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MEDINA

BRUNSWICK

CITY OF BRUNSWICK

3GQ10004 2011/07/27

MACPHERSON,  
LINDSIE

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**Environmental  
Protection Agency**

2011 Governor  
2011 Lt. Governor  
2011 Director

July 27, 2011

RE: MEDINA COUNTY  
CITY OF BRUNSWICK  
PERMIT NO. 3GQ10004\*BG  
MUNICIPAL STORM WATER  
PROGRAM INSPECTION

Mr. Ryan Cummins  
City Engineer  
City of Brunswick  
4095 Center Road  
Brunswick, OH 44212

Dear Mr. Cummins:

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) #4: Construction Site Storm Water Runoff Control and MCM #5: Post-Construction Storm Water Management in New Development and Redevelopment. 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) OHQ000002 and Ohio Administrative Code 3745-39.

On June 9, 2011, Ohio EPA met with you and other representatives of the City of Brunswick 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 a modified version of the Municipal Storm Water Program Evaluation Guide developed by the United States Environmental Protection Agency.

Attached are the Municipal Storm Water Program Evaluation, File Review, and Field Inspection Worksheet(s) completed for your community. Please review these documents in detail to determine specific elements where your construction and post-construction programs need 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 escalate enforcement to achieve compliance with the local construction site ordinance.** This is a violation of Part III.B.4.a.vi of the Ohio EPA General Storm Water NPDES permit # OHQ000002. Our file review and interview revealed that the City is deficient in written Notices of Violation under City of Brunswick letterhead for non-compliance with Chapter 1234.05 of the municipal code (Erosion and Sediment Control). Stop work orders or court actions as permitted by Chapter 1234.05 are rarely implemented. Yet, the files from Chagrin Valley Engineering (CVE) indicate that compliance issues for the Waite Farms Phase 3 project have been on-going for some time. The City must develop an enforcement escalation protocol so as to provide inspectors and the City Engineer with a clear policy on when to take enforcement to the next level and how that is to be achieved. The City also needs to ensure written

inspection reports are sent to the legal entity which holds NPDES permit-coverage and the entity responsible for most of the earth disturbance and installation and maintenance of erosion and sediment controls. Ohio EPA suggests that the building inspectors develop a form that could be used during the inspection and then left with the builder for written notification of violations or deficiencies.

- **Failure to submit a Notice of Termination within 45 days of reaching final stabilization on municipal construction projects.** This is a violation of Part IV.A of the Ohio EPA General Storm Water NPDES permit #OHC000003. Our records show that the City of Brunswick has two (2) active projects permitted under the Ohio EPA General Storm Water NPDES Permit for Construction Activities but indicated during the interview that one (1) of the projects was completed and has reached final stabilization. Please submit an NOT for the project that is completed.

#### **Deficiencies:**

- The Building Department does not track or ensure Individual Lot NOI and/or Co-Permittee NOI submittal to ensure that homebuilders and other construction site operators have obtained NPDES permit coverage. Please incorporate verification of NPDES permit coverage into the plan review procedures of the Building Department.
- CVE needs to improve the method by which they generate the inventory of active subdivision development sites and municipal construction projects. Currently, the City Engineer provides verbal notification to the CVE construction site inspector, Chris Hartman that construction has begun. During our audit, a lack of communication within CVE was exposed causing an incomplete construction site inventory. The City's road project for the Grafton-Hadcock Intersection was not added to the list of sites to be inspected until a month after construction had already started. Please be aware that performance standards established under Part III.B.4.c of the NPDES permit require the City to inspect all construction sites where 1 or more acres of land are disturbed. These sites must be inspected when construction begins and at least monthly thereafter as long as the project is active. In order to ensure that this performance standard is met, Ohio EPA strongly recommends the City improve their system for keeping an inventory or list of construction projects and tracking their status.
- Construction site inspectors should be involved in the pre-construction meeting with developers and/or contractors. We noted that the primary site inspector utilized by CVE (Chris Hartman) has never attended a pre-construction meeting. The inspector to be inspecting the construction site for sediment and erosion controls may need to be present at such meetings to prevent lack of communication and serve as an introduction to the site. In addition, we noted that a discussion of the construction site sequence and how the implementation of BMPs fits within that sequence is not regularly discussed during these meetings. It is important to review these items with the contractor during pre-construction meetings to improve implementation of the storm water pollution prevention plan.

- The City contracts construction site inspections and plan reviews with CVE. The inspectors from the Building Department and from CVE seemed to be very well trained, with CPESC and CPSWQ certifications, but the City should still ensure that inspectors receive on-going education to ensure that they are aware of the latest standards and specifications for erosion and sediment control, as well as other storm water related topics. *Please review Construction Field Review Worksheets for an evaluation of the construction site inspectors for the City of Brunswick.*
- The Ohio EPA recommends the City develop or adopt checklists for use by inspectors when conducting construction and post-construction site inspections. This will ensure all practices are inspected and that all BMPs are constructed and maintained according to the City's adopted standards and the approved plans. The use of checklists also ensures a certain amount of consistency between different inspection personnel.
- During the audit, Ohio EPA revealed that CVE is designing the SWP3 for some municipal projects and also inspecting the project for compliance with that same SWP3. Such an action is considered a conflict of interest, and the City should shift the compliance inspections to the building department inspectors or Medina SWCD for those projected designed by the CVE.
- The City must ensure that it is utilizing current BMP design standards when conducting plan reviews. Our field inspections and file reviews revealed that outdated specifications were used for the outlet structures of all three sediment basins at the Waite Farms Phase 3 subdivision project.
- The City of Brunswick has not 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), but should consider doing so to minimize arguments and negotiations on what constitutes an acceptable BMP. Although Ohio EPA does require post-construction BMPs on small construction sites, the requirements are not prescriptive. Thus, reliance on Ohio EPA requirements for small construction sites may not lead to the types of BMPs the City would prefer to see.
- The City has reviewed their ordinances to facilitate the use of non-structural and low-impact development (LID) practices in some instances. However, we noted the omission of allowing down spout disconnection and rainwater harvesting from these ordinances. To further promote use of LID practices, the City may also want to consider adding a runoff reduction requirement to the ordinance or allow a reduction in the size of storm water management structures if LID is used. Planning and zoning codes should be reviewed to encourage balanced growth principles such as policies to promote infill development and allowing the use of meadow grass or low-maintenance vegetation, where appropriate. The City should consider providing a discount on the storm water utility fee if property owners retrofit their sites with post-construction BMPs.
- The Ohio EPA inspection revealed that downspout disconnection is prohibited in the City of Brunswick. Downspout disconnection and conveyance to a storm water detention/treatment BMP are not mutually exclusive propositions. Downspout

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City of Brunswick  
July 27, 2011  
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disconnection allows for conveyance over areas where pollutants can be removed through filtration and infiltration. It is also a key tool by which to retrofit existing developed areas. Rooftop runoff can be directed to rain gardens, bioretention cells and rain barrels. Future generations of the MS4 permit are expected to include retrofit requirements, and future post-construction BMP requirements are expected to focus on runoff volume control.

- During the field inspection for Waite Farms Phase 3 subdivision, repeated violations were noted. The City stated that they plan to take enforcement on this site, but the specific action to be carried out had not been determined. If the City follows their enforcement procedures, the next step for this site would be the issuing of a stop work order. The City has spoken to the developer on the action that must be taken, but it does not seem as though further enforcement steps have been taken. ***Please submit documentation of the enforcement action the City has decided to take on this matter.***

Please review my comments and provide Chris Moody with a letter of response indicating the actions you will take to address my concerns. **Your response should be received no later than August 19, 2011.** Please note that this response does not replace the requirement to submit an Annual Report. Your annual report for 2011 will be due on April 1, 2012.

If you have any questions, please contact me at (330) 963-1138 or [lindsie.macpherson@epa.state.oh.us](mailto:lindsie.macpherson@epa.state.oh.us) or Chris Moody at (330) 963-1118 or [chris.moody@epa.state.oh.us](mailto:chris.moody@epa.state.oh.us).

