

NPDES II

MS4

PAI 134801

2015-2016 Annual Report

Harris Township

Centre County

HARRIS TOWNSHIP

P.O. Box 20, 224 East Main Street
Boalsburg, PA. 16827
Website: www.harristownship.org

Phone: (814) 466-6228
Fax: (814) 466-3396

January 27, 2017

MS4 Permit Coordinator
Pennsylvania Department of Environmental Protection
Northcentral Regional Office
208 W. 3rd Street Suite 101
Williamsport, PA 17701

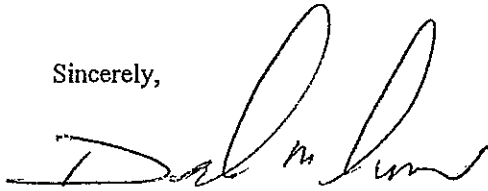
RE: NPDES II MS4 Annual Report Form
NPDES Permit # PA1134801
Harris Township, Centre County

Dear Sir:

Enclosed is an executed NPDES 2015-2016 Annual Report Form

If you have any questions please give me a call

Sincerely,

A handwritten signature in black ink, appearing to read "Donald M. Franson", written over a horizontal line.

Donald M. Franson, P.E., P.L.S.
Township Engineer

Cc: Harris Township MS4 file



MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL/PROGRESS REPORT

For the Reporting Period: November 1, 2015 to October 31, 2016

☒ Annual Report ☐ Progress Report
☐ New Permittee ☐ Renewal Permittee

Due Date: January 31, 2017

GENERAL INFORMATION

Permittee Name: Harris Township	NPDES Permit No.: PAI134801
Mailing Address: P.O. Box 20	Effective Date: November 1, 2013
City, State, Zip: Boalsburg, PA 16827	Expiration Date: October 31, 2018
MS4 Contact Person: Amy Farkas	Renewal Due Date: April 30, 2018
Title: Township Manager	Admin. Extended? ☐ Yes ☒ No
Phone: (814) 466-6228	Municipality: Harris Township
Email: manager@harristownship.org	County: Centre County
Co-Permittees (if applicable):	

WATER QUALITY INFORMATION

Are there any discharges to waters within the Chesapeake Bay Watershed? ☒ Yes ☐ No

Identify all surface waters that receive stormwater discharges from storm sewers within the MS4 urbanized area and provide the requested information (see instructions).

Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
Galbraith Gap Run	HQ	No		No	No
Cedar Run	CWF	No		No	No
Spring Creek	HQ	Yes	Siltation	No	No
Slab Cabin Run	CWF	Yes	Siltation	No	No
Roaring Run	CWF	No		No	No

Identify any Wasteload Allocations (WLAs) identified in TMDLs for the MS4, if applicable. Identify the pollutant(s) and mass load(s):

N/A

GENERAL MINIMUM CONTROL MEASURE (MCM) INFORMATION

Have you completed all MCM activities required by the permit for this reporting period? ☒ Yes ☐ No

Provide current contact name and phone number information for the required MCMs (if same as page 1, leave blank):

MCM	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts	Amy Farkas	(814) 466-6228
#2 Public Involvement/Participation	Amy Farkas	(814) 466-6228
#3 Illicit Discharge Detection and Elimination (IDD&E)	Donald Franson	(814) 231-3021
#4 Construction Site Storm Water Runoff Control	Donald Franson	(814) 231-3021
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Donald Franson	(814) 231-3021
#6 Pollution Prevention / Good Housekeeping	Donald Franson	(814) 231-3021

MCM #1 – PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

BMP #1: Develop, implement and maintain a written Public Education and Outreach Program

Measurable Goal: For new permittees a Public Education and Outreach Program (PEOP) shall be developed and implemented during the first year of permit coverage and shall be re-evaluated each permit year thereafter and revised as needed. For renewal permittees, the existing PEOP shall be reviewed and revised as necessary. The permittee's PEOP shall be designed to achieve measurable improvements in the target audience's understanding of the causes and impacts of stormwater pollution and the steps they can take to prevent it.

- For new permittees only, attach the written PEOP or a summary thereof to the first report submitted to DEP.
- If you are not a new permittee, did you complete and submit your written PEOP to DEP? ☒ Yes ☐ No
If Yes, provide the latest submission date: **A copy of the PEOP is included with this submission**
- Date of last evaluation of or revision to the PEOP: **1/21/2016**
- What were the plans and goals for public education and outreach for the reporting period?

The yearly goals are listed as follows:

- Publish two newsletter articles on educational topics relative to the MS 4 program. Such topics may include inlet stenciling, vehicle washing, innovative stormwater management projects that the Township is constructing, or informing residents on the dangers of illicit discharges.
- Maintain informational materials on the Township website
- Financially support the Spring Creek Watershed Commission
- Financially support the Watershed Cleanup Day
- Distribute "Don't let stormwater run off with your time and money" brochure with zoning permit applications
- Distribute educational materials for use by elementary age school children.
- Financially support the Spring Creek Water Quality Monitoring Program.
- Distribute the "Spring Creek Watershed Surface and Groundwater Boundary Map"
- Place a stormwater educational article in the local newspaper
- Present a yearly update to Township Public Works employees concerning pollution detection and reporting.

5. Did the MS4 achieve its goal(s) for the PEOP during the reporting period? ☒ Yes ☐ No

Explain the rationale for your answer:

An item by item explanation is as follows:

1. The Township produces an e newsletter that is distributed periodically. The March 2, 2016 e newsletter contained an article detailing how washing of commercial vehicles is to be performed. The June 2, 2016 Newsletter contained an update on a pilot stormwater project that included installing gravel trenching along Pine Tree Avenue to encourage infiltration of stormwater

2. The Township website includes the "When it Rains it Drains" brochure, the Don't Let Stormwater Run Off With Your Time and Money brochure and an informational poster explaining the dangers posed by household wastes entering the stormwater system.

3. Harris Township is a financial supporter and member of the Spring Creek Watershed Commission. The SCWC has televised monthly meetings with educational topics concerning the Spring Creek Watershed.

4. Harris Township financially supported the 2016 Watershed Clean Up Day.

5. The Township distributes "Don't let Stormwater Run Off With your Time and Money" with zoning permit applications.

6. The MS4 Partners have developed and distributed the "Spring Creek Stormwater Activity" Book that contains puzzles, crosswords, and other games for children to learn about the Spring Creek Watershed. This booklet was distributed to the Millbrook Marsh Educational Center. The Bellefonte, Bald Eagle, and State College School districts all send students to tour the Millbrook Marsh. The booklet is also available at the State College YMCA.

7. Harris Township financially supported the latest published report of the Spring Creek Water Quality Monitoring Program. The latest report concerns the geology of the Spring Creek Watershed.

8. The Township financially supported the printing of additional copies of the "Spring Creek Watershed Surface and Groundwater Boundary Map" and maintains copies of the map in the information kiosk at the Township Building.

9. The MS4 Partners placed a Stormwater Informational ad in the February 18, 2016 edition of the Centre Daily Times and the November 5, 2015 edition of The Daily Collegian.

10. On January 25, 2017, Harris Township Conducted the Pollution Prevention and Good Housekeeping For Municipal Operations and Maintenance Program meeting with the public works personnel. The meeting stressed the importance of identification and reporting of any suspicious materials encountered by the public works employees. The zoning officer and the Township Manager were included in the meeting.

6. Identify specific plans and goals for public education and outreach for the upcoming year:

The MS4 Partners with the help of Clearwater Conservancy have launched a website, www.ms4partners.org, to provide stormwater information to the general public. Harris Township's web site, www.harristownship.org, links to the MS4 partners website

Clearwater Conservancy (under contract with the MS4 partners) has begin development of a Stormwater Awareness PSA to be aired on C-NET.

BMP #2: Develop and maintain lists of target audience groups present within the areas served by your MS4

Measurable Goal: For new permittees, the lists shall be developed within the first year of coverage under the permit and reviewed and updated as necessary every year thereafter. For renewal permittees, the lists shall continue to be reviewed and updated annually.

1. For new permittees only, attach your target audience list(s) to the first report submitted to DEP.

2. If you are not a new permittee, did you complete and submit your target audience list to DEP? ☐ Yes ☒ No
If Yes, provide the latest submission date: **The Township Manager has stated that the 720 e mail addresses the Township has for the target audience are protected by Federal AntiSpam laws and we are not able to provide them.**
3. Date of last review or revision to target audience list(s): **The list is updated whenever we have new requests to be added to the e newsletter, which averages approximately twice per month. Last update December 29, 2016.**

BMP #3: Annually publish at least one educational item on your Stormwater Management Program

***Measurable Goal:** For new permittees, stormwater educational and informational items shall be produced and published in print and/or on the Internet within the first year of permit coverage. In subsequent years (and for renewal permittees), the list of items published and the content in these items shall be reviewed, updated, and maintained annually. Your publications shall contain stormwater educational information that addresses one or more of the 6 MCMs.*

1. For new permittees only, attach your published stormwater educational or informational materials to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your published stormwater educational or informational materials to DEP? ☒ Yes ☐ No
If Yes, provide the latest submission date: **A copy of the Spring Creek Stormwater Activity book is included with this submission**
3. Do you have a municipal newsletter? ☒ Yes ☐ No
If Yes, how often was it published during the reporting period and what MS4-related material did it contain?
Harris Township Manager sends out an e-newsletter that goes to 720 e-mail addresses. It is updated approximately monthly. In this permit year it contained articles on a washing of commercial vehicles and progress on a infiltration BMP being installed by the Township as part of road project. The e-newsletter has an open rate greater than 60%
4. Do you have a municipal website? ☒ Yes ☐ No (URL: <http://harristownship.org/>)
If Yes, what MS4-related material does it contain?
In January of 2015 Harris Township got our new web site up and running. The new site allows for easier access by Township staff to add and update MS4 related articles. Currently we have a link to the "When it Rains it Drains" brochure, the "Don't Let Stormwater Run Off With Your Time and Money" brochure and a Illicit Discharge citizen reporting form, for anyone wishing to report a suspected illicit discharge. There is also a link to the MS4 partners website.
5. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:
Harris Township along twith the MS4 partners provided funding for a rain barrel workshop. At the workshop a presentation on the MS4 program was given. Harris Township's engineer participated in a presentation on the Chesapeake Bay Pollution ReductionPlan and the MS4 program at the November 16, 2017 meeting of the Spring Creek Watershed Commission. SCWC meetings are televised 4 times each on the local government access channel
6. Date of most recent review and/or update to published stormwater educational materials: **January 24, 2017**
7. Identify specific plans for the publication of stormwater materials for the upcoming year:
With the new website, the plan is to have the PEOP and the PIPP placed within the stormwater information section in the near future. E-letters will contain a reminder of the need for volunteers for the inlet stenciling program and the illicit discharge provision in our SWM ordinance.

BMP #4: Distribute stormwater educational materials to the target audiences

Measurable Goal: *All permittees shall select and utilize at least two distribution methods in each permit year. These are in addition to the newsletter and website provisions of BMP #3.*

Identify the two additional methods of distributing stormwater educational materials during the previous year (e.g., displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements, bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, or storm drain stenciling).

Harris Township provides funding for the Spring Creek Watershed Surface Water and Groundwater Boundary Map brochure. In addition to the mapping of the surface and groundwater boundaries for Spring Creek, the brochure contains articles on Karst geology, dangers of groundwater contamination, and the Water Resources Monitoring Project.

Harris Township provides funding for the Water Resources Monitoring Project administered by the Spring Creek Watershed Association. Each year the WRMP focuses on a different aspect of the biology of the Spring Creek Watershed. The most recently published report, 2015, deals with Geology of the Spring Creek Watershed. The web site with archived reports is at <http://springcreekwatershed.org/water-resources-monitoring-project-wrmp/wrmp-annual-reports.html>

Harris Township will continue to solicit for volunteers for the inlet stenciling program. To date, a portion of the Village of Boalsburg has been stenciled.

MCM #2 – PUBLIC INVOLVEMENT/PARTICIPATION

BMP #1: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP)

Measurable Goal: A new permittee's PIPP shall be developed and implemented during the first year of coverage under this General Permit. All permittees shall re-evaluate the PIPP each permit year and revise as needed. Your PIPP shall include, but not be limited to:

- a. Opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of programs and activities related to this General Permit.
- b. Methods of routine communication to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the permittee's regulated small MS4s or their receiving waters.
- c. Making your periodic reports available to the public on your website, at your municipal offices, or by US Mail upon request.

