



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

June 18, 2013

RE: PORTAGE COUNTY
CITY OF STREETSBORO
PERMIT NO. 3GQ00041*BG
MUNICIPAL STORM WATER PROGRAM
INSPECTION

Bruce Terrell
Engineering Department Director
City of Streetsboro
9184 State Route 43
Streetsboro, OH 44241

Dear Mr. Terrell:

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 Thursday May 30th and Friday May 31st, 2013, Ohio EPA met with you and other representatives of the City of Streetsboro to determine compliance with the NPDES permit and the Storm Water Management Plan (SWMP) submitted by the County in June of 2009. 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.

Enclosed are the Municipal Storm Water Program Evaluation, File Review, and Field Inspection Worksheets 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 pages will provide a summary of our audit findings.

Violations:

- **Failure to develop a program to ensure adequate long-term operation and maintenance (O&M) of post-construction Best Management Practices (BMPs).** This is a violation of Part III.B.5.d and Part III.B.5.f of the Ohio EPA General Storm Water NPDES permit # OHQ000002. The City must develop a program to verify the proper installation as well as ensure the required long-term maintenance of these structures. In addition to an "as-built" inspection upon completion of a project, the City must verify that post-construction BMPs will function as intended on an annual basis. The City requires the submittal of an annual report by May 1st of every year by the respective property owners; however, the City has yet to receive a single report. In addition, the City has not developed a plan of action for those who do not submit their reports.

The City is working towards compliance with this requirement, but has not finalized their plan of action for non-compliant parties. ***Please provide Ohio EPA with a timeframe for which post-construction long-term maintenance processes and procedures will be finalized, as well as a copy of it once the program is finalized.***

- **Failure to conduct site inspections at active construction sites at a frequency of at least once per month.** This is a violation of Part III.B.4.c of the Ohio EPA NPDES General Permit #OHQ00002 for small MS4s. Active construction sites must be inspected at a frequency of at least once per month for compliance with NPDES permit requirements unless you document your procedures for prioritizing inspections such as location to a waterway, amount of disturbed area, compliance of site, etc. within your SWMP (Storm Water Management Plan). It was observed that the City had difficulty identifying all of the active construction sites within the community subject to inspection at the time of this interview, which makes it nearly impossible to say that these sites are being inspected on a monthly basis for storm water compliance. ***Please describe why active construction sites have not been inspected for NPDES permit compliance at least once per month in the past, and indicate whether the City will amend its SWMP to include prioritization standards or simply begin to conduct inspections at least once per month in the future.***
- **Failure to document and keep record of construction site inspection findings for private and municipal construction projects.** This is a violation of Part III.B.4.a. of the Ohio EPA General Storm Water NPDES permit #OHQ000002. During the file review, Ohio EPA noted that the community is extremely deficient in documentation of inspection findings (with regard to storm water). It is required that inspectors document inspection findings and compliance issues such that proper proof is available when enforcement escalation is necessary to see corrective actions take place. The City has already developed a form (checklist) that can be used during the inspection and provides sufficient documentation of violations or deficiencies, however; it was observed that this checklist was not being used in the field very often (with the exception of Streetsboro Family Homes which is not inspected by City staff) prior to this audit. Ohio EPA recommends that inspectors fill out a checklist during **every** storm water compliance inspection conducted from this point forward, regardless if issues are very minor or even non-existent. These checklists should be kept within the file for each respective site and referenced before any follow-up inspection such that inspectors are well aware of previous compliance issues and proper enforcement action can be taken for repeated incidences of non-compliance. ***Please provide Ohio EPA (in detail) with the process which the City wishes to develop in order to remain compliant with this requirement***
- **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 (NOV) under City of Streetsboro letterhead for non-compliance with Chapter 1193 of the municipal code (Construction Site Soil Erosion, Sediment and Other Wastes and Storm Water Runoff Regulations). NOV's for non-compliance are expected to exist, whereas e-mails to developers or verbal communication on site simply won't have the same impact.

A formalized written enforcement escalation plan was provided to Ohio EPA during the interview process, yet the file review indicated that this enforcement escalation procedure has not been followed very closely in the past. The City must follow this procedure for every applicable project within the City, whether public or private. ***Please indicate why the City has not been following the formalized enforcement escalation procedure in the past. If this procedure simply is not possible to follow due to staffing limitations, etc. please develop and submit an enforcement escalation plan to Ohio EPA which includes a procedure the City is capable of following from this point forward.***

- **Failure to submit a Notice of Termination (NOT) 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 Streetsboro still has an active permit under the Ohio EPA General Storm Water NPDES Permit for Construction Activities at one (1) municipal site, which the City indicated was completed and has reached final stabilization. ***Please submit an NOT for the following project immediately:***
 - SR 14/Diagonal Road Intersection; Completed in 2010 (Permit #3GC04563*AG)

Deficiencies:

- Ohio EPA recommends that some of the language within the City ordinance should be re-constructed in order to encourage the use of the following:
 - Runoff reduction (i.e. infiltration, mitigation of recharge volume, etc.).
 - “Green” infrastructure (i.e. rain gardens, pervious pavers, etc.).
 - Balanced growth principles (i.e. conservative design, native vegetation, etc.).

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 building commissioner to affect development patterns in their community that negatively impact storm water quality.

- Although the City code does not explicitly prohibit certain balanced growth principles such as conservative design and retaining open space, there is little in the code to incentivize it or make it the standard requirement. Codes that can be improved to make them more friendly to storm water program goals include, but are not limited to: use of low-maintenance native vegetation, identifying areas where conservation development and low-impact development practices must be implemented, providing incentives for infill development and redevelopment, increasing vertical development limits, and providing incentives for development and redevelopment along corridors with public transportation, walking and biking options. As discussed during this interview, many of these principles may be considered during the upcoming zoning and planning updates. ***Please provide details of the conservative design and balanced growth principles discussed and/or adopted after the zoning and planning updates are implemented.***

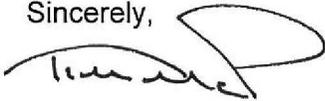
- The City's storm water public education and outreach program should include more than one mechanism and target at least five different storm water themes over the permit term. At least one of the themes should *target the development community*, as required by Part III.B.1.c of the NPDES permit. ***This is a reminder that this requirement must be met no later than June 24, 2014.***
- Although the City does not explicitly prohibit low-impact development and green infrastructure, it is simply a design alternative and is not required or explicitly encouraged. Ohio EPA expects future storm water regulations to require a certain amount of on-site storm water infiltration, capture and reuse. Low-impact development codes will help you meet these requirements. The City should consider strengthening the local development code and integrating standards, which not only allow for these types of structures to be implemented but explicitly encourages or requires it. Although some LID practices have been used in the past, they have not been incorporated to the extent possible to meet post-construction requirements. LID practices that could have been incorporated into the design of new projects or redevelopments, had the City asked include green roofs, sidewalk or parking lot bioretention, permeable pavers, cisterns and other rainwater harvesting techniques.
- The City has not yet completed mapping of the entire MS4 system. ***As a reminder, the City must complete mapping within five (5) years of NPDES permit renewal, i.e., June 24th, 2014.***
- During the interview, it was observed that GPD Group has been responsible for inspecting some of your own municipal projects that were designed in house (i.e. by GPD Group). Ohio EPA recommends that in order to avoid a conflict of interest, the firm, or department that designed the Storm Water Pollution Prevention Plan (SWP3) for a site should not also inspect that site for compliance.
- During this interview, it was observed that City staff had difficulty establishing the exact number of active construction sites within the community. Without immediate knowledge of exactly which sites are active within your community, it is nearly impossible to truly say that sites are being inspected for storm water compliance at a minimum of once per month and that enforcement escalation procedures are adhered to for multiple incidences of non-compliance. ***Ohio EPA strongly recommends that a software program which can be accessed by all City staff members as well as GPD Group be adopted to keep track of all active construction sites on a single cohesive list; tracking information such as NPDES permit numbers, dates of previous inspections as well as inspection findings, and individual lot numbers within a given subdivision. Until a software program is adopted, Ohio EPA recommends that an Excel spreadsheet or other equivalent program is used to track the information described above.***
- It was observed that additional training may be beneficial to those responsible for plan review. Additional training opportunities provided by Ohio EPA are located at: www.epa.ohio.gov/ocapp/storm_water.aspx

CITY OF STREETSBORO
JUNE 18, 2013
PAGE – 5 –

Please review my comments and provide me with a letter of response indicating the actions you will take to address my concerns. **Your response should be received no later than July 18th, 2013.** Please note that this response does not replace the requirement to submit an Annual Report. Your annual report for 2013 will be due on April 1, 2014.