Sincerely,



Lindsie MacPherson  
Assistant to the District Engineer  
Division of Surface Water

LM/mt

cc: Gary F. Werner, Mayor, City of Brunswick w/ enclosure  
Jim Lukas, City Manager/ Safety Director, City of Brunswick  
Daniel R. Gladish, Building Inspector, City of Brunswick w/ enclosure  
Drew L. Flood, Property Maintenance Zoning Inspector, City of Brunswick, w/ enclosure  
Chris Hartman, City of Brunswick Inspector, CVE, LTD., w/ enclosure

ec: Chris Moody, Ohio EPA, NEDO, DSW

## Construction and Post-Construction Component Worksheet

|                              |   |
|------------------------------|---|
| <b>Date of Evaluation</b>    | June 9, 2011  |
| <b>Evaluator Name, Title</b> | Lindsie MacPherson,<br>Assistant to the District Engineer |
| <b>M54 Permittee</b>         | City of Brunswick   |

**Instructions:** Use this worksheet as a guide for questioning M54 staff and reviewing applicable documents. Keep in mind that additional questions may be necessary based on local regulations, M54 permit requirements, implementation strategies, or water quality issues. Remember to obtain copies of any applicable documents or files which may assist in writing the M54 evaluation report.

| <b>Staff Interviewed</b>                                  |  |  |
|---|--|--|
| <b>Name</b>   | <b>Department/Agency</b>                 | <b>Phone Number/Email</b>                  |
| Ryan Cummins<br>Consulting City Engineer                  | Chagrin Valley Engineering               | (440) 439-1999<br>cummins@cvelimited.com   |
| Chris Hartman<br>Permit Coordinator                       | Chagrin Valley Engineering               | (440) 439-1999<br>Hartman@cvelimited.com   |
| Daniel R. Gladish<br>Building Inspector                   | City of Brunswick<br>Building Department | (330) 558-6830<br>dgladish@brunswick.oh.us |
| Drew L. Flood<br>Property Maintenance<br>Zoning Inspector | City of Brunswick<br>Building Department | (330) 558-6830<br>dflood@brunswick.oh.us   |

| <b>Ordinance/Legal Authority</b>                                  |  |
|---|--|
| <b>Interview Questions</b>  | <b>Response</b>  |
| Ordinance used to require storm water BMPs at construction sites? | YES  |
| Name and/or code section(s)                                       | Chapter 1234 Erosion and Sediment Control  |
| Date initially enacted: 4/24/2006                                 |  |
| Threshold for coverage (e.g., 1 acre, 100 cubic yards, etc.)      | Section 1234.05 of City of Brunswick Erosion and Sediment Control Ordinance sets a threshold of earth disturbance of 1 acre or more to require a SWP3. Abbreviated SWP3s are required for additions or accessory buildings for single family residential construction, single family residential construction, and general land clearing activities not related to |
| <i>NOTE: 1 acre is minimum requirement.</i>                       |  |

| <b>Ordinance/Legal Authority</b>   |  |
|--|--|
| <b>Interview Questions</b>   | <b>Response</b>  |
|  | construction that are greater than 1/10 acre but less than 1acre of land disturbance.  |
| <p>Exclusions from coverage allowed:</p> <p><i>NOTE: To align with NPDES permit program, the only exclusions allowed are (a) if rainfall erosivity factor, R, is &lt; 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 &lt; 5 acres is disturbed, (c) silvicultural disturbances, (d) agricultural disturbances or (e) construction related to oil &amp; gas well exploration.</i></p> <p><i>Ohio EPA website has fact sheet on what constitutes "agricultural disturbance" and "routine maintenance" versus regulated construction activity.</i></p> <p><i>Some communities allow an abbreviated SWP3 for individual home construction or other small construction. That is fine as long as intent of regulation is met.</i></p> | <p>Silvicultural disturbances, Ohio Agricultural Sediment Pollution Abatement Rules as stated in section 1234.01(d) of the City's Erosion and Sediment Control Ordinance.</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 style="text-align: center;"><b>YES</b></p> <p style="text-align: center;"><b>NO</b></p> <p>The City's response was that this activity does not involve the disturbance of land and therefore is not</p> |

| <b>Ordinance/Legal Authority</b>  |  |
|---|--|
| <b>Interview Questions</b>  | <b>Response</b>  |
|   | <p>covered, but section 1234.05(b)(3) of their ESC ordinance states that general land clearing activities not related to construction and regardless of parcel size would be covered and require a SWP3 or an abbreviated SWP3. Therefore, the City does have authority over this activity if need be.</p> <p><b>NOTE:</b> Ohio EPA considers tree clearing to be a regulated construction activity if it is not conducted with the intent to harvest timber. Non-silvicultural tree clearing usually results in clear cutting of continuous swaths of land rather than the selective tree clearing of trees larger than a certain diameter usually associated with harvesting timber.</p> |
| Your own municipal construction projects?   | <b>YES</b>   |
| Construction and demolition debris landfills?   | <b>YES</b>   |
| Construction by other public entities within your political jurisdiction, e.g., a county road project within a municipality?  | <b>YES</b>   |
| Earth disturbance associated with open spaces and parks (e.g., trails within a park or parking lot improvements at a park)?   | <b>YES</b>   |
| Private pond construction?  | <b>YES</b>   |
| Construction of wind or solar panel farms?  | <b>YES</b>   |
| Establishment of borrow or spoil areas that service multiple, unrelated construction projects?  | <b>YES</b>   |
| Utility construction projects (including tree clearing along utility corridors or pipeline projects that cross multiple political jurisdictions)?   | <b>YES</b>   |
| <p><i><b>NOTE:</b> Construction must only be regulated if it does not meet one of the exclusions and the larger common plan of development or sale disturbs 1 or more acre of land. 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> |  |

| <b>Ordinance/Legal Authority</b>  |  |
|---|--|
| <b>Interview Questions</b>  | <b>Response</b>  |
| 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.)? | <b>YES</b>   |
| Has ordinance been updated to reflect minimum requirements of Ohio EPA NPDES permit #OHC000003?   | <b>YES</b>   |
| Date of updates?  | <b>October 11, 2010</b>  |
| <i>NOTE: Check database for date of NPDES permit renewal prior to inspection. MS4 permit #OHQ000002 required updates within 2 years of permit renewal.</i>                                |  |
| Date of MS4 Permit Renewal:   | <b>June 4, 2009</b>  |
|   |  |
| Ordinances used to require post-construction storm water BMPs on new development or redevelopment projects:   |  |
| <b>Treatment of Water Quality Volume (WQv)</b>  | <b>YES</b>   |
| Name and code section:  | Chapter 1236: Storm Water Management   |
| Date initially enacted: <b>4/24/06</b>  |  |
| Has this ordinance been updated to reflect the minimum requirements of Ohio EPA General Permit #OHC000003?  | <b>YES</b>   |
| Date of update: <b>October 11, 2010</b>   |  |
| <b>Riparian and Wetland Setback Ordinance</b>   | <b>YES</b>   |
| Name and code section:  | Chapter 1238 Establishment of Riparian Zones   |
| If YES, does ordinance require protection of native vegetation within riparian area or can manicured lawns be established?  | <b>YES</b><br>Riparian zones shall be maintained in their natural state 1238..04(d)(2) |
| If YES, does ordinance allow the location of storm water infrastructure within the riparian setback?  | <b>YES</b>   |
| <b>Runoff Reduction</b> (e.g., infiltration or mitigation)  | <b>NO</b>  |

| <b>Ordinance/Legal Authority</b>  |   |
|---|---|
| <b>Interview Questions</b>  | <b>Response</b>   |
| <p>of a recharge volume)?<br/>Name and code section:</p>  | <p>Allowed, but not required. Infiltration of the WQv is accepted as a method to achieve compliance with post-construction requirements.</p>  |
| <p><b>BMPs designed to control temperature</b> for discharges to cold water habitat streams?<br/>Name and code section:</p>   | <p>N/A</p>  |
| <p><b>Encouraging Green Infrastructure</b> or low-impact development practices:</p> <p>Allow downspout disconnection and use of open storm water conveyance systems?<br/>Names and code sections:</p> | <p style="text-align: center;"><b>NO</b></p> <p>There is a code against downspout disconnection. Many areas in the City are built up such that downspout disconnection would flood the lower areas. Newer subdivisions require more frequent collection points. (Every yard has a basin or collection point)</p> <p><b>Ohio EPA Comment:</b> Downspout disconnection and conveyance to a storm water detention/treatment BMP are not mutually exclusive propositions. Downspout disconnection allows for conveyance over areas where pollutants can be removed through filtration and infiltration. It is also a key tool by which to retrofit existing developed areas. Rooftop runoff can be directed to rain barrels, rain gardens and bioretention cells. Future generations of the MS4 permit are expected to include retrofit requirements. Future post-construction BMP requirements are expected to focus on runoff volume control.</p> |
| <p>Permit the installation of rain gardens and other bioretention facilities?<br/>Names and code section:</p>   | <p style="text-align: center;"><b>YES</b></p> <p>A BMP available for use as stated in Chapter 1236 of the City's Storm Water Management Ordinance.</p>  |
| <p>Allow rainwater harvesting (rain barrels and cisterns)?<br/>Name and code section:</p>   | <p style="text-align: center;"><b>NO</b></p> <p>Downspout disconnection prohibited</p>  |
| <p>Allow or require the use of pervious pavement systems?<br/>Name and code section:</p>  | <p style="text-align: center;"><b>YES</b></p> <p>BMP available for use. Not written in code.</p>  |
| <p>Allow reduction in the size of traditional storm water management structures if LID used?<br/>Name and code section:</p>   | <p style="text-align: center;"><b>NO</b></p> <p>If the engineer can show that the volume of runoff is reduced through such practices than this would be allowed through calculations. but the City code is</p>  |

