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LORAIN

AVON LAKE

CITY OF AVON LAKE

3GQ00116 2009/09/01

BOGOEVSKI,
DANIEL

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State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 1, 2009

RE: LORAIN COUNTY
LAKE ERIE BASIN
CITY OF AVON LAKE
MUNICIPAL STORM WATER PROGRAM
AUDIT FINDINGS – MCM #6

Mr. Joseph Reitz
Stormwater Program Manager
City of Avon Lake
150 Avon Belden Road
Avon Lake, OH 44012

Dear Mr. Reitz:

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) #3GQ00116*BG and Ohio Administrative Code 3745-39.

On July 23, 2009, the Ohio EPA met with you and other representatives of the City 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 Worksheets 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 obtain industrial storm water permit coverage for the wastewater treatment plant (WWTP).** This is a violation of Ohio Revised Code (ORC) 6111.04 and OAC 3745-39-04. Wastewater treatment plants designed to discharge more than 1 MGD or with an approved pretreatment program are required to obtain NPDES permits for storm water discharges associated with industrial activities. Ohio EPA does not have any record of storm water permit coverage for the City of Avon Lake WWTP. The City must obtain coverage

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under the Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000004 by submitting a Notice of Intent (NOI) and implementing a Storm Water Pollution Prevention Plan (SWP3) within 180 days of receiving permit coverage. Required elements of the SWP3 are described in the NPDES permit, which can be downloaded at www.epa.state.oh.us/dsw/storm/stormform.html. Fact sheets which provide guidance on best management practices (BMPs) for various industrial "sectors" can be found on US EPA's Web site at <http://cfpub.epa.gov/npdes/stormwater/indust.cfm>.

The City may also request a modification of the existing NPDES permit to discharge wastewater from the WWTP so that it includes storm water language, i.e., add Parts IV, V and VI. This will result in a single document to govern discharges from the WWTP. If you decide to take this approach, please contact Chuck Allen at (330) 963-1110 for further guidance.

- **Failure to provide controls for reducing or eliminating the discharge of pollutants from maintenance and storage yards.** This is a violation of Part III.B.6.d.iii.2 of the Small MS4 NPDES Permit #OHQ000002 and ORC 6111.04 and 6111.07. The city is not authorized to discharge leachate from compost piles, sludge storage areas, catch basin cleanings and street sweepings. Systems and procedures must be put in place to prevent the discharge of leachate to the MS4 or directly to waters of the state. Catch basin cleanings and streets sweepings are solid waste and must be stored and disposed of accordingly. Containment berms are recommended for the small compost/ chip piles.
- **Failure to implement an annual training program for maintenance and field staff in order to prevent and reduce storm water pollution.** This is a violation of Part III.B.6.b and III.B.6.e of the Ohio EPA General Storm Water NPDES Permit for Small MS4s #OHQ000002. Please be aware that the City is required to provide at least one training session each year on storm water BMPs to municipal staff whose job can affect compliance with the MS4 permit. Please review the Maintenance Program Worksheet for further information on training.

Deficiencies:

- The City has not provided any storm water pollution prevention guidance materials to field staff that they can take out with them in the field. By making materials available to staff at the field level, implementation of storm water BMPs should improve.

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- The City has not developed an efficient way to track the amount of salt used. More detailed tracking may allow the city to better identify inefficiencies in salt application. The city will need to quantify the amount and the materials used for deicing activities under NPDES Permit #OHQ000002 beginning with the 2009-2010 winter season.
- The City needs to develop a checklist for post-construction BMP maintenance inspections in order to better standardize and analyze all maintenance data. The City must also improve enforcement of its long-term maintenance program for post-construction stormwater BMPs, particularly as it relates to privately-owned facilities. This program should include official long-term maintenance agreements between the City and the home owners' associations (see attached model from Chagrin River Watershed Partners). The long-term maintenance plan should be reviewed and approved as part of SWP3 review for any new development or redevelopment where the larger common plan of development or sale disturbs 1 or more acre.
- The City does not conduct regular inspections of storm water BMPs at the Service Department or the Utilities Building. Please be aware that an inspection must be conducted at least once per year during the next permit cycle once a Storm Water Pollution Prevention Plan (SWP3) is developed for each facility. Ohio EPA recommends you develop a checklist for facility inspection to provide consistency. Please reference Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000004 Part IV. D.2.a.1 for more information on the development of a site map. The SWP3 must be developed within 2 years, i.e., by June 4, 2011.
- The city needs to assure contract language/agreements specify that storm water BMPs must be implemented by a third party, when said third party is relied upon to conduct a municipal operation and is relied upon to enact BMPs. Please be sure to add this language to any future requests for proposal or contracts you sign with third party service providers whose activities can create storm water pollution.

Please review my comments and provide me with a letter of response indicating the actions you will take to address my concerns. **Your response should be received no later than September 25, 2009.** Please note that this response does not replace the requirement to submit an Annual Report. Your annual report for 2009 will be due on April 1, 2010.

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If you have any questions, please contact me at (330) 963-1145 or via e-mail at dan.bogoevski@dnr.state.oh.us.

Sincerely,



Dan Bogoevski
District Engineer
Division of Surface Water

DB/mt

cc: Karl Zuber, Mayor
Thomas Lescher, Service Director
Chuck Allen, Ohio EPA, DSW, NEDO

Municipal Storm Water Program Evaluation

MS4 Maintenance Component Worksheet

Date of Evaluation July 23, 2009	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.
Evaluator Name, Title Ken Safranek, Ohio EPA Assistant to the District Engineer	
MS4 Permittee City of Avon Lake	

Staff Interviewed		
Name	Department/Agency	Phone Number/Email
Joe Reitz Stormwater Program Manager	City of Avon Lake	440.653.0879 jrreitz@avonlake.org
Thomas E. Lescher Service Director	City of Avon Lake	440.933.6141
Paul Larson Assistant to the Stormwater Engineer	City of Avon Lake	440.933.6441

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)?	Maps are used as a reference for conducting outfall inspections including dye and smoke testing.

