

Municipal Storm Water Program Evaluation

Construction and Post-Construction Component Worksheet

Date of Evaluation:
July 11, 2012
Evaluator Name, Title:
Tim McParland, DSW, NEDO Dan Bogoevski, DSW, NEDO
MS4 Permittee:
City of Elyria #3GQ00082*BG

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

Staff Interviewed		
Name	Department/Agency	Phone Number/Email
John Schneider	Assistant City Engineer	jschneider@cityofelyria.org (440) 326-1444
Kathy McKillips	Project Engineer/ Storm Water Coordinator	kmckillips@cityofelyria.org (440) 326-1432
Stacey Faile	AECOM	Stacey.faile@aecom.com (216) 416-1944

Ordinance/Legal Authority	
Interview Questions	Response
Construction Ordinance	
Ordinance used to require storm water BMPs at construction sites?	YES
Name and/or code section(s)	Storm Water Management Chapter 960.24 (A.5.a)
Date initially enacted:	February 19, 2008
Threshold for coverage (e.g., 1 acre, 100 cubic yards, etc.)	Greater than or equal to a one (1) acre disturbance.

Ordinance/Legal Authority	
Interview Questions	Response
<p>Exclusions from coverage allowed:</p> <p>***See Note 1 on Pg.11</p>	<p>Emergency activities immediately necessary for the protection of life, property or natural resources, existing nursery and agricultural operations, cemetery graves, and any activity consistent with promotion of public safety, human health, or protection of our natural resources.</p> <p style="text-align: center;">Chapter 960.18 (F)</p>
<p>Does your construction program include the following types of construction activity:</p> <p>Single-family residential?</p> <p>Multi-family residential?</p> <p>Commercial development?</p> <p>Institutional development (schools or government facilities)?</p> <p>Mixed-use development?</p> <p>Non-subdivided development?</p> <p>Non-exempt construction on agriculturally-zoned lands? (barn on a farm)</p> <p>Non-silvicultural tree clearing?</p> <p>Your own municipal construction projects?</p> <p>Construction and demolition debris landfills?</p> <p>Construction by other public entities within your political jurisdiction, e.g., a county road project within a municipality?</p> <p>Earth disturbance associated with open spaces and parks (e.g., trails within a park or parking lot improvements at a park)?</p> <p>Private pond construction?</p> <p>Construction of wind or solar panel farms?</p> <p>Establishment of borrow or spoil areas that service multiple, unrelated construction projects?</p>	<p style="text-align: center;">YES</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Utility construction projects (including tree clearing along utility corridors or pipeline projects that cross multiple political Jurisdictions)?</p> <p><i>NOTE: The intent of this line of questioning is to simply highlight the scope of regulated construction activity that the MS4 may have to contend with.</i></p>	<p>YES</p>
<p>Does ordinance regulate the discharge of pollutants other than sediments on a construction sites (e.g., construction wastes, fuel tanks, cement truck washwater, trash, chemicals, etc.)?</p>	<p>YES</p> <p>Chapter 960.16</p>
<p>Has ordinance been updated to reflect minimum requirements of Ohio EPA NPDES permit #OHC000003?</p> <p>Date of updates?</p> <p>Date of MS4 Permit Renewal:</p>	<p style="text-align: center;">YES</p> <p>Chapter 960.24 states that control measures must comply with Ohio EPA standards, but does not explicitly state "current" standards. ***** <i>If the City wishes to use this general reference to Ohio EPA requirements in their code (due to the fact that these standards are updated every 5 years), the ordinance must be updated to reflect that control measures must comply with the most current standards required by Ohio EPA. It is extremely important that City staff is familiar with the most current Ohio EPA requirements to ensure appropriate plan review and site inspection procedures are conducted.</i> *****</p> <p style="text-align: center;">February 19, 2008 (Original)</p> <p style="text-align: center;">September 28, 2009</p>
Post-Construction Ordinances	
<p>Ordinances used to require post-construction storm water BMPs on new development or redevelopment projects:</p> <p>Treatment of Water Quality Volume (WQv) Name and code section:</p> <p>Date initially enacted:</p>	<p style="text-align: center;">YES</p> <p>Chapter 960.24 states that control measures must comply with Ohio EPA standards, but does not explicitly state "current" standards. Initially enacted February 19, 2008.</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Has this ordinance been updated to reflect the minimum requirements of Ohio EPA General Permit #OHC000003?</p> <p>Date of update: February 19, 2008 (Original)</p>	<p style="text-align: center;">YES</p> <p>*****</p> <p><i>If the City wishes to use this general reference to Ohio EPA requirements in their code (due to the fact that these standards are updated every 5 years), the ordinance must be updated to reflect that control measures must comply with the most current standards required by Ohio EPA. It is extremely important that City staff is familiar with the most current Ohio EPA requirements to ensure appropriate plan review and site inspection procedures are conducted.</i></p> <p>*****</p>
<p>Riparian and Wetland Setback Ordinance</p> <p>Name and code section:</p>	<p style="text-align: center;">NO</p> <p><i>It is recommended that the language in Chapter 1140.01 be updated to include riparian areas and wetland setbacks as part of the definition of "sensitive areas" and specifically detail ways in which these areas must be protected.</i></p>
<p>If YES, does ordinance require protection of native vegetation within riparian area or can manicured lawns be established?</p>	<p>N/A</p>
<p>If YES, does ordinance allow the location of storm water infrastructure within the riparian setback?</p>	<p>N/A</p>
<p>Runoff Reduction (e.g., infiltration or mitigation of a recharge volume)?</p> <p>Name and code section:</p>	<p>NO</p>
<p>BMPs designed to control temperature for discharges to cold water habitat streams?</p> <p>Name and code section:</p>	<p>N/A</p>
<p>Encouraging Green Infrastructure or low-impact development practices:</p>	<p style="text-align: center;">YES</p> <p>The City's code does not prohibit any of the following green infrastructure or practices. However, <i>it is recommended that the code be modified such that green infrastructure is not only allowable but explicitly encouraged.</i></p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Allow downspout disconnection and use of open storm water conveyance systems? Names and code sections:</p>	<p style="text-align: center;">YES</p> <p>The code does not prohibit downspout disconnection; however it does not encourage it either.</p>
<p>Permit the installation of rain gardens and other bioretention facilities? Names and code section:</p>	<p style="text-align: center;">YES</p> <p>The code does not prohibit rain garden installation; however it does not encourage it either.</p>
<p>Allow rainwater harvesting (rain barrels and cisterns)? Name and code section:</p>	<p style="text-align: center;">YES</p> <p>The code does not prohibit rainwater harvesting; however it does not encourage it either.</p>
<p>Allow or require the use of pervious pavement systems? Name and code section:</p>	<p style="text-align: center;">YES</p> <p>The code does not prohibit the use of pervious pavement; however it does not encourage it either.</p>
<p>Allow reduction in the size of traditional storm water management structures if LID used? Name and code section:</p>	<p style="text-align: center;">YES</p> <p>The code does not contain any detail of traditional storm water management sizing requirements; however the City would allow a reduction in the sizing of structures if an engineering study showed it were practical.</p>
<p>Provide a credit to a storm water utility fee if LID is used? Describe:</p>	<p style="text-align: center;">N/A</p> <p>The City currently does not have a utility fee but is trying to enact one by January 2014.</p>
<p>Balanced Growth Principles, i.e., other non-structural ordinances or codes that promote better site design: Allow conservation design as a subdivision layout (retain ≥ 40% open space by maintaining existing zoned density)</p>	<p style="text-align: center;">YES</p> <p>Nothing in the code would prohibit a conservative subdivision layout; however nothing in the code would encourage it either.</p>
<p>Standard or variance required? Name and code section:</p>	<p style="text-align: center;">VARIANCE Chapter 1140</p>
<p>Encourage the use of vegetation that requires little to no maintenance in common areas (e.g., meadow vegetation vs. mowed lawn) Name and code section:</p>	<p style="text-align: center;">NO</p> <p>The City has an ordinance establishing height limitations for grasses. Ch.553.02</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Reduce impervious area created by commercial parking lots (e.g., update codes so that they are context-specific, allow shared parking, landbanked parking, parking garages rather than surface lots, etc.) Name of code section</p>	NO
<p>Allow sidewalks on only one side of the road in residential neighborhoods Name and code section:</p>	NO Chapter 901.08 requires sidewalks on both sides of the street in new subdivisions.
<p>Zoning that encourages smart growth in compact neighborhoods or mixed-use development:</p>	NO
<p>If YES, does zoning create walkable neighborhoods with access to commercial areas and employment centers? Describe:</p>	N/A
<p>If YES, does this zoning provide incentives for vertical development rather than horizontal sprawl? Describe:</p>	N/A
<p>If YES, does this zoning encourage a range of housing options for people of various incomes? Describe how:</p>	N/A
<p>If YES, do you provide incentives for infill development or development in the core? Describe incentive programs:</p>	N/A
<p>If YES, does zoning direct growth in areas where there are a variety of transportation choices (walking, biking, public transportation vs. just the car)? Describe how:</p>	N/A