| <b>Ordinance/Legal Authority</b>  |  |
|---|--|
| <b>Interview Questions</b>  | <b>Response</b>  |
| <p>Provide a credit to a storm water utility fee if LID is used?<br/>Describe:</p>  | <p>still based on a runoff rate criteria not necessarily volume.</p> <p style="text-align: center;"><b>NO</b></p> <p>Utility fee just passed in April of 2011 and will go into effect January 1, 2012, but no credit has been discussed.</p> <p><b>Ohio EPA Comment:</b> Credits to storm water utility fees provide financial incentives for retrofitting existing areas with water quality BMPs where none have previously existed. The City should give thought to establishing credits for the implementation of low-impact development BMPs and green infrastructure such as pervious pavement, rain gardens, rain barrels and green roofs.</p> |
| <p><b>Balanced Growth Principles.</b> i.e., other non-structural ordinances or codes that promote better site design:</p>   | <p>Medina Co. SWCD did a balanced growth study and Brunswick was a part of the watershed (Upper West Branch Rocky River watershed) involved in the process and has adopted the Watershed Balanced Growth Plan as of 2009.</p>  |
| <p>Allow conservation design as a subdivision layout (retain ≥ 40% open space by maintaining existing zoned density)</p>  | <p style="text-align: center;"><b>YES</b></p> <p>Chapter 1268 in the Planning and Zoning Code allows for a special planning district. The City creates a custom zoning area for a particular development. Reserve at Autumn Creek subdivision (intersection of Grafton Rd. and I-71) allowed for a greater density and maintained riparian lands, wetlands, etc.</p>   |
| <p>Standard or variance required?<br/>Name and code section:</p>  | <p><b>Variance.</b> The special planning district must be mutually agreeable to the developer and the City (no assumptions).</p>   |
| <p>Encourage the use of vegetation that requires little to no maintenance in common areas (e.g., meadow vegetation vs. mowed lawn)<br/>Name and code section:</p> | <p style="text-align: center;"><b>NO</b></p> <p>In the past this was allowed but via resident complaints the code is enforced for grass cutting.</p> <p><b>Ohio EPA Comment:</b> The benefits of low-maintenance grasses should be a topic for your public education program to change perceptions about this.</p>   |
| <p>Reduce impervious area created by commercial parking lots (e.g., update codes so that they are context-specific, allow shared</p>                              | <p style="text-align: center;"><b>YES</b></p> <p>Chapter 1276 Parking and Site Design Standard</p>   |

| <b>Ordinance/Legal Authority</b>   |  |
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| <b>Interview Questions</b>   | <b>Response</b>  |
| <p>parking, landbanked parking, parking garages rather than surface lots, etc.)<br/>Name of code section</p>   | <p>Section 1276.15(b) allows planning commission to allow less restrictive requirements.<br/>The city has passed code that will allow for the reduction in the number of parking spaces in a lot<br/>The code also reduces the size of parking spaces from 10x20 to 9x19 or 17 adjacent to grassed areas</p> |
| <p>Allow sidewalks on only one side of the road in residential neighborhoods<br/>Name and code section:</p>  | <p><b>YES</b></p>  |
| <p>Publically dedicated roads required on both sides of the road. Private developments developer typically place on one side.</p>  |  |
| <p>Zoning that encourages smart growth in compact neighborhoods or mixed-use development:</p>  | <p><b>YES</b></p>  |
| <p>Through the special planning district code, which was applied for town center</p>   |  |
| <p>If YES, does zoning create walkable neighborhoods with access to commercial areas and employment centers?<br/>Describe:</p>   | <p><b>YES</b></p>  |
| <p>One of the goals of the program. The town center mixed-use development included a section of walking paths and trails.</p>  |  |
| <p>If YES, does this zoning provide incentives for vertical development rather than horizontal sprawl?</p>   | <p><b>YES</b></p>  |
| <p>Special planning district would handle this</p>   |  |
| <p>If YES, does this zoning encourage a range of housing options for people of various incomes?<br/>Describe how:</p>  | <p><b>YES</b></p>  |
| <p>Common for same development plan to allow cluster home development. single family, attached condos. The special planning district (SPD) allows for this. Developer supplies a plan for review and texted and maps needed to provide special planning. Once city council has accepted this, the SPD is enacted and plans can be developed (becomes an appendix to the code).</p> |  |
| <p>If YES, do you provide incentives for infill development or development in the core?<br/>Describe incentive programs:</p>   | <p><b>NO</b></p>   |
| <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)?<br/>Describe how:</p>  | <p><b>YES</b></p>  |
| <p>The city has completed a city wide bike path master plan. And has identified specific hubs for connection and the mode to connect them. As funds allow, this project will be implemented (federal funding). Portions of the path are developed and the city is</p>  |  |

| <b>Ordinance/Legal Authority</b>  |  |
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| <b>Interview Questions</b>  | <b>Response</b>  |
| <p><i>NOTE: The point of this line of questioning is to emphasize to the MS4 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 WQv requirement. The storm water program manager must work with the planning commissioner and building department to affect development patterns in their community that negatively impact storm water quality.</i></p> | <p>looking to connect it all.</p>  |
| <p>Do permit or plan approvals have to be issued before construction activities that disturb 1 or more acre can commence?</p> <p>Plan Approvals<br/>Construction<br/>Post-Construction</p> <p>Permits &amp; Type (Building, Grading, etc.)<br/>Construction<br/>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;"><b>YES</b><br/><b>YES</b></p> <p>Plans are approved and the applicant can then go to the building department to get a "Building permit"</p> <p style="text-align: center;"><b>YES</b><br/><b>YES</b></p> <p style="text-align: center;"><b>YES</b></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;"><b>NO</b></p> <p>The developer will go through the planning commission approval process. The applicant will then submit plans and calculations to the engineering department for review. Once the plans are approved they are passed onto the city building department for issuance of building permit.</p> |

| <b>Ordinance/Legal Authority</b>  |  |
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| <b>Interview Questions</b>  | <b>Response</b>  |
| <p>Does your ordinance explicitly specify selection criteria or minimum acceptable BMP design?</p> <p>Construction<br/>Post-Construction</p> <p>If YES, list references:</p> <p>Construction<br/>Post-Construction</p>  | <p><b>YES</b><br/><b>YES</b></p> <p><b>YES</b><br/><b>YES</b></p> <p>ODNR Rainwater and Land Development Manual</p>  |
| [REDACTED]  |  |
| <p>Types of enforcement mechanisms available for construction site issues per your ordinance:</p>   | <p>Notices of Violations (NOV) <b>YES</b><br/> Administrative fines <b>YES</b><br/> Stop-work orders <b>YES</b><br/> Civil penalties <b>NO</b><br/> Criminal penalties <b>YES</b><br/> Other (Describe):</p> <p>Misdemeanor of the 3<sup>rd</sup> degree</p>                                   |
| <p>Which type of enforcement action have you most commonly implemented?</p>   | <p>A deficiency inspection report is most commonly utilized which is a step under an NOV.</p>  |
| <p>Describe the enforcement mechanism used when the following compliance situations are encountered on construction sites:</p> <ol style="list-style-type: none"> <li>1. Construction has commenced without a permit or plan approval</li> <li>2. A BMP indicated on the SWP3 has not been installed or requires maintenance (first incidence)</li> <li>3. A BMP is required but not shown on the SWP3</li> <li>4. A BMP has not been installed or maintained despite prior notification from the MS4 (repeated incidences)</li> <li>5. If using a third party inspection service provider, e.g., the SWCD, MS4 receives</li> </ol> | <p>A stop work order would be issued.</p> <p>Building Dept. – verbal notice<br/>Engineering - deficiency letter</p> <p>Building Dept. – verbal notice<br/>Engineering - deficiency letter</p> <p>Building Dept. – deficiency letter<br/>Engineering – NOV</p> <p>Ryan is the City Engineer</p> |

| <b>Ordinance/Legal Authority</b>  |  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
|---|--|-----------------------------|------------|----------------------|------------|------------------|------------|-----------------|-----------|--------------------|------------|-------------------|--|
| <b>Interview Questions</b>  | <b>Response</b>  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| inspection report indicating repeated non-compliance issue  |  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| 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>An NOV was issued to Waite Farms Ph 3 on June 3, 2011. The developer did not properly construct the outlet structure for the sediment ponds and a schedule for seeding was repeatedly requested. A stop work order is required if not fixed by 6-10-11.</p> <p>For the building department, a deficiency letter was sent to Greenbriar Subdivision (4112 Keswick Dr.). When a deficiency is issued the city will follow up with a phone call to the supervisor of the site (same day service)</p>   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Have your enforcement protocols and procedures for construction site issues been formalized in a written enforcement escalation plan?   | <b>NO</b>  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
|   | If a deficiency is not addressed it becomes a violation, if this is ignored a stop work order is issued, but no official escalation plan has been developed.   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| <p>ENFORCEMENT MECHANISMS AVAILABLE FOR POST-CONSTRUCTION SITE ISSUES PER YOUR ORDINANCE:</p>   |  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Types of enforcement mechanisms available for post-construction site issues per your ordinance:   | <table style="width: 100%; border: none;"> <tr> <td>Notices of Violations (NOV)</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Administrative fines</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Stop-work orders</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Civil penalties</td> <td style="text-align: right;"><b>NO</b></td> </tr> <tr> <td>Criminal penalties</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Other (Describe):</td> <td></td> </tr> </table> | Notices of Violations (NOV) | <b>YES</b> | Administrative fines | <b>YES</b> | Stop-work orders | <b>YES</b> | Civil penalties | <b>NO</b> | Criminal penalties | <b>YES</b> | Other (Describe): |  |
| Notices of Violations (NOV)   | <b>YES</b>   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Administrative fines  | <b>YES</b>   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Stop-work orders  | <b>YES</b>   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Civil penalties   | <b>NO</b>  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Criminal penalties  | <b>YES</b>   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Other (Describe):   |  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Which type of enforcement action have you most commonly implemented?  | A deficiency inspection report is most commonly utilized which is a step under an NOV.   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| Describe the enforcement mechanism used when the following compliance situations are encountered regarding post-construction:   |  |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |
| <ol style="list-style-type: none"> <li>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</li> </ol>       | A deficiency letter would be issued. A deadline of a full week is given for corrective action.   |                             |            |                      |            |                  |            |                 |           |                    |            |                   |  |