Applicable Documents	Reviewed	Obtained
Map(s) of MS4 system	YES	YES

Notes
<p>MS4 Map</p> <p>The City of Avon Lake has been using a modified utilities map that displays the outfalls, receiving waters, catch basins, and pipes. The maps are electronic and the city has the ability to map any portion of the city in detail. There is an effort underway to map the entire city using a GIS database and compile all data. This new map will include public and private stormwater facilities and any</p>

Notes
<p>necessary updates to the original M54 map. The GIS mapping is part of a 3 year program to map the entire city's utilities. A first revision of the map was available during the inspection.</p> <p>The permit in effect from 2009-2014 requires that all catch basins and publicly-owned storm sewers, ditches and storm water management facilities be mapped. In addition, 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. This must be completed by 2014.</p>

Catch Basin Cleaning		
Interview Question	Response	
Schedule established for inspections and cleaning?	NO	
Is cleaning and maintenance of catch basins tracked:	YES	
How are spoils materials disposed of?	<p>Catch Basin cleanings are dumped behind the closed landfill near the Service Garage. There is no containment of leachate from this material. The material is stockpiled until it is taken to a landfill. It is taken to a landfill once a year.</p> <p>The design of the spoils storage area is unacceptable and results in an unauthorized discharge of leachate. The MS4 permit does not authorize the discharge of leachate. Leachate is a wastewater and must be managed as such. Further, catch basin cleanings are a solid waste and should be stored in a lidded dumpster and disposed at a landfill.</p>	
Are storm drain pipes inspected?	YES	
Proactive or only in response to blockage event?	Storm pipes are only inspected in response to a blockage event or complaint.	
Applicable Documents	Reviewed	Obtained
List of active municipal construction projects	YES	YES

Notes
<p>Catch Basin Cleanings:</p> <p>The city has recently started a catch basin cleaning program throughout the entire city. The program includes the cleaning of all catch basins but this has yet to be completed. There is not prioritization of the cleanings at this time. In addition to the cleaning of the catch basins, the road department will inspect and perform any necessary maintenance on the catch basins. Once cleaned, the City will fix a small metal stamp that indicates this is a storm sewer, it has been cleaned, and not to dump any materials into it. <i>This program could be improved by establishing a schedule for catch basin cleaning and prioritizing main roads and industrial/commercial areas of the city for more frequent cleaning.</i></p> <p>The material collected from catch basin cleanings is stored at the Service Department near the</p>

composting operation. This material is kept here until it is taken to a landfill. There is no containment of leachate from this pile and water was seen discharging from the site. This method of disposal is unacceptable and constitutes open dumping of solid waste. You must implement a system to manage the dewatering and storage of catch basin cleanings. The storage area is not sufficiently designed to properly manage catch basin cleanings. This deficiency must be corrected. A Permit-to-Install from Ohio EPA may be required to install a holding tank, sanitary sewer extension or wastewater treatment system. You may contact Chuck Allen at (330) 963-1110 for further information.

MS4 System Repair and Maintenance

Joseph Reitz has contracted, and completed a plan to inspect the entire storm sewer system. This program has yet to start due to a lack of funding. Once the funding for this program is in place, the storm sewer system can be inspected. The implementation of this program is important for the City of Avon Lake in order to comply with the illicit discharge and elimination portion of the NPDES Permit.

Municipal Construction Projects

A pool installation project is set to begin on August 3rd and will include a SWP3 but does not disturb more than one acre. In addition, there is a Walker Rd. turn lane project set to begin shortly. Lastly, a combined sewer separation project will begin on Jaycox Rd. that includes 6 streets in early November. The city presented a list of all ongoing municipal (4) and private construction projects (6).

Stormwater Management Facilities Operation and Maintenance			
Interview Questions	Response		
Public facilities inspected?	YES		
Frequency:	All public facilities are inspected by the city at least annually and some are targeted for more frequent inspections.		
Private facilities inspected?	YES		
Frequency:	The frequency of inspection of private facilities is relatively unknown. The respective homeowners association is responsible for the inspection of their facility and after the inspection an inspection sheet should be submitted to the City. Only one sheet has been submitted. Ensuring long-term maintenance of post-construction BMPs is a required element of the MS4 program. The City of Avon Lake must improve tracking and enforcement of its long-term maintenance program.		
Checklist used for inspections?	NO		
Have maintenance standards and procedures been established for these facilities?	YES		
How is maintenance prioritized? Is data evaluated to target maintenance resources?	YES		
	Applicable Documents	Reviewed	Obtained
Inspection checklist		Does Not Exist	N/A

Notes

Public Stormwater Management Facilities

Public Facilities are inspected by Paul Larson of the City's Engineering Department. He inspects all of these facilities at least once a year or as stipulated in the corresponding NPDES Permit. Pine Meadows #1-Handford Drive is a retention basin that has been targeted for frequent inspection by the city. None of the City's public stormwater management facilities treat water quality but should be looked at for possible retrofit opportunity. There is no official inspection checklist used to perform the inspections. This is a deficiency of your Post-Construction BMP Long-Term Maintenance Program. You should develop a checklist in order to standardize inspections and obtain consistent maintenance data.

Private Stormwater Management Facilities

Private facilities are inspected by the homeowners association (HOA) as stipulated in the Long-Term Maintenance Standards Ordinance. The procedure includes reporting to the City when an official inspection has been completed. As of the interview, the City had received only one inspection sheet from a HOA. A compiled inventory of all public and private facilities created by the City displayed when the last inspection took place. The inventory included 63 basins and three non-pond post construction BMPs. Thirty (30) total BMPs treated a water quality volume, 13 of which had an inspection year. The City needs to improve enforcement of the long-term maintenance standards ordinance. Every storm water pollution prevention plan (SWP3) must include a long-term maintenance plan for post-construction BMPs that the City reviews and approves. The City must ensure that the HOA is implementing the approved plan. Plans should stipulate the frequency of inspection and the schedule for routine and non-routine maintenance tasks. Additionally, the City should develop or adopt standardized checklists to be included in the plans and used by HOAs. The Center for Watershed Protection has a manual on long-term maintenance programs with checklists that you may want to use for your program.