Ordinance/Legal Authority	
Interview Questions	Response
<p><i>NOTE: The point of this line of questioning is to emphasize that post-construction storm water management, land use planning and building and zoning codes must be linked to create a meaningful storm water program. A good MS4 program goes beyond the Water Quality Volume requirement.</i></p>	
Provisions within Ordinances:	
<p>Do permit or plan approvals have to be issued before construction activities that disturb 1 or more acre can commence?</p> <p style="padding-left: 40px;">Plan Approvals Construction</p> <p style="padding-left: 40px;">Post-Construction</p> <p style="padding-left: 40px;">Permits & Type (Building, Grading, etc.)</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p> <p>Does your definition of "construction activities" include any grading, grubbing, filling, clearing or excavating activity?</p>	<p style="text-align: center;">Plan approval is required to obtain the necessary permits to begin construction.</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">Building Permit and Storm Water Permit</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p>Definitions of "earth disturbing activities" as well as "construction activities" are included chapter 960.01.</p>
<p>Are plans for storm water controls used during construction submitted separately from plans that depict post-construction BMPs?</p> <p>Describe the submission process and the timing of plan submission:</p>	<p style="text-align: center;">NO</p> <p style="text-align: center;">The plans are submitted together and reviewed as one cohesive plan.</p> <p>The City was not very familiar with the plan submission process when asked. The process is different for plans which include a building versus those that do not include a building.</p> <p><i>For commercial and residential projects that include a building:</i></p> <p>Plans go through the Building Department first. The Engineering Department gets the SWP3 from the Building Department. If the plans are approved, the Engineering Department issues a storm water permit.</p>

Ordinance/Legal Authority	
Interview Questions	Response
	<p>The Building Department will not issue a building permit until the Engineering Department issues the Storm Water Permit.</p> <p><i>For projects that do not include a building (e.g., a parking lot):</i></p> <p>The developer goes directly to the Engineering Department for plan review and the Engineering Department will issue a Storm Water Permit if the plans are approved.</p>
<p>Does your ordinance explicitly specify selection criteria or minimum acceptable BMP design?</p> <p>Construction</p> <p>Post-Construction</p> <p>If NO, are these standards referenced?</p> <p>Construction</p> <p>Post-Construction</p> <p>If YES, list references:</p> <p>Construction</p> <p>Post-Construction</p>	<p style="text-align: center;">NO</p> <p style="text-align: center;">NO</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p>The City's ordinance refers to the standards established by the Ohio EPA. <i>It is recommended that the ordinance be updated to distinguish between active construction BMPs and post construction BMPs rather than stating "control practices" in general. The City must also include "most current" in its reference to Ohio EPA standards in order to be acceptable.</i></p>
CONSTRUCTION SITE ENFORCEMENT AUTHORITY	
Types of enforcement mechanisms available for construction site issues per your ordinance:	<p>Notices of Violations (NOV) YES</p> <p>Administrative fines NO</p> <p>Stop-work orders YES</p> <p>Civil penalties NO</p> <p>Criminal penalties YES</p> <p>Chapter 960.33 lists the mechanisms available for construction site compliance issues.</p>

Ordinance/Legal Authority	
Interview Questions	Response
Which type of enforcement action have you most commonly implemented?	<p>The City will typically send out letters describing the deficiencies observed during a storm water inspection, and allow fourteen (14) days for corrective action to occur. The letters do not explicitly mention "Notice of Violation". No further enforcement actions have been taken by the City at this time. <i>It is recommended that the City follows the enforcement escalation plan provided to Ohio EPA during the interview process. Also, future letters should explicitly spell out "Notice of Violation" and include specific references to the sections which are violated in your ordinance.</i></p> <p>E-mails are sent to contractors and developers as well for deficiencies of a smaller scale that can be corrected immediately.</p>
<p>Describe the enforcement mechanism used when the following compliance situations are encountered on construction sites:</p> <ol style="list-style-type: none"> 1. Construction has commenced without a permit or plan approval 2. A BMP indicated on the SWP3 has not been installed or requires maintenance (first incidence) 3. A BMP is required but not shown on the SWP3 4. A BMP has not been installed or maintained despite prior notification from the MS4 (repeated incidences) 5. If using a third party inspection service provider, e.g., the SWCD, MS4 receives inspection report indicating repeated non-compliance issue 	<p style="text-align: center;">City would issue a stop work order.</p> <p style="text-align: center;">Typically verbal communication to project superintendent while on site. Letters and e-mails have been sent in the past but not typical due to staffing limitations.</p> <p>The Engineering Department will send a letter to the permittee (contractor/developer) notifying them that they need to amend the SWP3.</p> <p>The City states that corrective actions are always completed and repeated incidences have never occurred. This illustrates that the City is either not following the enforcement escalation plan or not completing follow up inspections.</p> <p style="text-align: center;">N/A</p>

Ordinance/Legal Authority											
Interview Questions	Response										
<p>Describe the last enforcement action your community has taken against a contractor or developer for non-compliance with construction site requirements and provide the documentation to demonstrate the action.</p> <p><i>It is highly recommended that the City of Elyria establishes a general cover letter template that can quickly be filled out to describe deficiencies noted during inspections and attached to the inspection checklist used while on site. This can then be sent to the developer/contractor and compliance issues can be addressed at a significantly faster pace.</i></p>	<p>No enforcement actions have been taken by the City beyond written notification. The last enforcement action taken was on June 1, 2012. An E-mail was sent to Kelly Christy, the project manager of the Fairfield Estates Subdivision describing deficiencies noted during a recent storm water inspection. These issues included a lack of protective cover for the dumpster, an excessive amount of offsite tracking from construction vehicles, and missing silt fence from a lot undergoing earth disturbing activities (basement excavation). The E-mail states that the issues must be "addressed immediately", but no specific deadline for corrective action was established. In addition, the E-mail was sent nearly three (3) weeks after the date of the inspection. The inspector did use the USEPA inspection checklist during the inspection, however did not provide a copy of it to the project manager.</p>										
<p>Have your enforcement protocols and procedures for construction site issues been formalized in a written enforcement escalation plan?</p>	<p>YES</p> <p>However, it is apparent that this escalation plan has not been followed as closely as it should be.</p>										
POST-CONSTRUCTION ENFORCEMENT AUTHORITY											
<p>Types of enforcement mechanisms available for post-construction site issues per your ordinance:</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Notices of Violations (NOV)</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Administrative fines</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Stop-work orders</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Civil penalties</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Criminal penalties</td> <td style="text-align: right;">YES</td> </tr> </table> <p style="text-align: center;">Same mechanisms are available as for during construction. The City has not been using any mechanisms beyond written communication in the past.</p>	Notices of Violations (NOV)	YES	Administrative fines	NO	Stop-work orders	YES	Civil penalties	NO	Criminal penalties	YES
Notices of Violations (NOV)	YES										
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<p>Which type of enforcement action have you most commonly implemented?</p>	<p>No enforcement has occurred for post-construction related issues yet.</p>										
<p>Describe the enforcement mechanism used when the following compliance situations are encountered regarding post-construction:</p> <ol style="list-style-type: none"> 1. The post-construction BMP has been installed too early in the construction process (e.g., the permanent WQv outlet has been installed when the sediment control outlet is still required, or the bioretention soil has been placed prior to upland areas being stabilized) 	<p>The Engineering Department would send a letter describing the deficiency and request immediate corrective action.</p>										