1. For new permittees only, attach your written PIPP or a summary thereof to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your written PIPP or summary to DEP? ☒ Yes ☐ No
If Yes, provide the latest submission date: **A copy of the PIPP is included with this submission**

3. Date of last review and/or update to the PIPP: **January 19, 2017**

4. Explain how your PIPP addresses items a, b and c of the Measurable Goal:

Harris Township will respond to any citizen concerns relative to the MS4 and the Stormwater Management Ordinance. For example residents along two streets in Harris Township had expressed concern of frequent standing water along the edges of the two very flat streets. Township considered placing a standard inlet and pipe conveyance system but determined that type of system would create stormwater issues downstream. So the Township chose to install infiltration sumps along one edge of each street. The sumps appear to be infiltrating the water as designed.

Harris Township is a member of the Spring Creek Watershed Commission with a Township supervisor and the Township Engineer being members. Regular attendees at the meetings include members of the State College chapter of Trout Unlimited and members of the Spring Creek Watershed Association and members of the community at large. These meetings are televised on C-Net four times and can be streamed from the C-Net website.

Harris Township follows the state mandated open records law and will permit any resident to review the periodic reports and if an official open records request is presented, Harris Township will comply with the request. With the start up of the new website at the end of January 2015 we will investigate the feasibility of placing the periodic reports in the Stormwater Section of the site. The PIPP will be placed on the web site in the near future.

BMP #2: Prior to adoption of any ordinance (municipal permittees) or SOP (non-municipal permittees) required by the permit, provide adequate public notice and opportunities for public review, input, and feedback.

Measurable Goal: Advertise any proposed MS4 Stormwater Management Ordinance or SOP, provide opportunities for public comment, evaluate any public input and feedback, and document the comments received and the municipality's response.

1. Was an MS4-related ordinance or SOP developed during the reporting period? ☐ Yes ☒ No
2. If Yes, describe how you advertised the draft ordinance and how you provided opportunities for public review, input and feedback:

MCM#5 Post Construction Stormwater Management Best Management Practice Facilities Acceptance and Inspection Procedures for College Township

The following steps will be taken for any land development requiring construction of stormwater management BMP's. Steps 3 through 5 will be taken for existing stormwater management facilities

1. All land development projects with over 5,000 SF of new impervious are required to submit a Stormwater Management Site Plan for Township approval. The SWMSP must meet the requirements of the College Township Act 167 Spring Creek Stormwater Management Ordinance. After all technical questions have been addressed, the Township Engineer will issue a consistency letter. The Township Engineer will not sign the municipal signature block until the Centre County Conservation District has approved the Erosion and Sediment Control Plan and DEP, or the CCCD as their delegated agent has approved the NPDES permit (if required). (General NPDES Permits are reviewed by the CCCD while Individual NPDES Permits are reviewed by DEP)
2. Prior to issuance of occupancy permit and/or release of surety the as-built drawings of stormwater BMP's supplied by the developer or his agent will be reviewed by Township staff. The Township engineering department will notify the zoning department.
3. Engineering department staff will inspect approximately 20% of the detention and/or retention facilities within the Township each year. Priority will be given to structures with past deficiencies and to recently completed structures.
4. Notification will be made to the owners of BMP's exhibiting major deficiencies.
5. Reports of the inspections and notifications will be kept on file.

Last Reviewed/Revised February 23, 2017

3. If an ordinance or SOP was enacted/developed or amended during the reporting period, provide the following information:

Ordinance No. / SOP Name	Date of Public Notice	Date of Public Hearing	Date Enacted

BMP #3: Regularly solicit public involvement and participation from the target audience groups. This should include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement your SWMP. Conduct public meetings to discuss the on-going implementation of your SWMP.

Measurable Goals: Conduct at least one public meeting per year to solicit public involvement and participation from target audience groups. The public should be given reasonable notice through the usual outlets a reasonable period in advance of each meeting. During the meetings, you should present a summary of your progress, activities, and accomplishments with implementation of your SWMP, and you should provide opportunities for the public to provide feedback and input. Your presentation can be made at specific MS4 meetings or during any other public meeting. Under this MCM, you should document and report instances of cooperation and participation in your activities; presentations you made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in your community. You also should document and report activities in which members of the public assisted or participated in your meetings and in the implementation of your SWMP, including education activities or organized implementation efforts such as cleanups, monitoring, storm drain stenciling, or others.

1. Date of the public meeting(s): **September 12, 2016 Township Meeting and November 16, 2016 Spring Creek Watershed Commission**

2. How were meeting(s) advertised to the public? **Dates for the Township monthly meetings in 2016 were advertised in January of 2016. The agenda for the September 12, 2016 meeting was placed on the township's website prior to the meeting. The dates for the Spring Creek Watershed Commission are announced at each meeting.**

3. Indicate where the meeting(s) were held and the number of attendees:

The September 12, 2016 meeting was held at the Harris Township Municipal Building Meeting Room. Seven people were in attendance. The meetings are televised on C-net four times over a two week period and can be streamed anytime on the C-net website. The November 16, 2016 meeting was held at the Spring Township building and there were 8 people in attendance. These meetings are televised on C-net four times over a two week period and can be streamed anytime on the eC-net website.

4. What types of MS4-related activities did you solicit public involvement and participation for?

The MS4 portion of the September 12, 2016 meeting was an informative on the existing BMP's within the Township. The ownership and maintenance of the BMP's was explained and the possibility of the Township taking over the responsibilities and charging fees was discussed.

5. What MS4-related activities did the public participate in?

The Township received input from members of the community concerning the possibility that the Township may take over private BMP's (detention basins) and the possibility that the Township may assess a fee for stormwater. Twenty people attended a rain barrel workshop that was sponsored by Clearwater Conservancy. The April 2016 Watershed Cleanup Day had 521 volunteers work to remove over 82 tons of trash from sinkholes, and along roads.

MCM #3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)

BMP #1: You shall develop and implement a written program for the detection, elimination, and prevention of illicit discharges into your regulated MS4s. Your program shall include dry weather field screening of outfalls for non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources.

Measurable Goal: For new permittees, the IDD&E program shall be developed during the first year of coverage under this General Permit and shall be implemented and evaluated each year thereafter. For renewal permittees, the existing IDD&E program shall continue to be implemented and evaluated annually. Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.

1. For new permittees only, attach your written IDD&E program to the first report.
2. If you are not a new permittee, did you complete and submit your written IDD&E program to DEP? ☒ Yes ☐ No
If Yes, provide the latest submission date: **A copy of the IDDE plan is included with this submission**
3. Date of last review and/or update to IDD&E program: **January 23, 2017**

BMP #2: Develop and maintain a map of your regulated small MS4. The map must also show the location of all outfalls and the locations and names of all surface waters of the Commonwealth (e.g., creek, stream, pond, lake, basin, swale, channel) that receive discharges from those outfalls.

Measurable Goals: For new permittees, develop the map(s) of your regulated small municipal separate storm sewer systems and the information on all outfalls from your regulated small MS4 by the end of the fourth (4th) year of permit coverage. For renewal permittees, the existing map(s) of your regulated small MS4 shall be updated and maintained as necessary during each year of coverage under the permit.

1. Have you completed a map(s) of all outfalls and receiving waters of your storm sewer system? ☒ Yes ☐ No

2. For new permittees only, attach the completed map to the 4th year Annual Report.

3. Date of last update or revision to map(s): **August 2016**

4. Total number of discharge points in your storm sewer system that:

Discharge directly to surface waters (outfalls): **44**

Discharge to storm sewers owned by others: **0**

5. Total number of outfalls that are mapped at this time: **44**

BMP #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), new permittees shall show, and renewal permittees shall update, the entire storm sewer collection system, including roads, inlets, piping, swales, catch basins, channels, basins, and any other features of the permittee's storm sewer system including municipal boundaries and/or watershed boundaries.

***Measurable Goals:** For new permittees, develop the map(s) by the end of the fourth (4th) year of coverage under the permit and update and maintain the map(s) as necessary each year of permit coverage thereafter. For renewal permittees, update and maintain the map(s) as necessary during each year of permit coverage.*

1. Have you completed a map(s) that includes roads, inlets, piping, swales, catch basins, channels, basins, municipal boundaries and watershed boundaries? ☒ Yes ☐ No

2. If Yes, is the map(s) on the same map(s) as for outfalls and receiving waters? ☒ Yes ☐ No

3. For new permittees only, attach the completed map to the 4th year Annual Report.

4. If you are not a new permittee, did you complete and submit your map to DEP? ☒ Yes ☐ No

If Yes, provide the latest submission date: **A copy of the map has been submitted with each yearly report and the latest update is included with this submission**

5. Date of last update or revision to map: **August, 2016**

BMP #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field screening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures developed under BMP #1.

For all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the outfall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless of the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance Inventory/Sample Collection field sheet excerpted from the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments (CWP, October 2004). Adequate written documentation shall be maintained to justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and eliminate the illicit flow also shall be documented.

The results of outfall inspections and actions taken to remove or correct illicit discharges shall be summarized in periodic reports.

1. For new permittees only, were at least 40% of all outfalls screened during dry weather? ☐ Yes ☐ No

If Yes for #1, indicate the number screened and the percent of all outfalls it represents. If No for #1, indicate reason(s) why this was not completed:

Are you on pace to screen all outfalls twice during the permit term? ☐ Yes ☐ No

2. For renewal permittees, indicate the percent of outfalls screened during the reporting period: **41%**

Are you on pace to screen all outfalls once during the permit term? ☒ Yes ☐ No

3. For all permittees, indicate the percent of outfalls screened that revealed dry weather flows: **14%**
4. Did any dry weather flows reveal color, turbidity, sheen, odor, floating or submerged solids? ☐ Yes ☒ No
5. If Yes for #4, attach all sample results to this report with a map identifying the sample location. Explain the corrective action(s) taken in the attachment.
6. Do you use the "Outfall Reconnaissance Inventory / Sample Collection Field Sheet" provided in the permit?
☒ Yes ☐ No
If No, attach a copy of your monitoring form.

BMP #5: Enact a stormwater management ordinance (municipal entities) or develop an SOP (non-municipal entities) to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.

***Measurable Goal:** Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance from an Act 167 Plan approved by the Department in 2005 or later, the MS4 Stormwater Management Ordinance; or an ordinance that satisfies all applicable requirements in a completed and signed MS4 Stormwater Management Ordinance Checklist. (For non-municipal permittees, new permittees shall develop and implement a Standard Operating Procedure (SOP) within the first year of coverage).*

Renewal permittees must continue to maintain, update, implement, and enforce a Stormwater Management Ordinance that satisfies all applicable requirements. (For non-municipal permittees, the SOP satisfies this requirement. If no existing SOP exists, it should be developed during the first year of coverage).

***Measurable Goal:** New permittees shall submit a letter signed by a municipal official, municipal engineer, or the municipal solicitor as an attachment to their first year report certifying the enactment of an ordinance that meets all applicable requirements of this permit. Renewal permittees shall update their existing ordinance, if necessary, and submit documentation of completion to the Department. (For non-municipal permittees, submit the SOP to the first report).*

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that prohibits non-stormwater discharges? ☒ Yes ☐ No
If Yes, indicate the date of the ordinance or SOP: **Adopted August 11, 2014**
2. For new permittees only, attach an ordinance (or SOP) and letter from an official, engineer or solicitor that prohibits non-stormwater discharges to the first report submitted to DEP.
3. If you are not a new permittee, did you complete and submit your ordinance (or SOP) and letter from an official, engineer or solicitor that prohibits non-stormwater discharges to DEP? ☒ Yes ☐ No
4. Were there any violations of the ordinance during the reporting period? ☐ Yes ☒ No
If Yes, describe what enforcement actions were taken for each violation:

BMP #6: Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.

***Measurable Goals:** During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences using methods outlined under MCM #1. If not already established, set up and promote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year of permit coverage for the public to use to notify you of illicit discharges, illegal dumping or outfall pollution. Respond to all complaints in a timely and appropriate manner. Document all responses, include the action taken, the time required to take the action, whether the complaint was resolved successfully.*

1. Was IDD&E-related information distributed to public employees, businesses, and the general public during the reporting period? ☒ Yes ☐ No

If Yes, what was distributed? **The Township performs an annual pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Program For the public works employees . Included in that program is a section dealing with identifying and reporting any suspicious materials in the stormsewer system. During leaf and brush collections the public works crew makes several sweeps of all the neighborhoods and are instructed to notify the Township Manager if any suspicious materials are noted. The Township has included articles in the Township newsletter concerning the illicit discharges. The web site contains a form that can be filled out by residents who witness any suspicious activity.**

2. Is there a well-publicized method for employees, businesses and the public to report stormwater pollution incidents?

☒ Yes ☐ No

3. Do you maintain documentation of all responses, action taken, and the time required to take action? ☒ Yes ☐ No

MCM #4 – CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Are you relying on PA's statewide program for stormwater associated with construction activities to satisfy this MCM?