If you have any questions, please contact me at (330) 963-1125 or Timothy.McParland@epa.ohio.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim McParland', written over a horizontal line.

Tim McParland
Assistant to the District Engineer
Division of Surface Water

TM:ddw

Enclosure

cc: Glenn M. Broska, Mayor, City of Streetsboro
Joseph Ciuni, P.E., P.S., GPD Group
Eric Long, Storm Water Engineer, Portage County SWCD

Municipal Storm Water Program Evaluation

Construction and Post-Construction Component Worksheet

Date of Evaluation May 30 th & 31 st , 2013
Evaluator Name, Title Tim McParland, DSW, NEDO Molly Drinkuth, DSW, NEDO
M54 Permittee City of Streetsboro, #3GQ00041*BG

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.

Staff Interviewed		
Name	Department/Agency	Phone Number/Email
Bruce Terrell	Engineering Dept. Director	(330) 626-4942 bterrell@cityofstreetsboro.com
Amy Flake	Engineering Technician/Inspector	(330) 626-4942 aflake@cityofstreetsboro.com
John Cieszkowski, Jr.	Planning and Zoning Director	(330) 626-4942 jcieszkowski@cityofstreetsboro.com
Joseph Ciuni, P.E., P.S.	GPD Group; City Engineer	(216) 927-8655 jciuni@gpdgroup.com

Ordinance/Legal Authority	
Interview Questions	Response
Construction Ordinance	
Ordinance used to require storm water BMPs at construction sites?	YES
Name and/or code section(s)	Chapter 1193: Construction Site Soil Erosion, Sediment and Other Wastes and Storm Water Runoff Regulations
Date initially enacted:	June 22, 2009
Threshold for coverage (e.g., 1 acre, 100 cubic yards, etc.)	One (1) acre.
<i>NOTE: 1 acre is minimum requirement.</i>	

Ordinance/Legal Authority	
Interview Questions	Response
<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 < 5 for the project, (b) construction is "routine maintenance" to re-establish the original line, grade or hydraulic capacity of storm water infrastructure, i.e., ditch cleaning and detention basin dredging, where < 5 acres is disturbed, (c) silvicultural disturbances, (d) agricultural disturbances or (e) construction related to oil & gas well exploration.</i></p>	<p>From Chapter 1193.07 (Scope):</p> <ul style="list-style-type: none"> a) Land Disturbing activities related to producing agricultural crops or Silviculture operations regulated by the Ohio Agricultural Sediment Pollution Abatement Rules (1501: 15-3-01 to 1501: 15-3-09 of the Ohio Administrative Code) and existing at the time of passage of this regulation. b) Coal surface mining operations regulated by Chapter 1513 of the Ohio Revised Code and existing at the time of passage of this regulation. c) Other surface mining operations regulated by Chapter 1514 of the Ohio Revised Code and existing at the time of passage of this regulation.
<p>Does your construction program include the following types of construction activity:</p> <p>Single-family residential?</p> <p>Multi-family residential?</p> <p>Commercial development?</p> <p>Institutional development (schools or government facilities)?</p> <p>Mixed-use development?</p> <p>Non-subdivided development?</p> <p>Non-exempt construction on agriculturally-zoned lands? (barn on a farm)</p> <p>Non-silvicultural tree clearing?</p> <p>Your own municipal construction projects?</p> <p>Construction and demolition debris landfills?</p> <p>Construction by other public entities within your political jurisdiction, e.g., a county road project within a municipality?</p>	<p style="text-align: center;">YES</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Earth disturbance associated with open spaces and parks (e.g., trails within a park or parking lot improvements at a park)?</p> <p>Private pond construction?</p> <p>Construction of wind or solar panel farms?</p> <p>Establishment of borrow or spoil areas that service multiple, unrelated construction projects?</p> <p>Utility construction projects (including tree clearing along utility corridors or pipeline projects that cross multiple political jurisdictions)?</p>	<p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p>
<p>Does ordinance regulate the discharge of pollutants other than sediments on a construction sites (e.g., construction wastes, fuel tanks, cement truck washwater, trash, chemicals, etc.)?</p>	<p>YES</p> <p>Chapter 1193.13 (u): Control of Materials and Debris</p>
<p>Has ordinance been updated to reflect minimum requirements of Ohio EPA NPDES permit #OHC000003?</p> <p>Date of updates?</p> <p>Date of MS4 Permit Renewal:</p>	<p>YES</p> <p>Ordinance was not passed until June of 2009; already met requirements of OHC000003.</p> <p>N/A</p> <p>(Not updated since it was passed June 22, 2009)</p> <p>June 24, 2009</p>

Ordinance/Legal Authority	
Interview Questions	Response
Post-Construction Ordinances	
Ordinances used to require post-construction storm water BMPs on new development or redevelopment projects: Treatment of Water Quality Volume (WQv) Name and code section:	YES Chapter 1195: Post-Construction Water Quality Runoff Regulations
Date initially enacted:	June 22, 2009
Has this ordinance been updated to reflect the minimum requirements of Ohio EPA General Permit #OHC000003?	YES Ordinance was not passed until June of 2009; already met requirements of OHC000003.
Date of update:	N/A (Not updated since it was passed June 22, 2009)
Riparian and Wetland Setback Ordinance Name and code section:	YES Chapter 1191: Riparian Setback and Wetland Setback Regulations
If YES, does ordinance require protection of native vegetation within riparian area or can manicured lawns be established?	YES Chapter 1191.14 (e)
If YES, does ordinance allow the location of storm water infrastructure within the riparian setback?	YES Chapter 1191.13 (b) (3)
Runoff Reduction (e.g., infiltration or mitigation of a recharge volume)?	YES (Not encouraged, but is listed as acceptable.)
Name and code section:	Chapter 1195.09 (1) F. iii.
BMPs designed to control temperature for discharges to cold water habitat streams? Name and code section:	N/A
Encouraging Green Infrastructure or low-impact development practices: Allow downspout disconnection and use of open storm water conveyance systems?	NO Streetsboro City Code currently requires connection of downspouts to storm sewers.
*****Please Refer to Note #1, Pg. 11*****	*****Please Refer to Note #1, Pg. 11*****