Road Maintenance	
Interview Questions	Response
Streets regularly swept?	YES
Frequency:	Every curbed street is swept at the beginning of Spring over the course of one month. Streets with bike lanes will occasionally receive an additional sweeping.
Frequency based on water quality factors (e.g. proximity to streams)?	NO
How are spoils disposed of?	Street sweepings are stockpiled with catch basin cleanings at the composting facility. The design of the storage area is not acceptable and will need to be amended as indicated in the Catch Basin Cleaning section of this worksheet.
Does the community collect road kill?	YES
What do they do with the carcasses?	Animal carcasses are taken directly to a dumpster and disposed at a landfill.
Does the community have a leaf collection program?	YES
What do they do with the collected leaves?	The City of Avon Lake owns and operates a

Road Maintenance			
Interview Questions	Response		
	licensed Class IV Composting Facility. Here leaves are composted and available to the public.		
BMPs used during road maintenance activities? Describe types of road maintenance conducted by community staff and the BMPs used	YES The City of Avon conducts street patching, line painting, crack sealing, catch basin and curb repairs, and partial depth repair. The City will put filter cloth on basins, sweep streets after work, clean out catch basins, use detack on crack sealing, and use common sense practices noting weather conditions for work.		
BMP guidance available to field staff?	NO The city could look at turning BMP information into a booklet or flip chart for the crews.		
Deicers used by MS4?	YES		
Type and amount of deicer and additives tracked? What measures are being taken to minimize the application of deicers?	The City uses rock salt (NaCl) with a magnesium chloride additive that is added to the salt before application. The City used around 3500 tons of salt this previous year which is determined by purchase orders. The City has not adopted sensible salting practices. Salting routes have been established to prevent over salting in addition to only salting main roads.		
Sand/salt swept up after application? How soon?	YES Salt is swept into the storage bin after trucks have ceased operation for the storm event.		
Applicable Documents		Reviewed	Obtained
BMP guidance		NO	NO
Street sweeping records		NO	NO
Deicer application records		NO	NO

Notes
<p>Street Sweeping</p> <p>Records are kept at the service garage in handwritten form. The sweeping program could be improved by targeting areas of water quality concern where pollution generation is the highest or water quality is most sensitive, e.g., heavily traveled streets, commercial or industrial areas. In addition, more frequent sweeping along with electronic documentation could improve your program. You will need to adequately track the total amount of material that you have swept for each subsequent annual report.</p>

Notes

The current practice of managing street sweepings is unacceptable. Street sweepings are solid waste and must be managed as such. Any runoff that contacts sweepings or liquid that seeps from street sweeping stockpiles is leachate and must be managed as wastewater. Further, this operation (along with the catch basin cleanings operation) may need to be relocated. Currently, these operations occur on top of a closed landfill. Regulations administered by the Ohio EPA Division of Solid and Infectious Waste Management (DSIWM) do not allow you to store leachate or otherwise pond leachate on top of a landfill. Please consult with Clarissa Gereby of our DSIWM at (330) 963-1224 before finalizing your plans to address this deficiency.

Road Deicing

Although the City has some idea of how much deicing material is used through purchase orders, more detailed tracking of salt applications may allow you to identify inefficiencies in the system that lead to over-application. Tracking the amount of salt used per storm event and truck route is suggested. Frequent calibration of dispensing equipment is also suggested. The City should also look to adopt sensible salting practices, focusing deicer application to main roadways, intersections, hills and curves. Communities that adopted these practices have told Ohio EPA that these practices have reduced the amount of salt they have applied. We recommend that the City set a target reduction goal for deicer application. The city will need to quantify the amount and type of deicer used for NPDES Permit #OHQ000002 beginning with the 2009-2010 winter season.

Flood Management

Interview Questions		Response	
Inventory of flood management structures completed?		YES	
Structures been assessed for stormwater retrofit?		NO	
New structures include water quality considerations?		YES	
Applicable Documents		Reviewed	Obtained
Inventory		YES	YES

Notes

Flood Management Structures:

The City has an inventory of all their flood management structures. Some of the basins are designed for water quality but most of the structures are for water quantity. All new flood management structures are designed for water quality. The Ohio EPA recommends that the City review existing flood management structures for retrofit opportunities. This opportunity most often arises when basins are rebuilt or repaired.

Facilities Operation & Maintenance

Interview Questions	Response
Inventory of MS4 facilities complete (i.e. facilities owned and operated by the MS4)?	YES
<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>	

Facilities Operation & Maintenance		
Interview Questions	Response	
	<u>Response</u>	<u>SWP3 Developed?</u>
<ul style="list-style-type: none"> • Landfills Type: _____ • Solid Waste Transfer Stations 	NO	N/A since do not operate
<ul style="list-style-type: none"> • Airports • Shipping Ports • Steam Electric Power Plants 	NO	N/A since do not operate
<ul style="list-style-type: none"> • Wastewater Treatment Plants ≥ 1 MGD 	YES	YES, but see Notes below
<p><i>These do not need their own NPDES permit, but do need SWP3, if community operates:</i></p> <ul style="list-style-type: none"> • Impound Lots 	<u>Response</u> NO	<u>SWP3 Developed?</u> N/A since do not operate
<ul style="list-style-type: none"> • Composting Operations <ul style="list-style-type: none"> ✓ No discharge of leachate permitted 	YES	NO
<ul style="list-style-type: none"> • Leaf Collection Yards <ul style="list-style-type: none"> ✓ No discharge of leafate permitted 	NO	N/A
<ul style="list-style-type: none"> • Maintenance Yards <ul style="list-style-type: none"> ➤ How many do they operate? <u> 2 </u> ➤ List facility names/locations: Service Department Garage 750 Avon Belden Rd. 	YES	NO
<ul style="list-style-type: none"> • Bus Terminals 	NO	N/A since do not operate
<ul style="list-style-type: none"> • Vehicle Maintenance Garages <ul style="list-style-type: none"> ➤ How many do they operate? ➤ List facility name/locations: 	YES	To be included in SWP3 for Service Dept.
<p><i>These are municipal operations for which the MS4 must adopt best management practices, but do not require a formal SWP3:</i></p> <ul style="list-style-type: none"> • Parks and Open Space (include Cemeteries) <ul style="list-style-type: none"> ➤ How many in UA? <u> 12 </u> ➤ List facility names/locations: List provided to Ohio EPA. See file. 	<u>Response</u> YES	
<ul style="list-style-type: none"> • Parking Lots <ul style="list-style-type: none"> ➤ How many do they operate? <u> 9 </u> ➤ List facility name/locations: List provided to Ohio EPA. See file. 	YES	

