated catch basin cleanings and street sweepings, which allows for an unauthorized discharge of leachate to the City's MS4. The discharge of this leachate is a violation of Part III.B.6.d.iii.3 of the NPDES permit. Liquids which are decanted from catch basin cleanings and street sweepings, as well as storm water which contacts stockpiles of this material, is leachate, which is a wastewater and must be managed accordingly. Please lid or tarp the roll-off and keep all plugs in place to prevent the discharge of this leachate.

### **Sediment Controls**

Gravel, grindings, asphalt, etc. were all stored in three walled bins behind the salt dome. Some signs of sediment trailing to the nearby storm drain were visible. Sediment controls must be added to this area to prevent the discharge of sediment laden runoff or leachate. Some suggestions made were that a berm be used to better contain these materials, cover be added over these piles, or inlet protection be added to keep sediment out of the storm drains.

Further, a trench drain on the main service drive was filled with sediment and asphalt debris. Sediment must be removed from this drain or the drain should be permanently capped to prevent the release of sediment to the MS4. The City should investigate as to where this material which has clogged the drain is coming from and prevent it from entering the drain in the future.

### **INSPECTION PHOTOS** Service Department City of Garfield Heights Photos Taken: July 11, 2012



**Fig. 1 & 2:** The lining of the streets sweeping spoils and catch basin cleanings dumpster was not in place properly and the dumpster had leaked and was collecting water.



**Fig. 3:** Drums of hazardous material stored in this area are marked as having unknown contents. One empty drum was stored without a lid.



**Fig. 4:** Fill, gravel, and other materials are stored in this area behind the salt dome. The drain in this photo had a lot of sediment trailing towards it and should have inlet protection to prevent the discharge of sediment to the MS4.



**Fig. 5:** A dumpster containing construction debris was uncovered.



**Fig. 6:** Another storm drain near the construction debris dumpster had sediment accumulating around the grate from nearby materials.



**Fig. 7:** Miscellaneous pieces and parts were found behind the salt dome. Mr. Mahoney says that these materials are usually picked up within a month or so. Oil staining is evident and should be cleaned up immediately.



**Fig. 8:** The City had implemented the use of hay bales and tarping their extra salt bulging out of the dome, which is a good practice. However, some of the excess salt was not covered and a second tarp should be added to completely cover the salt exposed outside of the dome.



**Fig. 9:** A trench drain which ran across the drive next to the vehicle storage garages had oil staining on the edge and was filled with sediment and debris. All sediment should be removed from this drain and disposed of and the oil residue removed.



**Fig. 10:** Containment room where hazardous materials are stored inside the maintenance garage.



**Fig. 11:** Oil is pressed out of filters and drained into this drum by this machine. All containers which hold used oil must be labeled as "Used Oil".



**Fig. 12:** A drum containing some dark, oily liquid was left next to the fueling station along with some dirty rags. These materials must be removed immediately.

**FIELD INSPECTION WORKSHEET**  
**MS4 SWMP Evaluation**  
**MS4 Maintenance Facility Field Inspection Worksheet**

<b>Permittee:</b> City of Garfield Heights – Fire Station	
<b>Address of facility:</b> 5115 Turney Road	<b>Size of facility:</b> 1-2 acres
<b>Date of visit:</b> 7/11/2012	<b>Time of visit:</b> 11:00am
<b>Provide the name(s) and title(s) of permittee staff present during inspection</b>	
<b>Name</b>	<b>Title</b>
<i>David Krock</i>	<i>City Engineer</i>
<i>Bryan Mahoney</i>	<i>Foreman of Public Service</i>
<i>Dave Pohlckuck</i>	<i>Firefighter</i>
<b>Evaluator Observations:</b>	
<b>SWPPP or stormwater plan</b>	
Has the maintenance facility developed a SWPPP or stormwater plan?	<b>NO</b>
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	No plan has been developed.
Does the permittee conduct and document periodic inspections of the facility?	<b>NO</b>
Are storm drains labeled and free of debris?	Drains are not labeled.
<b>Vehicle maintenance, fueling and washing</b>	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	<b>YES</b> , small repairs are done indoors at the station where the drains are connected to sanitary sewer. Vehicles in need or larger repairs are taken to the Service Department.
Are fueling stations properly designed with spill kits nearby?	No fueling stations are at this facility.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	Vehicles are washed at this facility. They are washed inside where drains are tied to sanitary most of the time, although, it was indicated that every once in a while a vehicle may be washed outdoors. Wash water from this activity is considered a wastewater and cannot be discharged to the MS4; therefore, all vehicles must be washed inside.
<b>Material storage</b>	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	<b>YES</b>
<b>Hazardous waste management</b>	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	Materials are all stored contained indoors. The used oil tank was unlabeled. This tank, and any container used for used oil, must be labeled as "Used Oil".
<b>Waste management</b>	
Are waste bins covered with waste properly disposed in containers?	<b>YES</b>
How is landscape waste stored?	No landscape waste is stored on site.
<b>Spill response</b>	
Does the facility have a spill response plan, and are spill kits readily available?	<b>YES</b>
<b>Employee training</b>	
What type of stormwater training does maintenance staff receive?	No stormwater specific training records were provided for this facility. Employee training on storm water pollution

prevention practices and identifying pollution sources must be provided.

**Notes or additional information:**

**Storm Water Pollution Prevention Plan (SWP3)**

The City of Garfield Heights is required to develop a SWP3 for this facility. The SWP3 must contain a map indicating the location of potential pollutant sources, the control measures (best management practices) implemented to minimize or eliminate the discharge of pollutants, and the drainage systems and patterns. The City should show all catch basins, storm sewers and points of discharge for storm water from this facility and delineate drainage areas to each outfall. Refer to Part 5.1 of the Ohio EPA General NPDES Permit for Industrial Activities #OHR000005 to determine other required content of the SWP3. This permit can be downloaded from our website at [http://www.epa.ohio.gov/dsw/permits/GP\\_IndustrialStormWater.aspx](http://www.epa.ohio.gov/dsw/permits/GP_IndustrialStormWater.aspx). In developing the SWP3, the City must evaluate where all water is draining throughout the facility, including an assessment of non-storm water discharges. The goal is to certify that there are no illicit discharges from the facility to the MS4.