Ordinance/Legal Authority	
Interview Questions	Response
Permit the installation of rain gardens and other bioretention facilities? Names and code section:	YES Chapter 1195.09 (1) F: BMPs
Allow rainwater harvesting (rain barrels and cisterns)? Name and code section:	YES Chapter 1195.09 (1) F: BMPs
Allow or require the use of pervious pavement systems? Name and code section:	YES Chapter 1195.09 (1) F: BMPs
Allow reduction in the size of traditional storm water management structures if LID used? Name and code section:	YES (Allowed but not explicitly stated in ordinance.)
Provide a credit to a storm water utility fee if LID is used? Describe:	N/A
*****Please Refer to Note #2, Pg. 11*****	*****Please Refer to Note #2, Pg. 11*****
Balanced Growth Principles , i.e., other non-structural ordinances or codes that promote better site design: Allow conservation design as a subdivision layout (retain ≥ 40% open space by maintaining existing zoned density)	NO At this time, City code does not allow for it. However; an update to current planning and zoning is currently a work in progress and does include conservation design. Upon approval, conservation design will require a variance.
Standard or variance required? Name and code section: N/A	
Encourage the use of vegetation that requires little to no maintenance in common areas (e.g., meadow vegetation vs. mowed lawn) Name and code section: N/A	NO The City will consider this as part of the zoning and planning updates.
Reduce impervious area created by commercial parking lots (e.g., update codes so that they are context-specific, allow shared parking, landbanked parking, parking garages rather than surface lots, etc.) Name of code section	YES Landbanked parking as well as shared parking mentioned within existing City code. Chapter 1155.03

Ordinance/Legal Authority	
Interview Questions	Response
<p>Allow sidewalks on only one side of the road in residential neighborhoods Name and code section:</p>	<p style="text-align: center;">YES</p> <p>This practice is not “spelled out” within current City code however it is not explicitly prohibited either.</p>
<p>Zoning that encourages smart growth in compact neighborhoods or mixed-use development:</p>	<p style="text-align: center;">NO</p> <p>Mixed use components are scattered throughout the current code (e.g. Chapter 1132.08 “Integrated Development Plan Review”). Additional language may be considered as part of the zoning and planning updates.</p>
<p>If YES, does zoning create walkable neighborhoods with access to commercial areas and employment centers? Describe:</p>	<p style="text-align: center;">N/A</p> <p>(May be considered as part of the zoning and planning updates.)</p>
<p>If YES, does this zoning provide incentives for vertical development rather than horizontal sprawl? Describe:</p>	<p style="text-align: center;">N/A</p> <p>(May be considered as part of the zoning and planning updates.)</p>
<p>If YES, does this zoning encourage a range of housing options for people of various incomes? Describe how:</p>	<p style="text-align: center;">N/A</p> <p>(May be considered as part of the zoning and planning updates.)</p>
<p>If YES, do you provide incentives for infill development or development in the core? Describe incentive programs:</p>	<p style="text-align: center;">N/A</p> <p>(May be considered as part of the zoning and planning updates.)</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)? Describe how:</p>	<p style="text-align: center;">N/A</p> <p>(May be considered as part of the zoning and planning updates.)</p>

Ordinance/Legal Authority	
Interview Questions	Response
Provisions within Ordinances:	
<p>Do permit or plan approvals have to be issued before construction activities that disturb 1 or more acre can commence?</p> <p>Plan Approvals Construction</p> <p>Post-Construction</p> <p>Permits & Type (Building, Grading, etc.) Construction</p> <p>Post-Construction</p> <p>Other _____</p>	<p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">Planning/Zoning certificate, building permit, water permit, sanitary permit, construction/landscape bond, mud bond, performance/maintenance bond, many others as well...</p>
<p>Does your definition of “construction activities” include any grading, grubbing, filling, clearing or excavating activity?</p>	<p style="text-align: center;">YES (Written as “Earth Disturbing Activities”)</p>
<p>Are plans for storm water controls used during construction submitted separately from plans that depict post-construction BMPs?</p> <p>Describe the submission process and the timing of plan submission:</p>	<p style="text-align: center;">NO Submitted as one cohesive plan.</p> <p>Before any plans are submitted, Zoning/Planning Dept., Engineering Dept., Fire Dept., and Police Dept. will meet with the developer and discuss the project. Plans are then sent to GPD Engineering (City Engineer) as well as the Planning/Zoning Dept. for review. These entities will provide comments and address as many issues/require revisions <i>before</i> sending the project to the Planning Commission. Once the plans are approved by the Planning Commission, pre-construction meetings are held with Engineering Dept. Once requirements are met and proper permits are obtained, construction may commence (and must commence) within one (1) year of approval. Projects which remain idle for greater than one (1) year must go through the approval process again. The process can take anywhere from a month to a year dependent upon the project and the time of year.</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Does your ordinance explicitly specify selection criteria or minimum acceptable BMP design?</p> <p>Construction</p> <p>Post-Construction</p> <p>If NO, are these standards referenced?</p> <p>Construction</p> <p>Post-Construction</p> <p>If YES, list references:</p>	<p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">Ohio Department of Natural Resources <i>Rainwater and Land Development Manual</i> (Most Current Edition)</p>
CONSTRUCTION SITE ENFORCEMENT AUTHORITY	
<p>Types of enforcement mechanisms available for construction site issues per your ordinance:</p>	<p>Notices of Violations (NOV) YES</p> <p>Administrative fines YES</p> <p>Stop-work orders YES</p> <p>Civil penalties YES</p> <p>Criminal penalties YES</p> <p style="text-align: center;">Chapter 1193.19: Penalties</p>
<p>Which type of enforcement action have you most commonly implemented?</p>	<p style="text-align: center;">Notice of Violations on City letterhead.</p>
<p>Describe the enforcement mechanism used when the following compliance situations are encountered on construction sites:</p> <p>1. Construction has commenced without a permit or plan approval</p> <p>2. A BMP indicated on the SWP3 has not been installed or requires maintenance (first incidence)</p>	<p style="text-align: center;">The Engineering Department Director will issue a Stop work order.</p> <p style="text-align: center;">Verbal communication with the superintendent on site.</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>3. A BMP is required but not shown on the SWP3</p> <p>4. A BMP has not been installed or maintained despite prior notification from the MS4 (repeated incidences)</p> <p>5. If using a third party inspection service provider, e.g., the SWCD, MS4 receives inspection report indicating repeated non-compliance issue</p>	<p>Verbal communication with the superintendent on site, as well as a request for plan modification.</p> <p>Notice of Violation of City letterhead.</p> <p>N/A</p>
<p>Describe the last enforcement action your community has taken against a contractor or developer for non-compliance with construction site requirements and provide the documentation to demonstrate the action.</p>	<p>A contractor was placing fill material in a conservation easement area. Verbal communication on site with contractor was documented and the contractor was required to remove the fill. Issues were resolved (within a day or two) and no further action was required.</p> <p>This incident occurred on August 24th, 2012.</p>
<p>Have your enforcement protocols and procedures for construction site issues been formalized in a written enforcement escalation plan?</p>	<p>YES</p>
POST-CONSTRUCTION ENFORCEMENT AUTHORITY	
<p>Types of enforcement mechanisms available for post-construction site issues per your ordinance:</p>	<p>Notices of Violations (NOV) YES Administrative fines YES Stop-work orders YES Civil penalties YES Criminal penalties YES Other (Describe):</p>
<p>Which type of enforcement action have you most commonly implemented?</p>	<p>To this date, no enforcement actions have been taken regarding post-construction non-compliance.</p>

Ordinance/Legal Authority	
Interview Questions	Response
<p>Describe the enforcement mechanism used when the following compliance situations are encountered regarding post-construction:</p> <ol style="list-style-type: none"> 1. The post-construction BMP has been installed too early in the construction process (e.g., the permanent WQv outlet has been installed when the sediment control outlet is still required, or the bioretention soil has been placed prior to upland areas being stabilized) 2. The post-construction BMP has not been maintained (first incident) 3. The post-construction BMP has not been maintained after multiple notifications 4. A homeowner has cut down trees in the riparian setback area (if applicable) 5. A homeowner has installed a shed in a vegetated filter strip disrupting sheet flow runoff 	<p>Communication with project manager or superintendent on site. The City would require that the Bioretention soil media be replaced or that the temporary sediment control outlet be installed immediately.</p> <p>For newer projects, a Notice of Violation on City letterhead would be issued. For older projects (e.g. those approved before passing of the local ordinances), verbal communication with the responsible person/party would occur since it is likely that they are unaware of their responsibilities for maintaining the structure.</p> <p>A final Notice of Violation letter would be issued and the situation would be referred to the Law Department.</p> <p>The City has encountered this situation in the past. A Notice of Violation letter is sent to the homeowner which includes educational brochures about riparian setbacks. The NOV letter references specific City codes which have been violated (Chapter 1191). A follow-up inspection will occur to ensure that corrective action is completed.</p> <p>The City prefers to take a “friendly” approach towards their residents in a situation as such. Again, the intent would be to educate them about the situation and the possible effects of the shed on the contributing drainage area. This situation would usually be caught ahead of time because a permit would be required to build the shed in the first place.</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>To this date, no enforcement actions have been taken regarding post-construction non-compliance. “As built” inspections are conducted but supposedly no issues have been found with storm water structures that were constructed after the passing of City ordinance Chapter 1195 in 2009.</p>