☒ Yes ☐ No **(If No, complete all remaining questions for this MCM; if Yes, skip to MCM #5).**

BMP #1: Develop your program consisting of all procedures necessary to comply with the requirements of this MCM. Your program shall provide for construction stormwater permitting, construction inspection, and enforcement of installation and maintenance of the necessary E&S control measures. Your program shall describe clearly how your program will be coordinated with DEP's NPDES Construction Stormwater Permitting program.

Measurable Goals: For new permittees, the written program for this MCM shall be developed during the first year of permit coverage; nevertheless, you are responsible for implementation of this MCM during entire term of this permit, including the time you are developing your program.

For all permittees, your program shall be reviewed and updated during each year of permit coverage. The purpose of the written program is to establish clear roles and responsibilities for the implementation of the MCM #4 requirements. An agreement between the permittee, the CCD, and any other resources to be used by the permittee that clearly defines roles for each entity is recommended. If an agreement is made, you shall place and keep a written copy in your file, consistent with the Retention of Records requirements in this Permit. Please note that in accordance with Section A.2.h in Part A of the Authorization to Discharge, as the permittee you are responsible to ensure that implementation of all requirements under this Permit are fulfilled.

1. For new permittees only, attach the written stormwater associated with construction activities program to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your written stormwater associated with construction activities program to DEP? ☐ Yes ☐ No

If Yes, provide the latest submission date:

3. Date of last update or revision to the stormwater associated with construction activities program:

BMP #2: The permittee shall enact, implement, and enforce an ordinance to require the implementation of erosion and sediment control BMPs, as well as sanctions to ensure compliance.

Measurable Goal: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance that meets all applicable requirements of this permit. (Non-municipal permittees shall develop and implement an SOP).

Measurable Goal: Permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as an attachment to their first periodic report certifying the enactment and implementation of a stormwater management ordinance that meets all requirements of this permit.

1. For new permittees only, attach an ordinance (or SOP) and letter from an official, engineer or solicitor that addresses stormwater associated with construction activities to the first report submitted to DEP.

2. If you are not a new permittee, did you complete and submit your ordinance (or SOP) and letter from an official, engineer or solicitor that addresses stormwater associated with construction activities to DEP? ☐ Yes ☐ No

If Yes, provide the latest submission date:

BMP #3: Develop and implement requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality. While sediment is the most common pollutant of concern for MCM #4, there are other types of pollutants that also can be a concern and the intent of this BMP is to address these other types of pollutants, such as, but not limited to, discarded building materials, washout from concrete trucks, chemicals, litter, and sanitary waste.

***Measurable Goal:** New permittees shall establish requirements to address this BMP by the end of the first year of permit coverage. Renewal permittees shall continue to implement existing requirements and update as necessary. This could be implemented by written municipal ordinance/code provisions, by standard notes on the site plans, by any other written format that accomplishes the objectives of this BMP, or by any combination of these measures. The goal of this BMP shall be communicated to construction site operators during pre-construction meetings. This BMP shall be implemented during each year of the MS4 permit. Permittees must prepare and maintain records of site inspections, including dates and results and you must maintain these records in accordance with the Retention of Records requirements in this Permit.*

1. Identify the mechanism(s) in place to regulate construction site operators and wastes produced at construction sites:
2. During the reporting period what has been the results of implementing the mechanism(s) described above?

BMP #4: Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public (to the permittee) regarding local construction activities. The permittee shall demonstrate acknowledgement and consideration of the information submitted, whether submitted verbally or in writing.

***Measurable Goal:** Permittees shall establish and implement a tracking system to keep a record of any submitted public information as well as your response, actions, and results. This BMP shall be implemented during each year of coverage under this General Permit and information should be submitted with the each periodic report.*

Describe the tracking system established for documenting public information concerning local construction activities and describe responses taken during the reporting period:

MCM #5 – POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Are you relying on PA's statewide program for MCM #5 BMPs #1 - #3? ☒ Yes ☐ No

(If No, complete all remaining questions for this MCM; if Yes, skip to BMP #4)

BMP #1: Develop a written procedure that describes how the permittee shall address all required components of this MCM. Guidance can be found in the Pennsylvania Stormwater Best Management Practices Manual.

***Measurable Goal:** The written procedure shall be developed by the end of the first year of permit coverage and be reviewed and updated every permit year thereafter, as needed. The intent of BMP #1 is for the permittee to describe how the listed tasks will be accomplished.*

1. For new permittees only, attach your written procedure for post-construction management to the first report.
2. If you are not a new permittee, did you complete and submit your written procedure for post-construction management to DEP? ☐ Yes ☐ No

If Yes, provide the latest submission date:

3. Date of last review or update of post-construction management procedure:

BMP #2: Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions. This requirement can be met by ensuring that the selected BMPs comply with the municipal Stormwater Management Ordinance that meets the requirements of the permit.

Measurable Goal: All qualifying development or redevelopment projects shall be reviewed to ensure that their post-construction stormwater management plans and selected BMPs conform to the applicable requirements. A tracking system (e.g., database, spreadsheet, or written list) shall be maintained to record qualifying projects and their associated BMPs. In your records, you shall note if there are no qualifying projects in a calendar year.

1. Number of development or redevelopment projects in urbanized area during reporting period:
2. Describe the tracking system in place:
3. Describe the structural and/or non-structural BMPs that were required for these projects:

BMP #3: Ensure that controls are installed that shall prevent or minimize water quality impacts.

Measurable Goal: All qualifying development or redevelopment projects shall be inspected during the construction phase to ensure proper installation of the approved structural PCSM BMPs. A tracking system (e.g., database, spreadsheet, or written list) shall be implemented to track the inspections conducted and to track the results of the inspections (e.g., BMPs were, or were not, installed properly). Permittees not relying on DEP's statewide QLP to satisfy requirements under this BMP shall summarize construction inspections and results in periodic reports. See BMP #6 for requirements related to post-construction inspection and tracking of PCSM BMPs to ensure that the operation and maintenance plan is being implemented.

If there were development or redevelopment projects during the reporting period, attach documentation of inspections of PCSM BMPs to this report.

BMP #4: The permittee shall enact, implement, and enforce an ordinance (municipal) or SOP or other regulatory mechanism (non-municipal) to address post-construction stormwater runoff from new development and redevelopment projects, as well as sanctions and penalties associated with non-compliance, to the extent allowable under State or local law.

Measurable Goal: Within the first year of coverage under this permit, new permittees shall enact and implement a stormwater management ordinance (municipal) or SOP (non-municipal) that meets the requirements of this General Permit.

Measurable Goal: All permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as an attachment to their first periodic report certifying the enactment of a stormwater management ordinance that meets the requirements of this General Permit.

1. Do you have an ordinance (or SOP) to address post-construction stormwater runoff from new and redevelopment projects and does it include sanctions? ☒ Yes ☐ No
If Yes, indicate the date of the ordinance or SOP: **August 11, 2014**
For new permittees only, attach a copy of the ordinance or SOP.
2. If you are not a new permittee, has the ordinance (or SOP) been submitted to DEP with a letter from an official, engineer or solicitor that certifies the enactment of an ordinance or SOP for PCSM activities? ☒ Yes ☐ No
3. Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities? ☒ Yes ☐ No

BMP #5: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new and redevelopment. Measures also should be included to encourage retrofitting LID into existing development. DEP's Pennsylvania Stormwater Best Management Practices Manual provides guidance on implementing LID practices.

Measurable Goal: *In your inventory of development and redevelopment projects authorized for construction since March 10, 2003, that discharge stormwater to your regulated MS4s, indicate which projects incorporated LID practices and for each project list and track the BMPs that were used.*

Measurable Goal: *Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices. Progress with enacting and updating your ordinances to enable the use of LID practices shall be summarized in the periodic reports.*

1. Identify ordinances enacted or updated during the reporting period to ensure consistency with LID practices:

Harris Township has enacted a Ridge Overlay District ordinance and a Riparian Buffer Ordinance. The Ridge Overlay Ordinance restricts development on steep slopes (defined as greater than 15%) and colluvial soils along the ridge tops on lands zoned as Forest. The Riparian Buffer Ordinance requires the establishment of a 50' buffer from the edge of a perennial stream, intermittent stream, and wetlands. The Act 167 Stormwater Management Ordinance adopted by Harris Township includes incentives for reducing disturbance and runoff. Section 304.C. includes incentives for encouraging sheet flow from impervious and 304.E. includes incentives for preservation of natural drainage ways.

BMP 6: Ensure adequate operation and maintenance of all post-construction stormwater management BMPs installed at all qualifying development or redevelopment projects (including those owned or operated by the permittee).

Measurable Goal: *Within the first year of coverage under this permit, new permittees shall develop and implement a written inspection program to ensure that stormwater BMPs are properly operated and maintained. The program shall include sanctions and penalties for non-compliance. All permittees shall review and update the inspection program annually and shall continue to implement this BMP.*

Measurable Goal: *An inventory of PCSM BMPs shall be developed by permittees and shall be continually updated during the term of coverage under the permit as development projects are reviewed, approved, and constructed. This inventory shall include all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to your regulated small MS4s. The inventory also should include PCSM BMPs discharging to the regulated small MS4 system that may cause or contribute to violation of water quality standard. The inventory shall include:*

- all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003;
- the exact location of the PCSM BMP (e.g., street address);
- information (e.g., name, address, phone number(s)) for BMP owner and entity responsible for BMP Operation and Maintenance (O&M), if different from BMP owner;
- the type of BMP and the year it was installed;
- maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources;
- the actual inspection/maintenance activities for each BMP;
- an assessment by the permittee if proper operation and maintenance occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.

1. For new permittees only, attach the written inspection program to ensure that stormwater BMPs are properly operated and maintained.

2. If you are not a new permittee, did you complete and submit your written inspection program to ensure that stormwater BMPs are properly operated and maintained to DEP? ☒ Yes ☐ No

If Yes, provide the latest submission date: **A copy of the Post Construction Stormwater Best Management Practice Facilities Acceptance and Inspection Procedures for Harris Township is included in this submission**

3. How do you ensure that stormwater BMPs are properly operated and maintained? Explain if you rely on means other than municipal inspections to ensure adequate O&M (consistent with your stormwater ordinance).

We inspect a minimum of 20% of the BMP's on a yearly basis. With an average inspection rate of 40%.

4. Date that inspection program was last reviewed or updated: **1/23/2017**

5. Total number of sites with PCSM BMPs installed as of the date of this report: 31
6. Total number of sites inspected during this reporting period: 17
7. Number of sites found to have PCSM BMP deficiencies: 3
8. Number of enforcement actions taken during this reporting period: 1. Zoning Officer issued a written notice to the owners of the Boalsburg Investment Group. BMP basins concerning the unmowed condition. Corrective action (mowing) was performed.

MCM #6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING

BMP #1: Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).

***Measurable Goal:** By the end of the first year of permit coverage, new permittees shall identify and document all types of municipal operations, facilities and activities and land uses that may contribute to stormwater runoff within areas of municipal operations that discharge to the regulated small MS4. Renewal permittees should have completed this list during the previous permit term. For all permittees, this information shall be reviewed and updated each year of permit coverage, as needed. Part of this effort shall include maintaining a basic inventory of various municipal operations and facilities.*

1. Have you identified all facilities and activities owned and operated by the permittee that have the potential to generate stormwater runoff into the MS4? ☒ Yes ☐ No
2. When was the inventory last reviewed? **January 24, 2017**
3. When was it last updated? **January 19, 2015**
4. How many new facilities and/or activities were added to this inventory during this reporting period? **0**

BMP #2: Develop, implement and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, as identified under BMP #1. This program (or programs) shall address municipally owned stormwater collection or conveyance systems, but could include other areas (as identified under BMP #1). The O&M program(s) should stress pollution prevention and good housekeeping measures, contain site-specific information, and address the following areas:

- Management practices, policies, procedures, etc. shall be developed and implemented to reduce or prevent the discharge of pollutants to your regulated small MS4s. You should consider eliminating maintenance-area discharges from floor drains and other drains if they have the potential to discharge to storm sewers.
- Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach your regulated small MS4s. You also should review your procedures for maintaining your stormwater BMPs.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt / sand (anti-skid) storage locations and snow disposal areas.
- Procedures for the proper disposal of waste removed from your regulated small MS4s and your municipal operations, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, and other debris.