Facilities Operation & Maintenance	
Interview Questions	Response
Facilities inspected? Frequency:	NO The City will need to develop a protocol with inspection frequency and an inspection checklist as part of the SWP3 for facilities that require an SWP3. See Notes. We also suggest that parks and open space and parking lots be reviewed to determine appropriate BMPs for these facilities.
Checklist used?	NO For facilities that require a formal SWP3, an inspection checklist, customized to that facility, must be included in the plan. For other facilities, we recommend the City develop an inspection checklist.
Staff which perform the inspections (department or agency):	Joe Reitz
Is there a designated stormwater contact person for each facility?	YES Joe Reitz
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?:	Union staff is tied to a labor agreement. Disciplinary actions are outlined in the labor manual. The process includes verbal warnings, written warnings, and time off. This system has not been carried out for any issue concerning stormwater or other environmental compliance issue.
Parking lots owned/operated by the permittee swept? Frequency?	NO It is considered a BMP to sweep the City's parking lots and the practice is recommended. As with street sweeping, we recommend it occur in the Spring to collect pollutants that have accumulated in snowbanks over winter and in Fall after leaves have fallen.
Do you have any combined sewer systems? If yes, do you have any combined sewer overflows? ➤ How many? _____ ➤ Do you track frequency and volume?	YES YES All overflows are handled by the Utilities Department. The City should keep copies of the reports in their records.

Facilities Operation & Maintenance			
Interview Questions	Response		
<p>Are you aware of any illicit cross connections between your sanitary sewer and MS4?</p> <p>If so, what is your plan to eliminate this illicit discharge?</p>	<p>YES</p> <p>There is a cross connection on Lear Rd that is being investigated at this time.</p> <p>The City will smoke test each section of the problem area and investigate from there to eliminate. Dye testing is carried out on an individual basis.</p> <p>A plan with timeframes to eliminate this illicit discharge must be included with your response.</p>		
<p>Have you investigated the extent of infiltration and inflow into storm sewer system?</p> <p>What methods have been used to conduct this investigation?</p> <p>What are your plans to repair and eliminate this source of illicit discharge?</p>	<p>NO</p> <p>Joseph Reitz has contracted, and completed a plan to inspect the entire storm sewer system. This program has yet to start due to a lack of funding. Once the funding for this program is in place, the storm sewer system can be inspected. This should be a priority for the City of Avon Lake in order to comply with the illicit discharge and elimination portion of their NPDES Permit.</p>		
<p>Sewer spill and cleanup procedures in place?</p>	<p>YES</p>		
	Applicable Documents	Reviewed	Obtained
	Facility inventory	YES	YES
	Facility SWPPP	NO	NO

Notes
<p>Facility Inventory</p> <p>The City is in violation of Ohio Revised Code 6111.04 and Ohio Administrative Code 3745-39-04 for failure to obtain NPDES permit coverage for facilities that discharge storm water runoff associated with industrial activity. There is no record of an NPDES permit for stormwater discharges associated with industrial activity for the following facility:</p> <p>The City Of Avon Lake Wastewater Treatment Plant 33675 Durrell Ave. Avon Lake, OH 44012</p> <p>The city must submit a notice of intent (NOI) for the Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000004. The City stated that a Storm Water Pollution Prevention Plan (SWP3) has been developed for this facility, but it was not reviewed during this inspection. Please review the SWP3 to be sure it complies with the requirements of General NPDES Permit #OHR000004. If the SWP3 does not exist, it will need to be developed and implemented within 180 days of submitting the NOI.</p>

Notes

Further, the wastewater treatment plant (WWTP) was not inspected during this MS4 inspection. However, it has been brought to our attention by Chris Moody, our sludge program coordinator, that sludge management at the WWTP is not handled properly and leads to an illicit discharge of leachate to the MS4. Please review sludge management operations at the WWTP and eliminate any discharge of leachate to the MS4 immediately. Be sure to revise the SWP3 accordingly.

Service Dept. and Utilities

Further, the Ohio EPA General Storm Water NPDES Permit for Small MS4s #OHQ000002 requires the City to develop a SWP3 for the following facilities:

Service Department
750 Avon Belden Rd
Avon Lake, OH 44012

Avon Lake Municipal Utilities
201 Miller Rd
Avon Lake, OH 44012

City of Avon Lake Composting Facility
750 Avon Belden Rd
Avon Lake, OH 44012

The SWP3s must be developed and implemented within 2 years of permit renewal, which our records show is June 4, 2011. **NOTE:** The City considers the Service Department and the Composting Facility to be two separate operations even though they share an address. As such, it appears that these operations will have separate SWP3s. This is fine if that will facilitate administration of the plan for the City, however, Ohio EPA would not object if a single plan was developed to encompass both operations at 750 Avon Belden Rd.

The above facilities must be inspected at least once per year and a record of the 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 stormwater contact person for the facility.