Ordinance/Legal Authority		
Interview Questions	Response	
Have your enforcement protocols and procedures for post-construction issues been formalized in a written enforcement escalation plan?	NO	
Applicable Documents	Reviewed	Obtained
Sediment and Erosion Control Ordinance	YES	YES
Post-Construction Storm Water BMP Ordinances(s)	YES	YES
Enforcement escalation plan or procedures		
Construction:	YES	YES
Post-Construction:	N/A	N/A

Notes
<p>1) Post-Construction ordinance Chapter 1195.09 (1) F. xii. includes the following statement: “[Acceptable BMPs include] Allowing roof water from buildings to run across lawn areas to remove pollutants, if limits are set for low to zero amounts of fertilizer, pesticide and herbicides to be used on these said lawns and property”. However; during this interview, it was observed that in fact a separate City code <i>requires</i> direct connection of roof drains into storm sewers, rendering Chapter 1195.09 (1) F. xii. as contradictive. <i>Ohio EPA recommends that the City code be revised such that Chapter 1195.09 (1) F. xii. is truly an acceptable, if not a required practice adopted throughout the City for use with any future construction.</i></p> <p>2) Although the Post-Construction ordinance (Chapter 1195.09 (1) F: BMPs) <i>does</i> include onsite infiltration as well as low impact development (LID) design as options for acceptable BMPs, the code is very “vague” and does not elaborate on specific examples of BMPs which incorporate onsite infiltration or can be considered LID practices. <i>Ohio EPA recommends that the City revises this section of the code such that it includes specific examples of applicable BMPs (e.g. Bioretention Cells, Rain Barrels, Permeable Pavements, etc.) as well as explicitly encourages the implementation of such practices (especially for those projects which claim to have no other option than manufactured underground retention systems; a common occurrence in Streetsboro).</i></p>

Construction Project Inventory	
Interview Question	Response
<p>Do you keep an inventory of construction projects that are actively occurring in your community? If YES, how?</p> <p>*****Please Refer to Note #1, Pg. 13*****</p>	<p>NO</p> <p>A dry erase board in the office lists the current jobs throughout the City. There is also a cart containing folders for all sites; active sites kept in the front while older sites are moved to the back. The City is currently considering the use of computer software to track such information, but no single cohesive list exists at this time.</p> <p>*****Please Refer to Note #1, Pg. 13*****</p>

<p>Do you track construction projects <1 acre (e.g., individual lot within a subdivision or small addition to a business)?</p>	<p style="text-align: center;">YES</p> <p>Smaller sites are tracked, but not separately from larger ones. Files are created for subdivisions as a whole and are not broken into individual sub-lots within.</p>										
<p>How often is your inventory of construction projects updated?</p>	<p style="text-align: center;">N/A</p> <p>No single cohesive list of active construction occurring within the community exists at this time.</p>										
<p>Information tracked (with current methods):</p>	<table border="0"> <tr> <td>Project status</td> <td style="text-align: right;">NO</td> </tr> <tr> <td>Inspection Findings</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Enforcement Actions</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>Complaints</td> <td style="text-align: right;">YES</td> </tr> <tr> <td>NOI submittal</td> <td style="text-align: right;">YES</td> </tr> </table>	Project status	NO	Inspection Findings	YES	Enforcement Actions	YES	Complaints	YES	NOI submittal	YES
Project status	NO										
Inspection Findings	YES										
Enforcement Actions	YES										
Complaints	YES										
NOI submittal	YES										
<p>Are site inspections at active construction sites conducted at a frequency of at least once per month?</p> <p><i>NOTE: This is the minimum performance standard in the NPDES permit for small MS4s.</i></p> <p>If construction sites are not inspected at least once per month, how do you prioritize or determine inspection frequency?</p> <p>Criteria used:</p> <p>Is this inspection criteria and frequency explicitly stated in your SWMP?</p>	<p style="text-align: center;">YES</p> <p>The City's response to this question was "yes", however; the file review indicates that this is not the case.</p> <table border="0"> <tr> <td>Proximity to water body</td> <td style="text-align: right;">N/A</td> </tr> <tr> <td>Water body impairment</td> <td style="text-align: right;">N/A</td> </tr> <tr> <td>Size of project</td> <td style="text-align: right;">N/A</td> </tr> <tr> <td>Slope of project site</td> <td style="text-align: right;">N/A</td> </tr> <tr> <td>Other: _____</td> <td></td> </tr> </table> <p style="text-align: center;">NO</p> <p style="text-align: center;">N/A</p>	Proximity to water body	N/A	Water body impairment	N/A	Size of project	N/A	Slope of project site	N/A	Other: _____	
Proximity to water body	N/A										
Water body impairment	N/A										
Size of project	N/A										
Slope of project site	N/A										
Other: _____											
<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 style="text-align: center;"><u>6</u></p> <p>Site #1: Meadow View Ph. III *</p> <p>Most recent inspection date: 5/14</p> <p>Prior inspection date: N/A</p> <p>* Although storm water related issues have been documented while other types of inspections are conducted, inspections dedicated to storm water compliance are not conducted regularly and the inspection checklists are rarely filled out*</p>										

	Site #2: Family Homes Most recent inspection date: 5/8/13 Prior inspection date: 4/23/13		
Applicable Documents		Reviewed	Obtained
List of active construction projects		N/A	N/A
List of projects covered under a state/EPA general permit		YES	YES

Notes
<p>1) During this interview, it was observed that City staff had difficulty establishing the exact number of active construction sites within the community. After several minutes of debate, it was established that there are six active sites currently in the City of Streetsboro. Without immediate knowledge of exactly which sites are active within your community, it is nearly impossible to truly say that sites are being inspected for storm water compliance at a minimum of once per month and that enforcement escalation procedures are adhered to for multiple incidences of non-compliance. <i>Ohio EPA strongly recommends that a software program which can be accessed by any City staff member be adopted to keep track of all active construction sites on a single cohesive list; tracking information such as NPDES permit numbers, dates of previous inspections as well as inspection findings, and individual lot numbers within a given subdivision. In the meantime, OEPA recommends that an Excel spreadsheet or other equivalent program is used to track the information described above such that all City staff members are well aware of active construction within the community as well as previous compliance issues.</i></p> <p>2) Although documentation of inspection findings was readily available for the Streetsboro Family Homes site (Inspected by Randy Allar, GPD Group), documentation of regular inspections at other sites throughout the City were practically non-existent. <i>This is a violation of Part III.B.4.a. of the NPDES Permit #OHQ000002 for Small MS4 operators.</i></p>

Post-Construction BMP Inventory	
Interview Question	Response
Are post-construction BMPs tracked?	YES It was noted that this tracking is currently a work in progress and will be completed by the end of this permit term.
Does this include all types of BMPs, e.g., riparian setback area, green roof or pervious pavement as well as bioretention cells and extended detention ponds?	YES Again, this tracking is a work in progress but will include all types of BMP's when complete.
Information tracked:	Location YES Type YES