Ordinance/Legal Authority		
Interview Questions	Response	
<p>2. The post-construction BMP has not been maintained (first incident)</p> <p>3. The post-construction BMP has not been maintained after multiple notifications</p> <p>4. A homeowner has cut down trees in the riparian setback area (if applicable)</p> <p>5. A homeowner has installed a shed in a vegetated filter strip disrupting sheet flow runoff</p>	<p>The City has not developed its long-term maintenance program yet, but is currently working on it. Thus, the City cannot answer these questions. <i>Please provide Ohio EPA with the long-term maintenance processes and procedures once the program is developed.</i> No program to ensure long-term maintenance is a violation of the NPDES permit. The City intends to develop a long-term maintenance agreement that requires the responsible party to submit inspection reports annually to the Engineering Department. The City will then conduct a follow-up inspection of the BMPs as well.</p> <p>N/A</p> <p>Chapter 960.29&30 requires permanent easements for post-construction BMPs and prohibits any infringement. <i>This needs to be communicated with the Building Department so that situations like this can be avoided.</i></p>	
Describe the last enforcement action your community has taken against a property owner/homeowners association for non-compliance with post-construction site requirements and provide the documentation to demonstrate the action.	<p>N/A</p> <p>No previous enforcement actions have been taken.</p>	
Have your enforcement protocols and procedures for post-construction issues been formalized in a written enforcement escalation plan?	<p>YES</p> <p>The City uses the same enforcement escalation plan as for construction, but has not been following the plan as closely as they should be.</p>	
Applicable Documents	Reviewed	Obtained
Sediment and Erosion Control Ordinance	YES	YES
Post-Construction Storm Water BMP Ordinances(s)	YES	YES
Enforcement escalation plan or procedures		
Construction:	YES	YES
Post-Construction:	YES	YES

Notes
<p>1) To align with NPDES permit program, the only exclusions allowed are (a) if rainfall erosivity factor, R, is < 5 for the project, (b) construction is "routine maintenance" to re-establish the original line, grade or hydraulic capacity of storm water infrastructure, i.e., ditch cleaning and detention basin dredging, where < 5 acres is disturbed, (c) silvicultural disturbances, (d) agricultural disturbances or (e) construction related to oil & gas well exploration. For more information, please refer to our website at: http://www.epa.ohio.gov/dsw/storm/routine_maint.aspx</p>

Construction Project Inventory													
Interview Question	Response												
<p>Do you keep an inventory of construction projects that are actively occurring in your community? If YES, how?</p>	<p>YES</p> <p>The Engineering Department keeps a list of active sites within the community. The list currently consists of eleven (11) projects.</p>												
<p>Do you track construction projects <1 acre (e.g., individual lot within a subdivision or small addition to a business)?</p>	<p>YES</p> <p>On a separate plan review list. <i>It is recommended that active individual lots be included on the main inventory list under the name of the appropriate sub-division.</i></p>												
<p>How often is your inventory of construction projects updated?</p>	<p>Anytime a new plan is received by the Engineering Department, the project is added to the inventory. <i>It is recommended that completed sites be removed from the list once an NOI has been submitted.</i></p>												
<p>Information tracked:</p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Project status</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Inspection Findings</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Enforcement Actions</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Complaints</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>NOI submittal</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Other:</td> <td style="text-align: right;">City vs. Private, Location</td> </tr> </table>	Project status	NO	Inspection Findings	NO	Enforcement Actions	YES	Complaints	NO	NOI submittal	YES	Other:	City vs. Private, Location
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<p>Are site inspections at active construction sites conducted at a frequency of at least once per month?</p> <p><i>NOTE: This is the minimum performance standard in the NPDES permit for small MS4s.</i></p> <p>If construction sites are not inspected at least once per month, how do you prioritize or determine inspection frequency?</p>	<p style="text-align: center;">NO</p> <p>Once every three (3) months on average.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Proximity to water body</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Water body impairment</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Size of project</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Slope of project site</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Other: Contractor's history, time elapsed since previous inspection.</td> <td></td> </tr> </table>	Proximity to water body	YES	Water body impairment	NO	Size of project	YES	Slope of project site	YES	Other: Contractor's history, time elapsed since previous inspection.			
Proximity to water body	YES												
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Other: Contractor's history, time elapsed since previous inspection.													

<p>Is this inspection criteria and frequency explicitly stated in your SWMP?</p>	<p style="text-align: center;">NO</p> <p>The SWMP does not contain any inspection criteria or frequency standards. <i>The SWMP must be updated to reflect that storm water inspections are conducted at least once per month. Failure to update SWMP to meet minimum performance standards is a violation of the NPDES permit.</i></p>
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<p>Number of active construction sites on date of interview (for subdivisions where only individual lot construction is occurring, count the entire subdivision or phase of subdivision as one site):</p> <p><i>NOTE: Select two sites from NOI list and ask if they are active. Ask for the dates of the last two site inspections at each site.</i></p>	<p>Eleven (11) active sites. These include two (2) municipal projects less than one (1) acre and thus are excluded from coverage. Essentially, there are nine (9) active projects subject to NPDES permit requirements at this time.</p> <p>Site #1: Elyria High School Most recent inspection date: May 21, 2012. No documentation of an inspection letter sent, only pictures taken.</p> <p>Prior inspection date: January 12, 2012. A note was located in the file documenting the site visit regarding straw bales. An E-mail was sent to the school district on January 4, 2012 following up on a complaint to Ohio EPA and provided them with photos.</p> <p>Site #2: Hampton Inn and Suites Most recent inspection date: July 3, 2012. Verbal communication to superintendent took place on site and an inspection checklist was filled out, however no documentation of written communication to the developer/contractor was present.</p> <p>Prior inspection date: May 21, 2012. A checklist was filled out to document inspection findings; however no letter, verbal communication, or E-mail to the developer/contractor took place.</p>
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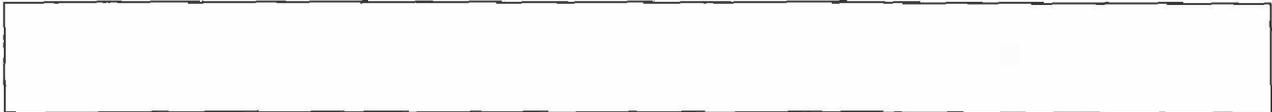
Applicable Documents	Reviewed	Obtained
List of active construction projects	YES	YES
List of projects covered under a state/EPA general permit	YES	YES



Notes
<p>The City of Elyria has completed the following projects and needs to submit a Notice of Termination (NOT) immediately:</p> <ul style="list-style-type: none"> - East River Street, #3GC04759*AG - Middle Avenue Sanitary Sewer Phase II, #3GC04755*AG - W. River Rd. Lift Sta. Rehab FM Replace & Griswold Rd., #3GC04839*AG - Westside Water Line Replacement Project, #3GC05344*AG - LOR-20/57-16.93/16.17, #3GC03688*AG <p>The City of Elyria is listed as the Permittee for the five (5) sites listed above. During the interview, it was noted that all of these sites are completed and have reached final stabilization. Failure to submit a Notice of Termination (NOT) for municipal construction projects within forty-five (45) days of reaching final stabilization is a <i>direct violation of NPDES Permit #OHC000003 for general construction activities</i>. Please refer to the Ohio EPA's website (see below for web address) for the Notice of Termination form as well as instructions for filling it out, and submit an NOT for the five (5) projects listed above.</p> <p>http://www.epa.ohio.gov/dsw/storm/stormform.aspx</p>

Post-Construction BMP Inventory			
Interview Question	Response		
Are post-construction BMPs tracked?	YES This includes public and private BMPs.		
Does this include all types of BMPs, e.g., riparian setback area, green roof or pervious pavement as well as bioretention cells and extended detention ponds?	YES		
Information tracked: A general maintenance agreement is drafted describing what is required (Ask for Copy) but is still currently in the development stage, so no LTM's exist at this point. Inspection requirements are part of this draft. None are currently on inventory since the City hasn't conducted any of these inspections to this date.	Location	YES	
	Type	YES	
	Maintenance Requirements	NO	
	Inspection findings	NO	
	Other (e.g., Ownership): Ownership, drawing files, access easements.		
Database used?	NO The City uses an Excel spreadsheet.		
Number of private post-construction structural BMPs installed in community	Fifteen (15) privately owned BMPs.		
Applicable Documents		Reviewed	Obtained
Inventory of Post-Construction BMPs		YES	YES

