



3GQ0003620100702

CUYAHOGA SOLON

CITY OF SOLON

3GQ00036 2010/07/02

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**Environmental
Protection Agency**

Jeffrey M. Land, Governor
Lester P. Keith, Lt. Governor
John P. Bostick, Director

July 2, 2010

RE: CUYAHOGA COUNTY
CITY OF SOLON
MS4 INSPECTION FINDINGS
MCM#6-POLLUTION PREVENTION
FOR MUNICIPAL OPERATIONS

Mr. John J. Busch
City Engineer and Storm Water Program Coordinator
City of Solon
34200 Bainbridge Road
Solon, OH 44139

Dear Mr. Busch:

Ohio EPA has completed an audit for a portion of your municipal storm water program. Our audit primarily focused on implementation of minimum control measure (MCM) #6: Pollution Prevention and Good Housekeeping for Municipal Operations. This program is a requirement of the Ohio EPA General Storm Water National Pollutant Discharge Elimination System (NPDES) Permit for Small Municipal Separate Storm Sewers Systems (MS4s) 3GQ00036*BG and Ohio Administrative Code 3745-39.

On June 22, 2010, Ohio EPA met with you and other representatives of the City of Solon to determine compliance with the NPDES permit and the Storm Water Management Plan (SWMP) submitted by the City in March 2003. In performing this audit, Ohio EPA implemented the Municipal Storm Water Program Evaluation Guide developed by the United States Environmental Protection Agency.

Attached are the Municipal Storm Water Program Evaluation and Field Inspection Worksheet(s) completed for your community. Please review these documents in detail to determine specific elements where your pollution prevention and good housekeeping program needs improvement. In addition, you will find comments suggesting ways to improve your MS4 program. The following is a summary of our audit findings:

Violations:

- **Failure to submit a Notice of Termination within 45 days of reaching final stabilization on municipal construction projects.** This is a violation of Part IV.A of NPDES permit #OHC000003. Our records show that the City of Solon has 7 active projects permitted under the Ohio EPA General Storm Water NPDES Permit for Construction Activities but indicated during the interview that 5 of the projects were completed and have reached final stabilization. Please submit an NOT for all 5 projects that are complete or no longer viable (see attachments for list).

- **Failure to provide controls for reducing or eliminating the discharge of pollutants from maintenance and storage yards at the Service Department, the Grantwood Golf Course, and the Solon Community Park.** This is a violation of Part III.B.6.d.iii.2 of the Small MS4 NPDES Permit #OHQ000002 and Ohio Revised Code (ORC) 6111.04 and 6111.07. This violation was noted for the following operations at maintenance and storage yards:
 - Failure to prevent the discharge of leachate from stockpiles of finished compost, mulch, and topsoil at the back of the Service Department.
 - Failure to implement sediment controls around material stockpiles, e.g. sand and topsoil, lining the back of the service yard.
 - Failure to provide cover over the scrap metal dumpster, e.g., lids or tarps, so as to prevent storm water from contacting the metals and creating a black discharge from the dumpster.
 - Failure to prevent the discharge of sediment and oil sheen pollutants to the stormwater inlet between the material storage bins and composting site at the Service Department.
 - Failure to keep all service materials, e.g. sign poles and C&DD, on the service yard and out of the drainage ditch and over the edge of the property at the Service Department.
 - Failure to provide spill kits to fueling areas at the Grantwood Golf Course.
 - Failure to direct wastewater generated during mower and golf cart washing operations to a sanitary sewer system or other wastewater treatment system, or otherwise prevent its discharge by rinsing in grassy areas at the Grantwood Golf Course.
 - Failure to prevent the discharge of sediment to the stormwater inlets adjacent to the baseball fields and under equipment stored outside at the Solon Community Park.

The MS4 permit does not authorize the city to discharge leachate or wastewater, thus controls for these unauthorized discharges must be implemented immediately. Further, measures must be taken to minimize the potential for discharges of pollutants to the MS4. Implementing practices such as secondary containment, inlet protection, and lidded dumpsters achieves this goal. Please review the comments within the attached *Municipal Storm Water Program Evaluation* and *Maintenance Facility Field Inspection Worksheets* regarding these operations.

- **Failure to obtain NPDES permit coverage for storm water discharges associated with industrial activity from the Water Reclamation Plant.** This is a violation of Ohio Revised Code 6111.04 and Ohio Administrative Code 3745-38-09. *Although the City had submitted a No Exposure Certification to Ohio EPA*

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*for the plant, our inspection revealed that the facility does not qualify for no exposure exemption. After inspection of the facility, 2 points of exposure were noted that prevent the plant from claiming a condition of no exposure. The first was the unloading of chemicals such as polymer and caustic soda off the back of a truck outside of the garage. The other point of exposure is the ferric chloride connection points from the tanks for loading and unloading the chemical. During the inspection, the City had noted that they are interested in achieving a condition of no exposure. Please submit, in the City's response, how the City plans to achieve no exposure, and the time frame in which they plan to do so. If no exposure cannot be accomplished, the City must file for NPDES permit coverage for Industrial activity. Please review the comments within the attached *Municipal Storm Water Program Evaluation and Maintenance Facility Field Inspection Worksheet for the WRP* regarding this topic.*

Deficiencies:

- A storm water pollution prevention plan (SWP3) has not yet been developed for the Service Department or the Grantwood Golf Course maintenance facility. Per Part III.B.6.c of the NPDES permit, these plans must be developed and implemented by **June 2011**. The Solon Community Park does not require a SWP3 to be developed but the City should implement storm water BMPs such as inlet protection and equipment inspections to prevent the discharge of pollutants into the City's MS4. The SWP3s for facilities, where one is required, should include a checklist by which to conduct the inspections. This will standardize inspections and remind inspectors of the critical areas that must be reviewed during an inspection.
- The SWP3s for municipal facilities subject to this program must provide a storm water contact or pollution prevention team for each facility. At a minimum, we recommend that a storm water contact be designated for the Service Department and the Grantwood Golf Course that will have the authority and knowledge to ensure implementation of the SWP3s associated with these facilities. Please be aware that Part IV.C.1 of the NPDES permit requires that a Table of Organization naming points of contact be submitted with your annual report, starting with the report that was due April 1, 2010.
- The City needs to separate the totals for the amount of street sweepings and catch basin cleanings removed from the MS4 when reporting these totals in the Annual Report, as it is required to be reported on the new Annual Report form. In addition, the City needs to track salt usage on a January-to-December calendar basis rather than a seasonal total as stated in Part IV.C of the Small MS4 NPDES Permit #OHQ000002.

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- The City has not developed contract language to require storm water BMP implementation when a third-party provides municipal operations on behalf of the City. Contract language must be added to all contracts with such parties, e.g., operators that provide catch basin cleaning services, herbicide/ pesticide application, or road maintenance activities. Further, we recommend periodic inspection of their operations to assure that they are implementing BMPs.

Please review my comments and provide me with a letter of response indicating the actions you will take to address my concerns and the time frame in which you plan to implement your corrections. **Your response should be received no later than July 30, 2010.** Please note that this response does not replace the requirement to submit an Annual Report. Your annual report for 2010 will be due on April 1, 2011.

If you have any questions, please contact me at (330) 963-1164 or via e-mail at lindsie.macpherson@epa.state.oh.us.