| <b>Ordinance/Legal Authority</b>  |  |                 |
|---|--|-----------------|
| <b>Interview Questions</b>  | <b>Response</b>  |                 |
| <p>control outlet is still required, or the bioretention soil has been placed prior to upland areas being stabilized)</p> <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>A deficiency letter</p> <p>The city has the right via easement to perform the work themselves after 30 days and back charge the owner.</p> <p>A written notice to describe what they did and why. Same penalties as the other ordinances</p> <p>The owner would be asked to move the shed</p>   |                 |
| <p>Describe the last enforcement action your community has taken against a contractor or developer for non-compliance with post-construction site requirements and provide the documentation to demonstrate the action.</p>   | <p>The City has sent a deficiency letter to Digested Disease Consultants dated December 6, 2010 and a preceding follow up letter stating that a LTMP was not submitted and the WQv outlet structure was not installed. Are given till June 2011 to correct. Were originally told that the LTMP was required to be submitted by January 15, 2011.</p> |                 |
| <p>Have your enforcement protocols and procedures for post-construction issues been formalized in a written enforcement escalation plan?</p>  | <p><b>YES</b></p> <p>There is a maintenance agreement in all LTMPs for each BMP in which enforcement can be taken if work is not completed. Not all sites have a LTMP at this time. The City is in the process of collecting the programs.</p>   |                 |
| <b>Applicable Documents</b>   | <b>Reviewed</b>  | <b>Obtained</b> |
| Sediment and Erosion Control Ordinance  | YES  | YES             |
| Post-Construction Storm Water BMP Ordinances(s)   | YES  | YES             |
| <p>Enforcement escalation plan or procedures</p> <p>Construction:</p> <p>Post-Construction:</p>   | Does not exist   |                 |
| <b>Notes</b>  |  |                 |
|   |  |                 |

| <b>Construction Project Inventory</b>  |  |                |            |                     |            |                     |            |            |            |               |            |              |  |
|--|--|----------------|------------|---------------------|------------|---------------------|------------|------------|------------|---------------|------------|--------------|--|
| <b>Interview Question</b>  | <b>Response</b>  |                |            |                     |            |                     |            |            |            |               |            |              |  |
| <p>Do you keep an inventory of construction projects that are actively occurring in your community?<br/>If YES, how?</p> <p>Do you track construction projects &lt;1 acre (e.g., individual lot within a subdivision or small addition to a business)?</p> | <p style="text-align: center;"><b>YES</b></p> <p>Within CVE, Ryan will provide a verbal notice to Chris that work has begun and a paper file and electronic file will be created.</p> <p>For the building department, as soon as a building permit is submitted the inspectors pull the individual lot residential abbreviated SWP3. The City uses the Franklin Information system, which is designed for permit tracking (open permits).</p> <p style="text-align: center;"><b>YES</b></p> <p>Through the Franklin Information System.</p>  |                |            |                     |            |                     |            |            |            |               |            |              |  |
| <p>How often is your inventory of construction projects updated?</p>   | <p>The building department's inventory is updated daily, or whenever a topo is approved and a permit issued.</p> <p>The engineering department (CVE) updates their inventory upon approval of a plan or when verbally communicated to Chris.</p>   |                |            |                     |            |                     |            |            |            |               |            |              |  |
| <p>Information tracked:</p>  | <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Project status</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Inspection Findings</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Enforcement Actions</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Complaints</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>NOI submittal</td> <td style="text-align: right;"><b>YES</b></td> </tr> <tr> <td>Other: _____</td> <td></td> </tr> </table> <p>CVE tracks information through the plans that come in and the file that is created.</p> <p>Building department used the Franklin System</p> | Project status | <b>YES</b> | Inspection Findings | <b>YES</b> | Enforcement Actions | <b>YES</b> | Complaints | <b>YES</b> | NOI submittal | <b>YES</b> | Other: _____ |  |
| Project status   | <b>YES</b>   |                |            |                     |            |                     |            |            |            |               |            |              |  |
| Inspection Findings  | <b>YES</b>   |                |            |                     |            |                     |            |            |            |               |            |              |  |
| Enforcement Actions  | <b>YES</b>   |                |            |                     |            |                     |            |            |            |               |            |              |  |
| Complaints   | <b>YES</b>   |                |            |                     |            |                     |            |            |            |               |            |              |  |
| NOI submittal  | <b>YES</b>   |                |            |                     |            |                     |            |            |            |               |            |              |  |
| Other: _____   |  |                |            |                     |            |                     |            |            |            |               |            |              |  |
| <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>The building department conducts inspections once every two weeks for all active commercial and individual lot construction sites.</p> <p>The engineering department (CVE) conducts sub-division site inspections once a month.</p> <p>For municipal sites, CVE meets EPA construction permit requirements for inspection.</p>  |                |            |                     |            |                     |            |            |            |               |            |              |  |
| <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>25 active sites</p>   |                |            |                     |            |                     |            |            |            |               |            |              |  |

**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.

Site #1: Grafton-Hadcock Intersection  
 Most recent inspection date: 6/2/11  
 Prior inspection date: Project started in May 2011 there was a lack of communication within the CVE office, which caused a delayed start to project inspections.

Site #2: Applewood Elementary  
 Most recent inspection date: 6/1/11  
 Prior inspection date: 5/9/11

| <b>Applicable Documents</b>                               | <b>Reviewed</b> | <b>Obtained</b> |
|---|-----------------|-----------------|
| List of active construction projects                      | YES             | YES             |
| List of projects covered under a state/EPA general permit | YES             | YES             |

| <b>Notes</b>  |
|---|
| <p><b><u>Construction Site Inventory</u></b><br/>           There were two municipal construction projects on the Ohio EPA NPDES permit list but work on one project has been completed. Please note that the Ohio EPA General Storm Water NPDES Permit for Construction Activities #OHC000003 requires the City to submit a Notice of Termination (NOT) to Ohio EPA within 45 days of when a project reaches final stabilization. The City is in violation of Ohio EPA General Storm Water NPDES Permit for Construction Activities for City projects that are complete but failed to submit a NOT within 45 days of reaching final stabilization.</p> |

| <b>Post-Construction BMP Inventory</b>  |  |          |            |      |            |                          |            |                     |            |                          |            |
|---|--|----------|------------|------|------------|--------------------------|------------|---------------------|------------|--------------------------|------------|
| <b>Interview Question</b>   | <b>Response</b>  |          |            |      |            |                          |            |                     |            |                          |            |
| Are post-construction BMPs tracked?<br><i>BMPs must be shown on MS4 map.</i>  | <b>YES</b><br>Locations are noted in GIS for the MS4 map   |          |            |      |            |                          |            |                     |            |                          |            |
| 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? | <b>YES</b><br>Includes any site that has a post-construction BMP component.  |          |            |      |            |                          |            |                     |            |                          |            |
| Information tracked:  | <table> <tr> <td>Location</td> <td><b>YES</b></td> </tr> <tr> <td>Type</td> <td><b>YES</b></td> </tr> <tr> <td>Maintenance Requirements</td> <td><b>YES</b></td> </tr> <tr> <td>Inspection findings</td> <td><b>YES</b></td> </tr> <tr> <td>Other (e.g., Ownership):</td> <td><b>YES</b></td> </tr> </table> | Location | <b>YES</b> | Type | <b>YES</b> | Maintenance Requirements | <b>YES</b> | Inspection findings | <b>YES</b> | Other (e.g., Ownership): | <b>YES</b> |
| Location  | <b>YES</b>   |          |            |      |            |                          |            |                     |            |                          |            |
| Type  | <b>YES</b>   |          |            |      |            |                          |            |                     |            |                          |            |
| Maintenance Requirements  | <b>YES</b>   |          |            |      |            |                          |            |                     |            |                          |            |
| Inspection findings   | <b>YES</b>   |          |            |      |            |                          |            |                     |            |                          |            |
| Other (e.g., Ownership):  | <b>YES</b>   |          |            |      |            |                          |            |                     |            |                          |            |
| Database used?  | <b>YES</b><br>Tracked by engineer through an excel spreadsheet and GIS map   |          |            |      |            |                          |            |                     |            |                          |            |

|  |  |
|--|--|
| Number of private post-construction structural BMPs installed in community | 23 BMPs that are finished and under a manual maintenance process |
| <b>Applicable Documents</b>  |  |
| Inventory of Post-Construction BMPs  | Reviewed<br>YES  |
|  | Obtained<br>YES  |

| <b>Construction and Post-Construction BMP Standards</b>  |   |
|--|---|
| <b>Interview Questions</b>   | <b>Response</b>   |
| Do your erosion and sediment control standards include BMP selection criteria?   | YES   |
| Do your construction site standards account for different needs for different times of the year (e.g., growing season vs. winter)?   | YES   |
| Do your standards include operation and maintenance requirements?  | YES   |
| Do your post-construction standards include BMP selection criteria?  | YES   |
| 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)?<br><br>If so, what are your standards? | YES<br><br>Smaller sites reference the RWLD Manual<br><br>The City should consider establishing standards on the local level that are not as flexible as the Ohio EPA NPDES permit standards. The leniency provide by the NPDES permit and the Rainwater and Land Development manual allow for arguments on the matter of what post-construction practices are required, and to avoid such arguments and negotiations, the City should set their own bar by establishing local standards. |
| Do your standards include operation and maintenance requirements?  | YES   |
| <b>Applicable Documents</b>  |   |
| BMP guidance or technical document   | Reviewed<br>YES   |
|  | Obtained<br>YES   |