Construction and Post-Construction BMP Standards		
Interview Questions	Response	
CONSTRUCTION BMPs		
Do your erosion and sediment control standards include BMP selection criteria?	YES The City unknowingly uses the <i>Rainwater and Land Development</i> manual selection criteria since the ordinance is written to reflect Ohio EPA requirements. <i>The City needs to be very familiar with your erosion and sediment control standards.</i>	
Do your construction site standards account for different needs for different times of the year (e.g., growing season vs. winter)? Please elaborate:	YES Nothing is specifically listed in the City's standards, however the reference to "Ohio EPA minimum requirements" entails different seeding procedures for winter time versus growing season, etc.	
Do your standards include operation and maintenance requirements?	YES Chapter 960.28: Post-Construction Operation and Maintenance Agreements Chapter 960.25 Control Practice Maintenance	
POST-CONSTRUCTION BMPs		
Do your post-construction standards include BMP selection criteria?	YES The City unknowingly uses the <i>Rainwater and Land Development</i> manual selection criteria since the ordinance is written to reflect Ohio EPA requirements. <i>The City needs to be very familiar with your post-construction standards.</i>	
Has your community established standards for post-construction BMP selection and design for small construction activities (i.e., where the larger common plan of development or sale disturbs < 5 acres)? If so, what are your standards?	NO N/A	
Do your standards include operation and maintenance requirements?	NO The City's long term maintenance standards processes and procedures are still currently being developed.	
Applicable Documents		Reviewed
BMP guidance or technical document		YES
		Obtained
		YES (draft)
Notes		



Plan Review Procedures	
Interview Questions	Response
Who is responsible for erosion and sediment control plan review?	Kathy McKillips, Project Engineer/ Storm Water Coordinator. In the past, the City may have also used a third party for plan review on a case by case basis for certain municipal projects (K.E. McCartney was used for E. River Project). This happened before Kathy McKillips was hired by the City.
If third party, is there an MOU or other agreement in place?	N/A
Is it current?	N/A
Who is responsible for post-construction plan review?	Kathy McKillips
If third party, is there an MOU or other agreement in place?	N/A
Is it current?	N/A
What training or professional certifications have plan review personnel received?	
Construction	CESSWI, CMS4S
Post-Construction	CESSWI, CMS4S
How many years of experience does plan review personnel have inspecting storm water BMPs?	
Construction	Approximately 7-8 years.
Post-Construction	Approximately 7-8 years.
How often do plan review personnel receive training?	
Construction	Typically every other year.
Post-Construction	Typically every other year.

Plan Review Procedures	
Interview Questions	Response
<p><i>Training opportunities provided by Ohio EPA are archived at www.epa.ohio.gov/ocapp/storm_water.aspx.</i></p>	
<p>Do you use a checklist to conduct plan review?</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p> <p>If NO, what criterion is used to review plans?</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p>	<p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">N/A</p>
<p>Size threshold for plan review (i.e. 1 acre, 10,000 square feet)?</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p>	<p style="text-align: center;">No minimum threshold, all plans reviewed.</p> <p style="text-align: center;">No minimum threshold, all plans reviewed.</p>
<p>Do you verify the submission of a Notice of Intent (NOI) or Individual Lot NOI to Ohio EPA as part of your plan review process?</p>	<p style="text-align: center;">YES</p> <p>If the site is subject to the permit (e.g. >1 acre), the City will verify the submission of a NOI.</p>
<p>Do you require a pre-construction meeting with developers and/or contractors?</p> <p><i>*This is a required performance standard for both construction and post-construction.</i></p> <p>Is the sequence of implementation of sediment and erosion controls discussed during these meetings?</p> <p>Is the timing of installation of post-construction BMPs discussed during these meetings?</p>	<p style="text-align: center;">NO</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">N/A</p>
<p>Does your community have standard conditions of plan approval?</p>	<p style="text-align: center;">NO</p> <p>As long as the plan meets all of the requirements on the plan review checklist, the plan will be approved.</p>

Plan Review Procedures		
Interview Questions	Response	
Do they include erosion and sediment control and/or post-construction water quality requirements?	N/A	
Does your community require a performance bond that can be used to pay for BMPs (site stabilization) in the event the developer does not complete the project?	YES Sub-divisions require a performance bond but not commercial developments.	
Does your community require a long-term maintenance plan for post-construction BMPs?	NO The long-term maintenance standards are currently being developed.	
If YES, is the plan required to include the following:		
Identify the party responsible for long-term maintenance?	N/A	
A list of routine and non-routine maintenance tasks and the frequency for their performance?	N/A	
A map that identifies the types and locations of post-construction BMPs and their maintenance or access easements?	N/A	
A list of deed restrictions, conservation easements or environmental covenants required to maintain post-construction BMPs in perpetuity?	N/A	
Is this plan kept on file or input into a database for future reference to ensure the required tasks are being completed?	N/A	
Applicable Documents	Reviewed	Obtained
Copy of standard conditions of approval (Only checklist)	N/A	N/A
Example of standard conditions applied to an approved project	N/A	N/A
Checklist used by plan reviewers	YES	YES

Project Inspections	
Interview Questions	Response
CONSTRUCTION SITE INSPECTIONS	
Who is responsible for erosion and sediment control site inspection?	Kathy McKillips, Project Engineer/ Storm Water Coordinator. In the past, the City may have also used a third party for site inspections on a case by case basis for certain municipal projects (K.E. McCartney was used for E. River Project). This happened before Kathy McKillips was hired by the City.
If third party, is there an MOU or other agreement in place?	N/A
Is it current?	N/A
POST-CONSTRUCTION INSPECTIONS	
Who is responsible for post-construction site inspection?	Up to the point of this interview, the City of Elyria had not previously inspected any post-construction BMPs within the community. Eventually, Kathy McKillips, Project Engineer/Storm Water Coordinator will be responsible for conducting these inspections.
If third party, is there an MOU or other agreement in place?	N/A
Is it current?	N/A
Is an "as-built" inspection conducted at the time a post-construction BMP is installed to ensure compliance with the approved BMP construction plan?	NO <i>This should also be part of Kathy's responsibility once the City's post-construction standards and requirements are finalized.</i>
Does the MS4 conduct inspections for long-term maintenance of privately-owned post-construction BMPs?	NO <i>This should also be part of Kathy's responsibility once the City's long-term maintenance standards and requirements are finalized.</i>

Project Inspections	
Interview Questions	Response
<p>If YES, at what frequency?</p> <p>If NO, does the MS4 collect inspection reports from the responsible party? At what frequency?</p>	<p style="text-align: center;">N/A</p> <p>Up to the point of this interview, the City of Elyria had not previously collected any inspection reports from responsible parties. The standards and requirements which are currently in the developing stage will require the submittal of annual inspection reports as well as access to records for three (3) years.</p>
CONSTRUCTION & POST-CONSTRUCTION INSPECTION QUESTIONS	
<p>Findings from construction and post-construction inspections tracked in a database?</p>	<p style="text-align: center;">NO</p> <p>The active construction inventory lists what type of enforcement actions have been taken but not what the issues themselves were. Nothing for post construction at this point since the City has not been inspection post-construction BMPs.</p>
<p>What training or professional certifications have site inspection personnel received?</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p> <p>How many years of experience does site inspection personnel have inspecting storm water BMPs?</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p> <p>How often do site inspection personnel receive training?</p> <p style="padding-left: 40px;">Construction</p> <p style="padding-left: 40px;">Post-Construction</p>	<p style="text-align: center;">CESSWI, CMS4S</p> <p style="text-align: center;">CESSWI, CMS4S</p> <p style="text-align: center;">Approximately 7-8 years.</p> <p style="text-align: center;">Approximately 7-8 years.</p> <p style="text-align: center;">Typically every other year.</p> <p style="text-align: center;">Typically every other year.</p>

Project Inspections

Interview Questions	Response
Do you use a checklist or the approved plan to conduct site inspections?	<p style="text-align: center;">YES</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">The City has not previously conducted post-construction inspections.</p>
Construction	
Post-Construction	
If NO, what standards are used to determine if a site is compliance?	
Construction	N/A
Post-Construction	N/A

Applicable Documents	Reviewed	Obtained
Most recent inspection staff training records	YES	YES
Example of active construction project inspection checklist	YES	YES
Example of inspection record to verify "as-built" of post-construction BMPs	Does not exist	Does not exist
Records from inspection tracking database or filing system (spreadsheet)	N/A	N/A
Checklist for inspecting long-term maintenance of post-construction BMPs (There is a draft of a checklist used that are dependent of the type of Post const. BMP)	YES	YES

Notes

M54-Owned Construction Projects	
Interview Questions	Response
Projects designed in-house or contracted?	Both. Typically, larger construction projects are contracted while smaller projects such as road improvements and sewer extensions are designed in-house.