***Measurable Goal:** During the first year of permit coverage, new permittees shall develop and implement a written O&M program that complies with BMPs #1 and #2. Renewal permittees shall continue to implement their existing program. All permittees shall review the O&M program annually, edit as necessary, and continue to implement during every year of permit coverage.*

1. For new permittees only, attach the written O&M program to the first Annual Report.

2. If you are not a new permittee, did you complete and submit your written O&M program to DEP? ☒ Yes ☐ No
If Yes, provide the latest submission date: **A copy of the Municipal Operations and Maintenance Program is included in this submission. The O and M program has been submitted with prior yearly reports.**

3. Date of last review or update to O&M program: **January 25, 2017 (review no revisions)**

BMP #3: Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from municipal operations to your regulated small MS4s. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. Any municipal employee or contractor shall receive training. This could include public works staff, building / zoning / code enforcement staff, engineering staff (on-site and contracted), administrative staff, elected officials, police and fire responders, volunteers, and contracted personnel. Training topics should include operation, inspection, maintenance and repair activities associated with any of the municipal operations / facilities identified under BMP #1. Training should cover all relevant parts of the permittee's overall stormwater management program that could affect municipal operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

Measurable Goal: During the first year of permit coverage, new permittees shall develop and implement a training program that identifies the training topics that will be covered, and what training methods and materials will be used. Renewal permittees shall continue to operate under their existing program. All permittees shall review the training program annually, edit it as necessary, and continue to implement it during every year of permit coverage.

Measurable Goal: Your employee training shall occur at least annually (i.e., during each permit coverage year) and shall be fully documented in writing and reported in your periodic reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).

1. For new permittees only, attach the written training program to the first Annual Report.
2. If you are not a new permittee, did you complete and submit your written training program to DEP? ☒ Yes ☐ No
If Yes, provide the latest submission date: **A copy of the Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Program is included in this submission. A copy of this document has been included with prior year reports.**
3. Date of last review or update to training program: **Jan 25, 2017**
4. Identify the date(s) of employee training, the names of attendees, the topics covered, and the training presenters:
On January 20, 2016 a Good Housekeeping and Pollution Prevention meeting was held with all of the Public Works Employees, Township Manager, Township Zoning Officer, and the Township Engineer in attendance. The meeting went over the items contained in the Harris Township Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Program manual. A copy of the sign in sheet is included with this submission. Training was performed by the Township Engineer. The MS4 Partners also presented a MS4 training program to the Centre Region Parks and Recreation Department. A copy of the program and the sign in sheet is included.

BEST MANAGEMENT PRACTICES (BMPs)

Provide an assessment of the appropriateness of the BMPs implemented to date, and identify any steps that will be taken to address deficiencies in the BMPs or make changes to BMPs or other aspects of the SWMP developed by the permittee.

The BMP's installed to date have been functioning as per their designs. The Township has not noticed or been made aware of any adverse flowage, either in quantity or quality, from any of the BMP's.

MS4 TMDL Plan	Chesapeake Bay Pollutant Reduction Plan (CBPRP)
Is the permittee required to develop an MS4 TMDL Plan? ☐ Yes ☒ No	Is the permittee required to develop a CBPRP? ☒ Yes ☐ No
What is the status of the TMDL Design Details (if applicable)? ☐ Under Development (Due Date:) ☐ Submitted to DEP (Submission Date:) ☐ Approved by DEP (Approval Date:)	What is the status of the CBPRP (if applicable)? ☐ Under Development (Due Date:) ☒ Submitted to DEP (Submission Date: October 28, 2014) ☒ Approved by DEP (Approval Date: June 8, 2015)

For permittees with DEP-approved MS4 TMDL Plans and/or CBPRPs, describe progress with implementing BMPs and other activities identified in those plans:

Harris Township has developed a concept plan for the new Maintenance Building. The new building will have floor drains that will drain to a oil and grease separator and will discharge to the sanitary sewer system. Harris Township completed a small stilling basin at an outfall that previously discharged without any flow controls. The stilling basin is retaining grit and other debris that previously discharged into a farm field.

For permittees with DEP-approved MS4 TMDL Plans and/or CBPRPs, complete the section below. Identify the required pollutant reductions (for those with MS4 TMDL Plans) or pollutant reductions committed to by the permittee (for those with CBPRPs) and the cumulative reductions achieved through implementing the BMPs, as of the end of the reporting period:

Harris Township is required to submit a Chesapeake Bay Pollution Reduction Plan along with the NOI for permit renewal on May 4, 2018. The Township and the MS 4 Prtners have engaged an engineering firm to perform the required study.

List all new structural BMPs installed and ongoing non-structural BMPs implemented in the urbanized area during the reporting period that are being used toward achieving load reductions in the permittee's MS4 TMDL Plan and/or CBPRP. Provide a name or description for each BMP, the area, in square feet (sf) that drains to each BMP (drainage area (DA)) (if applicable), the location of the BMP (latitude and longitude), the name of the water body that receives discharges from the BMP (if applicable), the date the BMP was installed or implemented, and whether the BMP was completed pursuant to an NPDES permit for stormwater associated with construction activities or other NPDES permit (check box if done under an NPDES permit).

[illegible]

OTHER REQUIRED REPORT ELEMENTS

Identify the progress towards achieving the statutory requirements of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP) and complying with water quality standards.

The Harris Township has enacted an ordinance that requires the installation of stormwater control BMP's for projects with as little as 5,000 of disturbance or 10% of the lot area, whichever is less. Harris Township and the other Partners within the State College Urbanized Area have executed an agreement with NTM Engineering to prepare a Pollution Reduction Plan. The plan will determine what steps need to be taken to reduce sediment loading by 10% over a 5 year cycle.

Provide a summary of stormwater activities planned during the next reporting cycle (not identified previously in this report):

There are no known projects involving addition of stormwater BMP's at this time.

Provide a summary of notices, intergovernmental agreements and other relevant documents if the permittee is relying on another governmental entity to satisfy any of its permit obligations

Attached is an executed Memorandum Of Understanding between the Centre County Conservation District and Harris Township. This MOU covers MCM #4 and BMP's 1, 2, and 3 of MCM #5. .

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

DONALD M FRANSON

Name of Responsible Official



Signature

814-231-3021

Telephone No.

1/26/2017

Date

Harris Township, Centre County, Pennsylvania

Public Education and Outreach Program (PEOP)

Purpose:

Harris Township understands the importance of providing stormwater educational opportunities through an outreach program. To that end, Harris Township has created this document to be the official Public Education and Outreach Program and will utilize this document to develop the Public Education and Outreach tasks for each permit year.

Identification of Target Audience:

Identification of the target audience is important to the development of the Public Education and Outreach Program. The target audience we have identified are as follows:

- Township Residents
- Elementary School Students
- Business Owners
- Building Contractors
- Commercial and Residential Developers
- Land Development Design Professionals
- Land Development Contractors
- Township Public Work Employees

To meet our educational requirements the Township will perform some of the following tasks on a yearly basis while other tasks will be performed at least once per permit cycle.

Yearly tasks and their associated target groups are as follows:

- Newsletter articles (minimum of two). Topics to include reminder of dangers of hazardous household chemicals, reporting any suspicious items in storm system, educational article on MS4 program, and the inlet stenciling program. Primary target audience: Township residents and business owners. Secondary Target Audience: Any member of the other groups that live in the Township.
- Maintain informational articles on Township web site. Primary Target Audience: Township residents and business owners. Secondary Target Audience: Any member of the other groups that live in the Township. (currently we have two informational stormwater articles on web site, DEP's "When it Rains it Drains" and "We wouldn't do this at home so let's not do it to our waterways".)
- Continue to financially support the Spring Creek Watershed Commission. The SCWC has monthly televised meetings that are broadcast several times each month. Meetings are watched by members of the development community as they want to keep abreast of any potential changes in stormwater control requirements. Primary Target Audience:

commercial and residential developers, land development design professionals, land development contractors and residents.

- Financially support the annual Watershed Clean Up Day held in April of each year. Primary Target Audience: Township residents and school age children.
- Distribute "Don't Let Stormwater Run Off with Your Time and Money" with zoning permit applications. Primary Target Audience: Building Contractors.
- Distribute educational materials for use by elementary age school children. Primary Target Audience: Elementary School Children
- Financially support the Spring Creek Watershed Association and their Spring Creek Water Quality Monitoring project. Primary Target Audience: Land Development Professionals. Secondary Audience: Township Residents.
- Continue to distribute (and purchase additional copies as needed) of the "Spring Creek Watershed Surface and Groundwater Boundary Map" Primary Target Audience: Township residents. Secondary Target Audience: Visitors to Harris Township.
- Place a stormwater educational article in the local newspaper (the Centre Daily Times) Primary Target Audience: Township residents. Secondary Target Audience: Newspaper readership outside of Harris Township.
- Provide yearly update to the public works employees of the importance of being alert for the detection of prohibited materials in the Township storm sewer system. This is performed at the yearly Good Housekeeping and Pollution Prevention meeting given to the public works employees. Primary Target Audience: Public Works Employees

Permit Cycle tasks and their associated target groups are as follows:

- Rain Barrel Workshop: Workshop gives hands on experience on making a rain barrel and provides educational power point on illicit discharges into the municipal storm sewer. We have been doing this on a yearly basis but have had trouble obtaining barrels so we cannot commit to a yearly rain barrel workshop. Primary Target Audience: Township residents.
- MS4 Update. Township Engineer will present a stormwater management update to the Township Supervisors at a regularly scheduled meeting. Target audience will be the general public and the elected officials.

Each year the Township will assess the effectiveness of the tasks performed and adjust the PEOP as may be required.

Last Reviewed/No Revisions January 23, 2017

Harris Township E-Update, March 2, 2016

Harris Township <manager@harristownship.org>

Wed 3/2/2016 2:42 PM

To: Franson, Don <dfranson@collegetownship.org>;

Harris Township E-Update

Issue: 63

March 2, 2016

In This Issue

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[Wood Recycling](#)

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Stay up to date on Township news and events by liking our facebook page - www.facebook.com/harristownship

Be sure to bookmark the Township's website for additional news and information:
www.harristownship.org

Residents Encouraged To Sign Up To Receive Emergency Alerts

Centre Region residents are encouraged to click the link below and register to receive emergency alerts directly via their landlines, cell phones and email accounts through the Centre County Code Red System. Alerts will only be sent when critical information has to be communicated and all information will be kept confidential.

<http://centrecountypa.gov/index.aspx?NID=253>

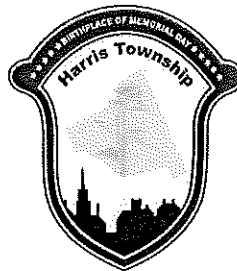
Earned Income Tax Reminder

The Township office no longer collects earned income tax. That work is performed by the Centre Tax Agency. The agency is located at 243 South Allen Street. Tax forms can be found online at <http://www.statecollegepa.us/index.aspx?NID=1778>

Rain Barrel Workshop to Be Held

Clearwater Conservancy and the MS 4 Partners (including Harris Township) will host a rain barrel workshop on March 12th from 10:00 AM to 12:00 PM at the Alpha Fire Station, 2598 Green Tech Drive, State College. The cost for this workshop is \$35.

This workshop will explain the importance of using rain barrels for storm water control, give instructions



Harris Township E-Update

Hi Everyone;

We have a few items to update you on this week.

As always, please do not hesitate to contact me if you have any questions or concerns. I can be reached by phone at 466-6228 or by email at manager@harristownship.org.

Have a great week!

Amy

Washing of Commercial and Fleet Vehicles

Harris Township wishes to remind businesses that the Department of Environmental Protection has guidelines that must be followed when washing commercial or fleet vehicles.

Washing of commercial and fleet vehicles is prohibited when the wash water discharges to "waters of the Commonwealth." Waters of the Commonwealth includes rivers, streams, storm pipes, inlets, ditches, swales, roadways, and any stormwater structure that makes up part of the Township's storm sewer system.

Businesses can wash vehicles when the wash water will discharge to a public sanitary sewer system. An example of this situation would be a garage that has floor drains that are connected to the sanitary sewer system. Businesses can also utilize commercial car washes as they are set up with the proper recycling and disposal of wash water.