| <b>Notes</b> |
|--------------|
|              |

| <b>Plan Review Procedures</b>   |  |
|---|--|
| <b>Interview Questions</b>  | <b>Response</b>  |
| Who is responsible for erosion and sediment control plan review?  | City Engineer, Ryan Cummins and staff  |
| Who is responsible for post-construction plan review?   | City Engineer, Ryan Cummins and staff  |
| What training or professional certifications have plan review personnel received?   |  |
| Construction  | P.E. and CPESC –some staff same CPSWQ and CESSWI as well.  |
| Post-Construction   | Same as for construction   |
| How many years of experience does plan review personnel have inspecting storm water BMPs?   |  |
| Construction  | Ryan Cummins - 20 years  |
| Post-Construction   | Ryan Cummins - 9 year  |
| How often do plan review personnel receive training?  | Multiple times a year (2-3) for construction and post-construction   |
| <i>NOTE: Make MS4 operator aware of training opportunities provided by Ohio EPA and archived at <a href="http://www.epa.ohio.gov/ocapp/storm_water.aspx">www.epa.ohio.gov/ocapp/storm_water.aspx</a>.</i> |  |
| Do you use a checklist to conduct plan review?  |  |
| Construction  | <b>YES</b>   |
| Post-Construction   | <b>YES</b>   |
|   | One checklist has been developed for SWP3 reviews and one for abbreviated SWP3 reviews, but the checklist is not filed or kept. A review letter is sent. |
| Size threshold for plan review (i.e. 1 acre, 10,000 square feet)?   |  |
| Construction  | 1/10 acre abbreviated<br>1 acre full SWP3  |
| Post-Construction   | 1 acre   |

| <b>Plan Review Procedures</b>  |  |
|--|--|
| <b>Interview Questions</b>   | <b>Response</b>  |
| 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?  | <b>YES</b><br><br>CVE verifies submission of NOIs.<br><br>Building department does not check for Individual Lot NOI submittal. This should be checked.   |
| Do you require a pre-construction meeting with developers and/or contractors?<br><br><i>NOTE: This is a required performance standard for both construction and post-construction.</i> | <b>YES</b><br><br>The inspector present at the time of the audit (Chris Hartman) has never attended one of these meetings. This may be a cause of the lack of communication within the engineering department. The inspector to be inspecting the construction site for sediment and erosion controls may need to be present at such meetings to prevent lack of communication and serve as an introduction to the site. |
| Is the sequence of implementation of sediment and erosion controls discussed during these meetings?  | Somewhat.  |
| Is the timing of installation of post-construction BMPs discussed during these meetings?   | Somewhat.  |
| Does your community have standard conditions of plan approval?<br><br>Do they include erosion and sediment control and/or post-construction water quality requirements?                | <b>NO</b>  |
| 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?                         | <b>YES</b>   |
| Does your community require a long-term maintenance plan for post-construction BMPs?   | <b>YES</b>   |
| If YES, is the plan required to include the following:   |  |
| Identify the party responsible for long-term maintenance?  | <b>YES</b>   |
| A list of routine and non-routine maintenance tasks and the frequency for their performance?   | <b>YES</b>   |

| <b>Plan Review Procedures</b>   |                     |                 |
|---|---------------------|-----------------|
| <b>Interview Questions</b>  | <b>Response</b>     |                 |
| A map that identifies the types and locations of post-construction BMPs and their maintenance or access easements?                        | YES                 |                 |
| A list of deed restrictions, conservation easements or environmental covenants required to maintain post-construction BMPs in perpetuity? | YES                 |                 |
| Is this plan kept on file or input into a database for future reference to ensure the required tasks are being completed?                 | YES<br>Kept on file |                 |
| <b>Applicable Documents</b>   | <b>Reviewed</b>     | <b>Obtained</b> |
| Copy of standard conditions of approval   | NO                  | NO              |
| Example of standard conditions applied to an approved project   | NO                  | NO              |
| Checklist used by plan reviewers  | YES                 | YES             |

| <b>Project Inspections</b>   |  |
|--|--|
| <b>Interview Questions</b>   | <b>Response</b>  |
| Who is responsible for erosion and sediment control site inspection?   | City engineer and staff at CVE inspect subdivision development and Municipal projects.<br><br>The Building Department inspects Commercial development and individual home sub-lots (Dan and Drew from Building department) |
| Who is responsible for post-construction site inspection?  | City Engineer and staff (Chris Hartman)  |
| Is an "as-built" inspection conducted at the time a post-construction BMP is installed to ensure compliance with the approved BMP construction plan? | YES<br><br>A punch-list inspection is conducted by the City Engineer, which usually consists of a visual inspection. For subdivisions, surveying is done by a profession surveyor contracted out by the developer.         |
| Does the MS4 conduct inspections for long-term maintenance of privately-owned post-construction BMPs?  | YES  |
| If YES, at what frequency?   | On June 1 <sup>st</sup> of every year, the City requires a report from a post-construction facility to be done per their LTMP, and the City Engineer will  |

| <b>Project Inspections</b>  |   |                 |
|---|---|-----------------|
| <b>Interview Questions</b>  | <b>Response</b>   |                 |
| If NO, does the MS4 collect inspection reports from the responsible party? At what frequency?   | go and do a follow up inspection regarding the report sent in June.   |                 |
| Findings from construction and post-construction inspections tracked in a database?   | <b>YES</b>  |                 |
| What training or professional certifications have site inspection personnel received?   | <p>Construction</p> <p>CVE – same as above<br/>           Building – Dan – CESSWI, CPESC, Ohio EPA training, storm water conference<br/>           Drew- storm water workshops, Ohio EPA web casts, on the job training</p> <p>Post-Construction</p> <p>CVE – same as above</p> |                 |
| How many years of experience does site inspection personnel have inspecting storm water BMPs?   | <p>Construction</p> <p>Dan – 4 years<br/>           Drew – 4 years<br/>           CVE – 20 years</p> <p>Post-Construction</p> <p>CVE – 9 years</p>  |                 |
| How often do site inspection personnel receive training?  | Multiple times per year for construction and post-construction.   |                 |
| <p><i><b>NOTE:</b> Make MS4 operator aware of training opportunities provided by Ohio EPA and archived at <a href="http://www.epa.ohio.gov/ocapp/storm_water.aspx">www.epa.ohio.gov/ocapp/storm_water.aspx</a>.</i></p> |   |                 |
| Do you use a checklist or the approved plan to conduct site inspections?  | Both the Engineering and Building department use approved plans and the Building department uses a checklist to conduct site inspections.   |                 |
| Construction  | <b>YES</b>  |                 |
| Post-Construction   | <p style="text-align: center;"><b>YES</b></p> <p>CVE uses the LTMP to conduct follow-up inspections on post-construction BMPs.</p>  |                 |
| <b>Applicable Documents</b>   | <b>Reviewed</b>   | <b>Obtained</b> |
| 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   | YES   | YES             |

| <b>Project Inspections</b>   |                 |
|--|-----------------|
| <b>Interview Questions</b>   | <b>Response</b> |
| Records from inspection tracking database or filing system               | YES YES         |
| Checklist for inspecting long-term maintenance of post-construction BMPs | LTPM            |
| <b>Notes</b>   |                 |
|  |                 |

| <b>MS4-Owned Construction Projects</b>   |   |
|--|---|
| <b>Interview Questions</b>   | <b>Response</b>   |
| Projects designed in-house or contracted?  | Contracted to CVE, City Engineer  |
| Designers trained in storm water BMP implementation?   | <b>YES</b>  |
| Checklist used during the design and/or review of public construction projects?  | <b>NO</b><br>Must comply with the ordinance, and therefore Rainwater and Land Development manual  |
| Are projects greater than one acre covered a general construction permit (has an NOI been submitted)?  | <b>YES</b>  |
| 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? | <b>NO</b>   |
| Are municipal construction projects inspected for compliance with the SWP3?  | <b>YES</b>  |
| Are they inspected with the same frequency for BMP compliance as a private construction project?   | <b>YES</b>  |
| Who inspects municipal construction projects for compliance?   | The City Engineer as well as the Quality Control inspection men also inspect for ESC in accordance with the self-inspection requirements of the Ohio EPA CGP. |
| <i><b>NOTE:</b> To avoid a conflict of interest, the firm or department that designed the SWP3 should not also inspect the site for compliance.</i>  |   |

| <b>MS4-Owned Construction Projects</b>   |  |                                 |                 |
|--|--|---------------------------------|-----------------|
| <b>Interview Questions</b>   |  | <b>Response</b>                 |                 |
| Project inspectors trained?  |  | YES                             |                 |
| Frequency:   |  | Same as above                   |                 |
| If contracted inspectors are utilized, are minimum inspection, maintenance and reporting requirements specified in the contract? |  | YES                             |                 |
|  |  | The Ohio EPA permit             |                 |
| For municipally-owned post-construction BMPs, how often are they inspected to ensure long-term maintenance?                      |  | Annually                        |                 |
| Which department is responsible for conducting these inspections?  |  | Engineering, City Engineer, CVE |                 |
| <b>Applicable Documents</b>  |  | <b>Reviewed</b>                 | <b>Obtained</b> |
| MS4-owned project storm water design standards and/or checklist  |  | NO                              | NO              |
| Contract language for active public project not developed or inspected in-house  |  | NO                              | NO              |