The Facility Management Plan for the Service Department is a good start to a SWP3 for the facility. The site map needs improvement to better indicate all drainage areas and pollution sources. Please reference Ohio EPA General Storm Water NPDES Permit for Industrial Activities #OHR000004 **Part IV. D.2.a.1** for more information on the development of a **site map** for the SWP3s.

Pesticides, Herbicides & Fertilizers	
Interview Questions	Response
Certified applicators used?	YES
Integrated Pest Management (IPM) practices used?	NO
Storage location of pesticides, herbicides, and fertilizers:	Weed killer and fertilizers are stored at the Service Department.
BMPs used during application:	Common sense practices are executed during

	application, such as looking at the weather before applying.
Fertilizer/pesticide application plan utilized?	NO
Applicable Documents	
Fertilizer/pesticide application plan	Reviewed: NO Obtained: NO

Notes
The City uses Speed Exterminating for its buildings. Lawn Tech is contracted out to apply fertilizer and weed control twice a year (Spring and Fall). The contracts with these third party service providers must include language requiring the implementation of storm water BMPs to eliminate the discharge of pollutants to the MS4. Best management practices include sweeping up overspread, minimizing application and using dry spill clean-up methods. Ohio EPA recommends that the City periodically review their operations to assure that BMPs are being implemented.

Standards, BMPs, & Outreach		
Interview Questions	Response	
BMP technical guidance document available to maintenance staff?	NO	
MS4 use contractual staff to complete MS4 maintenance activities?	YES	
BMP guidance materials provided to contracted staff?	YES	
Requirement to consider stormwater impacts and utilize appropriate BMPs in contracts?	YES	
Materials used to educate the public regarding stormwater impacts on MS4 property (if applicable, i.e. public spaces):	<u>Pet waste:</u> There is a dog park equipped with waste bins and mutt mitts. <u>Litter reduction:</u> Trash bins in the parks and throughout the city are inspected daily.	
Applicable Documents		
BMP manual or guidance document	Reviewed: NO	Obtained: NO
Contract language for MS4 operation and maintenance activities	YES	NO

Notes
<p><u>BMP Guidance</u></p> <p>Currently, there are no resources available to the municipal staff on Storm Water BMPs. The City was informed on how to develop material that will let staff understand their contribution to storm water pollution and what methods they can use to limit the pollutants. This could also include binder or flip books placed in vehicles or in a locker room for easy reference. For more ideas, please consult the <i>Rainwater and Land Development</i> manual (ODNR, 2006). We also recommend you review 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.</p> <p><u>Contracted Services and Guidance</u></p> <p>It is the city's obligation to assure contract language/agreements specify that storm water BMPs must</p>

Notes
be implemented by the third party. Please be sure to add this language to any future requests for proposal or contracts you sign with third party service providers whose activities can create storm water pollution. The contractor should be held accountable to comply with the stormwater requirements of the City. Periodic inspection of their operations in your community is also suggested.

Staff Education and Training		
Interview Questions	Response	
Staff trained to identify potential storm water pollution sources which would result in an illicit discharges?	NO The city has provided no training to maintenance staff.	
Materials used to train staff:	Tom Lescher and Joe Reitz attended a pollution prevention and good housekeeping seminar in Middleburgh Heights. However, there has been no formal training event to transfer this information to other staff. Please be aware that it has come to Ohio EPA's attention that there is an error in the materials presented at the Middleburgh Heights seminar regarding the management of catch basin cleanings and street sweepings. Instead, please refer to guidance provided by Ohio EPA at our September 20, 2007, workshop on this topic. Materials are available on-line at www.epa.ohio.gov/ocapp/storm_water.aspx .	
Applicable Documents	Reviewed	Obtained
Training materials	NO	NO

Notes
<p>Staff Training and Education</p> <p>Failure to provide training to municipal staff on storm water pollution prevention matters is a violation of Part 3.2.6.1.1 of the Ohio EPA General Storm Water NPDES Permit for Small MS4s #OHQ000001. The permit requires the City to develop and implement an operations and maintenance program for its MS4 that includes a training component. Although storm water program managers have received training, the City was unable to demonstrate that any training has been provided to maintenance and field-level staff on storm water pollution prevention matters. Please begin documenting the training events provided and staff being trained. NPDES permit #OHQ000002 requires you to train staff on storm water pollution prevention at least once every year.</p> <p>Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) as well as ODOT's Local Technical Assistance Program (LTAP) have 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: www.epa.state.oh.us/ocapp/storm_water.html and can be used to provide training to your staff. In addition, Cleveland State University and the Cuyahoga County Board of Health (CCBH) through the NE Ohio Storm Water Training Council is planning a pollution prevention workshop early 2010. Please contact Daila Shimek at Cleveland State University at (216) 687-9221 or Laura Travers at (216) 201-</p>

Notes

2001 at the CCBH for further information. The Center for Watershed Protection also has information available for training in their Manual #9: Municipal Pollution Prevention/Good Housekeeping Practices.

**MS4 SWMP Evaluation
MS4 Maintenance Facility Field Inspection Worksheet**

Permittee: City of Avon Lake	
Address of facility: 750 Avon Belden Road, Avon Lake Service Dept. and Compost Facility	Size of facility: Unknown
Date of visit: July 23, 2009	Time of visit: 11:45am
Provide the name(s) and title(s) of permittee staff present during inspection	
Name	Title
Joe Reitz	Stormwater Program Manager
Tom Lescher	Service Director
Evaluator Observations:	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	The City has developed a Facility Management Plan for this facility, which needs to be retrofitted to a SWP3 for the facility. The SWP3 for the Composting operation is a separate entity.
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	There is a site map for the Service Department, but the map needs to be updated to show the drainage of the area, list pollutant sources and BMPs as well as maintenance procedures.
Does the permittee conduct and document periodic inspections of the facility?	No inspections of the Service Department occur at this time. This will be included in the facility SWP3 along with an inspection checklist.
Are storm drains labeled and free of debris?	Storm drains are labeled but some maintenance of the basins is necessary.
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	Vehicle Maintenance occurs in the Service Building where all drains lead to sanitary.
Are fueling stations properly designed with spill kits nearby?	The Central Fueling Station is roofed with breakaway hoses, and an emergency shut-off close by. There needs to be a spill kit next to the fueling area.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	The city needs to be sure that ALL vehicle washing occurs inside the service building where drains lead to the sanitary sewer.
Material storage	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	<p>Most drums are stored on secondary containment. It is recommended to purchase a few more trays to place the rest of the drums in containment.</p> <p>There needs to be controls for the stockpiles of fines in the lot and the piles of compost and chips in the lot area need to be removed and placed in an area where the leachate produced by the piles is collected.</p> <p>The piles of solid waste from the catch basin cleanings, street sweepings and sewer projects needs to be removed from the site.</p>
Hazardous waste management	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	The waste oil needs to be clearly labeled "Used Oil." Recyclables, such as old batteries, need to be stored in secondary containment, away from areas with water run-on.