	Maintenance Requirements	NO
	Inspection findings	NO
	Other: Owner/Responsible Party, Record of Letters Sent, Follow-up inspections, Comments.	
Database used?	NO	
Number of private post-construction structural BMPs installed in community	N/A Exact number is currently unknown; the list is only partially completed.	
Applicable Documents		
Inventory of Post-Construction BMPs	Reviewed	Obtained
	YES	YES

Construction and Post-Construction BMP Standards	
Interview Questions	Response
CONSTRUCTION BMPs	
Do your erosion and sediment control standards include BMP selection criteria?	YES
Do your construction site standards account for different needs for different times of the year (e.g., growing season vs. winter)?	YES
Please elaborate:	Seeding and stabilization requirements vary based upon the time of year it is.
Do your standards include operation and maintenance requirements?	YES
POST-CONSTRUCTION BMPs	
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)?	YES
If so, what are your standards?	Community standards are based upon the "most current <i>Ohio Rainwater and Land Development Manual</i> "

Construction and Post-Construction BMP Standards		
Interview Questions	Response	
Do your standards include operation and maintenance requirements? *****Please Refer to Note #1, Pg. 15*****	YES Owners are required to submit an inspection report by May 1 st of every year. However; it was observed by OEPA that not a single report has been submitted to the City thus far. *****Please Refer to Note #1, Pg. 15*****	
Applicable Documents	Reviewed	Obtained
BMP guidance or technical document	YES	YES

Notes
<p>1) Although Chapter 1195.11 (g) (Perpetual Maintenance Inspections) requires that “One (1) inspection with a written report will be performed each year. The written report will be given to the Engineering Director and/or his or her designees by May 1st of each and every year after the Best Management Practice (BMP) has been completed”, it was observed during this interview that not a single Perpetual Maintenance Inspection Report has been submitted to the Engineering Director since Chapter 1195 was first adopted in June of 2009. <i>Ohio EPA recommends that the City issue letters to those whom have already been identified as the responsible party for maintaining the BMP. It is encouraged that these letters contain specific reference to Chapter 1195 of the City code as well as a timeframe for completion. It is also encouraged that the letter briefly states the possible consequences one may encounter under the Engineering Director’s authority in cases of repeated non-compliance.</i></p>

Plan Review Procedures	
Interview Questions	Response
Who is responsible for erosion and sediment control plan review?	Jacque Hale, P.E.; GPD Group Matt Adkins, P.E.; GPD Group
If third party, is there an MOU or other agreement in place?	YES
Is it current?	YES
Who is responsible for post-construction plan review?	Jacque Hale, P.E.; GPD Group Matt Adkins, P.E.; GPD Group
If third party, is there an MOU or other agreement in place?	YES
Is it current?	YES
What training or professional certifications have plan review personnel received?	
Construction	P.E., P.S., CESSWI
Post-Construction	P.E., P.S., CESSWI

Plan Review Procedures	
Interview Questions	Response
<p>How many years of experience does plan review personnel have inspecting storm water BMPs?</p> <p>Construction</p> <p>Post-Construction</p>	<p>1-2 Years</p> <p>1-2 Years</p>
<p>How often do plan review personnel receive training?</p> <p>Construction</p> <p>Post-Construction</p>	<p>Typically one (1) time annually.</p> <p>Typically one (1) time annually.</p>
<p>Do you use a checklist to conduct plan review?</p> <p>Construction</p> <p>Post-Construction</p> <p>If NO, what criteria is used to review plans?</p>	<p>YES</p> <p>YES</p> <p>N/A</p>
<p>Size threshold for plan review (i.e. 1 acre, 10,000 square feet)?</p> <p>Construction</p> <p>Post-Construction</p>	<p>No size threshold for plan review. All earth disturbing activities will be reviewed by GPD Group and required to have some sort erosion and sediment controls. This is applicable to both construction and post-construction plan review.</p>
<p>Do you verify the submission of a Notice of Intent (NOI) or Individual Lot NOI to Ohio EPA as part of your plan review process?</p>	<p>YES</p> <p>Part of the checklist includes the verification of an NPDES permit number.</p>
<p>Do you require a pre-construction meeting with developers and/or contractors?</p> <p>Is the sequence of implementation of sediment and erosion controls discussed during these meetings?</p> <p>Is the timing of installation of post-construction BMPs discussed during these meetings?</p>	<p>YES</p> <p>YES</p> <p>The pre-construction meeting agenda includes storm water related material.</p> <p>YES</p>

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

Project Inspections	
Interview Questions	Response
CONSTRUCTION SITE INSPECTIONS	
Who is responsible for erosion and sediment control site inspection?	Amy Flake; City of Streetsboro Randy Allar; GPD Group
If third party, is there an MOU or other agreement in place?	YES
Is it current?	YES
POST-CONSTRUCTION INSPECTIONS	
Who is responsible for post-construction site inspection?	Amy Flake; City of Streetsboro
If third party, is there an MOU or other agreement in place?	N/A
Is it current?	N/A
Is an "as-built" inspection conducted at the time a post-construction BMP is installed to ensure compliance with the approved BMP construction plan?	YES
Does the MS4 conduct inspections for long-term maintenance of privately-owned post-construction BMPs?	YES
If YES, at what frequency?	The City has only conducted these inspections once so far. The post-construction procedures are currently a work in progress.
If NO, does the MS4 collect inspection reports from the responsible party? At what frequency?	The City requires that an inspection report be submitted annually by May 1 st . It was observed during this interview that the City has not received a single report to this date.
CONSTRUCTION & POST-CONSTRUCTION INSPECTION QUESTIONS	
Findings from construction and post-construction inspections tracked in a database?	NO

Project Inspections	
Interview Questions	Response
<p>What training or professional certifications have site inspection personnel received?</p> <p>Construction</p> <p>Post-Construction</p> <p>*This is applicable for both construction and post-construction.</p>	<p>Amy Flake (City of Streetsboro)*: Receives training via The Northeast Ohio Storm Water Training Council. Topics include inspections, infrastructure, CPESC Review.</p> <p>Randy Allar (GPD Group)*: Certified Erosion, Sediment, and Storm Water Inspector (CESSWI)</p>
<p>How many years of experience does site inspection personnel have inspecting storm water BMPs?</p> <p>Construction</p> <p>Post-Construction</p> <p>*This is applicable for both construction and post-construction.</p>	<p>Amy Flake (City of Streetsboro)*: Approximately 15 years.</p> <p>Randy Allar (GPD Group)*: Approximately 5 years</p>
<p>How often do site inspection personnel receive training?</p> <p>Construction</p> <p>Post-Construction</p> <p>*This is applicable for both construction and post-construction.</p>	<p>Amy Flake (City of Streetsboro)*: Receives training any time "free" opportunities are available through OEPA, etc. Several times per year.</p> <p>Randy Allar (GPD Group)*: At least once annually.</p>
<p>Do you use a checklist or the approved plan to conduct site inspections?</p> <p>Construction</p> <p>Post-Construction</p> <p>If NO, what standards are used to determine if a site is compliance?</p> <p>Construction</p> <p>Post-Construction</p>	<p>YES*</p> <p>YES*</p> <p>*However; it appears that the City has been deficient with filling out the checklist during every site inspection.</p> <p>N/A</p> <p>N/A</p>

Project Inspections		
Interview Questions	Response	
Applicable Documents	Reviewed	Obtained
Most recent inspection staff training records	YES	YES
Example of active construction project inspection checklist	YES	YES
Example of inspection record to verify "as-built" of post-construction BMPs	YES	YES
Records from inspection tracking database or filing system	YES	YES
Checklist for inspecting long-term maintenance of post-construction BMPs	YES	YES

MS4-Owned Construction Projects	
Interview Questions	Response
Projects designed in-house or contracted?	Municipal construction projects are typically designed "in house" through the City's engineering consultant GPD Group. GPD Group has been the consulting engineering firm for the City of Streetsboro approximately three (3) years.
Designers trained in storm water BMP implementation?	YES
Checklist used during the design and/or review of public construction projects?	YES
Are projects greater than one acre covered a general construction permit (has an NOI been submitted)?	YES
If contracted planners and engineers are used for the design of MS4-owned projects, does the contract language specify that sediment and erosion control and post-construction storm water BMPs be incorporated into the design?	YES
Are municipal construction projects inspected for compliance with the SWP3?	YES
Are they inspected with the same frequency for BMP compliance as a private construction project?	YES
Who inspects municipal construction projects for compliance?	Randy Allar; GPD Group
Project inspectors trained?	YES
Frequency:	At least once annually.