| <b>Outreach and Education</b>                        |  |
|--|--|
| <b>Interview Questions</b>                           | <b>Response</b>  |
| Type of training provided to construction operators: | <p>Training was offered in the past to contractors in 2008/2009</p> <p>Encourage training offered by others</p> <p>Invite contractors to SWCD trainings</p> <p><b>Ohio EPA Comment:</b> Please note that the current MS4 permit requires that you provide at least one storm water message in your public education program target the development community. Please ensure that this requirement is met during the 2009 – 2014 permit term.</p> |
| Designers and Engineers:                             | No   |
| Attendance required?                                 | No   |
| Training frequency?                                  | Occasionally. Forward on training opportunities offered in the area once a year.   |
| Number of operators trained:                         | Not many.  |
| Training topics:                                     | Construction site control, runoff<br>2008/2009 – permit req. E+SC  |

|   |  |
|---|--|
| Presentations given by MS4 staff to professional groups?  | <b>YES</b><br>Home builder presentation  |
| Brochures or outreach materials targeted at operators:  | Every excavator is given a copy of the abbreviated SWP3 for small construction projects for the City of Brunswick. |
| How/when is the information distributed?  | Given to new contractors   |
| Website used to educate operators?<br>Web address: <a href="http://www.brunswick.oh.us">www.brunswick.oh.us</a> | Link to Medina Co. SWCD<br>City produced programs on local access channels on Sed. And erosion control issues      |
| <b>Applicable Documents</b>   | <b>Reviewed</b> <b>Obtained</b>  |
| Training materials  | YES              YES   |
| Brochures, outreach materials   | YES              YES   |

## 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.

| <b>Construction Project #1 Name: Waite Farms, PH 3</b>  |  |
|---|--|
| BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?              | <b>YES</b>   |
| Design specifications and details for all BMPs included on the plans?   | <b>NO</b><br><br>The traditional CVE SWP3 specifications were used, but the specifications for the sediment pond are outdated and do not provide the minimum drawdown time of the dewatering volume of 48 hours as stated in the NPDES construction permit. This is a deficiency in the reviewing process. |
| Maintenance requirements specified?   | <b>YES</b>   |
| Have any NOV's or other enforcement actions been issued for this site. <i>Obtain copies of NOV's. If none, why not?</i> | <p>Yes an NOV was sent June 3, 2011 with a deadline of June 10<sup>th</sup> for maintenance</p> <p>Asked for seeding timeline – not provided<br/>Enforcement action to come</p> <p>Letter sent to Bobby Knight – owner/developer of the site and Fetchko Excavating (contractor) is copied to letter.</p>  |
| <b>Notes:</b>   |  |
|   |  |

| <b>Construction Project #2 Name: Hickory Ridge Elementary School</b>   |  |
|--|--|
| BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?                     | YES  |
| Design specifications and details for all BMPs included on the plans?  | YES<br><br>The sediment basin seemed to be designed properly with the skimmer, and proper sediment storage and dewatering storage volumes.   |
| Maintenance requirements specified?  | YES<br><br>CVE standard SWP3 specifications were used.   |
| Have any NOV's or other enforcement actions been issued against this site?<br><i>Obtain copies of NOV's. If none, why not?</i> | A notice of deficiency was submitted to Jim Rohner of Hammond Construction, but no further action was taken.<br><br>2 Notice of deficiencies were submitted before the problem was fixed |
| <b>Notes:</b><br><br>The City does not have information on Co-Permittee NOI submittal  |  |

Now, select up to 2 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.

| <b>Post-Construction Project #1 Name: Canterbury</b>  |   |
|---|---|
| Date that project was accepted by community or otherwise deemed "completed"                     | Nov. 6, 2007 – project was finalized  |
| Were post-construction BMPs provided for all drainage areas associated with the developed site? | YES   |
| List the post-construction BMPs provided?   | DA #1: Dry-Extended Detention basin designed for WQv - 22.13 acres  |
| Design specifications and details for all BMPs included on the plans?                           | YES<br><br>Calculations were reviewed from the project's storm water management plan, and the basin was designed with a 1½" WQv orifice, with a forebay and micropool each storing an |

| <b>Post-Construction Project #1 Name: Canterbury</b>   |  |
|--|--|
|  | additional 10% of the WQv for a total of 120% treatment of the WQv.      |
| Were post-construction BMPs selected appropriate for their drainage areas, site and soil conditions?   | <b>YES</b>   |
| Did the community verify the installation of post-construction BMPs per the approved plan at the time the project was completed?   | <b>YES</b><br>Verified through punch list inspection                     |
| Does MS4 have a copy of the long-term maintenance plan?  | <b>YES</b>   |
| Who does the plan say is responsible for long-term maintenance?  | The City of Brunswick is responsible for maintenance                     |
| Has the MS4 conducted any long-term maintenance inspections or collected any long-term maintenance inspection reports from the responsible party?<br><i>Obtain copy of latest inspection report.</i> | <b>YES</b><br>First inspection was in 2008 and one following every year. |
| <b>Notes:</b>  |  |

| <b>Post-Construction Project #2 Name: Southwest General Medical Center</b>                      |   |
|---|---|
| Date that project was accepted by community or otherwise deemed "completed"                     | This project is still pending acceptance from CVE's office.   |
| Were post-construction BMPs provided for all drainage areas associated with the developed site? | <b>NO</b>   |
| List the post-construction BMPs provided?   | DA #1: Bioretention 1 – DA = 0.288ac<br>DA #2: Bioretention 2 – DA = 0.59 ac<br>DA #3: 1-dry-ex det. basin – DA = 2.85 ac<br>DA #4: Flex Storm insert filters for 3 catch basins in parking lot<br>See below. |
| Design specifications and details for all BMPs included on the plans?                           | <b>NO</b><br>Calculations for dry extended detention check  |

| <b>Post-Construction Project #2 Name: Southwest General Medical Center</b>  |   |
|---|---|
|   | <p>out for WQv + additional 20% in the forebay and micropool. But the WQv orifice = 1.6"</p> <p>Note: The WQv orifice does seem large for such a small drainage area (2.85 acres). Were calculation checked for this basin?</p> <p>Bioretention Provides for 100% of WQv plus 20%</p> |
| Were post-construction BMPs selected appropriate for their drainage areas, site and soil conditions?  | <p><b>YES</b> –for design<br/><b>NO</b> –for installation</p>   |
| Did the community verify the installation of post-construction BMPs per the approved plan at the time the project was completed?  | <p><b>NO</b></p> <p>A punch-list inspection has not yet been completed to verify proper installation.</p>   |
| Does MS4 have a copy of the long-term maintenance plan?   | <p><b>YES</b></p>   |
| Who does the plan say is responsible for long-term maintenance?   | <p>Owner of the property – Southwest General</p>  |
| Has the MS4 conducted any long-term maintenance inspections or collected any long-term maintenance inspection reports from the responsible party?<br><i>Obtain copy of latest inspection report.</i>  | <p><b>NO</b></p> <p>Due June 2011 – have not received any at this point in time</p>   |
| <p><b>Notes:</b></p> <p>The total drainage area of the development site is 3.83ac, and 3.72ac are routed to WQ treatment, which leaves 0.11ac unaccounted for (Area F in the plans)</p> <p>Important design features required to route storm water to the bioretention cells were missed during the plan review process. The pavement was graded towards the storm water inlets in the parking lot, and therefore catch basin filter inserts (Flex Storm Inlet Filters) were added to three basins. Such inserts provide filtration but are considered alternative WQv BMPs and require pre-approval from the Ohio EPA when used on large construction sites. Bioretention not built to design standards (smaller than designed), and therefore, the cells are not functioning properly as water quality BMPs.</p> <p>The City should have required additional controls or routing to existing controls to ensure the treatment of water quality for 100% of the drainage area.</p> |   |

## CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Brunswick  
MS4 Permit No: 3GC10004\*BG

|   |                                      |
|---|--------------------------------------|
| <b>Name of Site: Hickory Ridge Elementary</b>         |                                      |
| <b>Location:</b> 4628 Hickory Rd.                     | <b>NPDES Permit #</b> 3GC05101*AG    |
| <b>Date of Inspection:</b> 6/9/11                     | <b>Time of Inspection</b> 12:50 p.m. |
| <b>Name of Inspector:</b> Dan Gladish, Building Dept. |                                      |
| <b>Others Present During Inspection</b>               |                                      |
| Lindsie MacPherson, DSW, NEDO                         |                                      |
| David Rischar, OEPA                                   |                                      |
| Chris Hartman, CVE                                    |                                      |
| Drew Flood, Building Dept.                            |                                      |
| Jim Rohner, Hammond Construction                      |                                      |

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

Yes, the inspector will usually find the project superintendent when he is on site. The inspector is on the site almost daily for other inspections as well.

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

The inspector visits the site daily and is aware of all changes made to the SWP3.

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, not typically. The inspector should ask to see the inspection reports to ensure they are being conducted.

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

The inspector was familiar with the SWP3 for this site, and he referenced the approved plans various times throughout the inspection.

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

The inspector commented that the soil stockpile had been seeded upon his request from his last inspection, and the second concrete washout area was established since his last inspection as well.

6. Compliance issues identified by inspector during this inspection:

The inspector noted that the temporary stabilization and vegetation required some maintenance.