Waste management	
Are waste bins covered with waste properly disposed in containers?	All dumpsters need to be lidded and inspected for leaks regularly.
How is landscape waste stored?	Grass is mulched.
Spill response	
Does the facility have a spill response plan, and are spill kits readily available?	All buildings need to be equipped with spill kits.
Employee training	
What type of stormwater training does maintenance staff receive?	See Interview.
Notes or additional information:	
<p><u>Spill Control</u> All buildings must be equipped with spill kits nearby and clearly labeled for employees to see. A spill kit should be placed in any area of the building where maintenance occurs, where possible leaking of stored vehicles could occur and in fueling areas.</p>	
<p><u>Drains</u> The city needs to verify that all drains in the service building lead to sanitary. The city also stated that the drains in the storage building lead to sanitary, but a label on one of the drains read "<i>drains to waterway.</i>" If the floor drains in the storage garage are connected to storm the city needs to take extra precautions. A spill kit should be present along with drain pans. Vehicles stored in the building should be inspected regularly for leaks. The city should also make sure catch basins on the lot are protected from pollutants on the yard and inspected regularly.</p>	
<p><u>Outside Storage</u> Stockpiles of fines on the lot need to be equipped with the propped sediment controls to prevent runoff from entering the storm drains. Materials and equipment stored outside should be kept to a minimal, and anything containing liquid should be drained before stored outside. Tarps may be used to prevent runoff. Scrap metal and recyclables should be disposed of as soon as possible. Items such as batteries and recycled paint need to be kept out of the weather and in containment away from run-on. Piles of compost and wood chips were found throughout the lot, and a noticeable amount of leachate was discharged. The city is not permitted to discharge any such leachate, and the piles need to be moved to an area where the leachate is collected.</p>	
<p><u>Composting Area</u> The material collected from catch basin cleanings and street sweeping is stored at the Service Department near the composting operation. This material is kept here until it is taken to a landfill. There is no containment of leachate from this pile and leachate was observed to be discharging from the site. This method of disposal is unacceptable and constitutes open dumping of solid waste. The storage area is not sufficiently designed to collect or otherwise prevent leachate from flowing offsite into waters of the State. This deficiency must be corrected. The catch basin cleanings and sweepings should be contained and dewatered into the sanitary. The dry solids should then be disposed of in a lidded or tarped dumpster and taken to a landfill.</p>	

City of Avon Lake MS4 Program Audit

Municipal Operation Photos

Service Department

Location: 750 Avon Belden Road
Date Photos Taken: July 23, 2009
Taken by: Lindsie MacPherson, DSW-NEDO



Fig 1(LEFT): Run-on from the battery discharging to the floor drain nearby. Hazardous materials need to be stored away from stormwater in containment.



Fig 2(RIGHT): Most of the drums were stored in secondary containment. Some of the drums that were left out were leaking and need to be stored on containment as well. If more trays are not in the budget, the city needs to prioritize storage. Older, leaky drums should be in containment over the newer drums.



Fig 3(LEFT): The city needs to set up some sort of sediment controls for piles of fines on the lot such as the one above.



Fig 4(RIGHT): Scrap and materials stored outside should be limited and BMPs should be implemented to control run-off.



Fig 5(LEFT): Mud and other debris from trucks that is tracked onto the lot should be cleaned up to avoid run off into storm drains.

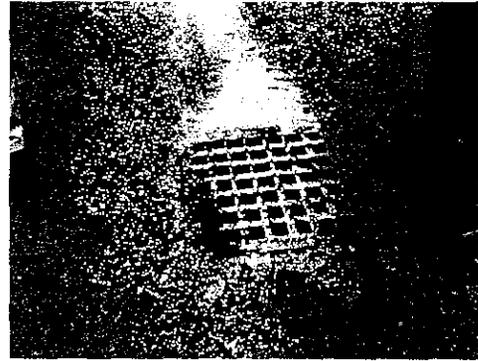


Fig 6(RIGHT): Sediment runoff entering a catch basin on the lot. All basins should be protected for polluted runoff such as this.



Fig 7(LEFT): Piles of finished compost need to be equipped with some sort of controls to contain runoff.



Fig 8(RIGHT): The chip pile on the yard should also be equipped with controls while it is stored in this area.



Fig 9(LEFT): Pile of compost on lot is discharging leachate to the MS4. The city is not permitted to discharge such leachate and the pile must be removed.



Fig 10(RIGHT): The photograph above demonstrates the rusty color of the runoff coming off the pile on the lot. The city is not permitted to discharge this leachate.

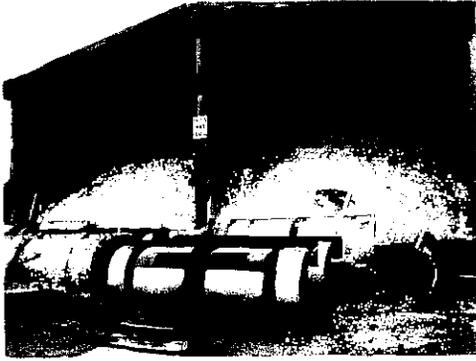


Fig 11(LEFT): The storage area for the city's salt is facing east, away from most bad weather and winds. The area is kept in good condition, and salt is swept up away from the rain. Controls are in place to contain salt in bins.