Sincerely,



Lindsie MacPherson
Assistant to the District Engineer
Division of Surface Water

LM/mt

- cc: Susan A. Drucker, City of Solon, Mayor w/ enclosures
Tom Bandiera, City of Solon, Service Director w/ enclosures
- ec. James Stanek, Public Works Commissioner, w/ enclosures
Dan Driscoll, Construction Project Administrator
William Drsek, Sewer Division Manager
Paul Solanics, Solon WR Manager, w/ WRP enclosure
Dan Bogoevski, Ohio EPA, DSW, NEDO

Municipal Storm Water Program Evaluation MS4 Maintenance Component Worksheet

Date of Evaluation	June 22, 2010
Evaluator Name, Title	Lindsie MacPherson, DSW, NEDO
MS4 Permittee	City of Solon

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
John J. Busch City Engineer	City of Solon Engineering Department	440.349.6745 jbusch@solonohio.org
Thomas Bandiera Director of City Services	City of Solon Service Department	440.248.5834 ex. 1527 tbandiera@solonohio.org
Dan Driscoll Construction Project Administrator	City of Solon Engineering Department	ddriscoll@solonohio.org
Joan Milhoan Assistant City Engineer	City of Solon Engineering Department	440.349.6745 jmilhoan@solonohio.org
William Drsek Sewer Division Manager	City of Solon Sewer Division	440.248.5834
Marci A. Rizzo Service Secretary	City of Solon Service Department	440.248.5834
Brad Neuin	City of Solon Parks and Recreation	440.248.5747
Chris Kaczmarek	City of Solon Parks and Recreation	440.248.5747
Rachel Webb	Chagrin River Watershed Partners	440.975.3870

MS4 Mapping		
Interview Questions	Response	
Outfalls and receiving waters mapped?	YES	
Catch basins?	YES	
Pipes, ditches, other conduits?	YES – still working on roadside ditches	
Public stormwater facilities (BMPs)?	YES	
Private stormwater facilities (BMPs)?	YES	
How maps are used (i.e. tracking illicit discharges)?	The City uses the map to check for problem areas and high water levels in creek beds. The open channel map is used in the illicit discharge tracking procedures. First place they go to trouble shoot any sewer problems.	
Applicable Documents	Reviewed	Obtained
Map(s) of MS4 system	YES	YES

Notes
<p>MS4 Mapping</p> <p>The City of Solon has developed their MS4 map in house through the Engineering department and other public works departments. When sewers are added to the system the City provides as-built plans for the new sewer installation to the planning department to keep the GIS MS4 map updated. The plan is to finish compiling the map and all of its amenities into one GIS map by the end of the permit term in June 2014. After review of the City's MS4 map, it was noted that all outfalls and their receiving waters in the city have been mapped with the exception of some ditch outfalls. All catch basins throughout the City have been mapped, along with the storm sewers, and all public and private stormwater management facilities. Please be aware that the City is required to map all roadside ditches and their outfalls a part of the NPDES Permit #OHQ000002.</p> <p>To meet the mapping obligations of NPDES Permit #OHQ000002, i.e., the MS4 permit in effect from 2009-2014, the map must show catch basins and publicly-owned storm sewers, ditches, conduits, and storm water management facilities (including publicly-owned post-construction BMPs). In addition, the map must show privately-owned storm water management facilities constructed as post-construction BMPs for new development or redevelopment which has occurred since April 21, 2003.</p> <p>Identifying the Location of Discharging Home Sewage Treatment Systems (HSTs)</p> <p>The City has a list of all the address of the HSTs and their correlating location on a map provided by the Cuyahoga County Board of Health. The City works with the CCBH to identify residences with existing individual discharging HSTs that can be connected to central sewers, to determine if existing discharging HSTs are operating as designed and intended, and to eliminate, upgrade or replace systems not meeting criteria. In 2002-2003, there was a large scale sewer replacement project and in the process the City was able to eliminate 400 to 500 HSTs.</p> <p>Please be aware that these discharging systems are considered illicit discharges to the MS4. Permit #OHQ000002 requires the City to work with the CCBH to determine which of these systems are not operating as designed and intended, which they do. For systems not operating as designed and intended, CCBH must use the provisions in Ohio Revised Code 6117.51 to require connection to the sanitary sewer system where it is legal, feasible and economical to do so. For systems that cannot be eliminated through connection to sanitary sewers or the installation of a soil absorption system, the property owner must be notified to contact Ohio EPA and pursue coverage under an appropriate NPDES permit.</p>

Notes

Illicit Discharge Detection

The City added language to Ordinance 1482.09 "Sanitation, Drainage, and Sewage" to give the City the ability to enforce corrections of cross connections found through the smoke and dye testing program. This illicit discharge detection and elimination Ordinance has been a great help to the City in making advancements in their IDDE program. The Engineering Department and Service Department are in the process of working together on the dry-weather screening of all outfalls. When weather permits, the City will go out and hit as many outfalls as they can to be in compliance with this requirement. The City has also established a Detection and Elimination Program for tracking and eliminating illicit discharges. A rough copy of this program was received during the interview process.

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. *If any illicit discharges are detected during this screening, the city must develop a plan to eliminate them.* For more information on the illicit discharges from HSTs 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.

Catch Basin Cleaning

Interview Question	Response
Schedule established for inspections and cleaning?	YES There is a list of all the streets with catch basins in the City, and these streets are then spilt up by subdivision and spread out over a period of ten years. The City has set their goal for inspecting and cleaning all catch basins at every 10 years. The City has cleaned and inspected all the catch basins once so far. Different subdivisions are targeted every year, and the city will specify streets that are in need of cleaning first. The City will clean out areas of flood control where the basins are checked and then on a complaint basis as well. 631 total CB cleaned in 2009.
Is cleaning and maintenance of catch basins tracked:	YES Location of cleaning and dates are tracked. The amount of material is tracked by the ton through waste manifests but mixed with street sweeping. Separate the total amount of catch basin cleanings and street sweepings disposed of for the next annual report.
How are spoils materials disposed of?	At the service department there is a receiving station where the catch basin spoils are dewatered. The wastewater is drained into a septic system device to separate any grit before the water is sent to sanitary. The New vector

	<p>and sweeper receiving station is a 3-sided cement containment area with a 2 percent grade sloping to 5 catch basins that send the wastewater to the sanitary sewers. Once the spoils are dry, they are placed in a tarped dumpster to be taken to Sanitary Landfill in Waynesburg, OH when needed.</p> <p>The old location where catch basin cleanings and street sweepings were once stockpiled has been remediated and sold.</p>		
<p>Are storm drain pipes inspected?</p> <p>Proactive or only in response to blockage event?</p>	<p>YES</p> <p>When time allows, the City will clean and inspect the adjacent storm sewers when cleaning catch basins. The process is proactive and once the storm sewers and laterals are cleaned the City will send a camera done for a TV inspection of the MS4. <i>Please start documenting when and where this is occurring so the City has a record of the storm drain pipes that have previously been inspected.</i></p>		
Applicable Documents		Reviewed	Obtained
List of active municipal construction projects		YES	YES
<p>CHECK DATABASE BEFORE INSPECTION: List of municipal projects covered under the Ohio EPA general storm water NPDES permit for construction activities:</p> <p>3GC00648*AG – Liberty Hydrology restoration Project *NOT</p> <p>3GC03364*AG – Solon Fire Station #2*NOT</p> <p>3GC01694*AG – Allotment Infrastructure Improvement I & II *NOT</p> <p>3GC03412*AG – Bunkerhill Storm Sewer Project *NOT</p> <p>3GC03644*AG – Cuy-Pettibone Road Note: Post-construction: Exfiltration Trenches</p> <p>3GC04633*AG – SO Branch Sulfur Spring Restoration: End date 8/1/2010 Note: Stream remediation project – no post-construction</p> <p>3GC03934*AG – Woodbury Detention Basin *NOT</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> <p>DONE - FILE NOT</p> <p>DONE - FILE NOT</p> <p>DONE - FILE NOT</p> <p>ACTIVE</p> <p>ACTIVE</p> <p>DONE - FILE NOT</p>

Notes

Catch Basin Cleaning Schedule and Disposal

The City's schedule is to clean and inspect all catch basins in the city every 10 years. There is a list of all catch basins that is divided into ten subdivisions for the city to get through in the ten year goal they have set for themselves. The City has inspected and cleaned all catch basins once since the program started. At the beginning of the season the city will note which areas need to be targeted first and they will also respond to complaints and inspect flood prone areas more often. Cleaning is tracked by location and date of inspection. The amount collected is tracked by ton but is a combined total with street sweepings. Please be sure to separate the total amount of catch basin cleanings and street sweepings disposed of for the next annual report. Spoils are dewatered in the new vactor and street sweeping receiving station and placed in a tarped dumpster for transfer to Sanitary Landfill in Waynesburg, OH.