He also noted that the stockpile in the back next to the sediment pond needed to be removed or temporarily stabilized.

The inspector noted that the skimmer required maintenance, and he noted a gap in the seal of orifice #1 and #2.

He informed the foreman that the second washout pit needed to be provided before the first pour.

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

Inspector did not note the improper installation of the sediment basin. The basin is not retaining water in the sediment storage volume, which caused the entire basin to drain providing no floatation for the skimmer device. The skimmer may become stuck in the sediment, which inhibits the functionality of the device.

Inspector did not note the lack of stabilization provided to the sediment basin. Embankments of the sediment basin should be stabilized immediately upon construction.

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

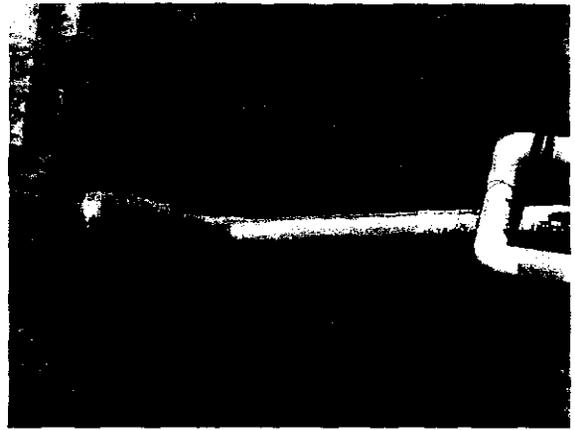
No, the inspector did not ask, but he is usually on the site daily and the foreman will accompany him when need be. The foreman did accompany the inspector on this inspection. The inspector should always make his presence on site known to the parties responsible for implementation and maintenance of storm water controls.

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

Yes the inspector recapped his findings, **but only after being prompted by the Ohio EPA.**

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.

No, the City did not indicate any plan to take enforcement action based on the site conditions. Problems were discussed with the foreman and a site inspection report will be sent to the developer as well.



**Fig 1&2:** The sediment basin was not installed properly; the basin is not retaining water in the sediment storage volume, as required, therefore, the skimmer device is provided with no form of floatation, causing potential failure of the BMP. The basin also requires stabilization as identified in the specifications for sediment basins in the ODNR Rainwater and Land Development Manual.



**Fig 3(LT):** Dandy bags should be maintained on a regular basis for all inlets throughout the site.  
**Fig 4(RT):** If the land is sloped to the forested area, silt fence must be provided to reduce the sediment laden runoff exiting the site. Also, temporary stabilization should have been provided for this area.



**Fig 5(LT):** Temporary stabilization should be provided.  
**Fig 6(RT):** Inlet protection should be provided to all inlets on site accepting runoff containing sediment.

## CONSTRUCTION FIELD REVIEW WORKSHEET

**Name of MS4: City of Brunswick**  
**MS4 Permit No: 3GC10004\*BG**

|   |                                      |
|---|--------------------------------------|
| <b>Name of Site: Graton-Hadcock Intersection Improvement</b>  |                                      |
| <b>Location</b>   | <b>NPDES Permit #: &lt; 1 acre</b>   |
| <b>Date of Inspection: 6/9/11</b>   | <b>Time of Inspection: 1:35 p.m.</b> |
| <b>Name of Inspector: Chris Hartman, CVE</b>  |                                      |
| <b>Others Present During Inspection</b>   |                                      |
| Lindsie MacPherson, DSW, NEDO<br>David Rischar, OEPA<br>Dan Gladish, Building Dept.<br>Drew Flood, Building Dept. |                                      |

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

No, the project superintendent was not present at the time of the inspection.

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

No.

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 City acts as the inspector for this site.

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

Yes, the inspector had the SWP3 with him while conducting the inspection and referred to the plans throughout the walk through.

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

Yes, the inspector mentioned that the workers were washing out their concrete equipment behind the curbs into the sidewalk cutouts, which was still the case at the time of the inspection.

6. Compliance issues identified by inspector during this inspection:

Inspector noted that the sediment on the road was not swept.

The inspector also noted that the workers were conducting concrete washout in the sidewalk cut outs behind the curbs.

The inspector noticed that the dirt behind the curbs required seeding.

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

The inspector did not note that the catch basins on the outskirts of the road project required inlet protection as well. The residue of concrete slurry was observed to have been discharging into the basins on the West end of Grafton and South of the intersection on Hadcock. These basins require inlet protection. The inspector did not note the sediment build up in the catch basins on Hadcock. All catch basins affected by the intersection expansion and road work should be protected with some sort of inlet protection such as dandy bags.

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

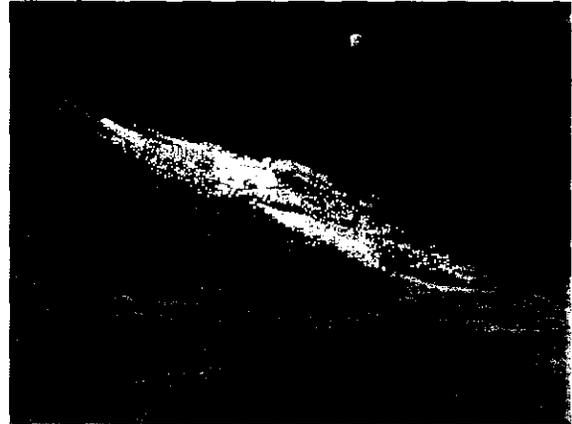
**NO.** Project superintendents not present at time of inspection. The inspector should always make his presence on site known to the parties responsible for implementation and maintenance of storm water controls.

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

Yes the inspector recapped his findings with the EPA, **but only after being prompted by the Ohio EPA.**

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.

No. the City did not indicate any plan to take enforcement action based on the site conditions. Problems will be discussed with the foreman and a site inspection report will be sent to the developer as well.



**Fig 1(LT):** The sediment in the road should be swept up and inlet protection should be provided along the length of the road to prevent the sediment from discharging to the basins. Also, curbs require stabilization to help prevent the erosion into the street.

**Fig 2(RT):** Catch basins located outside the limits of the construction project may require inlet protection as well to protect against cement slurry and sediments. Once dried the dust from the curb cutting should be swept up and disposed of, but the developer should not purposely hose the slurry down the storm drains.



**Fig 3:** Cement washout is conducted behind the curbs in the sidewalk cutouts. This practice is not recommended because often time there are subsurface drains along curbs. The main goal is to prevent the wastewater from being discharged to waters of the state.

## CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Brunswick

MS4 Permit No: 3GC10004\*BG

|   |                                      |
|---|--------------------------------------|
| <b>Name of Site: Waite Farms, Phase 3</b>   |                                      |
| <b>Location:</b> South side of Boston Rd., E 1-71   | <b>NPDES Permit #</b> 3GC05069*AG    |
| <b>Date of Inspection:</b> 6/9/2011   | <b>Time of Inspection:</b> 2:00 p.m. |
| <b>Name of Inspector:</b> Chris Hartman, CVE  |                                      |
| <b>Others Present During Inspection</b>   |                                      |
| Lindsie MacPherson, DSW, NEDO<br>David Rischar, OEPA<br>Dan Gladish, Building Dept.<br>Drew Flood, Building Dept. |                                      |

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

No, the project superintendent was not present at the time of the inspection.

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

No.

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.

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

Yes, the inspector had the SWP3 with him while conducting the inspection and referred to the plans throughout the walk through.

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

Yes, the developer was issued a violation for failure to provide stabilization to the site, and the developer was given until June 10, 2011. On the date of the inspection, June 9, 2011, this violation was still present. The City has requested that the developer submit a timeline for stabilization that has also not been completed.

6. Compliance issues identified by inspector during this inspection:

The inspector indicated that all the inlets discharge to three sediment basins throughout the construction phase of the project.  
The inspector noted that the developer needed to seed the earth outside of the right of way.

In regards to the three sediment ponds, the inspector noted that all three basins were leaking and not functioning, as apparent from the water level in the ponds. The cause of the leaking was thought to be caused by the absence of the anti-seep collar. The inspector mentioned that he would look into this matter to determine if the collar was in the plans, indicating the structure was improperly constructed. The inspector also commented that all the ponds required dredging of sediment.

This highlights need to be present on the date of sediment basin construction. The City might want to consider requiring contractors to call for an inspection before they can complete construction of the sediment basin embankment.

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

The inspector did not note that the outlet structures for the three sediment basins were designed per the old specifications, with perforated pipe wrapped in geotextile fabric. This outlet structure does not provide the minimum drawdown time of 48 hours for the dewatering volume as set forth in the NPDES permit for discharges associated with construction activities #OHC000003. This is an error in the plan review process. The proper drawdown time can be achieved through the use of a skimmer or a single orifice.

Also, the inspector did not note that the geotextile fabric under the emergency spillway was missing for the SE and SW basins.

There are two inlets at the entrance of Phase 3 that are accepting runoff from the Phase 3 area but discharge to the Phase 2 basin. The Phase 2 basin was not sized to accept sediment from Phase 3 and the inspector did not note this or that the catch basins require proper inlet protection as per the ODNR Rainwater and Land Development manual.

Also, the North basin, which will be retrofitted into a permanent water quality basin, was observed to be discharging into the protected wetlands on the site. A level spreader must be provided at the point of discharge to dissipate the flow. Runoff was observed passing over exposed soils, which is also a problem. A stabilized outlet (rip-rap/level spreader) should exist to the point of vegetation.