Fig 12(LEFT): The pile of solid waste from the catch basin cleanings and street sweepings needs to be removed from this area and disposed of properly.



Fig 13(RIGHT): Runoff from this pile was seen discharging to the surrounding wooded area.



Fig 14(LEFT): This pile is from the many sewer projects the city has undertaken. If some of the material in this pile is solid waste, the city needs to find a different way to store and dispose of this material.

**MS4 SWMP Evaluation
MS4 Maintenance Facility Field Inspection Worksheet**

Permittee: City of Avon Lake	
Address of facility: 201 Miller Road, Avon Lake Avon Lake Municipal Utilities	Size of facility: Unknown
Date of visit: July 23, 2009	Time of visit: 12:45pm
Provide the name(s) and title(s) of permittee staff present during inspection	
Name	Title
Joe Reitz	Stormwater Program Manager
Tom Lescher	Service Director
Evaluator Observations:	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	NO SWP3 has been developed for this facility. The city will need to develop and implement the equivalent to an industrial SWP3.
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	Does not exist.
Does the permittee conduct and document periodic inspections of the facility?	No formal inspection for stormwater BMPs.
Are storm drains labeled and free of debris?	Yes. Grates labeled and free of debris.
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	All vehicle maintenance occurs indoors where the drains all lead to sanitary.
Are fueling stations properly designed with spill kits nearby?	No fueling station at this site.
Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	All Vehicle washing occurs indoors, where drains lead to sanitary.
Material storage	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	All materials and drums stored indoors are on some sort of secondary containment. The lot is paved, but a small shine runoff was noted leading into the storm drain. The facility should work on tracing this shine and discover the source.
Hazardous waste management	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	All drums stored on containment and labeled. Any used oil on site should be labeled "Used Oil."
Waste management	
Are waste bins covered with waste properly disposed in containers?	All dumpsters should be lidded and regularly inspected.
How is landscape waste stored?	Mulched.
Spill response	
Does the facility have a spill response plan, and are spill kits readily available?	A spill response plan is in place with spill kits.
Employee training	
What type of stormwater training does maintenance staff receive?	See Interview.
Notes or additional information:	
The facility is a newer building and almost all pollutant sources seem to have been targeted and controlled.	



MODEL INSPECTION AND MAINTENANCE AGREEMENT FOR STORM WATER BEST MANAGEMENT PRACTICES

PLEASE NOTE

- This **model Inspection and Maintenance Agreement** is for use in conjunction with the requirements of Section **XXXX.08 and XXXX.12 of CRWP's Model Ordinance for Comprehensive Storm Water Management** to ensure the long term operation, maintenance, and funding of storm water best management practices.
- This model agreement must be tailored to each development project to list the specific BMPs covered by the agreement, and the funding and operation and maintenance conditions accepted by the Community.
- Please contact CRWP for assistance in tailoring this model to your community's needs.

This Inspection and Maintenance Agreement, made this _____ day of _____ 200_, by and between the **[party responsible for the project on which the storm water best management practices will be located]** (hereafter referred to as the Owner) and the **[Community]** hereafter referred to as the Community, provides as follows:

WHEREAS, the Owner is responsible for certain real estate shown as Tax Map No. **(parcel number)** that is to be developed as **(development's official name)** and referred to as the Property; and,

WHEREAS the Owner is providing a storm water management system consisting of the following storm water management practices **(list all components of the storm water management system)** as shown and described on the attached Comprehensive Storm Water Management Plan **(attach copy of development's approved plan)**; and,

WHEREAS, to comply with Section **XXXX.XX** of the Codified Ordinances of the **[Community]** Comprehensive Storm Water Management, pertaining to this project, the Owner has agreed to maintain the storm water management practices in accordance with the terms and conditions hereinafter set forth.

NOW, THEREFORE, for and in consideration of the mutual covenants and undertaking of the parties, the parties hereby agree as follows:

A. FINAL INSPECTION REPORTS AND AS BUILT CERTIFICATION

The Owner shall certify in writing to the **[Community]** within 30 days of completion of the storm water management practices that the storm water management practices are constructed in accordance with the approved plans and specifications. The Owner shall further provide As Built Certifications of the locations of all access and maintenance easements and each storm water management practice, including those practices permitted to be located in, or within 50 feet of, water resources, and the drainage areas served by each storm water management practice.



B. MAINTENANCE PLANS FOR THE STORM WATER MANAGEMENT PRACTICES

1. The Owner agrees to maintain in perpetuity the storm water management practices in accordance with approved Maintenance Plans listed in #2 below and in a manner that will permit the storm water management practices to perform the purposes for which they were designed and constructed, and in accordance with the standards by which they were designed and constructed, all as shown and described in the approved Comprehensive Storm Water Management Plan. This includes all pipes and channels built to convey storm water to the storm water management practices, as well as structures, improvements, and vegetation provided to control the quantity and quality of the storm water.
2. The Owner shall provide a Maintenance Plan for each storm water management practice. The Maintenance Plans shall include a schedule for monthly and annual maintenance. The Owner shall maintain, update, and store the maintenance records for the storm water management practices. The specific Maintenance Plans for each storm water management practice are as follows:

Note: This section must be tailored to the BMPs approved for a specific development and the maintenance necessary and associated schedule for each BMP. The following are example BMPs.