MS4-Owned Construction Projects			
Interview Questions	Response		
If contracted inspectors are utilized, are minimum inspection, maintenance and reporting requirements specified in the contract?	N/A		
For municipally-owned post-construction BMPs, how often are they inspected to ensure long-term maintenance?	<p style="text-align: center;">NEVER</p> The City believes that to this date only one municipally owned post construction BMP has been constructed (Rain Garden in City Park). The rain garden has never been inspected and long term maintenance has not been performed as observed in the field.		
Which department is responsible for conducting these inspections?	<p style="text-align: center;">N/A</p> Inspections have not been performed but would essentially be the responsibility of the Engineering Department.		
Applicable Documents		Reviewed	Obtained
MS4-owned project storm water design standards and/or checklist		YES	YES
Contract language for active public project not developed or inspected in-house		YES	YES

Outreach and Education	
Interview Questions	Response
Type of training provided to construction operators:	NONE
Designers and Engineers:	NONE
Attendance required?	N/A
Training frequency?	N/A
Number of operators trained:	N/A
Training topics	N/A
Presentations given by MS4 staff to professional groups?	NONE
Brochures or outreach materials targeted at operators:	NONE
How/when is the information distributed?	N/A
Please Refer to Note #1, Pg. 22*	*****Please Refer to Note #1, Pg. 22*****

<p>Website used to educate operators?</p> <p>Web address:</p>	<p style="text-align: center;">YES</p> <p>The City's webpage under the Engineering Department tab includes an educational handout detailing the NPDES Permit program for construction storm water. In addition, a silt fence detail in PDF format is there as well.</p> <p>http://www.cityofstreetsboro.com/departments/engineering/applications_and_permits.php#revize_document_center_rz142</p>	
Applicable Documents	Reviewed	Obtained
Training materials	N/A	N/A
Brochures, outreach materials	N/A	N/A

Notes
<p>1) It was observed during this interview that the City has not provided any training or education for the development community. During this audit OEPA recommended the distribution of informational brochures regarding storm water related topics to operators during pre-construction meetings. It was also recommended that the City references the informational brochures available through Summit County SWCD as models for creating their own. This would allow for the City to meet NPDES Permit requirements without having to provide any sort of formal presentation. <i>Please be aware that at least one PIPE activity must be targeted to the development community during the current NPDES permit term. Please ensure that your PIPE program targets this group with at least one message by March 2014.</i></p>

CONSTRUCTION & POST-CONSTRUCTION FILE RECORDS REVIEW

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

Construction Project #1 Name: Streetsboro Family Homes (#3GC05900*AG)	
BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?	YES BMPs include Silt Sacks, wooden framed geotextile inlet protection, diversion berms, silt fence, and a concrete washout pit.
Design specifications and details for all BMPs included on the plans?	YES Detail drawings for Silt Sacks, wooden framed geotextile inlet protection, diversion berms, silt fence, and the concrete washout pit were included in the plans. However; these details were not in practice as observed in the field.
Maintenance requirements specified?	YES The detail drawings for Silt Sacks, wooden framed geotextile inlet protection, diversion berms, silt fence, and the concrete washout pit all include separate narrative detailing routine and non-routine maintenance procedures.
Have any NOV's or other enforcement actions issued for this site. <i>Obtain copies of NOV's. If none, why not?</i>	NO (See Below)
<p>Notes: Site inspections for the Family Homes project are completed by Randy Allar of GPD Group. The file indicates that inspections are being completed at the frequency required by the permit. However, it seems that once the inspections are completed and the checklists are filled out, no further action is taken. They are typically forwarded via e-mail to Bruce Terrell (Engineering Director), as well as Jayson Porter (site superintendent). However; Amy Flake (Engineering Technician/Inspector) is responsible for storm water compliance inspections as well as enforcement action such as Notice of Violation letters and has not been receiving these checklists. It was noted that Amy just received Randy's e-mail address today (5/31) even though the project has been active since August. There seems to be a missing link in the non-compliance enforcement procedure; checklists indicate that stabilization issues have been apparent since "last year", however; no corrective action has been taken and no NOV letters written on City letterhead have ever been sent (as this would be the appropriate action as indicated during this interview). If GPD does not have the authority to issue Notice of Violation letters as indicated during this interview, then Amy must be made aware of all repeating incidences of non-compliance such that the appropriate enforcement action can take place. Again, a single cohesive list of all active construction sites within the City is recommended since inspection findings can be tracked alongside of each project and all inspecting staff can be familiar with active sites within their community even if they are not always the one inspecting a particular site.</p>	

Construction Project #2 Name: Zip City (#3GC06463*AG)	
BMPs adequately incorporated into the plan to address erosion control, sediment control, and housekeeping?	NO Original plans from January 2013 included a sediment basin on the west side of the site with a skimmer device, silt fence along the perimeter of the site (minus the east side due to grading), a rock construction entrance, Silt Sacks, wooden framed geotextile inlet protection, and a concrete wash out pit. However; more recent versions of the plan indicate that the detention basin has been removed and that an alternative BMP (StormTech with Isolator Row) will be used as the primary post-construction BMP. However, since the detention basin has been removed it cannot serve its purpose as a temporary sediment basin during construction.
Design specifications and details for all BMPs included on the plans?	YES
Maintenance requirements specified?	NO Detail drawings for all BMPs are provided but do not include narrative description of routine as well as non-routine maintenance procedures.
Have any NOV's or other enforcement actions been issued against this site? <i>Obtain copies of NOV's. If none, why not?</i>	NO The site had only been active for a couple of days and had not been inspected prior to our visit.
<p>Notes:</p> <p>It was observed during this interview that the City has been "quick" to approve alternative post-construction BMPs (e.g. Stormtech, etc.) with no regard to the size of the site. Please be aware that any proposed alternative BMPs for use on construction sites where the greater common plan of development exceeds five (5) acres <i>must be reviewed and approved by Ohio EPA prior to acceptance</i>. In addition, manufactured alternatives must provide water quality treatment with the use of an orifice sized correctly to ensure appropriate sediment removal and draw down times. Sizing calculations must be provided on the plans and checked during the plan review process by GPD Group. Although this site is just under five (5) acres, the detention basin present on the original plans served more than just a post-construction purpose; it was used as a temporary sediment basin equipped with a skimmer device for sediment control during the construction process. The Stormtech alternative BMP does not function as a sediment control device during active construction. The City's code provides many options of low impact development (LID) and other acceptable post-construction BMPs for use, yet none of these practices have been implemented since the code was written in 2009. During this interview it was observed that alternative BMPs are used so frequently due to "small, narrow lots" that cannot accommodate a larger structure such as a detention basin. Projects as such can set a prime example for other developers within the City by incorporating BMPs such as bioretention cells which can be placed in parking lot islands or permeable pavers throughout low traffic areas within the parking lot. In addition to providing reliable water quality treatment, such practices typically cost a lot less than manufactured alternative underground detention systems such as Stormtech.</p>	