For more information on vehicle washing please go to the stormwater section of the Township website and click on Mobile Washing Fact Sheet.

Centre County Recycling and Refuse Authority Adds Wood Scrap Recycling Program

for installing rain barrels and provide all the materials, instructions and assistance in building a rain barrel to take home. Participants will take home a finished 55-gallon rain barrel. All materials are provided. Registration fee covers one household, up to five people.

For more information or to register, please visit, <http://events.r20.constantcontact.com/register/event?oeidk=a07ecb9c93b7db80f6&llr=67nx5fdab>

The Centre County Recycling and Refuse Authority will now accept wood scrap for recycling. Materials must be taken directly to the Authority's Facility on Transfer Road.

Acceptable wood scrap includes clean wood/timber, untreated/unpainted wood, wood pallets, yard trim (brush), tree stumps no larger than 24" in diameter and empty cable spools. Materials will be accepted for a fee of \$35 per ton. Materials must be dropped off at Building E inside the facility. The scale operator will direct visitors to the appropriate location.

For more information on this program, please visit the Authority's website at <http://centrecountyrecycles.org/>

Boalsburg Fire Company Offering Birthday Parties

The Boalsburg Fire Company is the place to have your child's next birthday party. Children ages 12 and under can have their party at the fire hall, with members of the fire company providing the entertainment. The children will have a chance to explore the Truck Room, including checking out the fire trucks inside and out. They will also learn about a firefighter's turnout gear and have the opportunity to use an actual fire hose. Fire truck rides are also available "weather permitting."

To schedule a party, email the fire company at rentals@boalsburgfire.com.

Military Museum to Re-Open March 12th

The Pennsylvania Military Museum will reopen for the season the weekend of March 12th and 13th with a film festival beginning at 10:00 a.m. on Saturday and free admission starting at Noon on Sunday. The events commemorate the granting of the Charter from King Charles II to William Penn which founded "Penn's Woods" in 1681.

The Saturday film festival will be four episodes of the government commission series, "Why We Fight." Shortly after America's entry into World War II, Army Chief of Staff George Marshall enlisted the talents of noted Hollywood writer/producer/director Frank Capra (It's a Wonderful Life c.1946) to develop a series of documentary propaganda films to explain to the American soldier why we are involved in an overseas war. Drawing heavily from enemy speeches, news articles, and captured films, Capra wanted to rival the emotional impact and message of Leni Riefenstahl's Nazi propaganda film Triumph of the Will c.1935. A series of seven films were produced for the armed services. After President Roosevelt saw the first, Prelude to War c.1943, he recommended that they be released for public consumption.

The film fest begins with this first episode at 10:15 to be followed by The Nazis Strike c.1943, that documents the geopolitical conquest of Austria and Czechoslovakia and attack on Poland. The action continues at 1:00 p.m. after a break for lunch with Divide and Conquer c.1943 detailing Hitler's moves into Denmark, Norway, the Lowlands and France followed by an idealized piece on American history and inventiveness titled, War Comes to America c.1945

On Sunday, Charter Day, free admission and tours of the galleries will be offered throughout the afternoon beginning at noon.

The Pennsylvania Military Museum and 28th Division Shrine is administered by the Pennsylvania Historical and Museum Commission. For more information on activities at the museum please call 814-466-6263 or visit www.pamilmuseum.org.

Harris Township, 224 East Main Street, PO Box 20, Boalsburg, PA 16827

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Harris Township E-Update, June 2, 2016

Harris Township <manager@harristownship.org>

Thu 6/2/2016 2:26 PM

To: Franson, Don <dfranson@collegetownship.org>;

Harris Township E-Update

Issue: 74

June 2, 2016

In This Issue

[Warner Boulevard To Reopen](#)

[Get Outdoors Family Picnic](#)

[Pine Tree Avenue Road Work](#)



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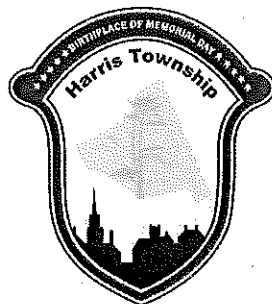
Be sure to bookmark the Township's website for additional news and information:
www.harristownship.org

Residents Encouraged To Sign Up To Receive Emergency Alerts

Centre Region residents are encouraged to click the link below and register to receive emergency alerts directly via their landlines, cell phones and email accounts through the Centre County Code Red System. Alerts will only be sent when critical information has to be communicated and all information will be kept confidential.
<http://centrecountypa.gov/index.aspx?NID=253>

Compost for Sale

The Centre County Recycling and Refuse Authority is selling bags of State College Borough compost at its facility. The bags weigh 40 lbs each



Harris Township E-Update

Hi Everyone;

We have a few items to update you on this week.

As always, please do not hesitate to contact me if you have any questions or concerns. I can be reached by phone at 466-6228 or by email at manager@harristownship.org.

Have a great weekend!

Amy

Warner Boulevard Project Continues Through October

PennDOT and its contractor will continue working on the Warner Boulevard Road project through October. Crews are currently removing the road surface just past the Route 322 Westbound ramps. Motorists should expect delays in this area.

Please note that the road will remain open through the duration of the project. Motorists should expect delays when traveling through the work zone. Motorists are also asked to please obey all traffic control devices and to proceed with caution for the safety of the work crews.

Get Outdoors Family Picnic

Harris Township is proud to be a sponsor of the Spring Creek Chapter of Trout Unlimited's upcoming Get Outdoors Family Fishing Picnic. The event will be held on **June 12th from 12:00 PM to 4:00 PM at the pond**

and cost \$6/bag with all profits benefiting the Education Endowment Fund. Just follow the signs to the Scales and ask the Scale Operator about it. Staff will load your vehicle. For more information, call 238-7005.

Brush Collection Ended

Spring brush collection ended on April 14th. Please remove any brush that you may have from the street in front of your house. For more information on how to dispose of your brush, please visit:

<http://www.harristownship.org/resident-info/leaf-brush-collection/>

at Tussey Mountain Ski Area.

The event will feature fishing (tackles will be provided), food, games and a scavenger hunt. For more information on the event, residents can contact Trout Unlimited via email at springcreektu@gmail.com.

Stormwater, Paving Work Continues on Pine Tree Avenue

A contractor is currently placing new underdrains on several sections of Pine Tree Avenue. This project will aid with stormwater management along that stretch of road.

After the underdrains are installed, a crew will be applying a bituminous fiber reinforced seal coat. Known as fiberbat paving, this new technology is a pavement preservation technique which produces sufficient strength and flexibility to absorb movements in the pavement structure and can delay pavement cracking. More information on fiberbat paving can be found here

<http://www.fiberbat.us/>

Schlow Centre Region Library Seeks Resident Feedback

Like to read? Do you like libraries - or find them a hassle? Come and share your thoughts on reading, libraries, author visits and other lifelong learning experiences at Schlow' Centre Region Library's "Library Conversations." Enjoy fun conversation and refreshments in a relaxed setting, and provide some insights for Schlow's next strategic plan.

Sign up for one of these events at a.schlow.org/libraryconversations

Wed. June 15, 6:30 pm, Baileyville Grange, Pennsylvania Furnace
Special desserts will be served

Mon. June 20, Noon, Way Fruit Farm, Port Matilda
Light lunch will be served

Wed. June 22, 10:00 am, Nittany Mall Senior Center
Cookies and tea

Wed. June 22, 10:30 am, Schlow Library Children's Room
Cookies and tea

Harris Township, 224 East Main Street, PO Box 20, Boalsburg, PA 16827

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Harris Township E-Update, June 24, 2015

Harris Township <manager@harristownship.org>

Wed 6/24/2015 4:03 PM

To: Franson, Don <dfranson@collegetownship.org>;

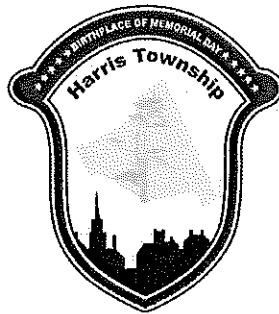
Harris Township E-Update

Issue: 46

June 24, 2015

In This Issue

[Warner Boulevard Plans](#)
[Stormwater Workshop Scheduled](#)
[Please Clean Up After Your Dog](#)
[Shingletown Gap Parking](#)
[Real Estate Tax Deadline](#)
[Approaching](#)



Harris Township E-Update

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www.harristownship.org

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Just a few items to note this week. As always, if you have any questions, please do not hesitate to contact me. I can be reached by email at manager@harristownship.org or by phone at 466-6228.

Have a great week!

Amy

Recycling Authority to Host Workshops

The Centre County Recycling and Refuse Authority will host free recycling and composting workshops at the the Children's Garden in the Arboretum.

The Three R's: Reduce, Reuse, Recycle
July 13, August 3 and August 10
10:30 a.m. - 11:00 a.m.

Ages: Kindergarten - Grade 5
Join Amy Schirf to learn all about the 3R's. Children will

PennDOT To Present Plans for Warner Boulevard at August 10th Board of Supervisors Meeting

Representatives from PennDOT will be present at the **August 10th Board of Supervisors meeting** to present plans for Warner Boulevard. PennDOT plans to reconstruct the road in 2016. Draft plans include pedestrian and bicycle facilities, including a sidewalk from the intersection with South Atherton Street to the intersection with Linden Hall Road (providing access to the Oak Hall Regional Park).

Residents are invited to attend this meeting and to provide feedback on the draft designs. A plan review open house will be held from 6:00 PM to 7:00 PM, with a formal presentation being made to the Board of

learn why it is important to reduce, reuse, and recycle as well as hear tips about how to keep our Earth clean and green. Children will be taught recycling basics and get to see/feel many items made from recycled materials. Fun worksheets and a recycled item will be awarded to each child for attending.

Garbage-Eating Wonder Worms

July 13, August 3 and August 10

11:15 a.m. - 11:45 a.m.

Ages: Kindergarten - Grade 5
Join CCRRA's Mimi Cooper for a "hands-on" activity with nature's recyclers, introducing children to the concept of vermicomposting and waste reduction through organics recycling. Children will have the opportunity to observe worms and worm behavior and perform simple experiments.

Supervisors at 7:30 PM. **The meeting will be held at the Boalsburg Fire Hall, 113 East Pine Street.**

Register Today! Homeowner's Guide To Stormwater Workshop To Be Held On June 27th

The Penn State Agriculture and Environment Center will be hosting a Homeowner's Guide to Stormwater Workshop on **Saturday, June 27th from 9:30 AM to 12:00 PM**. The workshop will be at the Harris Township Building located at 224 East Main Street Boalsburg, PA. This event is free and open to the public.

Stormwater is a serious issue that affects the quality of our water. There are things homeowners can do on their own properties to minimize impacts of stormwater runoff and improve our streams. That's why the Penn State Agriculture and Environment Center is hosting a FREE Community Workshop for local homeowners!

Attend to learn what stormwater is, why it is a problem, and what you can do about it! This workshop will demonstrate how to use the Homeowners Guide to Stormwater to develop and implement a stormwater management plan on your very own property! Register now! Space is limited: <https://www.surveymonkey.com/r/83JNG56>.

This workshop is co-sponsored by Harris Township (Parks and Recreation Committee, the Planning Commission and the Tree Commission), Clearwater Conservancy, Spring Creek Watershed Commission, Spring Creek Watershed Association, Trout Unlimited Spring Creek Chapter, Centre County Conservation District, Boalsburg Heritage Museum, and Penn State College of Agricultural Sciences, Agriculture and Environment Center.

If you have any questions about the workshop or how to register, contact Matthew Royer at 814-863-8756 or mzr154@psu.edu or the Harris Township building at 814-466-6228.

Please Clean Up After Your Dog

The Township has received numerous complaints about persons not cleaning up after their dogs. Specifically, persons have been leaving their bags of dog feces along fence rows and on private property on several Township streets.

Residents are advised that it is against Township ordinance to deposit dog waste on another person's property. If you see someone leaving waste behind, please contact State College Police at 234-7150.

Parking at Shingletown Gap Hiking Area

We know that a number of visitors like to hike in the Shingletown Gap area over the summer. Please be advised that parking is not permitted on Mountain Road (the road is signed "no parking"). When cars park along this stretch of road, it makes it impossible for emergency vehicles to

access the area. Please be advised that any cars parked along this stretch of road will be ticketed. We appreciate your cooperation.

Real Estate Tax Deadline Approaching

The deadline to pay county/municipal real estate taxes at face (full) value is **June 30th**. Residents can pay their taxes at the Township Office, 224 East Main Street, Monday through Friday from 8:00 AM to 4:30 PM. Tax payments can also be mailed directly to the office at PO Box 20, Boalsburg or they can be dropped off in our night drop box. The night drop box is located to the right of the main office door.