- (a) Stormwater Pond Maintenance. To be completed MONTHLY.
 - (1) Remove floating debris.
 - (2) Remove woody vegetative growth from pond area including embankments.
 - (3) Remove trash and/or accumulated sediment.
 - (4) Remove obstructions in orifices and/or outlets.
- (b) Stormwater Pond Maintenance. To be completed ANNUALLY.
 - (1) Repair erosion to outfall or spillway.
 - (2) Repair and/or replace damaged structures, such as catch basins, risers, pipes, and headwalls.
 - (3) Repair animal burrows and/or other leaks in the dam structures.
 - (4) Remove debris from overflow spillway and grates.
 - (5) Mow embankments and remove woody vegetation on embankments.
 - (6) Inspect and remove invasive plants.
 - (7) Dredge pond on a 3-7 year cycle or as necessary to retain design capacity.
- (c) Infiltration Trench Maintenance. To be completed MONTHLY.
 - (1) Remove debris and or sediment from inlet and outlet pipes.
 - (2) Minimize heavy equipment, including mowers, in the vegetated areas to reduce compaction.



- (3) Check observation wells 72 hours after rain events twice a year to ensure dewatering between storms is taking place at the facility. Repair as necessary to ensure functionality.
 - (4) Repair washed-out/damaged check dams.
 - (d) Infiltration Trench Maintenance. To be completed ANNUALLY.
 - (1) Remove sediment in sediment traps and pretreatment swales
 - (2) Check and remove any tree cover over trenches.
 - (3) Remove any aggregate (soil/mineral based) deposits.
 - (e) Bioretention Area Maintenance. To be completed MONTHLY.
 - (1) Minimize heavy equipment, including mowers, in the vegetated areas to reduce compaction.
 - (2) Remove and replace any diseased or dead plant material. If specific species are not successful in the bioretention area, replace as appropriate to ensure full vegetation as designed.
 - (f) Bioretention Area Annual Maintenance. To be completed ANNUALLY.
 - (1) Replace mulch at a depth of no greater than 3" and cover the entire area.
 - (2) Remove compacted mulch prior to new mulch placement.
 - (3) Repair any areas that have eroded.
 - (5) Ensure cell is dewatering within 1.66 days or 40 hours as required by the Ohio EPA and not bypassing facility. Repair as necessary to ensure functionality.
 - (g) ***Maintenance Plans for all Storm Water Management Practices with decentralized design criteria shall be drawn up to comply with the latest edition of the Ohio Department of Natural Resources Division of Soil and Water Conservation "Rainwater and Land Development Manual".***
3. The Owner shall perform all maintenance in accordance with the above Maintenance Plan and shall complete all repairs identified through regular inspections, and any additional repairs as requested in writing by the ***[Community]***.

C. INSPECTION AND REPAIRS OF STORM WATER MANAGEMENT PRACTICES

1. The Owner shall inspect all storm water management practices listed in Section B above, every three (3) months and after major storm events for the first year of operation.
2. The Owner shall inspect all storm water management practices listed in Section B above at least once every year thereafter.
3. The Owner shall submit Inspection Reports in writing to the ***[Community]*** engineer within 30 days after each inspection. The reports shall include the following:



The date of inspection; _____

Name of inspector; _____

The condition and/or presence of:

(i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____

(vi) _____

(vii) _____

(viii) Any other item that could affect the proper function of the Facility.

4. The Owner grants permission to the **[Community]** to enter the Property and to inspect all aspects of the storm water management practices and related drainage whenever the **[Community]** deems necessary. The **[Community]** shall provide the Owner copies of the inspection findings and a directive to commence with the repairs if necessary.
5. The Owner shall make all repairs within ten (10) days of their discovery through Owner inspections or through a request from the **[Community]**. If repairs will not occur within this ten (10) day period, the Owner must receive written approval from the **[Community]** engineer for a repair schedule.
6. In the event of any default or failure by the Owner in the performance of any of the covenants and warranties pertaining to the maintenance of the storm water management practices, or the Owner fails to maintain the storm water management practices in accordance with the approved design standards and Maintenance Plan, or, in the event of an emergency as determine by the **[Community]**, it is the sole discretion the **[Community]**, after providing reasonable notice to the Owner, to enter the property and take whatever steps necessary to correct deficiencies and to charge the cost of such repairs to the Owner. The Owner shall reimburse the **[Community]** upon demand, within thirty (30) days of receipt thereof for all actual cost incurred by the **[Community]**. All costs expended by the **[Community]** in performing such necessary maintenance or repairs shall constitute a lien against the properties of the Owner. Nothing herein shall obligate the **[Community]** to maintain the storm water management practices.

D. FUNDING

The Owner shall specify the method of funding for the perpetual inspection, operation, and maintenance of the storm water management practices listed in this Inspection and Maintenance Agreement. This funding mechanism shall be approved by the **[Community]**.

E. INDEMNIFICATION

1. The Owner hereby agrees that it shall save, hold harmless, and indemnify the **[Community]** and its employees and officers from and against all liability, losses, claims, demands, costs and expenses arising from, or out of, default or failure by the Owner to



maintain the storm water management practices, in accordance with the terms and conditions set forth herein, or from acts of the Owner arising from, or out of, the construction, operation, repair or maintenance of the storm water management practices.

2. The parties hereto expressly do not intend by execution of this Inspection and Maintenance Agreement to create in the public, or any member thereof, any rights as a third party beneficiary or to authorize anyone not a party hereof to maintain a suit for any damages pursuant to the terms of this Inspection and Maintenance Agreement.
3. This Inspection and Maintenance Agreement shall be a covenant that runs with the land and shall inure to the benefit of and shall be binding upon the parties hereto, their respective successors and assigns, and all subsequent owners of the property.
4. The current Owner shall promptly notify the *[Community]* when the Owner legally transfers any of the Owners responsibilities for the storm water management practices. The Owner shall supply the *[Community]* with a copy of any document of transfer, executed by both parties.
5. Upon execution of this Inspection and Maintenance Agreement, it shall be recorded in the Clerk's Office of the Circuit Court of *[County]*, Ohio, at the Owner's expense.

IN WITNESS WHERE OF, the Owner has caused this Inspection and Maintenance Agreement to be signed in its names by a duly authorized person.

(Sign) Individual Owner

(Please type)

By: _____
Appropriate Community official