MS4 System Repair and Maintenance

The EPA would like to see the City start documenting when and where MS4 inspection and maintenance occurs so the City has a record of the storm drain pipes that have previously been TV inspected. This will help improve the City's MS4 program and help reduce pollutants.

Municipal Construction Projects

If construction is complete or the project is no longer viable, please submit Notices of Termination (NOTs) for these projects to close out NPDES permit coverage. The NOT and instructions can be obtained on the Ohio EPA Storm Water Program webpage at www.epa.ohio.gov/dsw/storm/stormform.aspx. 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.

Stormwater Management Facilities Operation and Maintenance

Interview Questions	Response
Public facilities inspected?	YES
Frequency:	Inspections are done annually. The city has inspection sheets for facilities. Started in 2006.
Private facilities inspected?	YES
Frequency:	The City provides inspection sheets to private owners and requests the forms to be filled out by June 1 st , including pictures. The City has received 8 reports in 2009 from HOA and completed 8 reports with individual lot owners. See Notes.
Checklist used for inspections?	YES
	Inspection sheet is provided to home owners and individual lot owners. They request to have the form returned by June 1 st of every year.

Stormwater Management Facilities Operation and Maintenance			
Interview Questions		Response	
Have maintenance standards and procedures been established for these facilities?		YES The City has adopted the Ohio Rainwater and Land Development Manual as City standards for these facilities.	
How is maintenance prioritized? Is data evaluated to target maintenance resources?		YES The City completes public facility inspections mainly in the spring and fall. They are in the process of getting all HOAs and private individual lot owners on board with the program. The City is targeting the problem areas first and getting these owners on board and then the moving on to the rest of the facilities.	
Applicable Documents		Reviewed	Obtained
Inspection checklist		YES	YES

Notes
<p>Inspections of Stormwater Management Facilities</p> <p>The City's long-term maintenance program for post-construction BMPs is well under way. The City inspects all publicly-owned stormwater management facilities annually using the checklist (inspection sheet) provided at the time of the interview. The City is in the process of bringing all HOAs and individual lot owners on board with the program so that all privately-owned facilities constructed since April 21, 2003 are inspected as well. Enforcement of this program is outlined in the City's Stormwater Ordinance. An education process is sent along with the inspection sheets so the private owners are aware of what they are looking for when conducting their inspections and how to maintain their facilities. There have been instances where the City will go out and walk through an inspection with the owner so they are aware of what to look for as well. A copy of the Sewer Division's Guidebook for private owners was received during the interview.</p> <p>Please be aware that 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).</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.</p> <p>Information on developing an effective long-term maintenance program for post-construction BMPs can be found from the Center for Watershed Protection at http://www.cwp.org/ free downloads page.</p>

Road Maintenance	
Interview Questions	Response
<p>Streets regularly swept? <i>(156 cubic yards in 2009)</i></p> <p>Frequency:</p>	<p style="text-align: center;">YES</p> <p>There is an annual report indicating streets the City plans to sweep posted on the City's website. The City also has a daily schedule of which streets will be swept on what days (Monday thru Friday). The City sweeps through all streets three times a year, starting with mains then moving to secondaries and subdivisions. Tracking takes place at the Service Garage including the streets swept, date, and amount swept in yards. At the end of the year, the total amount of sweeping spoils is summed up in yards and reported in the City's annual report.</p>
<p>Frequency based on water quality factors (e.g. proximity to streams)?</p>	<p style="text-align: center;">YES</p> <p>The sweeper follows solid waste residential routes and goes through the industrial area and center of town as well.</p>
<p>How are spoils disposed of?</p>	<p>Sweepings are taken to the new vector and sweeper receiving station where they are dewatered with the catch basin cleanings and placed into a tarped dumpster awaiting transfer to the Sanitary Landfill in Waynesburg, OH.</p>
<p>Does the community collect road kill?</p> <p>What do they do with the carcasses?</p>	<p style="text-align: center;">YES</p> <p>The City takes carcasses to the Waste Management Transfer Station.</p>
<p>Does the community have a leaf collection program?</p> <p>What do they do with the collected leaves?</p> <p>NOTE: 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 leafate must be prevented from discharging.</p>	<p style="text-align: center;">YES</p> <p>The City has a curb-side leaf collection in the fall and a year round yard waste collection. Leaves and yard waste are taken back to the Service facility where they own a Class IV composting facility. The facility is inspected by the Health Department monthly and has never had a violation. The City tracks and inspects all bags that are collected for composting. All leachate is contained and excess runoff that has collected at the back of the bermed area is recycled back through the windrows. Compost is sold back to the residents of Solon.</p>

Road Maintenance	
Interview Questions	Response
<p>BMPs used during road maintenance activities?</p> <p>Describe types of road maintenance conducted by community staff and the BMPs used</p>	<p style="text-align: center;">YES</p> <p>The City partakes in various road maintenance activities including but not limited to street striping, asphalt/concrete repair, crack sealing, solid waste collecting, street sweeping etc.</p> <p>The City is in the process of developing a manual for BMP field guidance. There are rules and regulations that staffs abide by at this time. The City has switched to automated trash pick-up. If needed, the City will install silt fence during road maintenance. Any concrete slurry is swept up and there are inlet protection procedures in place. There is also a concrete washout at the Sewer Department.</p>
<p>BMP guidance available to field staff?</p>	<p style="text-align: center;">YES</p> <p>Posters at the service garage. Good housekeeping training with field staff at service garage.</p>
<p>Deicers used by MS4?</p> <p><i>(12,700 tons 2009)</i></p>	<p style="text-align: center;">YES</p> <p>The City uses road salt mixed with salt brine. There is a brine station at the Service garage located at the side of the building. The City also uses beet juice when necessary (used in subdivisions and entrance ways).</p>
<p>Type and amount of deicer and additives tracked?</p> <p>What measures are being taken to minimize the application of deicers?</p>	<p style="text-align: center;">YES</p> <p>The City of Solon has adopted Sensible Salting procedures to limit salt use as much as possible. All spreaders are calibrated at the beginning of the winter season by lbs per lane mile. These calibrations are tracked per truck, a sticker is placed on trucks to notify workers, and records are kept for future reference.</p> <p>Salt usage is tracked using storm record log sheets which are given to every truck driver before heading out to the streets. The number of buckets taken out by each employee is logged on storm record sheet and totaled at a later time per storm event. The City has weighed one bucket so that the total can be found by multiplying the weight, in tons, of one bucket by the number of buckets used.</p>

Road Maintenance			
Interview Questions		Response	
Sand/salt swept up after application?		YES	
How soon?		Salt is stored at the Service facility in a high storage building that holds 3,000 to 3,500 tons of salt. The City is anticipating the construction of a new salt barn along the side of the facility in the near future. The loader operator will scoop salt up and put it back in the building when spillage occurs during the loading process. After winter, the sweeper runs through the area to make sure all salt residue is removed.	
Does your community operate a snow stockpile yard to store snow that has been removed from community streets and parking lots?		NO	
Has your community considered implementing best management practices to control the discharge of pollutants from snowmelt associated with snow storage yards?		NO	
Applicable Documents		Reviewed	Obtained
BMP guidance		YES	YES
Street sweeping records		YES	YES
Deicer application records		YES	YES