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Harris Township | 224 East Main Street | PO Box 20 | Boalsburg | PA | 16827



Spring Creek Chapter of Trout Unlimited

Conserving, protecting, and restoring Spring Creek's coldwater fishery and watershed

299 Nimitz Avenue
State College, PA 16801
June 13, 2016

Larry Fennessey
The Pennsylvania State University
101P Office of Physical Plant
University Park, Pa 16802-1118

Dear Larry,

We want to thank you for your help in making our Get Outdoors Family Fishing Picnic a big success. We had over more than 300 participants. They had the a great time catching fish, learning new skills, and enjoying food and drinks provided, in part, by your generous donation. The MS-4 Partner contribution of the stormwater activity workbooks was a great



addition for the participants. We had over 125 children there with their parents. It was a fun experience for them – and educational as well. Your contribution of the activity workbooks assisted in making the event successful.

This picture captures the spirit of the family picnic and the happiness it is to share nature and learn how important it is to keep it clean and viable for bugs, fish and people!

Our Trout Unlimited chapter is a conservation organization and our goal was to introduce the community to our Spring Creek Chapter of Trout Unlimited while sharing our knowledge, skills, and goodwill with local families.

Thank you for helping us achieve our goals.

Sincerely,

Judi Sittler
Community Outreach & Youth Education chair

Bob Vierck
President



May 16, 2016

Centre County/
Penn State Visitor Center
Attn: Lori Miller
800 E. Park Ave.
State College PA 16803

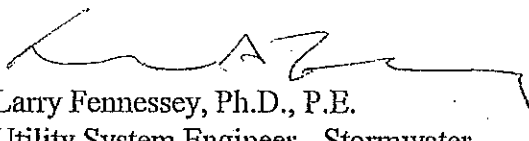
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Dear Lori:

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Again, thank you for your cooperation with the MS4 partners on this educational outreach project.

Sincerely,



Larry Fennessey, Ph.D., P.E.
Utility System Engineer - Stormwater

Copy: File
MS4 Partners



May 16, 2016

Trout Unlimited
Spring Creek Chapter
Attn: Bob Vierck
State College PA 16803

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Dear Bob:

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Sincerely,

A handwritten signature in black ink, appearing to read 'L. Fennessey', with a long horizontal flourish extending to the right.

Larry Fennessey, Ph.D., P.E.
Utility System Engineer - Stormwater

Copy: File
MS4 Partners



May 16, 2016

Spring Creek Watershed Association
Attn: Judi Sittler
2555 North Atherton Street
State College PA 16803

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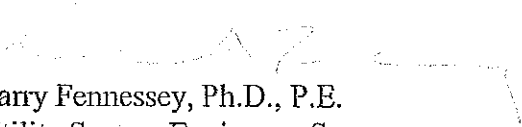
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 Utility System Engineer - Stormwater

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MS4 Partners



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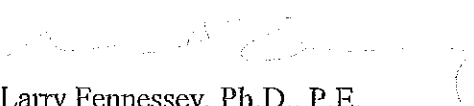
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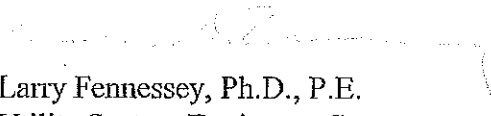
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Utility System Engineer - Stormwater

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MS4 Partners

Geology of the Spring Creek Watershed

2015 State of the Water Resources Report

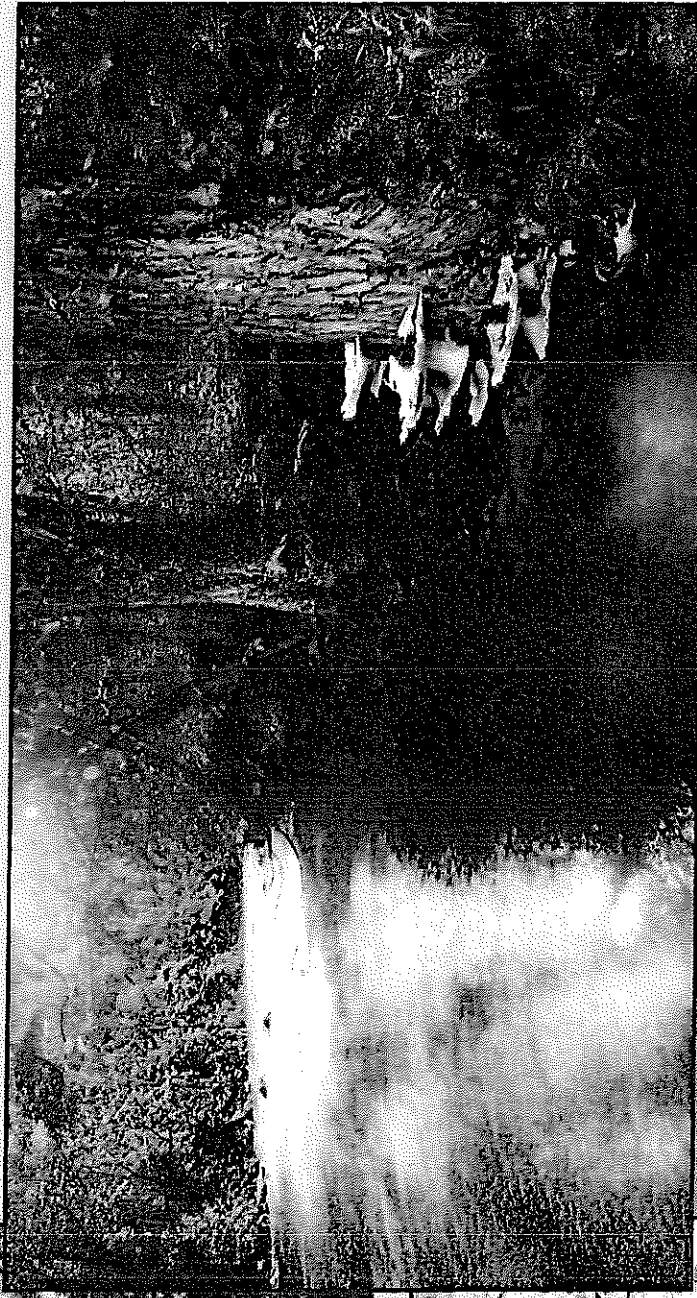
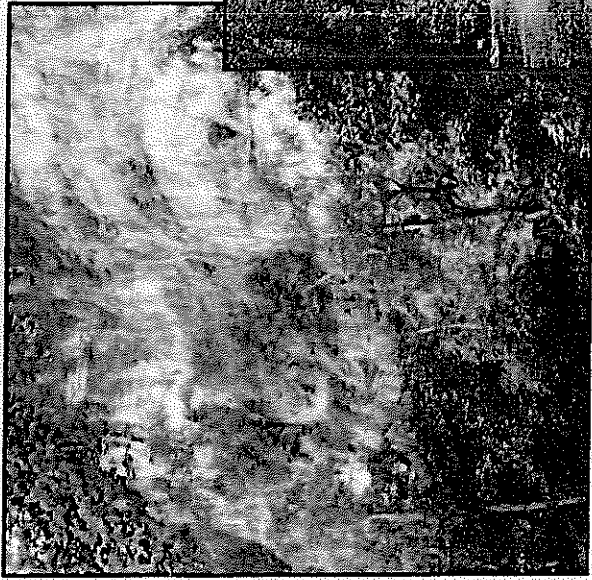


Photo Credit (top left and above) Dave Whitman

Water Resources Monitoring Project



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Geology of the Spring Creek Watershed	2
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WATER RESOURCES MONITORING PROJECT BACKGROUND

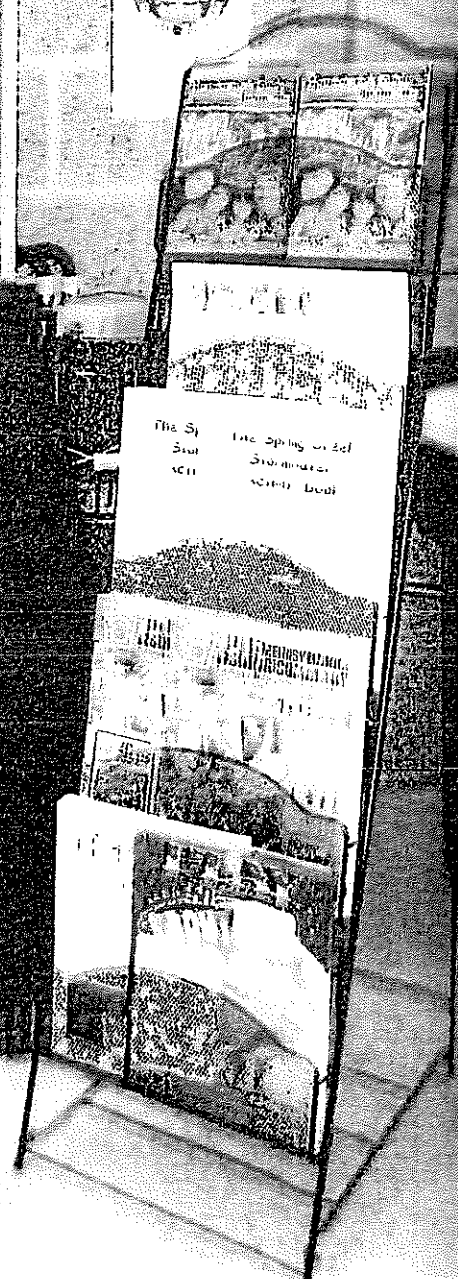
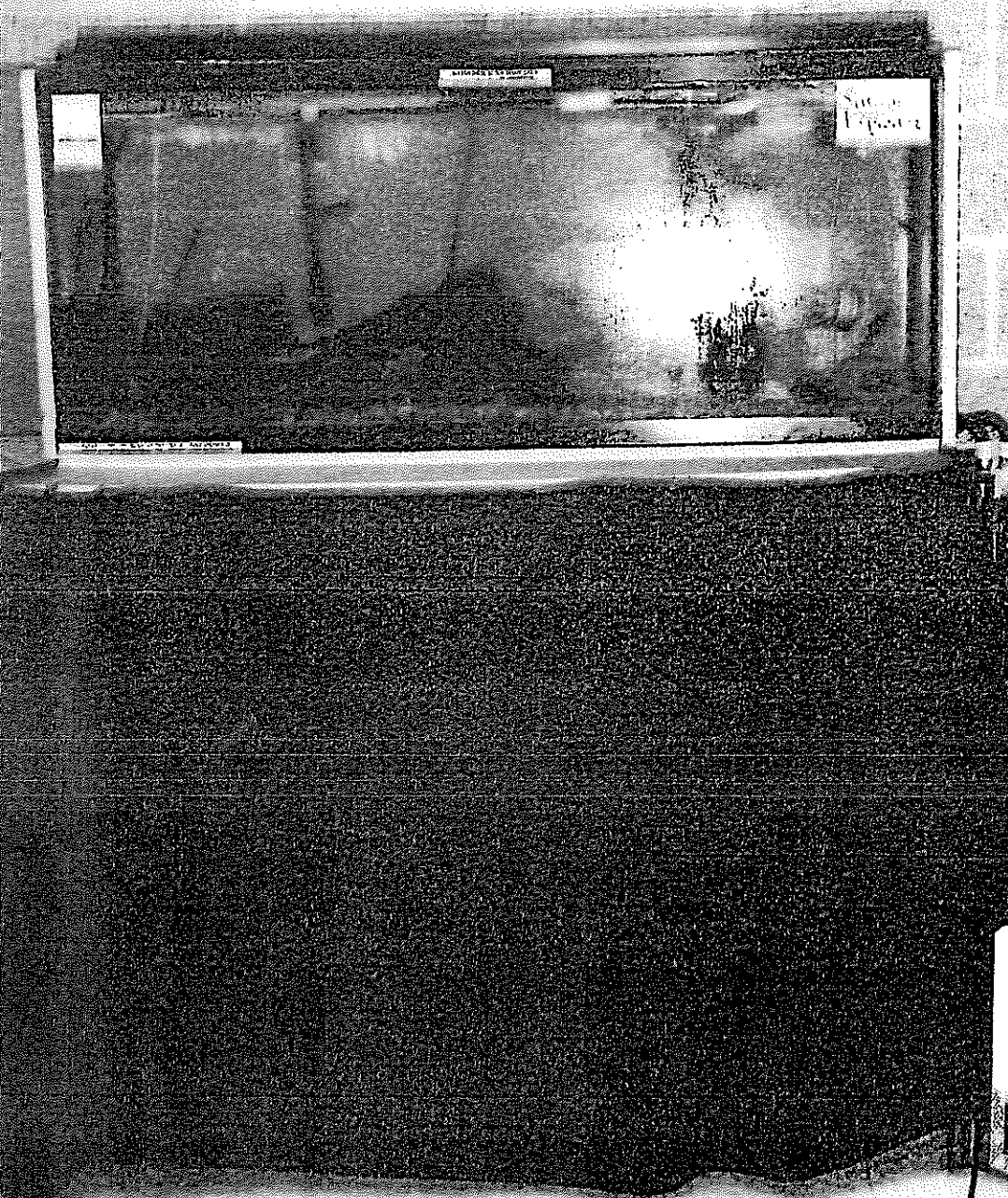
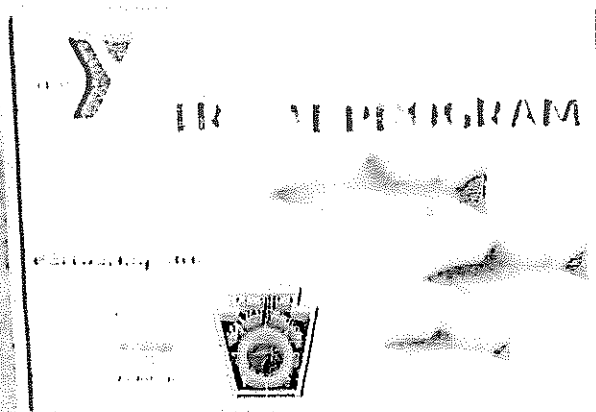
The Spring Creek Watershed Association (SCWA), a grassroots stakeholder group composed of concerned citizens and professionals, initiated the WRMP in 1997 as part of its strategic plan for the watershed. Their goal was to gather baseline information about the quantity and quality of the water resources in the Spring Creek watershed that could be used for the long-term protection of these resources as demands on them increase over time. A group of local environmental professionals formed the Water Resources Monitoring Committee in 1998 to develop and oversee the WRMP (see the listing of the current committee in **Table 5** on the following page). The first surface water monitoring stations were established in late 1998 through early 1999. Groundwater, surface water, stormwater and spring monitoring stations were added as the project gained momentum. Over the past fifteen years, the WRMP has strived to:

- provide a description of the quantity and quality of the surface waters of Spring Creek and its tributaries, including springs;
- provide a description of the quality of storm-water runoff throughout the watershed;
- monitor groundwater levels in critical areas;
- provide the means to detect changes in quantity and quality of surface waters under baseflow and stormwater runoff conditions, as well as groundwater reserves;

- provide sufficient measurement sensitivity through long-term monitoring to permit the assessment of the previously mentioned parameters.

The WRMP field stations and database are maintained primarily by the Water Resources Coordinator, a full-time staff position housed at ClearWater Conservancy, and the assistance of volunteers. A number of local partners continued to provide funding to carry out WRMP data collection. Donors in support of the 2015 effort included:

- Bellefonte Borough
 - Benner Township
 - College Township
 - Ferguson Township
 - Graymont, Inc.
 - Halfmoon Township
 - Harris Township
 - Patton Township
 - Pennsylvania State University Office of Physical Plant
 - Spring Township
 - Spring Township Water Authority
 - State College Borough
- (CONTINUED ON PAGE 28)**
- State College Borough Water Authority



PENNSSTATE



Stormwater Engineer

(814) 863-3743
FAX: (814) 865-3737

The Pennsylvania State University
101P Office of Physical Plant
University Park, PA 16802-1118

May 16, 2016

Centre County/
Penn State Visitor Center
Attn: Lori Miller
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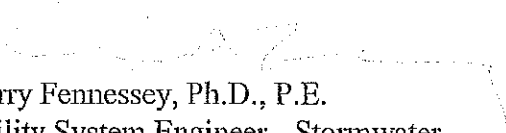
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Larry Fennessey, Ph.D., P.E.
Utility System Engineer - Stormwater

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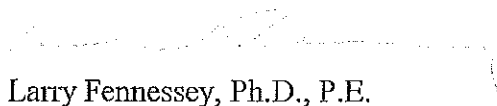
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Utility System Engineer - Stormwater

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MS4 Partners

Harris Township, Centre County, Pennsylvania

Public Involvement and Participation Program (PIPP)

Purpose:

Harris Township understands the importance of providing opportunities for public involvement and participation in activities that emphasize the importance of stormwater and its protection. To that end, Harris Township has created this document to be the official Public Involvement and Participation Program and will utilize this document to develop the Public Involvement and Participation tasks for each permit year.

Identification of Target Audience:

Identification of the target audience is important to the development of the Public Education and Outreach Program. The target audiences we have identified are as follows:

- Township Residents
- Elementary School Students
- Business Owners

To meet our involvement and participation requirements the Township will perform the following tasks on a yearly basis.

- **Watershed Cleanup Day.** Harris Township will provide drop off locations and will assist in the transportation of trash to the Centre County Refuse and Recycling Authority. Harris Township, along with the MS4 partners will evenly split the cost of the tipping fees for the refuse collected within the MS-4 area. Primary target audience: Township residents and students. The Watershed Cleanup Day attracts hundreds of volunteers each year. Many firms including several of the major earth moving contractors within the Centre Region provide manpower and equipment to help with the Watershed Cleanup Day
- **Rain Barrel Workshop.** Harris Township will provide funding for a rain barrel workshop to be hosted by Clearwater Conservancy. Participants will be provided with the materials to create rain barrels to capture roof runoff. The workshop will include a presentation on stormwater and its importance.
- **Inlet Stenciling Program.** Harris Township will continue to provide paint, stencils, and safety vests for volunteer groups who wish to participate in the inlet stenciling program. The stencils will read "Inlet Drains to Spring Creek".

Each year the Township will assess the effectiveness of the tasks performed and adjust the PIPP as may be required.

Last reviewed (no revisions) January 19, 2017



HARRIS TOWNSHIP BOARD OF SUPERVISORS
September 12, 2016 – 7:30 P.M.
Agenda

www.harristownship.org

1. **CALL TO ORDER:**

The Chairman will lead the Pledge of Allegiance.

2. **APPROVAL OF MINUTES:**

Move to approve the minutes of the August 8, 2016 regular meeting and the August 24, 2016 meeting.

3. **CITIZEN COMMENTS:**

Members of the public are invited to comment on any items not on the agenda (five minute per person time limit, please). Comments relating to specific items on the agenda should be deferred until that point in the meeting.

4. **TOWNSHIP BUSINESS:**

a. **PROCLAMATION HONORING RETIRED STATE COLLEGE POLICE CHIEF TOM KING:**

State College Police Chief Tom King retired on August 31, 2016, after 23 years of service as police chief. The Board will present him with a proclamation and a gift for his years of service to the Township.

Recommendation: Discussion item.

b. **NITTANY GROVE REVISED FINAL LAND DEVELOPMENT PLAN:**

On July 1, 2016, Staff received from PennTerra Engineering a revised plan for the previously approved Nittany Grove development, the former Al-Mar Acres site. The property is a partially developed Mobile/Manufactured home park served by onsite water and sewer facilities. The purpose of the plan is two-fold. First, the developer wants to replot most of the lots in the older section of the park to create fewer lots that are larger. Second, the developer wants to revise the required walking path to move it to the edge of the street rather than between the units.

Staff has conducted two reviews of the plan, the second of which is included with the agenda, as well as a copy of the plan. Very few comments remain and most of them are the provision of signatures.

Recommendation: Move to approve the Nittany Grove Revised Final Land development Plan contingent upon satisfactory completion of review comments from the September 6, 2016 memo of the Senior Planner, the September 6, 2016 letter of the Zoning Officer, the September 7, 2016 letter of the Township Engineer, and the September 7, 2016 email of the Boalsburg Fire Chief.

c. ORGANICS RECYCLING PROGRAM UPDATE:

Pam Adams, the Refuse and Recycling Administrator for the Centre Region Council of Governments will provide an update on the development of the organics recycling program. The Board may recall that at its September 28, 2015 meeting, the General Forum passed a motion requesting the Public Services & Environmental Committee prepare a draft plan for a regional organics recycling program for the residents of Benner, College, Harris, Ferguson, and Patton Townships.

COG Staff is seeking municipal input on some higher level policy questions that will shape the programs direction. Enclosed is a matrix of the 5 questions that were discussed with the Public Services & Environmental Committee and the Committee's recommendation. The Board should provide comments and determine if there are additional concerns or questions they have.

Recommendation: Discussion item.

d. STORMWATER DISCUSSION:

Township Engineer Don Franson will be present to provide an update on stormwater basins in the Township. The Township has a total of 29 basins that are owned by homeowners associations or developers. All but one of these basins are being maintained properly.

Recommendation: Discussion item.

e. WHITEHALL ROAD REGIONAL PARK:

Vice Chairman Lord asked that our representative to the Centre Region Parks and Recreation Authority, Ms. Diane Ishler, attend this meeting to get feedback from the Board on the design of the park. The Board may recall that COG Solicitor Terry Williams recently issued an opinion that responsibility for the design of the park fell to the Authority, not to the General Forum. The Board should provide any thoughts or ideas they have to Ms. Ishler.

Recommendation: Discussion item.

f. MAINTENANCE FACILITY PROJECT – SELECTION OF FINANCIAL ADVISOR

AND ADOPTION OF PROJECT TIMELINE:

The Board interviewed two prospective financial advisors for the maintenance facility project, Public Financial Management and Chris Gibbons. The next step in the process is for the Board to select one of these advisors to help with the borrowing for this project.

The Board should also review the enclosed project timeline. The goal of this timeline is to map out the various project steps and create a framework for moving forward. This timeline is meant to be a living document that can be updated as needed.

If the Board is comfortable, a financial advisor should be selected this evening and the timeline should be adopted.

Recommendation: Discussion item. If the Board is comfortable, move to select _____ as financial advisors for the maintenance facility project and adopt the proposed timeline for the project.

g. RESOLUTION 16-15: ADOPTING AN INTERGOVERNMENTAL AGREEMENT FOR FINANCIAL PROCESSING SERVICES WITH THE BOROUGH OF STATE COLLEGE:

The Township's Finance Administrator will be leaving her position in mid October. Rather than fill the position with another full time staff member, the Township will contract with the Borough of State College for financial processing services. A part time employee will also be hired to assist with real estate tax collection and processing the Boalsburg Fire Company's bills.

Resolution 16-15 adopts an intergovernmental agreement with the Borough of State College for financial processing services. The Township will pay the Borough \$20,000 per year, with an annual adjustment to that fee based on the CPI-U. The agreement runs from October 1, 2016 to December 31, 2019. It does have a clause that permits the Township to terminate the agreement with one year's notice to the Borough (this is similar to the provisions for leaving a COG program).

The agreement has been reviewed by the Township Solicitor. He did not have any concerns or comments on it.

Recommendation: If the Board is comfortable with the agreement as presented, move to approve Resolution 16-15, adopting an intergovernmental agreement with the Borough of State College for financial processing services.

h. RESOLUTION 16-16: APPROVING THE TOWNSHIP'S MINIMUM MUNICIPAL OBLIGATION FOR ITS PENSION PLAN FOR 2017:

The Township is required by Act 44 (the state pension law) to approve by resolution the minimum municipal obligation for the following calendar year. This resolution must be approved by the Board of Supervisors by the last day of September each year.

The minimum municipal obligation is based on the required contribution of 7.65 percent of our payroll. A worksheet that details the contribution for 2017 is included with the resolution. Monies for the contribution will be included in the 2017 operating budget. The Township also receives state pension aid every year.

Recommendation: Move to approve Resolution 16-16, approving the Township's minimum municipal obligation for its pension plan for 2017.

5. **MANAGER'S REPORT:**

A written report is provided.

6. **APPROVAL OF VOUCHERS:**

Move to approve voucher transmittal sheet No. 2016-8.