MS4-Owned Construction Projects	
Interview Questions	Response
Designers trained in storm water BMP implementation?	YES
Checklist used during the design and/or review of public construction projects?	YES The same checklist is used for both public and private construction projects.
Are projects greater than one acre covered by a general construction permit (has an NOI been submitted)?	YES
If contracted planners and engineers are used for the design of MS4-owned projects, does the contract language specify that sediment and erosion control and post-construction storm water BMPs be incorporated into the design?	YES
Are municipal construction projects inspected for compliance with the SWP3? Are they inspected with the same frequency for BMP compliance as a private construction project? Who inspects municipal construction projects for compliance?	YES YES Dependent on the magnitude of the project, municipal projects are sometimes inspected more frequently than private construction. Kathy McKillips Project Engineer/ Storm Water Coordinator. <i>To avoid a conflict of interest, the firm or department that designed the SWP3 should not also inspect the site for compliance.</i>
Project inspectors trained? Frequency:	YES Typically every other year.
If contracted inspectors are utilized, are minimum inspection, maintenance and reporting requirements specified in the contract?	NO
For municipally-owned post-construction BMPs, how often are they inspected to ensure long-term maintenance? Which department is responsible for conducting these inspections?	The City has (briefly) conducted visual inspections of the two (2) City owned post - construction BMP's at one point or another but has not previously conducted post-construction inspections at any sort of frequency. The Engineering Department will be responsible for conducting these inspections, while the Waste Water department will complete any necessary maintenance.

MS4-Owned Construction Projects		
Interview Questions	Response	
Applicable Documents	Reviewed	Obtained
MS4-owned project storm water design standards and/or checklist	N/A	N/A
Contract language for active public project not developed or inspected in-house	N/A	N/A

Outreach and Education		
Interview Questions	Response	
Type of training provided to construction operators:	None has been provided. <i>Please be aware that at least one PIPE activity must be targeted to the development community during the current NPDES permit term. None have been reported. Please ensure that your PIPE program targets this group with at least one message by September 2014.</i>	
Designers and Engineers:	No training has been provided for designers or engineers.	
Attendance required?	N/A	
Training frequency?	N/A	
Number of operators trained:	N/A	
Training topics:	N/A	
Presentations given by MS4 staff to professional groups?	NO	
Brochures or outreach materials targeted at operators:	BMP Poster constructed by USEPA is given to anyone who obtains a storm water, excavation, or demolition permit.	
How/when is the information distributed?	This poster is distributed to developers after obtaining any of the permits listed above.	
Website used to educate operators?	This is currently a work in progress. The ordinances are available on the City's website as well as general information about the MS4 program.	
Web address:	http://www.cityofelyria.org/departments/engineering/storm-water/	
Applicable Documents	Reviewed	Obtained
Training materials	N/A	N/A
Brochures, outreach materials	YES	NO (available on USEPA website)

CONSTRUCTION & POST-CONSTRUCTION FILE RECORDS REVIEW

In addition to interviewing staff, select 2 to 3 approved projects with erosion and sediment control plans to review with the permittee. You are essentially conducting a file review. Try to choose different project types (residential, commercial) and sizes. Also, if one exists, review a public project plan to see if the permittee is applying equivalent standards to municipal construction.

Construction Project #1 Name: BASF (2.0 ac) #3GC05182*AG	
<p>BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?</p>	<p style="text-align: center;">YES</p> <ul style="list-style-type: none"> • BMPs used during construction include perimeter silt fence, inlet protection, rock construction entrance, and concrete wash out pits. Due to the size of the site and the amount of disturbed earth during the construction process, the BMPs appeared to be sufficient enough to prevent sediment laden runoff from entering surface waters of the State. <p>Room For Improvement:</p> <ul style="list-style-type: none"> • BMP detail drawings were created with ODOT specifications. This is not acceptable since BASF is not a public road project. The City of Elyria's standards should parallel the most current edition of the <i>Rainwater and Land Development Manual</i> if you chose to continue to reference Ohio EPA standards as your own.
<p>Design specifications and details for all BMPs included on the plans?</p>	<p style="text-align: center;">YES</p> <p>However, BMPs were drawn to meet ODOT specifications. As described above, ODOT specifications are not acceptable since BASF is not a public road project. The current edition of the <i>Rainwater and Land Development Manual</i> should be referenced for BMP specification requirements.</p>
<p>Maintenance requirements specified?</p>	<p style="text-align: center;">YES</p> <p>A brief description of maintenance requirements and their frequency of completion are listed in a table but no other information is available such as the responsible party, etc.</p>

Have any NOV's or other enforcement actions issued for this site. *Obtain copies of NOV's. If none, why not?*

YES
 A letter dated September 16, 2011 reveals that a storm water inspection had been conducted on September 12 and nothing depicted on the SWPPP had been installed yet. A deadline for corrective action was established for September 30, 2011. A letter of response from the developer was available in the file describing the timeframes for which the corrective actions would be completed. A follow up inspection was not conducted until December 13, 2011 and several of the same compliance issues were observed. It appears that the City had not been following their formal enforcement escalation procedures.

Notes:
 SWP3 review was conducted and approved by Aaron Klein October 13, 2010. Some issues during the plan review such as a lack of site soil characteristics and a copy of the NPDES permit were noted on the checklist but simply left at that. Notes were included by Aaron to leave the preexisting trees to provide a sort of buffer for the Black River. On the plan review checklist, the section titled "timing of BMP installation" was marked "N/A", however this is always applicable. All SWP3s need to include a construction sequence which depicts the timing of BMP installation with respect to the initial disturbance of the site. Part III.G.2.d.i of the NPDES permit requires that erosion and sediment controls must be in place within seven (7) days of the initial grubbing and prior to any grading of any site greater than or equal to one (1) acre. It seems possible that Aaron took the word "grubbing" too literally and since the site might not have been grubbed, the checklist was not filled in correctly. This indicates possible signs of confusion by plan review staff, although it is noted that Aaron no longer is the one responsible for this task. The plan review checklist requires that the person reviewing the plans must comment on any items marked as "NO"; however this was not the case for BASF. Re-development of industrial zoned lands should acquire information about soil quality since the possibility of contaminated soils becoming exposed during land disturbing activities is likely; however no concern for this was apparent. The plan reviewer did note through E-mail that the topographic map indicates that the flow of runoff is not entirely directed into the bioretention cell as intended, but no further documentation addressing this issue was apparent in the file.

The SWP3 for BASF was approved in October of 2010; however no documentation of inspections were present until September 2011. An inspection report indicated that the City never issued a storm water permit to the site before construction had commenced. The storm water permit application was present and e-mail communication between Aaron and the developer was present but mostly regarded concerns with the post- construction BMPs.

First notice of deficiencies: 9/16/2011 - No inlet protection, silt fence, concrete wash out pit, or rock construction entrance as depicted on the SWP3. Trash dumpster was not covered as well. A letter was sent to the developer describing the deficiencies noted during this inspection.

Second notice of deficiencies: 12/13/2011- No inlet protection as depicted on the SWP3. The trash dumpster was still not covered as well. *The City did not follow their formal enforcement escalation plan. The deficiencies were communicated with the developer but a formal "Notice of Violation" was never sent, establishing a timeline for corrective action.*

Construction Project #1 Name: BASF (2.0 ac.) #3GC05182*AG

Third notice of deficiencies: 1/23/2012- The trash dumpster was *still* not covered. No formal letter was available in the files, although e-mail conversations indicated that there was one sent. *The City did not follow their formal enforcement escalation plan yet again. Since this was the third incidence of a lack of protective cover for the dumpsters, the escalation plan indicates that an Administrative Hearing is required to determine reasons for non-compliance, as well as decide whether to issue a stop work order, public nuisance referral, preliminary or permanent injunction, or minor misdemeanor. It was noted that an Administrative Hearing was never held.*

The City of Elyria has a well-organized enforcement escalation plan; however it is obvious that the community has not been following it thus far. *Please provide Ohio EPA with reasoning as to why the City has not been capable of following this escalation plan in the past, or develop and submit a revised plan which you are capable of following.*

**Construction Project #2 Name: Fairfield Estates (B.D.C. Inc., # 3GC01446*AG, 25.0 ac.)
(Elyria West LLC, # 3GC05261*AG, 3.0 ac.)**

BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?

NO

Room For Improvement:

- The plan does not contain details for any of the BMPs such as inlet protection, silt fence, etc.
- The plan does not include details per the modifications necessary to use the detention basin as a sediment basin during the construction process and later as a permanent water quality basin
- General storm water notes are listed on the plan but do not apply specifically to this site.
- The design of the temporary dewatering structure (riser pipe) is outdated, but was never noted by the City as inadequate.

Design specifications and details for all BMPs included on the plans?