Notes
<p>Street Sweeping</p> <p>The City also writes an annual street sweeping report outlining the street sweeping program activities for the previous year. The report states when the City started and finished sweeping (March thru October in 2009), the frequency of sweeping in the City, all areas swept and number of times swept, the amount of material cleaned up, and compares the program with that of the previous year. This BMP of summarizing the City's street sweeping and analyzing the results is a good practice and helps the City to review their program on a yearly basis and make any changes if needed.</p>
<p>Deicer Usage</p> <p>The City has added 10 automated salt trucks to the City's fleet which have the capability of reducing salt usage per lane mile. The City is working on a process to document salt usage as the automated spreaders pull into the garage without having to manually download all the information off the trucks individually. They are continually working to transfer over all trucks from manual to automated spreaders. The City of Solon also puts together an annual salt usage report to summarize the City's salt program from previous years. Tons of salt purchased annually and annual cost is reported in a bar graph all the way back to 1994 showing the fluctuations in cost and amount. This is a good BMP to analyze the City's salt usage to better improve the program in the future. Brine and beet juice records are also kept at the Service garage. The City has done an analysis of their use of beet juice and compiled the results into a report. It was noted that beet juice had a noticeable benefit when mixed with salt before application.</p> <p><i>*Please be sure to report the City's total salt usage per calendar year (January to December) in the annual report for 2010 as stated in Part IV.C.2 on reporting of the Ohio EPA General Storm Water NPDES Permit for small MS4s #OHQ000002.</i></p>

Flood Management			
Interview Questions	Response		
Inventory of flood management structures completed?	YES The City has an inventory of all public and private stormwater management facilities.		
Structures been assessed for stormwater retrofit?	NO		
New structures include water quality considerations?	YES		
Applicable Documents		Reviewed	Obtained
Inventory		YES	YES

Notes
<p><u>Stormwater Retrofits</u></p> <p>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, 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.</p>

Facilities Operation & Maintenance												
Interview Questions	Response											
Inventory of MS4 facilities complete (i.e. facilities owned and operated by the MS4)?	YES											
<p><u>Types of facilities included</u> <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"> • Landfills • Airports • Shipping Ports or Marinas • Steam Electric Power Plants 	<p>City property is mapped and the map is located at the Service Department *Please include addresses as a part of the inventory</p>	<table border="1"> <thead> <tr> <th><u>Response</u></th> <th><u>SWP3 Developed?</u></th> </tr> </thead> <tbody> <tr> <td>NO</td> <td>N/A since do not operate</td> </tr> </tbody> </table>	<u>Response</u>	<u>SWP3 Developed?</u>	NO	N/A since do not operate						
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NO	N/A since do not operate											
NO	N/A since do not operate											
NO	N/A since do not operate											
NO	N/A since do not operate											

Facilities Operation & Maintenance		
Interview Questions	Response	
	<u>Response</u>	<u>SWP3 Developed?</u>
<ul style="list-style-type: none"> Wastewater Treatment Plants \geq 1 MGD or with a pretreatment program <p>City of Solon Water Reclamation 3PD00019*OD 6951 Cochran Road. Solon, OH 44139</p> <p><i>These do not need their own permit, but do have to develop an SWP3 unless noted as N/A:</i></p>	YES	*No Exposure Certification
<ul style="list-style-type: none"> Impound Lots –located a Police Department 	YES	N/A
<ul style="list-style-type: none"> Leaf Collection Yards <ul style="list-style-type: none"> ✓ No discharge of leafate permitted 	NO	N/A since do not operate
<ul style="list-style-type: none"> Maintenance Yards <ul style="list-style-type: none"> ➤ How many do they operate? 2 ➤ List facility names/locations: <p>Service Department 6600 Cochran Rd Solon, OH 44139</p> <p>Golf Course 38855 Aurora Rd Solon, OH 44139</p> 	YES	NO
<ul style="list-style-type: none"> Composting Operations- Service Dept. 	YES	*Include in Service Dept SWP3
<ul style="list-style-type: none"> Solid Waste Transfer Stations or Operations 	NO	N/A since do not operate
<ul style="list-style-type: none"> Parks & Cemeteries <ul style="list-style-type: none"> ➤ How many in UA? 6 ➤ List facility names/locations: <p>Solon Community Parks 6679 Som Center Rd. Solon, OH 44139</p> <p><i>*See Notes</i></p> 	YES	N/A
<ul style="list-style-type: none"> Parking Lots <ul style="list-style-type: none"> ➤ How many do they operate? 12 ➤ List facility name/locations: 	YES	N/A
<ul style="list-style-type: none"> Bus Terminals 	NO	N/A since do not operate

Facilities Operation & Maintenance		
Interview Questions	Response	
	<u>Response</u>	<u>SWP3 Developed?</u>
<ul style="list-style-type: none"> • Vehicle Maintenance Garages <ul style="list-style-type: none"> ➢ How many do they operate? 2 ➢ List facility name/locations: <p style="margin-left: 40px;">Service Department 6600 Cochran Rd Solon, OH 44139</p> <p style="margin-left: 40px;">Golf Course 38855 Aurora Rd Solon, OH 44139</p>	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.	
Facilities inspected	NO	
Frequency:	Informal inspections are done, but a formal site evaluation inspection is going to be a part of the SWP3 plan for the Service Department and the Golf Course.	
Checklist used?	NO	
	A checklist is in the plan to be developed as part of the SWP3s for both facilities. The City has a template for a site evaluation inspection checklist which they plan to use. Please be sure to retrofit the checklists to better represent the Service Department and the Golf Course. Checklists should be developed to guide inspections of all Facilities with Potential for Storm Water Pollutant Runoff. This will help assure that each facility is inspected thoroughly and that there is consistency between inspectors	
Staff which perform the inspections (department or agency):	This will be decided in the process of developing the SWP3s for these facilities. The City may tailor this to the Safety committee.	
Is there a designated stormwater contact person for each facility?	This will be worked out as well. The City is planning on having a training session to discuss the new SWP3s, and at this time they will designate a person from each facility as the stormwater contact.	
Describe enforcement procedures used to address noncompliance on a MS4-owner facility, i.e., what disciplinary measures are taken against those that do not implement standard operating procedures?	Some Departments are under union disciplinary measures and others are under the City Ordinance procedures verbal, written, etc. If an employee is trained on how to do a certain procedure and disobeys there is enforcement that will occur. This can be applied to any stormwater issue.	

Facilities Operation & Maintenance			
Interview Questions	Response		
Parking lots owned/operated by the permittee swept? Frequency?	YES Parking lots are swept on an as needed basis.		
Do you have any combined sewer systems?	NO		
If yes, do you have any combined sewer overflows?	NO		
Are you aware of any illicit cross connections between your sanitary sewer and MS4?	YES		
If so, what is your plan to eliminate this illicit discharge?	The City uses smoke and dye testing to locate and track illicit discharges. There are procedures in place to eliminate these discharges as part of the City of Solon's IDDE Ordinance. Some of these procedures were received at the time of the interview. Enforcement includes an NOV sent to owner requesting the discharge be fixed. Along with TV inspections, illicit discharges are also found when the city is looking for cross-connections with sanitary to storm.		
Have you investigated the extent of infiltration and inflow into storm sewer system?	NO		
What methods have been used to conduct this investigation?	Information gained from flow monitoring is being used to look for I/I problems with the sanitary sewer system but not really anything for the MS4. The city noted that smoke and Dye testing may indicate I/I, but a program has not been developed.		
What are your plans to repair and eliminate this source of illicit discharge?	There is no comprehensive program to determine the extent of inflow and infiltration (I/I) to the MS4 and to eliminate those sources that would be considered illicit discharges. Please be sure that you are not overlooking a possible source of illicit discharge to the MS4. Your IDDE program should include a proactive I/I program.		
Sewer spill and cleanup procedures in place?	YES		
	The City dispatches a specialist truck or the Fire Department when a spill occurs and they follow the written procedures from there. Spills are documented through a Hazardous spill containment report form which was received at the time of the interview.		
Applicable Documents		Reviewed	Obtained
Facility inventory		YES	YES
Facility SWPPP		NO	NO

Notes

Solon Water Reclamation Plant

The City of Solon is required to obtain NPDES permit coverage for facilities that discharge storm water runoff associated with industrial activity and have a Storm Water Pollution Prevention Plan (SWP3) developed for such a facility. The City has received a **no exposure certification** for exemption from National Pollutant Discharge Elimination System (NPDES) storm water permitting.