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

Post-Construction Project #1 Name: Streetsboro Family Homes (#3GC05900*AG)	
Date that project was accepted by community or otherwise deemed "completed"	N/A (Still Active)
Were post-construction BMPs provided for all drainage areas associated with the developed site?	YES
List the post-construction BMPs provided?	<p>DA #1: 4.5 acres (Entire site)</p> <ul style="list-style-type: none"> • Dry Extended Detention Basin <ul style="list-style-type: none"> - Forebay Elev (bottom) 1076.00 - Micropool Elev (bottom) 1070.00 - WQ Elev 1073.78 - WQ orifice 1" >> 48 hr. drawdown
Design specifications and details for all BMPs included on the plans?	YES
Were post-construction BMPs selected appropriate for their drainage areas, site and soil conditions?	YES
Did the community verify the installation of post-construction BMPs per the approved plan at the time the project was completed?	N/A The project is still under construction. (See Below)
Does MS4 have a copy of the long-term maintenance plan?	YES The City does have a copy of the LTM plan, however; the plan is incomplete and lacks the appropriate signatures in order to make it official. Since the site is still active, the LTM plan is simply a draft until the project is closer to completion.
Who does the plan say is responsible for long-term maintenance?	"The Property Owner and/or Future Assigns"
Has the MS4 conducted any long-term maintenance inspections or collected any long-term maintenance inspection reports from the responsible party? <i>Obtain copy of latest inspection report.</i>	N/A The project is still under construction. (See Below)

Post-Construction Project #1 Name: Streetsboro Family Homes (#3GC05900*AG)

Notes:

The Streetsboro Family Homes site has been active since August of 2012. The site was also used during the construction file review and field inspection portion of this audit and several compliance issues were noted (the City will be copied on the Notice of Violation letter from OEPA).

The design of the permanent outlet structure for the detention basin consists of three (3) separate orifices (1", 3.5", and 6") as well as a rectangular weir. The water quality orifice is very small and typically should not be smaller than 2" (anything smaller will be very vulnerable to clogging) however the detail drawings include a reverse flow structure to prevent such clogging from occurring. Calculations for both the temporary as well as the permanent drawdown and volume requirements are provided on the plans. GPD Group must ensure that they double check these calculations during the file review process.

Post-Construction Project #2 Name: Frost Road Mini Storage (#3GC05984*AG)

Date that project was accepted by community or otherwise deemed "completed"	N/A (Still Active)
Were post-construction BMPs provided for all drainage areas associated with the developed site? List the post-construction BMPs provided?	YES DA #1: 6 acres <ul style="list-style-type: none"> • Dry Extended Detention Basin <ul style="list-style-type: none"> - WQv = 10,343 ft³ - WQ Elev. 1210.40 - WQ orifice = 1.5" DA #2: 7.94 acres <ul style="list-style-type: none"> • No BMP <ul style="list-style-type: none"> - Only 3.8 acres are disturbed - Only 2.3 acres of additional impervious area created
Design specifications and details for all BMPs included on the plans?	NO Water quality calculations were in a standalone document but were not shown anywhere on the plans.
Were post-construction BMPs selected appropriate for their drainage areas, site and soil conditions?	NO (See Below)
Did the community verify the installation of post-construction BMPs per the approved plan at the time the project was completed?	YES
Does MS4 have a copy of the long-term maintenance plan?	YES

Post-Construction Project #2 Name: Frost Road Mini Storage (#3GC05984*AG)

<p>Who does the plan say is responsible for long-term maintenance?</p> <p>Has the MS4 conducted any long-term maintenance inspections or collected any long-term maintenance inspection reports from the responsible party? <i>Obtain copy of latest inspection report.</i></p>	<p>(LTM plan exists but a hard copy was not found in the file)</p> <p>NO</p> <p>The City has not been conducting post-construction BMP inspections at this time. The community's post-construction program is a work in progress.</p>
---	--

Notes:
An e-mail from Amy Flake (Engineering Technician/Inspector) to a Mr. Bruce Robinson dated September 10, 2012 indicates that the drainage area for the site is approximately six (6) acres, however; the storm water calculations provided for sizing the dry extended detention basin use a contributing drainage area of only 4.5 acres. No resolution to this issue was found during this file review. If the dry extended detention basin does not provide treatment for the water quality volume associated with the correct contributing drainage area, the basin must be retrofitted such that the Frost Road Mini Storage remains compliant with NPDES permitting requirements. *Please provide Ohio EPA with documentation of resolution of the issue described above.*

CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Streetsboro
MS4 Permit No: 3GQ00041*BG

Name of Site: Streetsboro Family Homes	
Location: Market Square Drive	NPDES Permit : #3GC05900*AG
Date of Inspection: 5/31/2013	Time of Inspection: 8:30 AM
Name of Inspector: Randy Allar (GPD Group)	
Others Present During Inspection: Molly Drinkuth, OEPA, DSW, NEDO Amy Flake, City of Streetsboro, Engineering Technician/Inspector Jayson Porter, Pirhl LLC, Project Manager Ralph Nobis, Pirhl LLC, Superintendent	

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

YES

Jayson (Project Manager) and Ralph (Superintendent) were both very familiar with Randy and were well aware of the purpose 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 weekly reports were brought up in conversation and it was noted that Ralph Nobis is responsible for the weekly report. However; the inspector did not ask to see them during this inspection.

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

YES

The inspector carries a copy of the SWP3 with him as he walks the site.

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

YES

The inspector did follow up with stabilization and silt fence issues observed during previous inspections. (See Comments Below)

6. Compliance issues identified by inspector during this inspection:
- **The filter socks along the Southwest corner of Market Place Dr. are deteriorating**
 - **The silt fence along the Southern perimeter of the site needs to be maintained**
 - **The silt fence was not installed properly throughout the entire site (the ends of each section need to be twisted together before staking to create a continuous barrier)**
 - **The outfall into the detention basin was lacking erosion control (rip-rap)**
 - **Stabilization issues throughout the entire site**
 - **The concrete wash out pit was inadequate**
7. Deficiencies or NPDES violations not noted by the MS4 inspector during this inspection:
- **The Southwest corner of Market Place Drive is not shown on the SWP3**
 - **The excessive erosion gullies formed on the slopes of the site and the embankment of the detention basin need to be filled in**
 - **The skimmer is not installed properly and will not function as intended**
 - **The diversion berms along the Southern and Western perimeters were not in place**
 - **The inlet protection around the yard drains were inadequate**
 - **The dumpster did not have a lid or cover to prevent contact with storm water**
8. Did the MS4 inspector ask the project superintendent or site foreman to accompany him or her on the inspection?

YES

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

NO

10. Is the community planning on taking any enforcement actions based on the results of today's inspection? If so, what are those actions? Did the inspector provide a deadline for corrective action? If so, provide details.

YES

The City intends to issue a Notice of Violation letter with a given timeline for corrective action to be completed. *Please provide Ohio EPA with a copy of this letter when it is available.*

Additional Comments:

- **It was observed during the file review that stabilization issues at the Streetsboro Family Homes site have been apparent since last year. In addition, the diversion berm which should have been installed within seven (7) days of initial disturbance was still not in place almost ten (10) months after construction began. Ohio EPA observed that (currently) only the City (and not GPD Group) has the authority to administer enforcement action, however; not a single Notice of Violation letter has ever been written. It was also noted that Amy had not been receiving Randy's inspection reports up until this point and was unfamiliar with the site and previous compliance issues. If GPD Group is to continue inspecting the Family Homes project, there *must* be an improvement in communication between Amy and Randy since Amy is responsible for enforcement actions. Verbal communication with Jayson and Ralph is simply not sufficient since it was obvious that corrective actions have not been completed even after several on site notifications.**

- This field review indicated that Randy is knowledgeable of storm water and BMPs. He was able to identify many compliance issues and offer good advice to the Project Manager and Superintendent. He did neglect a few key issues with the site but has been eager to learn from his mistakes and will continue to educate himself on storm water related issues. It is Ohio EPA's belief that Randy is capable of issuing his own written Notice of Violation letters if the City (particularly Amy) allows for it and keeps track of such enforcement actions in the Streetsboro Family Homes file. Ohio EPA highly recommends the use of a single cohesive tracking software which can be accessed by the City staff as well as GPD Group to ensure that all necessary persons are familiar with every active site within the community.
- Ohio EPA will issue an NOV letter in response to this inspection and will ensure that the City and GPD group receives a copy

(See attached photos)



Figure 1: Gullies formed by excessive erosion need to be filled in immediately and the embankment needs to be stabilized.