NO

No detail drawings are provided for any of the erosion and sediment controls or non-sediment pollutant BMPs on the overall site plan. The plan vaguely depicts a temporary sediment basin being converted into the permanent water quality detention basin after construction is completed, but only includes a very general detail drawing of the temporary dewatering structure (riser pipe) used during the construction process. The design of the dewatering structure was outdated even for the time this plan was constructed (2006). Riser pipes must include a single orifice sized correctly to ensure a proper drawdown time of the water quality volume. A perforated PVC pipe wrapped in geotextile material is no longer considered acceptable since it cannot ensure that drawdown time requirements are met.

Detail drawings were eventually submitted separately from the overall site plan in 2011 (nearly five (5) years after construction had commenced) by the developer after being prompted by Aaron Klein from City of Elyria.
(Continues on next Page)

Construction Project #1 Name: BASF (2.0 ac.) #3GC05182*AG	
	These details were included with individual lot SWP3s but were not consistent with what was observed in the field. No SWP3 narrative was present in the file.
Maintenance requirements specified?	NO
Have any NOV's or other enforcement actions been issued against this site? <i>Obtain copies of NOV's. If none, why not?</i>	<p>YES</p> <p>Record of a letter from April 12, 2006 indicates that a City inspection was conducted and issues with temporary stabilization, silt fence maintenance, and missing inlet protection was observed. Inspection photos were available in the files but did not indicate a description of the photo, the date it was taken, or who it was taken by. <i>The City needs to include these details in order to ensure that enforcement escalation procedures can be followed and that photos can be used as evidence of non-compliance.</i></p> <p>No documentation of other inspections was apparent until November 7, 2011. Handwritten notes and photographs of inspection findings were in the file but no official letters were sent out to address these issues. Inspections did begin to occur about once every other month after November 2011, but no further enforcement actions were apparent.</p>
<p>Notes:</p> <p>Documentation of E-mail conversations between Aaron Kline (City of Elyria) and Allan Wiley (G.B.C.) were on file from January 2011 discussing issues with erosion and sediment control responsibilities due to changes in developers and separate storm water permits. Aaron made good observations such as the lack of details and calculations for correct sizing of the sediment basin and its outlet structure; however Allan Wiley claimed that no modifications were necessary and that the permanent water quality structure was not part of his responsibilities. Also, there was no mention of the inadequate temporary dewatering structure (riser pipe) which certainly would have been installed at this point in time. No documentation of further action regarding the sediment basin was on file.</p> <p>During the time in which these conversations occurred, Allan Wiley stated that he and his company are only responsible for individual lot SWP3's and that Ryan Homes is responsible for the installation and maintenance of all erosion and sediment controls. The conversations were unclear as to whether GBC is associated with Ryan Homes in any way. Richard Beran is the name of the permittee for both Elyria West LLC as well as BDC. That being said, Aaron's discussions should have taken place with Richard Beran since he is essentially responsible for all storm water related issues, regardless if erosion and sediment control installation/maintenance etc. is contracted to another company.</p>	

Construction Project #1 Name: BASF (2.0 ac.) #3GC05182*AG

Although it was noted during this interview that post-construction BMPs have never been previously inspected by the City of Elyria, detention basins that are to be used as central sediment controls (sediment basins) during the construction process are *not* considered post-construction BMPs and should certainly be inspected as part of the “active construction” storm water inspection process. *If the City wishes to continue to use “as required by Ohio EPA” as their own set of standards for erosion and sediment controls, the City must be familiar with Ohio EPA’s minimum requirements, and recognize that perforated riser pipes wrapped in geotextile material has not been considered acceptable dewatering devices for many years. It is recommended that the City obtain a copy of the most current Rainwater and Land Development Manual and familiarize with Ohio EPA’s standards.*

Construction Project #3 Name: East River Road 3GC04759*AG 3.91 ac.

BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?

YES

During Construction:

- BMPs include silt fence, inlet protection, and concrete washout pit.

Post-Construction:

- BMPs include exfiltration trenches using ODOT specifications

Room For Improvement:

- No calculations or details were included to provide evidence that the exfiltration trenches were sufficient in meeting re-development requirements (e.g. Overall reduction of impervious areas by 20% or treatment of 20% of the Water Quality Volume)

Design specifications and details for all BMPs included on the plans?

NO

No detail drawings were seen on the actual site plan. A copy of ODOT Specification 832: Supplemental Specification for Temporary Sediment and Erosion Control was referenced as the basis of BMP requirements.

Room For Improvement:

- Detail drawings should be available on the actual site plan in order to ensure that BMPs are not only installed, but installed correctly in order to function as intended.
- Calculations need to be provided to ensure that the required water quality standards are met for re-development projects

Construction Project #1 Name: BASF (2.0 ac.) #3GC05182*AG	
Maintenance requirements specified?	YES Narrative was included on the plan to specify maintenance requirements.
Have any NOV's or other enforcement actions been issued against the site? <i>Obtain copies of NOV's. If none, why not?</i>	NO No letters or indication that the City had conducted storm water inspections of their own for East River Road existed. Although the City indicated during this interview that they are inspecting their own municipal projects for storm water compliance, inspections were conducted by Jack Boggs of Vicinity, Inc. from April 29, 2010 until November 30, 2010. The only letter ever sent to the contractor was an Ohio EPA inspection letter from July of 2010.
<p>Notes: Inspection reports created by Jack Boggs of Vicinity Inc. indicate that the City ordered the removal of Inlet protection. <i>If ponding of water on the streets is an issue, the City needs to ensure that alternative sediment controls be used. The City cannot simply remove inlet protection and allow sediment laden water to discharge from the site. An action as such constitutes a direct violation of Ohio EPA NPDES Permit #OHC000003 Part III.G.2.d. (iv) & (vi).</i></p> <p>The City needs to ensure that calculations are provided with post-construction BMP details during the plan review process and verify that NPDES permit requirements are met at a minimum. Re-development projects such as East River Road require that an overall reduction of 20% of impervious area is created, or that 20% of the water quality volume established. In addition, a stand-alone long term maintenance plan needs to be included to ensure that exfiltration trenches will remain functional throughout their lifetime. Calculations were not found in the file; however they were later submitted to Ohio EPA upon request.</p>	

Now, select up to 3 projects from the NOI list that have been completed since the date that the community enacted its post-construction ordinance. Pick projects from a variety of project types (commercial, residential, institutional) and sizes (< 5 acres and 5 or more acres). If one exists, review a public project to ensure that plans included provisions for post-construction BMPs.

Post-Construction Project #1 Name: BASF (2.0 ac.)	
Date that project was accepted by community or otherwise deemed "completed"	N/A (Site is still active)
Were post-construction BMPs provided for all drainage areas associated with the developed site?	YES
List the post-construction BMPs provided:	DA #1: West of Locust Street (1.0 ac.) Bioretention Cell DA #2: East of Locust Street (1.0 ac.) No BMP Provided
Design specifications and details for all BMPs included on the plans?	YES Design specifications are provided for the bioretention cell at the BASF site; however ODOT specifications were used (which is not acceptable). <i>*See Notes Below*</i>
Were post-construction BMPs selected appropriate for their drainage areas, site and soil conditions?	YES The bioretention cell provides treatment of the water quality volume associated with approximately fifty percent (50%) of the site. Redevelopment requires that only twenty percent (20%) is treated.
Did the community verify the installation of post-construction BMPs per the approved plan at the time the project was completed?	N/A (Site is still active)
Does MS4 have a copy of the long-term maintenance plan?	NO
Who does the plan say is responsible for long-term maintenance?	N/A

Post-Construction Project #1 Name: BASF (2.0 ac.)	
<p>Has the MS4 conducted any long-term maintenance inspections or collected any long-term maintenance inspection reports from the responsible party? <i>Obtain copy of latest inspection report.</i></p>	<p>N/A BASF is still an active site. The City of Elyria is currently still developing their post-construction inspection procedures.</p>
<p>Notes:</p> <p><i>*Rainwater and Land Development</i> manual specifications for post-construction BMPs need to be used for the BASF redevelopment project since it is not a public road project. In addition, the City's reference to "Ohio EPA minimum requirements" as their own set of standards would require that <i>Rainwater and Land Development</i> specifications are applicable to <i>all</i> BMP selections and design criteria. The detail drawings provided do not include vegetation plans, elevations, or depictions of how the under drain system discharges to the flood control outlet.</p> <p>The City needs to ensure they are receiving a copy of Long Term Maintenance plans (LTM's) with any project that requires a post-construction BMP to ensure proper function it's lifetime.</p>	