City of Solon Water Reclamation Plant (3PD00019*OD)
6951 Cochran Road, Solon, OH 44139

After inspection of the facility, 2 points of exposure were noted that will prevent the plant from keeping their no exposure certification unless the exposures are alleviated. The first was the unloading of chemicals such as polymer and caustic soda off the back of a truck outside of the garage. If this process is moved inside, e.g. back the truck all the way into the garage and then unload the chemicals, the Plant will have eliminated this first point of exposure. The other point of exposure is the ferric chloride connection points from the tanks for loading and unloading the chemical. As discussed during the inspection, the Plant needs to create some type of containment for the connection points. This could include making sure the connection point on the tank is pushed back enough where, if there was a spill at this connection, it would be contained within the tanks concrete secondary containment. Also, the connection point at the truck will need containment e.g. a concrete containment area that the truck can back into, etc. For specific comments on our observations at the Solon WRP, please review the Facility Inspection Worksheet for the Solon WRP included with this report.

The City has two other options if containment of the ferric chloride connections is not feasible; the first is to submit a Notice of Intent (NOI) for coverage under the Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000004, or the second, to add storm water language to the existing NPDES Permit for wastewater discharges. To add storm water language to your existing permit, you will need to seek a permit modification and submit Form 2F. If you opt to go this route, please contact Todd Surrena of our office at (330) 963-1255. Regardless of the option chosen, a SWP3 will need to be developed and implemented for this facility within 180 days of submitting the NOI or permit modification.

Storm Water Pollution Prevention Plans (SWP3s)

A Storm Water Pollution Prevention Plan (SWP3) must be developed and implemented for the following facilities:

Service Department
6600 Cochran Rd
Solon, OH 44139

Golf Course
38855 Aurora Rd
Solon, OH 44139

The Ohio EPA General Storm Water NPDES Permit for Small MS4s #OHQ000002 requires the City of Solon to develop and begin implementing the SWP3 for the above facilities within 2 years of permit renewal, i.e., by **June 2011**. The City has a template for a SWP3 that they are working on retrofitting for their program at this time.

Notes
<p>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 EPA also recommends that a checklist be a part of each facilities SWP3 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. Please reference Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHRO00004 Part IV. D.2.a.1 for more information on the development of a site map for the SWP3s. Also refer to the following website for information on developing SWP3s for these facilities: Developing your SWP3: http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf</p>

Pesticides, Herbicides & Fertilizers			
Interview Questions	Response		
Certified applicators used?	YES		
	<p>The City has 6 certified applicators for the Service Department. Grantwood has one, and the parks department applies fertilizer under the supervision of the Grantwood applicator. The Parks Department contracts out all pesticide and herbicide spraying.</p>		
Integrated Pest Management (IPM) practices used?	NO		
Storage location of pesticides, herbicides, and fertilizers:	<p>At the Service Department all chemicals are locked in a cage-like container in the pole barn. The Parks department and Grantwood keep fertilizer under roof on a pallet. Pesticides and Herbicides are kept separate from fertilizer.</p>		
BMPs used during application:	<p>City applicators follow the manufactures recommendation on the bag, they do not over apply, and they look at the weather and temperature before applying.</p>		
Fertilizer/pesticide application plan utilized?	YES		
	<p>An application plan is followed (Fertilizer Maintenance Program F.M.P.) but if no weeds are noted then unnecessary spraying is avoided. The plan lists all areas where chemicals will be applied and then a more detailed procedure for each.</p>		
	Applicable Documents	Reviewed	Obtained
	Fertilizer/pesticide application plan	YES	YES

Notes

Certified Applicator Requirements

Communities are considered to be commercial pesticide applicators and are subject to the rules and requirements of the Ohio Department of Agriculture. As such, the City must have at least one licensed applicator on staff, and currently does. The licensed applicator may train others on the staff to apply pesticides as long as he conducts certain training and maintains records. However, a licensed applicator can be no more than 2 hours away when pesticides are applied. So, if your community only has one licensed applicator and he's on vacation more than 2 hours away, the community cannot apply pesticides.

Pesticide, Herbicide and Fertilizer Storage Requirements

Pesticides cannot be stored above or against medicines, foods, feeds or toys. They cannot be stored in a room where a spill would result in a release to the environment (such as a room with a floor drain connected to the storm sewer...if you run across this, the floor drain should be capped or the pesticide should be in secondary containment). Containers must be labeled to identify the material they contain. Products with a skull and cross bones on the label cannot be stored in an area that can be accessed by children. The Department of Agriculture recommends these products be stored in a locked cabinet. Pesticides must be stored in a room (or cabinet) that is capable of being locked when not attended. The Dept of Agriculture also recommends that a spill kit and fire extinguisher be kept nearby and that personal protective equipment is available for use if necessary.

BMPs for Pesticide, Herbicide and Fertilizer Application

Pesticides, herbicides and fertilizers should not be applied when the forecast calls for rain. The label of most products will provide guidance on when and how much of these materials should be applied. Do not exceed manufacturers' recommendations. In addition, crews must be trained to avoid overspray and to implement dry clean-up methods should spills occur. Under no circumstance should crews hose spilled materials into storm drains. Storm drains near application areas can be temporarily covered to prevent overspray or spills from entering the MS4. The usage of fertilizers can also be reduced by replacing typical lawn-type grasses with natural, slow-growing grass species that require less or no fertilizers to be sustained. The City of Cleveland is using this method to revegetate neighborhoods where blighted homes have been razed. This will reduce costs to the City to maintain this new greenspace.

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. For further information, please refer to <http://www.epa.gov/pesticides/factsheets/ipm.htm>.

The application records should keep track of the name of the substance being applied and the type of chemical, amount used and time the material is being applied as well as who the applicator was. If a contractor is being used as well, the City needs to include language into the contract that requires the contractor to consider pollution controls where the activities undertaken are a potential source of storm water pollution.

Standards, BMPs, & Outreach			
Interview Questions	Response		
BMP technical guidance document available to maintenance staff?	YES Every employee is issued a field guide book. Other books will be implemented in the City's SWP3 for the Service Department and Golf Course. CRWP is working on a field book for sediment control.		
MS4 use contractual staff to complete MS4 maintenance activities?	YES The City Contracts out some road maintenance, some catch basin cleaning, and herbicide and pesticide application is contracted out at parks.		
BMP guidance materials provided to contracted staff?	YES General erosion control information is provided for development projects that are contacted out. Goes in SWP3 Plan.		
Requirement to consider stormwater impacts and utilize appropriate BMPs in contracts?	NO		
Materials used to educate the public regarding stormwater impacts on MS4 property (if applicable, i.e. public spaces):	<p>Pet waste: Signs in the parks say pick up after pet. City ordinance for this. PUP campaign for NE Ohio Regional Sewer District.</p> <p>Litter reduction: Earth day/ home days on littering</p>		
	Applicable Documents	Reviewed	Obtained
	BMP manual or guidance document	YES	YES
	Contract language for MS4 operation and maintenance activities	NO	NO

Notes
<p>Technical Guidance and Specifications for Maintenance Staff</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 guidebooks that can be taken out into the field with maintenance crews, etc.</p> <p>Once it is prepared, the City will need to train staff on the SWP3 for the Service Department and Golf Course and should look to adopt standards and specifications for storm water pollution prevention implementation in all its municipal operations with the potential to release pollutants in storm water runoff (e.g., providing inlet protection for the catch basins at the Solon Community park near vehicle storage areas and baseball diamonds). Existing guidance manuals you may find useful to meet this goal include the Rainwater and Land Development manual (ODNR, 2006) and the Municipal Pollution Prevention/Good Housekeeping Manual #9 (Center for Watershed Protection, September 2008). This manual is available as a free download on their website http://www.cwp.org/</p>

Notes

Contracted Staff

The City of Solon contracts out some road maintenance activities, some catch basin cleaning, and herbicide and pesticide application at the Park Department. 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.