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

**NO.** Project superintendents not present at time of inspection. The inspector should always make his presence on site known to the parties responsible for implementation and maintenance of storm water controls.

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

Yes the inspector recapped his findings, **but only after being prompted by the Ohio EPA.**

9. 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.

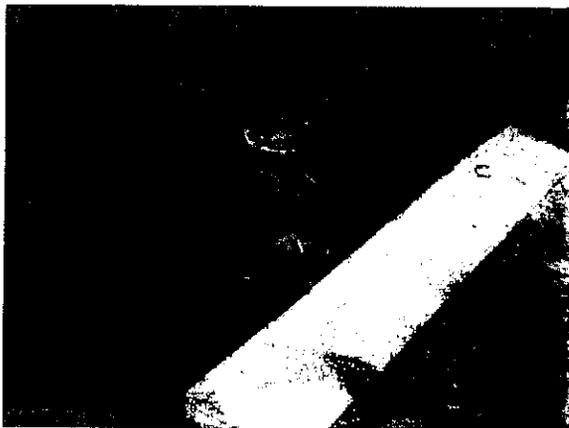
Yes, the City plans to take enforcement on this site, but the specific action to be carried out has not been determined. If the City follows their enforcement procedures, the next step for this site would be the issuing of a stop work order. The City has spoken to the developer on the action that must be taken, but it does not seem as though a stop work order will be issued.

**Pictures:**



**Fig 1(LT):** Inlet at the entrance of Phase 3 requires proper inlet protection.

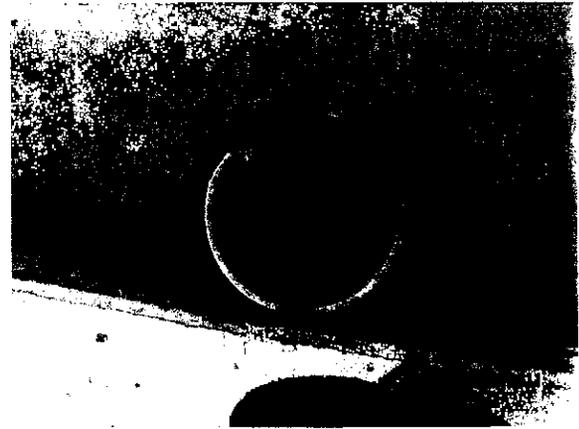
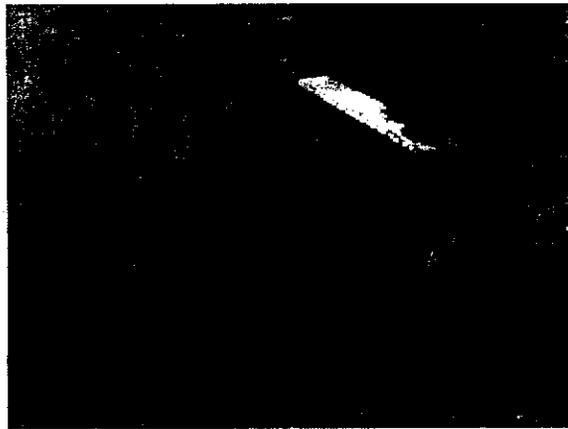
**Fig 2(RT):** All three basin outlets show signs of leakage, which cause the basins to be non-functional and discharge sediment. The anti-seep collars may be missing from these basins causing the leaks. The outlet pipes are also missing a complete seal, which may be causing leakage as well.



**Fig 3&4:** The outlet structure for the SW basin was designed and constructed per old specifications that do not provide the minimum drawdown time of 48 hours.



**Fig 5:** Sediment should be removed and the sediment basin restored to its original dimensions when the sediment storage volume has been filled.



**Fig 6 (LT):** The outlet structure for the SE basin was designed and constructed per old specifications that do not provide the minimum drawdown time of 48 hours.

**Fig 7 (RT):** The outlet structure for the North basin was also designed and constructed per old specifications that do not provide the minimum drawdown time of 48 hours.

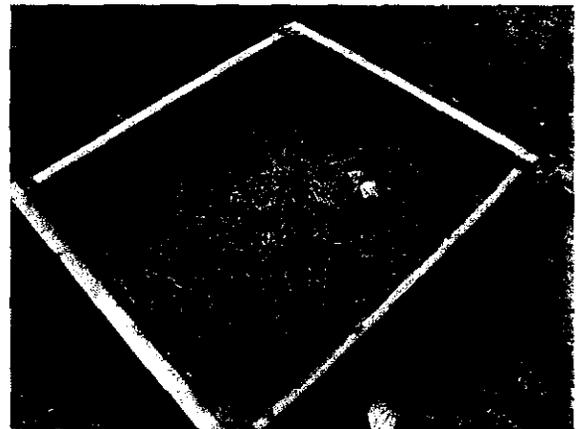


**Fig 8 (LT):** Lack of sealing the outlet pipe into the concrete structure is also causing leakage in the structure.

**Fig 9(RT):** The basin is not functioning properly and the outlet spillway discharges to the protected wetland on the property. A spreader should be provided at the point of discharge to the point of vegetation in order to dissipate the flow to the wetland.



**Fig 10&11:** The site requires temporary stabilization. This has been marked as a violation twice, and the City has requested a seeding schedule that has not yet been provided. Ohio EPA expects the City to escalate enforcement to achieve compliance with seeding requirements.



**Fig 12 (LT):** The rock check dam does not spread across the entire width of the grassed swale and the proper stone sizes were not used.

**Fig 13 (RT):** Yard inlets on the Phase 2 side of the site require maintenance. The straw build up may indicate that the inlet protection was not built to the proper 18 inches of minimum height.



**Fig 14:** If fueling is to occur, the tank must be double walled or be placed within a containment dike. Spill response equipment must be provided, such as a spill kit. If the tank is not double walled, another form of secondary containment must be provided.

## POST-CONSTRUCTION INSPECTION WORKSHEET

**NOTE:** Use two of the post-construction sites you performed a file review on. This will speed up the inspection process since you will already have familiarity with the plan.

|  |
|--|
| <b>Name of MS4:</b><br>City of Brunswick |
| <b>MS4 Permit No:</b><br>3GC10004*BG     |

|  |                             |
|--|-----------------------------|
| Name of Site: Digestive Disease  |                             |
| Location: 1299 Industrial Pkwy N. Suite 110  | NPDES Permit #              |
| Date of Inspection: 6/9/11   | Time of Inspection: 3:15 pm |
| Name of Inspector: Lindsie MacPherson  |                             |
| Post-Construction BMPs on this Site (list by drainage area)  |                             |
| <p style="margin-left: 40px;">DA #1: Wet-extended detention basin WQv pond A</p><br><p style="margin-left: 40px;">DA #2: Wet-extended detention basin WQv pond B</p> |                             |

1. Has the MS4 conducted an as-built inspection of the post-construction BMPs on this site?

Yes, an as build inspection has been conducted for this site.

2. Using the approved post-construction plan on file with the MS4, verify that the planned BMPs have been installed. If a post-construction BMP has not been installed, what does the MS4 intend to do about it?

Yes, the planned BMPs, two water quality basins, were installed.

3. For post-construction BMPs properly installed, did the inspector use the approved long-term maintenance plan as his basis for inspection?

NO. The structures were not adequately retrofitted to provide for the WQv for post-construction. The orifice for the temporary sediment pond was still open and the WQv orifice was sealed for both basins. The inspector usually uses the approved LTMP as a basis for his inspections, but did not have the plan for this inspection.

4. Long-term maintenance issues noted by the MS4 inspector during this inspection.  
**NOTE:** If maintenance issues are found, ask the MS4 to provide you with a copy of their notification to the responsible party.

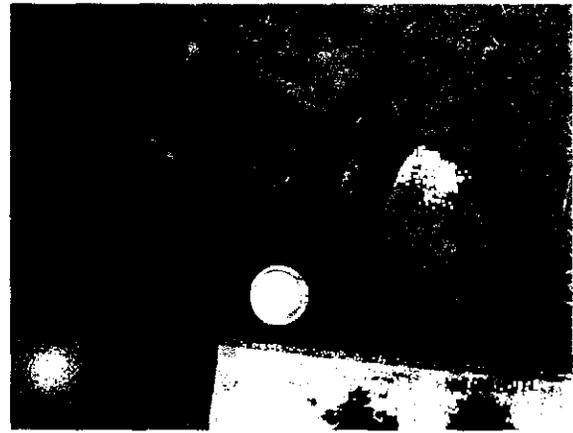
The inspector noted that the wrong orifice was opened on his first inspection in December, and the owner was given until June of 2011 to fix the problem. As of June 9, 2011, the temporary orifice was still opened and the WQv orifice sealed. As per the City's enforcement escalation described during the interview, the next

step for the City would be to perform the maintenance and back-charge the owner. Has the City initiated these measures or was the maintenance completed?

The inspector also took note of an exposed pipe to be recovered, and a leak in the seam of the concrete outlet structure for basin A.

5. Did the MS4 inspector demonstrate knowledge of post-construction BMP function and essential long-term maintenance issues?

Yes, the inspector demonstrated proper knowledge of post-construction BMPs, function and maintenance included.



**Fig 1 (LT):** The open temporary orifice of basin B.

**Fig 2 (RT):** The exposed pipe along the outlet structure of basin A.