Post-Construction Project #2 Name: Fairfield Estates	
<p>Date that project was accepted by community or otherwise deemed "completed"</p>	<p>N/A (Still active)</p>
<p>Were post-construction BMPs provided for all drainage areas associated with the developed site?</p> <p>List the post-construction BMPs provided:</p>	<p>NO</p> <p>DA #1: S/L #s 1-25 are directed towards the detention basin on site. While in the field, it was observed that the detention basin was not designed appropriately and must be redesigned.</p> <p>DA #2: S/L #s 1-7 are directed to preexisting storm sewers on Fowl Road untreated.</p>

Post-Construction Project #2 Name: Fairfield Estates	
Design specifications and details for all BMPs included on the plans?	<p style="text-align: center;">YES</p> <p>Very general details exist for the detention basin and its outlet structure. However, it is obvious that the outlet structure was not designed correctly to ensure a proper drawdown time of the water quality volume (WQv).</p>
Were post-construction BMPs selected appropriate for their drainage areas, site and soil conditions?	<p style="text-align: center;">YES</p> <p>The basin is appropriate for the site and its associated drainage areas, but the outlet structure must be modified to meet NPDES minimum requirements at the time which the plans were completed.</p> <p>If it is not possible to direct the runoff captured by the yard drains on the East side of Fowl Road to the detention basin, alternative BMPs such as bioretention cells or enhanced swales should be used instead.</p>
Did the community verify the installation of post-construction BMPs per the approved plan at the time the project was completed?	<p style="text-align: center;">NO</p> <p>The site is still active; however the subdivision as a whole is completed and only a few individual lots are under construction. At this point, the permanent water quality outlet structure should be in place. The outlet structure must be redesigned and reconstructed immediately.</p>
Does the MS4 have a copy of the long-term maintenance plan?	NO
Who does the plan say is responsible for long-term maintenance?	N/A
Has the MS4 conducted any long-term maintenance inspections or collected any long-term maintenance inspection reports from the responsible party? <i>Obtain copy of latest inspection report.</i>	<p style="text-align: center;">NO</p> <p>The City has not been inspecting post-construction BMPs up until this point.</p>

Post-Construction Project #2 Name: Fairfield Estates

Notes:

At this point in time, the permanent water quality outlet structure can be in place for the detention basin since the subdivision is essentially completed and only a few individual lots are currently active. During the field review, it was observed that the outlet structure was still equipped with the temporary dewatering structure used during the construction process. The City needs to ensure that the temporary structure is removed and that the responsible party reconstructs the outlet structure to meet NPDES permit requirements at the time of plan submission (2006). It is recommended that the City issues a Notice of Violation and follows the enforcement escalation plan formalized by the community to ensure corrective action is taken in a timely manner. *If the City would like Ohio EPA to issue an additional Notice of Violation letter, please indicate such in your response to this letter.*

CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Elyria
MS4 Permit No: 3GQ00082*BG

Name of Site: West River Road Improvements	
Location: West River Rd.	NPDES Permit #: 3GC05776*AG
Date of Inspection: 7/11/12	Time of Inspection: 3:50 PM
Name of Inspector: Kathryn McKillips	
Others Present During Inspection: Tim McParland , DSW, NEDO Dan Bogoevski , DSW, NEDO John Schneider, City of Elyria	

1. Did MS4 inspector identify himself to the project superintendent or site foreman and state the purpose of his inspection?

N/A

No one was on site during the inspection.

2. Did the MS4 inspector ask if any amendments have been made to the SWP3 since his or her last inspection?

N/A

No one was on site during the inspection.

3. Did the MS4 inspector review the site inspection reports required of the developer once every 7 days and within 24 hours of a 0.5-inch or greater rainfall?

N/A

No one was on site during the inspection.

4. Did the inspector reference the approved SWP3 or use it as the basis of his or her inspection?

NO

The inspector did not reference the approved SWP3 as the basis of her inspection until prompted by Ohio EPA. The City needs to ensure that the approved SWP3 is always referenced while conducting site inspections and that the inspector is aware of any amendments which may have been made since the last site visit.

10. Is the community planning on taking any enforcement actions based on the results of today's inspection? If so, what are those actions? (*NOTE: Ask community to send you a copy of the enforcement action.*) Did the inspector provide a deadline for corrective action? If so, provide details.

YES

The inspector stated that a formal Notice of Violation will be issued to the contractor since this is the second notification of ditch check issues. The letter will include other inspection findings and include a date of completion for all the observed deficiencies. A follow up inspection will be completed as well.

Additional Comments:

- **Simply placing geotextile fabric (silt fence) underneath the grate of a catch basin is not an acceptable form of inlet protection. During the field review, it was observed that the City has allowed for this practice on construction sites in the past. Please ensure that inlet protection is designed and installed per the specifications of the *Rainwater and Land Development* manual since the community has established these specifications as their own set of standards.**
- **The approved SWP3 *must* be used as the basis of any storm water inspection. Inspectors should verify with the superintendent or project manager that the SWP3 is current and should be aware of any amendments which may have been made since the last visit to the particular site.**

See Attached Photos



Figure 1: Stretching geotextile material under the grate of a catch basin is not an acceptable form of inlet protection.



Figure 2: Ditch checks must be installed per the details on the SWP3. Simply placing silt fence across a concentrated flow is unacceptable.



Figure 3: Asphalt grindings were abundant on the bridge of the Northern stream crossing. Good housekeeping should consist of sweeping debris and cleaning any vehicle leaks throughout the site.



Figure 4: Relocated ditches were not stabilized. Conveyance channels must be permanently stabilized to prevent excessive erosion with measures depicted in the SWP3.

Photos Taken By: Tim McParland
7/11/2012

CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Elyria
MS4 Permit No: 3GQ00082*BG

Name of Site: Fairfield Estates Sub-division	
Location: Fowl Road	NPDES Permit #: (multiple)
Date of Inspection: 7/11/12	Time of Inspection: 2:15 PM
Name of Inspector: Kathryn McKillips	
Others Present During Inspection:	
Tim McParland, DSW, NEDO	
Dan Bogoevski, DSW, NEDO	
John Schneider, City of Elyria	

1. Did MS4 inspector identify himself to the project superintendent or site foreman and state the purpose of his inspection?

N/A

No one was on site during the inspection.

2. Did the MS4 inspector ask if any amendments have been made to the SWP3 since his or her last inspection?

N/A

No one was on site during the inspection.

3. Did the MS4 inspector review the site inspection reports required of the developer once every 7 days and within 24 hours of a 0.5-inch or greater rainfall?

N/A

No one was on site during the inspection.

4. Did the inspector reference the approved SWP3 or use it as the basis of his or her inspection?

YES

The inspector referenced individual lot SWP3s during this inspection. However, the inspector did not have a copy of the plans for the subdivision in its entirety.

5. Did the inspector follow-up on any compliance issues found during his or her last inspection?

YES

The inspector had observed during a previous inspection that the dumpsters were lacking protective cover and issued a letter to the responsible party. It was noted during the field review that the dumpsters on site continued to lack protective cover even after written notice of non-compliance.

6. Compliance issues identified by inspector during this inspection:

- **The inlet protection within the curbside catch basins need to be maintained**
- **The dumpsters lacked protective cover**
- **Concrete washout was visible in unauthorized areas**
- **Minor tracking from the rock construction entrance near the spoil area was evident**
- **Silt fence cannot be placed across any conveyance of a concentrated flow**
- **Accumulated sediment must be removed from the silt fence**
- **Yard drain inlet protection was removed prior to establishing a seventy percent (70%) growth density of all upslope areas**

7. Deficiencies or NPDES violations not noted by the MS4 inspector during this inspection:

- **S/L #s seventy six and seventy nine (76&79) were disturbed but have remained idle for greater than twenty one (21) days and require stabilization**
- **A soil stockpile just south of the site on Fowl Road appeared to have been a result of construction related activity and never stabilized. The City should investigate the source of this stock pile and request immediate stabilization if it is related to construction activities and will remain idle for twenty one (21) days or longer**
- **The inspector did not mention the lack of twisting the ends of consecutive sections of silt fence together before staking until prompted by Ohio EPA**
- **S/L #1 required silt fence along the west side of the lot to protect sediment laden water from entering the back yard swales and eventually the catch basins downstream of the inlet**
- **The inspector did not inspect the detention basin until prompted by Ohio EPA**
- **The detention basin was not at final grade and contained several erosion gullies**
- **The outlet structure was equipped with an outdated version of a sediment riser pipe (the design was even outdated for the time which the plan was designed in 2006)**

8. Did the MS4 inspector ask the project superintendent or site foreman to accompany him or her on the inspection?

N/A

No one was on site during the inspection.