Public Education and Outreach

Please be aware that the performance standards established in NPDES permit #OHQ000002, i.e., the permit in effect for the next 5-year term, requires the City to use more than 1 mechanism and target at least 5 different storm water themes or messages over the permit term. In addition, you must provide at least 5 public involvement opportunities over the permit term. Certain activities, such as stream clean-ups or storm drain stenciling projects with local boy scout troops, can count toward both requirements because they involve the public as well as educate them on storm water pollution issues.

In the City of Solon, ne resident packages include information of storm water, the city passes out door handle flyers, and the theme for 2010 is "only rain in the drain." There is also a Citizens stormwater committee where employees and citizens attend quarterly meetings to discuss new occurrences with the City's stormwater program. The meeting started as a result of the flooding back in 2006 as a means to gain feedback from residents.

Staff Education and Training

Interview Questions	Response	
Staff trained to identify potential storm water pollution sources which would result in an illicit discharge? Frequency:	YES The City's goal is to have 2 training events per year for City employees. And then directors go to EPA, OCAPP, workshop events etc. Field workers were trained on June 18, 2010 on PPGH and there was a sign in sheet for this training event.	
Materials used to train staff:	Training ranges from documented stormwater meetings with staff to NE Ohio Storm Water Training Council events and NEO Storm water conferences.	
Applicable Documents	Reviewed	Obtained
Training materials	YES	YES

Notes

MS4 Staff Training

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.* 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

Notes

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.

For training that the City organizes for its staff, please retain: (1) the agenda for the training session, including the date that training was provided and names/organizations of the speakers, (2) an attendance list with the signatures of attendees and (3) one copy of the materials used for training. For outside training attended, include an agenda (if available) or a list of topics, the names of attendees, date attended and a copy of any attendance certificate issued by the training organization.

The following materials may help with developing a training program:

Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) has provided a number of training opportunities on pollution prevention and good housekeeping for municipal operations over the past several years. Materials presented at OCAPP's session are archived on the internet at: http://epa.ohio.gov/ocapp/storm_water.aspx and can be used to provide training to your staff. Future training events involving Ohio EPA are listed on this site as well.

ODOT's Local Technical Assistance Program (LTAP) maintains a library of training videos, including videos on storm water pollution prevention that can be borrowed at no cost.

US EPA has 2 to 3 webcasts per minimum control measure that can be viewed at any time over the internet at www.epa.gov/npdes/training.

The Center for Watershed Protection also has information available for training in their Manual #9: Municipal Pollution Prevention/Good Housekeeping Practices.

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

Permittee: City of Solon Service Department	
Address of facility: 6600 Cochran Road, Solon 44139	Size of facility: 5 Acres
Date of visit: 6/22/2010	Time of visit: 12:30 p.m.
Provide the name(s) and title(s) of permittee staff present during inspection	
Name	Title
Tom Bandiera	Service Director
Ron Hradesky	Fleet Maintenance Manager
Scott Jakosh	Solid Waste Manager
Bill Drsek	Sewer Division Manager
Joan Milhoan	Assistant City Engineer
Dan Driscoll	Construction Project Administrator
Marci Rizzo	Service Secretary
Rachel Webb	Chagrin River Watershed Partners
Evaluator Observations:	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	NO. The City is required to develop a SWP3 for this facility similar to that of an Industrial SWP3. See Interview sheet for more information on this matter.
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	These are key components of the SWP3 and must be included in the document when it is produced.
Does the permittee conduct and document periodic inspections of the facility?	NO. The facility must be inspected for the implementation of storm water best management practices (BMPs) at a frequency specified in the SWP3. Ohio EPA recommends that the facility be inspected once per month. In addition, you must conduct a Comprehensive Site Evaluation annually.
Are storm drains labeled and free of debris?	YES all storm drains are labeled. <i>The silt fence providing the catch basin adjacent to the composting area with inlet protection needs to be trenched in at least 6 inches and backfilled.</i>
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	Yes. All vehicle maintenance occurs inside the garage where floor drains are connected to sanitary. The City has set up vehicle inspection sheets for inspecting vehicles for leaks and problems at the end of every day. This is a good BMP that can be added to the facility's SWP3. Once a year the lift pits and oil/ water separators are pumped out.
Are fueling stations properly designed with spill kits nearby?	The fueling station is well equipped with a spill kit which has been clearly labeled, a labeled emergency shut off button, and the catch basin nearby leads to an oil water separator before it is directed to sanitary.

<p>Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?</p>	<p>The City washes all vehicles inside in the car-wash or in the wash bay area. The floor drains go to a sedimentation pit, which the vacor cleans out annually, and then drains to sanitary. The floors and trench trains are cleaned regularly for good housekeeping by the night crews.</p>
<p>Material storage</p>	
<p>Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?</p>	<p>The piles of mulch, sand, topsoil, and finished compost at the back of the facility are discharging leachate or sediment laden runoff over the edge and off the City's property to the drainage area. Even though some of the materials are a finished product, the City is still stock piling large amounts for extended amounts of time. These piles need controls such that the runoff and leachate are contained and prevented from discharging off-site.</p> <p>As a good housekeeping tactic, the City should pull all C&DD, material stockpiles, and poles out of the ditch and back over the edge of the yard and stack, scrap out, or dispose of what is not needed.</p> <p>Tires need to be moved inside to the storage building or tarped until ready for pick-up.</p>
<p>Hazardous waste management</p>	
<p>Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?</p>	<p>All drums are labeled correctly and stored with secondary containment when needed.</p>
<p>Waste management</p>	
<p>Are waste bins covered with waste properly disposed in containers?</p>	<p>All dumpsters on site need to be lidded, plugged, and inspected for leaks on a regular basis. <i>There is a scrap metal dumpster at the back of the facility that is leaking a black substance to the adjacent drainage ditch. This site needs to be remediated and the dumpster should be replaced. See Photos.</i></p>
<p>How is landscape waste stored?</p>	<p>All landscape waste is taken to the composting area where leachate is contained.</p>
<p>Spill response</p>	
<p>Does the facility have a spill response plan, and are spill kits readily available?</p>	<p>A spill response plan is a required component of the SWP3. The City has a spill kit, clearly labeled, in all areas where vehicle maintenance and fueling occurs, as well as areas where oil and chemical drums are stored.</p>
<p>Employee training</p>	
<p>What type of stormwater training do maintenance staffs receive?</p>	<p>Training on storm water pollution prevention is required for the staff at this facility. See interview for the training staffs have received.</p>

Notes or additional information:

Brine and Beet Juice Storage

The EPA recommends that the City provide secondary containment to the brine maker and storage tank area as well as the beet juice container. This is not required but the City should be implementing BMPs to ensure the storage tanks are safe and a spill response plan is implemented. The City may want to consider placing spill kits next to both areas and installing a guard rail, if not already existing, next to the beet juice tank to prevent damage from the trucks.

Material Storage

If vehicles that are not in use are stored outside for long periods of time, please drain them of all fluids. If the City needs the fluids to remain in the vehicles then place drip pans under areas of possible leaks as a stormwater BMP for the maintenance yard.

The junk pile from the screened compost needs containment. This would include placing the debris in a covered dumpster until it can be separated, containing the area in which it is now residing, or taking the pile to the back of the maintenance yard, where containment is already required for the mulch, topsoil, and finished compost piles.