Figure 2: Yard drain inlet protection needs to be installed per the detail drawings in the SWP3.



Figure 3: The skimmer is connected to the wrong orifice and will not function as intended. (See NOV letter issued by OEPA for details)

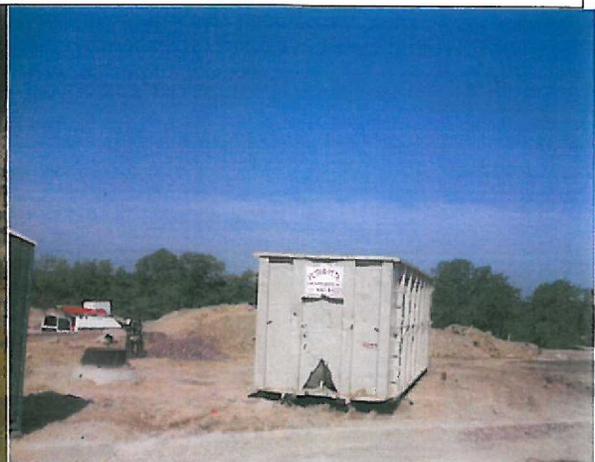


Figure 4: The dumpster needs to have a lid or a cover to prevent its contents from contacting storm water.

CONSTRUCTION FIELD REVIEW WORKSHEET

Name of MS4: City of Streetsboro
 MS4 Permit No: 3GQ00041*BG

Name of Site: Zip City	
Location: 9960 State Route 43	NPDES Permit: #3GC06463*AG
Date of Inspection: 5/31/2013	Time of Inspection: 11:30 AM
Name of Inspector: Amy Flake (City of Streetsboro)	
Others Present During Inspection: Molly Drinkuth, OEPA, DSW, NEDO Jim Adams, C. Tucker Cope, Superintendent John Magmore, C. Tucker Cope	

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

YES

Jim Adams, Superintendent approached us upon arrival. Amy introduced herself and stated the purpose of the inspection.

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

N/A

This was the first inspection conducted by the City. The project had begun only a couple of days prior to this inspection.

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

N/A

None were available since the project had started not even a week prior to this inspection. Amy did inquire as to who would be responsible for conducting the weekly storm water inspections.

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

YES

The inspector carries a copy of the SWP3 with her as she walks the site.

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

N/A

This was the first inspection conducted by the City.

6. Compliance issues identified by inspector during this inspection:
 - **The silt fence was not installed properly throughout the entire site (the ends of each section need to be twisted together before staking to create a continuous barrier)**
 - **The silt fence was not properly trenched in some areas**
 - **The fueling tank was not equipped with a spill kit**
 - **Best management practices were not implemented for the tree stumps and spoil piles (Jim Adams mentioned that they would be gone by the following week)**

7. Deficiencies or NPDES violations not noted by the MS4 inspector during this inspection:
 - **The inlet protection for the existing catch basins nearest SR 43 were inadequate (was not noted until prompted by OEPA)**

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

YES

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

YES

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.

Since the project had just started and none of the issues on site were outstanding, the City simply provided verbal warning to the superintendent and requested corrective action be completed ASAP. A follow up inspection will be completed the following week and the conversation with the superintendent will be documented.

Additional Comments:

- **This field review indicated that Amy is knowledgeable of storm water and BMPs. She was able to identify all of the compliance issues except for the inlet protection which was not installed per the detail drawings in the plans. OEPA firmly believes that if a single cohesive list of all active construction within the community can be assembled, Amy should have no problem ensuring that she visits each of the sites at a frequency of once per month. The file review indicated that the City is deficient in documenting inspection findings. *Please be sure to fill out a checklist during every storm water compliance inspection conducted from this point forward, regardless if issues are very minor or non-existent. These checklists should be kept within the file for each respective site, and a method of tracking the most recent inspection findings is critical to ensure that compliance issues are corrected before a follow-up inspection is completed. If repeated incidences of non-compliance occur, the City must begin to follow their formalized enforcement escalation procedure.***
- **Please be sure to update Ohio EPA with information regarding the deletion of the detention basin and use of an alternative BMP.**

(See attached photos)



Figure 1: The inlet protection is inadequate and must be reconstructed per the detail drawings in the storm water pollution prevention plan.

POST-CONSTRUCTION INSPECTION WORKSHEET

Name of MS4: City of Streetsboro
MS4 Permit No: 3GQ00041*BG

Name of Site: Tinkers Green Subdivision	
Location: State Route 43 / Frost Road	NPDES Permit: #3GC00772*AG
Date of Inspection: 5/31/2013	Time of Inspection: 1:30 PM
Name of Inspector: Amy Flake (City of Streetsboro)	
Post-Construction BMPs on this Site (list by drainage area)	
<p style="margin-left: 40px;">DA #1: Wet Extended Detention Basin A</p> <p style="margin-left: 40px;">DA #2: Wet Extended Detention Basin B</p>	

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

YES

However; the site was completed prior to the passing of the City's post-construction ordinance (Chapter 1195: Adopted 6/22/2009)

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

Post-construction BMPs are 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 inspector (Amy) did not have the LTM plan with her. It is unknown whether or not the city has a LTM agreement since the project was completed prior to the passing of the City's post-construction ordinance.

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.

- **Stabilization issues along embankment**
- **Excessive trash and debris around the outlet pipes**

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

YES

The City's post-construction program is a work in progress but the inspector demonstrated knowledge of such.

POST-CONSTRUCTION INSPECTION WORKSHEET

Name of MS4: City of Streetsboro
MS4 Permit No: 3GQ00041*BG

Name of Site: Streetsboro Park Rain Garden	
Location: 8970 Kirby Lane	NPDES Permit: # N/A
Date of Inspection: 5/31/2013	Time of Inspection: 3:00 PM
Name of Inspector: Amy Flake	
Post-Construction BMPs on this Site (list by drainage area)	
<p style="margin-left: 40px;">DA #1: Bioretention Cell (Rain Garden)</p>	

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

N/A

The rain garden was built per a grant and not as a result of new or re-development.

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?

N/A

Approved post-construction plan is not available. The rain garden was constructed per a grant and not as a result of new or re-development.

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

N/A

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 outlet restrictor (orifice) had been broken to prevent clogging**
- **The garden was full of excessive trash, leaves and debris**
- **The plants were in need of care or replacement**
- **Excess sediment needs to be removed and mulching needs to be replaced**

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

YES

The City's post-construction program is a work in progress but the inspector demonstrated knowledge of such.

Additional Comments:

- The City has been “quick” to approve the use of underground detention systems on sites that do not have adequate space for detention basins. A rain garden is a great example of an effective above ground storm water quality structure which can be implemented in parking lot islands, etc. and require less space to construct. *Ohio EPA recommends that the City performs the necessary maintenance requirements for the rain garden to resume proper function as use it as an educational tool for contractors resorting to underground detention for new or re-developments.*

(See attached photos)



Figure 1: The rain garden needs to be maintained in order to function properly.