9. Did the MS4 inspector recap his findings upon completion of his or her inspection?

N/A

No one was on site during the inspection. The inspector did recap her findings with Ohio EPA upon completion of the inspection.

10. Is the community planning on taking any enforcement actions based on the results of today's inspection? If so, what are those actions? (*NOTE: Ask community to send you a copy of the enforcement action.*) Did the inspector provide a deadline for corrective action? If so, provide details.

YES

The inspector stated that a formal Notice of Violation will be issued to the developer. This will include specific codes which were violated and provide a minimum timeframe for corrective action to be completed. Please provide Ohio EPA with a copy of this letter once it is issued.

Additional Comments:

- **The inspector was very thorough with her inspection of the sub-division, except for the fact that she did not inspect the detention basin until prompted by Ohio EPA. Sediment basins are typically the primary sediment control for large sites such as Fairfield Estates, so it is essential that they designed, built, and maintained correctly to ensure that they will function as intended. Although the City is currently developing their post-construction inspection procedures, the community *must* inspect BMPs such as sediment basins and traps during the active construction process *in addition* to things like inlet protection and silt fence.**
- **As described above, the outlet structure of the detention basin is equipped with a sediment riser pipe that was outdated even at the time of plan approval. The City *must* require that the sediment riser be redesigned to meet the NPDES design standards at the time of plan approval, *or* the temporary sediment basin be converted to the permanent detention basin if the City finds that this is suitable.**

See Attached Photos



Figure 1: Sub-lots which have been disturbed but will remain idle for greater than 21 days must be stabilized



Figure 2: Consecutive sections of silt fence must be twisted together before they are staked.



Figure 3: The temporary dewatering structure does not meet NPDES requirements at the time of plan approval. The structure must be reconstructed or removed while the basin is converted to post-construction mode.



Figure 4: The City needs to investigate the source of this soil stock pile. If it is a result of construction related activities at Fairfield Estates, it must be stabilized if it is to remain idle for greater than twenty one (21) days.

Photos Taken By: Tim McParland
7/11/2012

CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Elyria
MS4 Permit No: 3GQ00082*BG

Name of Site: Lorain Co. Community College – Culinary Arts Center	
Location: 1005 N. Abbe Road	NPDES Permit #:
Date of Inspection: 7/16/12	Time of Inspection: 9:00 AM
Name of Inspector: Kathryn McKillips	
Others Present During Inspection: Tim McParland, DSW, NEDO John Schneider, City of Elyria	

1. Did MS4 inspector identify himself to the project superintendent or site foreman and state the purpose of his inspection?

YES

The inspector notified Bill Skaggs, Project Superintendent on site that she was there to conduct a storm water inspection for the City. The superintendent was in the middle of a progress meeting upon arrival.

2. Did the MS4 inspector ask if any amendments have been made to the SWP3 since his or her last inspection?

YES

No amendments had been made since the previous inspection.

3. Did the MS4 inspector review the site inspection reports required of the developer once every 7 days and within 24 hours of a 0.5-inch or greater rainfall?

NO

The inspector asked to see the inspection reports; however Mr. Skaggs informed her that they ship the reports to their main office and they aren't kept on site.

4. Did the inspector reference the approved SWP3 or use it as the basis of his or her inspection?

YES

5. Did the inspector follow-up on any compliance issues found during his or her last inspection?

YES

The inspector observed that a curb inlet in front of the John Spitzer Conference Center was missing inlet protection and vulnerable to sediment laden runoff during a previous site inspection. The inspector requested that inlet protection be installed on the catch basin although it was not detailed on the SWP3.

6. Compliance issues identified by inspector during this inspection:

- **Excessive off-site tracking was occurring due to an inadequate rock construction entrance**
- **The trash dumpsters on site lacked protective cover**
- **Trash and construction debris littered the entire site and required good housekeeping measures**
- **Areas throughout the site appeared to have remained idle for greater than twenty one (21) days and require temporary stabilization**
- **Concrete and mortar mix washout was apparent in unauthorized areas throughout the site**
- **The compliance issue noted during the previous site inspection had not been corrected (catch basin was still lacking inlet protection)**
- **An unprotected inlet near the loading dock was covered with trash and debris**

7. Deficiencies or NPDES violations not noted by the MS4 inspector during this inspection:

- **Silt fence depicted on the SWP3 was not in place. If it is decided that silt fence is no longer necessary in these areas, the SWP3 must be amended to show this**
- **Vehicle leaks were apparent in several areas throughout the site. Good housekeeping measures must be taken to address these leaks and contaminated soils**
- **The post-construction BMP (sand filter) was installed and operating prior to stabilization of the site. The inspector did not mention such until prompted by Ohio EPA**

8. Did the MS4 inspector ask the project superintendent or site foreman to accompany him or her on the inspection?

NO

The superintendent was in the middle of a progress meeting and unable to accompany her on the inspection.

9. Did the MS4 inspector recap his findings upon completion of his or her inspection?

YES

The inspector recapped her findings with Ohio EPA since the superintendent was not available to speak with.

10. Is the community planning on taking any enforcement actions based on the results of today's inspection? If so, what are those actions? *(NOTE: Ask community to send you a copy of the enforcement action.)* Did the inspector provide a deadline for corrective action? If so, provide details.

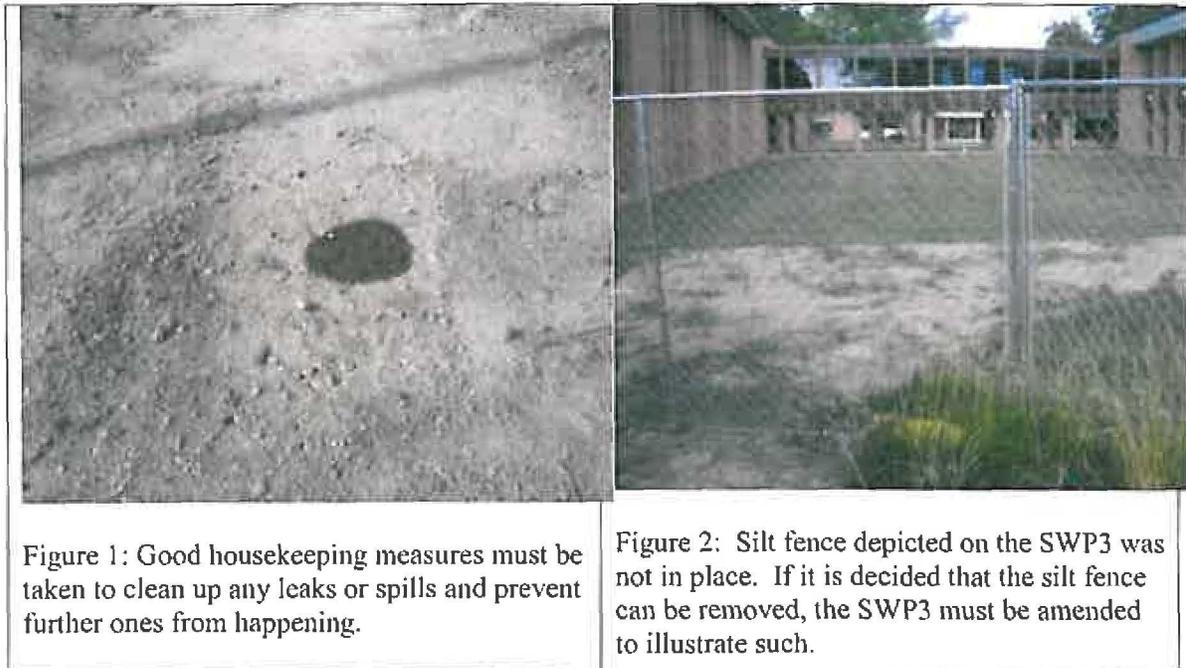
YES

The City will issue a formal Notice of Violation letter since it is the second incidence of noncompliance. The letter will be copied to both the permittee and the superintendent and included with the checklist.

Additional Comments:

- **The construction sequence clearly details that the sand filter must be plugged and should not be put “on-line” until the site has been permanently stabilized. After prompting the inspector, she asked the superintendent if the sand filter was online, and he indicated that it was. This can lead to clogging of the sand filter and can hinder its effectiveness in the future. Please be sure to include this information in the formal Notice of Violation that the community plans to issue for the LCCC Culinary Arts Center.**

See Attached Photos



Photos Taken By: Tim McParland
7/16/2012