The recycling area for hazardous wastes like paints, e-waste, and batteries is neatly organized in a covered area. The City has so much of this waste stored up and would like to know if there is anywhere else to take the waste besides the annual County hazardous waste round-up. Please refer to the Cuyahoga County Solid Waste District website for local government waste disposal <http://cuyahogaswd.org/residents/hhwaste.asp> for more information on this topic. Also, <http://www.chemicalsolvents.com>, <http://www.cleanharbors.com>, <http://www.hukill.com>, <http://www.oesbattery.com>, and E Scrap Ohio, Willoughby.

INSPECTION PHOTOS

Service Department

City of Solon

Photos Taken: June 22, 2010



Fig 1: Brine storage area should have a spill kit nearby and an emergency spill response plan associated with it if secondary containment is not feasible.

Fig 2: Filter sock at the opening of the salt barn to prevent runoff and salt residue.



Fig 3: The City needs to be careful when filling bins to be sure excess material does not spill over the edge into the vegetated area. Tarp all fines to prevent sediment runoff.

Fig 4: *Staining throughout the yard may indicate that all leachate is not being collected. As a precaution, the City should inspect the composting area during a rain event to ensure all runoff is being collected.*

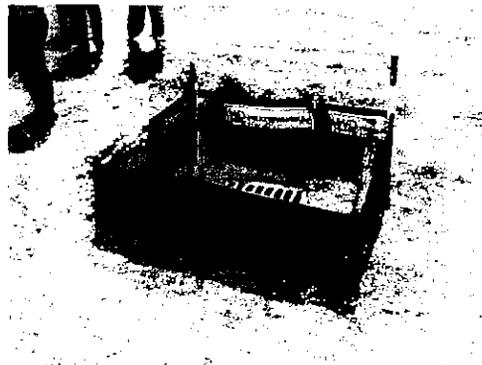


Fig 5: Catch basin between the material storage bins and composting area has evidence of a slight sheen in the water. The City should track the source of this sheen and implement the proper BMPs.

Fig 6: *Silt fence should be trench in at least 6 inches and backfilled.*



Fig 7: Scrap out all unnecessary scrap and inspect area for leaky parts.

Fig 8: The sign pole needs to be removed from the drainage ditch, and all other poles pulled away from the edge of the property.



Fig 9: Scrap metal dumpster is uncovered and only a few inches from the vegetated area. There is an excess amount of sand in front of the dumpster that should be removed and placed in the proper containment.

Fig 10: The scrap metal dumpster is leaking a black substance that is discharging to the adjacent ditch. This area should be remediated and the dumpster replaced and covered.



Fig 11: The tire pile should be tarped at all times or moved under cover.

Fig 12: Stock piles of mulch, finished compost, topsoil, and sand need controls. The piles should be contained so that to runoff or leachate is discharged from the piles off-site.



Fig 13: There is evidence of this material being pushed over the *edge of the property* into the vegetation below. This practice must stop and the City should remediate the area.

Fig 14: Much of the drainage for this area with the mulch and finished compost stockpiles seems to run off-site at this point, forming a gully into the vegetation.



Fig 15: C&DD needs to be pulled out of the vegetation and back onto the service yard.

Fig 16: The City should be wary of runoff discharging to the sloped, paved ramp into the surrounding vegetation.



Fig 17: The old used oil drum seems to be leaking. When removing this storage tank for the construction of the new salt barn, the City needs to be cautious of any fluid that may leak during transportation of the tank.

Fig 18: Storage area for hazardous wastes is tidy and covered. Refer to the notes above for more information on places to dispose of this waste.

FIELD INSPECTION WORKSHEET

MS4 SWMP Evaluation

MS4 Maintenance Facility Field Inspection Worksheet

Permittee: City of Solon Community Park	
Address of facility: 6679 Som Center, Solon 44139	Size of facility:
Date of visit: 6/22/2010	Time of visit: 2:45 p.m.
Provide the name(s) and title(s) of permittee staff present during inspection	
Name	Title
<i>Chris Kaczmarek</i>	<i>Parks and Recreation</i>
<i>Brad Neuin</i>	<i>Parks and Recreation</i>
<i>Russ Schneider</i>	<i>Manager of Operations</i>
<i>Tom Bandiera, Bill Drsek, Dan Driscoll, Joan Milhoan, Marci Rizzo, Rachel Webb</i>	
Evaluator Observations:	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	No SWP3 is required for this facility. There is no vehicle washing, fueling, or maintenance occurring at this site.
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	The City does need to implement BMPs at this facility to prevent the discharge of pollutants into the City's MS4.
Does the permittee conduct and document periodic inspections of the facility?	No formal inspection is required but it is recommended that the City inspect this site for stormwater on a monthly basis as a good BMP.
Are storm drains labeled and free of debris?	Storm drains are labeled but at least two drains had excess sediment running off into them. This is an area where BMPs need to be implemented, such as inlet protect and silt fence, to prevent the discharge of this sediment into the MS4.
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	N/A. No vehicle maintenance occurs at this location.
Are fueling stations properly designed with spill kits nearby?	N/A. There are no fueling stations at this location.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	N/A. No vehicles or equipment are washed at this site. If equipment is rinsed it is done in a grassy area, away from storm drains. A good BMP would be to remove grass from the mowers and dispose of the debris properly before a rain event.
Material storage	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	Trackers and other pieces of parks equipment are stored outside. The City should implement BMPs to inspect vehicles and equipment for leaks. Sediment laden equipment should <u>not</u> be parked over catch basins.
Hazardous waste management	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	Gas cans are stored in locked containment at the side of the parks garage.

Waste management	
Are waste bins covered with waste properly disposed in containers?	All dumpsters are covered and plugged.
How is landscape waste stored?	All landscape waste is taken to the Service Department.
Spill response	
Does the facility have a spill response plan, and are spill kits readily available?	No spill response plan is required for this facility. The City may want to consider keeping a spill kit inside the parks garage in case of minor gas spills.
Employee training	
What type of stormwater training do maintenance staffs receive?	Please refer to the interview sheet for more information.

INSPECTION PHOTOS
Solon Community Park
City of Solon
Photos Taken: June 22, 2010

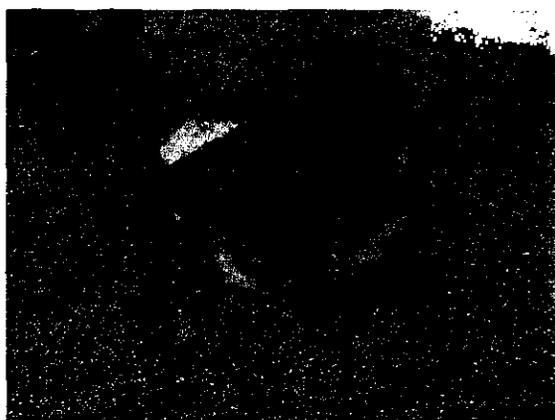


Fig 1: Parks equipment is stored in this small area, on top of the catch basin. If this equipment is covered in dirt and sediment, the City needs to implement BMPs to prevent the discharge of this sediment into the City's MS4. These BMPs may include not storing the equipment in this location and providing inlet protection to the catch basin.

Fig 2: The dirt from the baseball fields has covered the adjacent catch basin. The City needs to implement stormwater BMPs to prevent the discharge of the dirt to the MS4.

FIELD INSPECTION WORKSHEET

MS4 SWMP Evaluation

MS4 Maintenance Facility Field Inspection Worksheet

Permittee: City of Solon Grantwood Golf Course Maintenance Facility	
Address of facility: 38855 Aurora Road, Solon 44139	Size of facility:
Date of visit: 6/22/2010	Time of visit: 3:20 p.m.
Provide the name(s) and title(s) of permittee staff present during inspection	
Name	Title
Don Holub	Director
Tom Bandiera, Bill Drsek, Dan Driscoll, Joan Milhoan, Marci Rizzo, Rachel Webb	
Evaluator Observations:	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	NO. The City is required to develop a SWP3 for this facility similar to that of an Industrial SWP3. See Interview sheet for more information on this matter.
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	These are key components of the SWP3 and must be included in the document when it is produced.
Does the permittee conduct and document periodic inspections of the facility?	NO. The facility must be inspected for the implementation of storm water best management practices (BMPs) at a frequency specified in the SWP3. Ohio EPA recommends that the facility be inspected once per month. In addition, you must conduct a Comprehensive Site Evaluation annually.
Are storm drains labeled and free of debris?	All floor drains in the building are directed to sanitary. Outside storm drains are labeled and clean.
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	All vehicle maintenance occurs inside the building where the floor drains are connected to sanitary.
Are fueling stations properly designed with spill kits nearby?	The facility has two double-walled fueling areas. One dual tank in the back and a gas fueling station up front. Both have an emergency button clearly labeled and spill kits are on the way to place at each station.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	Facility workers rinse mowers off outside. <i>Please be sure to keep this practice in a grassy area where there are no catch basins.</i> The City also rinses golf carts outside in a paved area. This practice also needs to be moved to a grassy area where no wash water will be discharged to the City's MS4.
Material storage	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	YES. The City has tarped stockpiles in the front of the yard. Barrels and drums throughout the garage have secondary containment on the way. Pesticides are locked in a room with no floor drains

Hazardous waste management	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	The used oil drum in the service garage needs to be labeled "Used Oil."
Waste management	
Are waste bins covered with waste properly disposed in containers?	All waste bins on site are new, covered, and free of leaks. Be sure to keep all drainage valves plugged.
How is landscape waste stored?	Landscape waste is not stored on site. During the interview the City discussed possibly starting a small composting area for the Grantwood garage. If this practice was implemented the City must build a controlled area where all leachate can be contained.
Spill response	
Does the facility have a spill response plan, and are spill kits readily available?	A spill response plan is a required component of the SWP3. There is oil-dri in the first and second bays of the garage, and one barrel on a golf cart for emergency spills.
Employee training	
What type of stormwater training do maintenance staffs receive?	Training on storm water pollution prevention is required for the staff at this facility. The staff at this site will be a part of the City's next training program with the Chagrin River Watershed Partners.
Notes or additional information:	
<u>Rinsing Mowers and Golf Carts</u>	
From this point on, all mowers and golf carts need to be rinsed in an area where none of the wash water is discharged to the City's MS4. This could include rinsing in grassy areas where there are no storm drains so the runoff is absorbed into the ground verses discharging to catch basins.	

INSPECTION PHOTOS
Grantwood Golf Course
City of Solon
Photos Taken: June 22, 2010

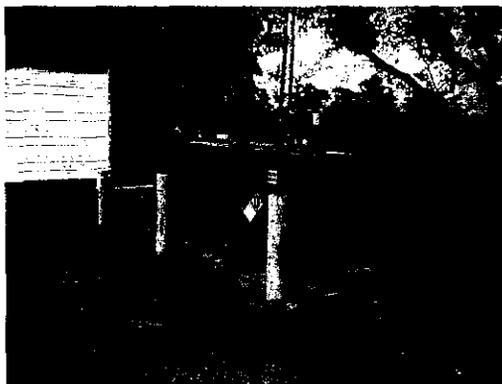


Fig 1: Fueling station at the back of the facility should have a spill kit available all the hours of the day the fueling station is opened.

FIELD INSPECTION WORKSHEET

MS4 SWMP Evaluation

MS4 Maintenance Facility Field Inspection Worksheet

Permittee: City of Solon Water Reclamation 3PD00019*OD	
Address of facility: 6951 Cochran Road, Solon 44139	Size of facility:
Date of visit: 6/22/2010	Time of visit: 2:15 p.m.
Provide the name(s) and title(s) of permittee staff present during inspection	
Name	Title
<i>Michael Zronek</i>	<i>Operations Division Manager</i>
<i>Rich Landman</i>	
<i>Tom Bandiera, Bill Drsek, Marci Rizzo, Joan Milhoan, Rachel Webb, Dan Driscoll</i>	
Evaluator Observations:	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	N/A. At this time there is no SWP3 for this facility. The Plant has a no exposure certification, but the certification is in question.
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	No plan at this time. The City should be implementing storm water BMPs at this site with or without a SWP3.
Does the permittee conduct and document periodic inspections of the facility?	No storm water inspections are carried out at this time.
Are storm drains labeled and free of debris?	Yes all storm drains are labeled and free of debris.
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	N/A. No vehicle maintenance occurs at this facility. All maintenance is sent to the Service Department.
Are fueling stations properly designed with spill kits nearby?	N/A. No fueling stations are present at this facility.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	All vehicle washing takes place indoors where the floor drains are directed back to the plant.
Material storage	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	Pull all outside storage inside, under cover and away from storm water.
Hazardous waste management	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	Label all used oil drums or barrels "Used Oil." See notes for storage of ferric chloride and unloading area for chemicals.
Waste management	
Are waste bins covered with waste properly disposed in containers?	All dumpsters are lidded, plugged and inspected for leaks on a regular basis.
How is landscape waste stored?	N/A. No landscape water is stored on-site.
Spill response	
Does the facility have a spill response plan, and are spill kits readily available?	The facility has a pill response plan. Any areas requiring a spill kit should be addressed.

Employee training

What type of stormwater training do maintenance staffs receive?

See interview.

Notes or additional information:**Solon Water Reclamation Plant**

The City has received a *no exposure certification* for exemption from National Pollutant Discharge Elimination System (NPDES) storm water permitting. After inspection of the facility, 2 points of exposure were noted the will prevent the plant from keeping their no exposure certification unless the exposures are alleviated. The first was the unloading of chemicals such as polymer and caustic soda off the back of a truck outside of the garage. If this process is moved inside, e.g. back the truck all the way into the garage and then unload the chemicals, the Plant will have eliminated this first point of exposure. The other point of exposure is the ferric chloride connection points from the tanks for loading and unloading the chemical. As discussed during the inspection, the Plant needs to create some type of containment for the connection points. This could include making sure the connection point on the tank is pushed back enough where, if there was a spill at this connection, it would be contained within the tanks concrete secondary containment. Also, the connection point at the truck will need containment e.g. a concrete containment area that the truck can back into, etc. To gain full non-exposure the City could permanently cap off the storm drain adjacent to the storage tanks, or permanently send the basin to a holding tank where any spillage can be pumped out for proper disposal.

The City has two other options if containment of the ferric chloride connections is not feasible; the first is to submit a Notice of Intent (NOI) for coverage under the Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000004, or the second, to add storm water language to the existing NPDES Permit for wastewater discharges. To add storm water language to your existing permit, you will need to seek a permit modification and submit Form 2F. If you opt to go this route, please contact Todd Surrena of our office at (330) 963-1255. Regardless of the option chosen, a SWP3 will need to be developed and implemented for this facility within 180 days of submitting the NOI or permit modification.

INSPECTION PHOTOS
Solon Water Reclamation
City of Solon
Photos Taken: June 22, 2010

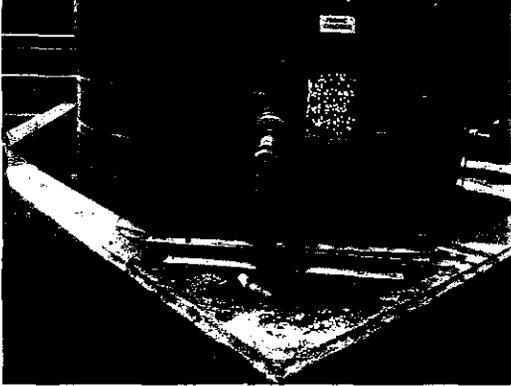


Fig 1 & 2: Ferris Chloride connection points for loading and unloading require containment unless the City plans to permanently reroute the catch basin adjacent to this loading area back to the plant or to a holding tank.