7. **COG COMMITTEE REPORTS:**

Executive Committee	Chairman Hameister
Human Resources Committee	Supervisor Wilson
Finance Committee	Supervisor Graham
Public Services and Environmental Committee	Chairman Hameister
Spring Creek Watershed Commission	Chairman Hameister
Transportation and Land Use Committee/MPO	Supervisor Harden
Public Safety Committee	Vice Chairman Lord
Parks Capital Committee	Vice Chairman Lord
Boalsburg Heritage Museum	Supervisor Graham

8. **ADJOURNMENT:**

**HARRIS TOWNSHIP
BOARD OF SUPERVISORS
Meeting Minutes
September 12, 2016**

Board Members in Attendance: Dennis Hameister, Chairman
Bruce Lord
Charles Graham
Nigel Wilson
Frank Harden

Staff in Attendance: Amy Farkas, Township Manager
Debbie Lang, Administrative Secretary

Public in Attendance: Van Winter, Boalsburg Fire Chief
Pam Adams, COG Refuse & Recycling Administrator
Don Franson, Township Engineer
Tom King, Police Chief (Retired)
Kelley King
Diane Ishler, Parks & Rec Advisory Committee
Pam Salokangas, Parks & Recreation Director
Jim Steff, COG Executive Director
John Sepp, PennTerra Engineering
Walt Schneider, Centre Region Code Director

CALL TO ORDER:

Chairman Hameister called the September 12, 2016 regular meeting of the Harris Township Board of Supervisors to order at 7:30 PM.

APPROVAL OF MINUTES:

Vice Chairman Lord moved to approve the minutes of the August 8, 2016 regular meeting and the August 24, 2016 special meeting. Supervisor Harden seconded the motion. The minutes were unanimously approved as submitted.

3. CITIZEN COMMENTS:

There were no citizens present to discuss items that were not on the agenda.

4. TOWNSHIP BUSINESS:

- a. PROCLAMATION HONORING RETIRED STATE COLLEGE POLICE CHIEF TOM KING:

Ms. Farkas said State College Police Chief Tom King retired on August 31, 2016, after 23 years of service as police chief. The Board presented him with a proclamation and a gift for his years of service to the Township. Chairman Hameister read the proclamation and thanked Mr. King for his years of service.

b. NITTANY GROVE REVISED FINAL LAND DEVELOPMENT PLAN:

Ms. Farkas said on July 1, 2016, Staff received from PennTerra Engineering a revised plan for the previously approved Nittany Grove development, the former Al-Mar Acres site. The property is a partially developed Mobile/Manufactured home park served by onsite water and sewer facilities. The purpose of the plan is two-fold. First, the developer wants to replot most of the lots in the older section of the park to create fewer lots that are larger. Second, the developer wants to revise the required walking path to move it to the edge of the street rather than between the units.

Staff has conducted two reviews of the plan, the second of which is included with the agenda, as well as a copy of the plan. Very few comments remain and most of them are the provision of signatures.

Chairman Hameister asked which lots were enlarged or changed. Mr. Sepp said the lots were in Phase 1. Supervisor Graham asked if this was the final plan. Mr. Sepp said this is a revision to the final plan and should be the last change. Chairman Hameister asked how close this property is to being built out. Mr. Sepp said the infrastructure is in and many of the lots have already been built on.

Supervisor Graham moved to approve the Nittany Grove Revised Final Land development Plan contingent upon satisfactory completion of review comments from the September 6, 2016 memo of the Senior Planner, the September 6, 2016 letter of the Zoning Officer, the September 7, 2016 letter of the Township Engineer, and the September 7, 2016 email of the Boalsburg Fire Chief. Vice Chairman Lord seconded the motion. The motion passed unanimously.

c. ORGANICS RECYCLING PROGRAM UPDATE:

Ms. Farkas said Pam Adams, the Refuse and Recycling Administrator for the Centre Region Council of Governments is present to provide an update on the development of the organics recycling program. The Board may recall that at its September 28, 2015 meeting, the General Forum passed a motion requesting the Public Services & Environmental Committee prepare a draft plan for a regional organics recycling program for the residents of Benner, College, Harris, Ferguson, and Patton Townships.

COG Staff is seeking municipal input on some higher level policy questions that will shape the program's direction. There are 5 questions that were discussed with the Public Services & Environmental Committee and the Committee's recommendation. The Board should provide comments and determine if there are additional concerns or questions they have.

Pam Adams presented a PowerPoint on this program. She said last year they were asked to prepare a draft plan for a regional organics recycling program for the residents of Benner, College, Harris, Ferguson and Patton Townships. She explained what organics are and noted "if it grows and will decompose, it goes." She explained the benefit of potentially removing 3,600 tons/year of organic waste from the landfill. She said a survey was conducted and 80 percent of the survey participants are interested in this program. She explained where the organics will go and how they will be collected. The Board and Ms. Adams discussed the difference in fees between the two cart sizes. Supervisor Graham said he would be interested in knowing how many people are willing to pay the fee. Ms. Adams also discussed cart collection for trash. Ms. Adams discussed the range of the program and the regional growth boundary.

Ms. Adams said some of the questions that have arisen and need to be decided are:

1. Should the organics carts be owned by COG/Municipality or by the provider of the service? She said the Public Services & Environmental Committee felt they should be owned by COG/Municipality with the provider of the service responsible for the maintenance, etc. of the cans.
2. Should COG consider carts for trash collection in the next contract? Again, the Public Services & Environmental Committee believes they should.
3. How are costs distributed for the organics recycling program? The Public Services & Environmental Committee felt this should be part of the program costs and you are charged whether you use the program or not.

Supervisor Graham said there are a lot of older people in the Township who are not here year round and there are a lot of condominiums in the Township. He said he did not think there would be enough participation in this program in Harris Township. Ms. Adams stated if a property is vacant for 30 days or more, they are not billed. Vice Chairman Lord asked Ms. Adams if she could break out the responses from resident of the Township from her survey. She said she could do that and will provide it to Ms. Farkas.

4. Should the program provide organics collection to properties outside the Regional Growth Boundary (RGB)? Should implementation outside the RGB be phased in later?

Ms. Adams also discussed an interim drop-off program. She said this program would be modeled after other successful drop off programs. It would have a manned work place during set hours and fees would include a kitchen caddy, a 5-6 gallon transport container and an ID card to use the location. Supervisor Graham said this would be a good pilot program for Harris Township to see how this program would be received by the Township residents.

5. Is there support for a drop off program to begin in the interim?

Ms. Adams also discussed drop off versus early start, the timeline for this program, the potential partners – task force and the next steps. She thanked the Board for their time and said if they had any questions to feel free to contact her.

Chairman Hameister asked if this product has a financial value to the Township. Ms. Adams said that matter will be worked out in the next phase of the program. Supervisor Graham asked if the recycling rebate could pay for this program. Ms. Adams said the rebate would not be enough to pay for the program.

d. STORMWATER DISCUSSION:

Ms. Farkas said Township Engineer Don Franson is present to provide an update on stormwater basins in the Township. The Township has a total of 29 basins that are owned by homeowners associations or developers. All but one of these basins are being maintained properly.

Mr. Franson said there are 30 storm basins in the Township. Twenty-six of these basins are above ground and four are underground. He said about one-half of the basins are in the urbanized area. He said our MS4 permit requires us to inspect the outfall. He said all stormwater basins in an urbanized area must be inspected at least once in a five year period. He said he usually inspects these basins every 2 to 2-1/2 years. He said all the basins are generally well kept. When there has been a problem with a basin, a letter was sent and the repairs were made. He said there are no outstanding letters of repair at this time. He said overall, all our basins are well maintained.

The Board briefly discussed the problem with the stormwater basin at the Myers Estate Homeowner's Association. Ms. Farkas said the problem with this basin is that there is only one homeowner who is trying to do anything to maintain it. Chairman Hameister said there was recently legislation passed that would allow the Township to assist with this. Ms. Farkas said she has done research into the covenants for the homeowner's association and found this one homeowner can take action to recover funds from the association members to assist with the maintenance of this basin. Chairman Hameister asked how many homeowner associations know they have basins. Mr. Franson said they all do. Supervisor Graham asked if all the stormwater basins are man-made. Mr. Franson said they are.

In an additional matter, Ms. Farkas said letters were mailed today to all the residents on Pine Tree Avenue about the fiber reinforced seal coat project. Mr. Franson explained how this product works. He said an asphalt emulsion is put down and then a matrix fiberglass mesh is placed on top of this emulsion and a second layer of emulsion is put on top of the fiberglass mesh. A layer of stone is placed on the second layer of emulsion and a rubber tire roller presses the stone down and bonds the fiberglass to the surface.

He said he chose this method for two reasons: 1) because the roadway is higher than the driveways on this street, adding another layer of paving would have caused drainage and other problems and 2) this fiber mat will span the cracks better and strengthen the roadway. He said it looks bad at first but will be better than microsurfacing. He said the stone must remain on the street for 10 days before they can be swept up. The stones will probably be swept up some time near the end of next week. In response to a question from the Board, Mr. Franson said this process is more economical than the microsurfacing. He said with the slurry seal, the cracks would show in about 2 years and with this process, it will be 5-7 years before the cracks show.

Chairman Hameister asked Staff to put a note to this effect on the website and Vice Chairman Lord asked Staff to put Mr. Franson's video of the process on the website as well.

e. WHITEHALL ROAD REGIONAL PARK:

Ms. Farkas said Vice Chairman Lord asked that our representative to the Centre Region Parks and Recreation Authority, Ms. Diane Ishler, attend this meeting to get feedback from the Board on the design of the park. The Board may recall that COG Solicitor Terry Williams recently issued an opinion that responsibility for the design of the park fell to the Authority, not to the General Forum. The Board should provide any thoughts or ideas they have to Ms. Ishler.

Mr. Steff introduced Pam Salokangas, Centre Region Parks and Recreation Agency Director. Ms. Salokangas gave a brief background of her experience and noted she did an internship with Mr. Woodhead years ago. She said she is very happy to be back in this area and to have acquired this position.

Vice Chairman Lord said as everyone knew, the decision was made that the authority for this park lies with the Parks and Recreation Authority. He said it is important however, that we all keep the lines of communication open on this project. He said it would be nice to get someone else to pay for this road but what we need to do now is figure out what is the minimum that we can do to this road now and hope that someone else will develop the adjacent site and pay for the road.

Diane Ishler said the Authority had Stahl Sheaffer Engineering look at alternatives and they came up with two possibilities to use the entrance off Whitehall Road at Blue Course Drive. The plan is for a minimal road at this time. She said we all want a good park within budget and the Authority plans to work together with all the partners to accomplish this. Chairman Hameister said he heard there were two prices for this road: \$296,000 and \$500,000 and heard the higher price was chosen. Ms. Ishler said the higher price was chosen because of the various obstacles that would need to be addressed if they came across the property. She said this decision was made by both the Parks Capital Committee and the Parks and Recreation Authority. Ms. Ishler said there are a lot of things the Authority needs to find out and they felt we should see where we go from here. Supervisor Graham said since there will be no sewer facilities at this time, this might be a cost offset we can use now. Ms. Ishler said as she gets information on this project she will get the information to the Township. Ms. Farkas said the road eventually will be a Ferguson Township road and for them to accept the road, it must be built to Township standards. She said it is important to make sure the roadway is wide enough now to accommodate the Township standards. Supervisor Graham said the money has been borrowed and is in our budgets so we should continue working towards completion of this regional park. Vice Chairman Lord said since we are losing ten percent of our budget what we need to do is make sure the services will be there that we envisioned would be there. He said the Authority will also work with Centre Soccer on this project. Ms. Ishler said there is also a demand for lacrosse fields. She said the goal of the Authority is to have a regional park we can all be proud of.

Ms. Salokangas said she plans to keep everyone in the loop on this and to get as much as we can with the money we have.

SPRING CREEK WATERSHED COMMISSION

Minutes

November 16, 2016

Spring Township Municipal Building

(Prepared by Lexie Orr, Spring Creek Watershed Coordinator)

Chair called the meeting to order at 7:00 PM.

Members said the pledge.

Roll Call:

Bellefonte: Gay Dunne

Benner: Absent

College Township: Bill Sharp

Ferguson: Absent

Halfmoon: Mark Stevenson

Harris: Denny Hameister

Milesburg: Absent

Patton: Absent

Potter: David Whiteman

Spring: Bill MacMath

State College: Janet Engeman

Walker: Don Franson

Denny noted that the minutes from the October SCWC meeting were revised to reflect the changes in CNET viewings times. Bill MacMath moved to approve/accept the Minutes from the October SCWC meeting. Bill Sharp seconded the motion. Minutes were accepted unanimously.

Citizen Comments

Todd Giddings expressed his appreciation for how the commission has treated the friends of the commission and requested to consider adding them back to the email list.

Adrienne Gemberling notified the commission that the WRMP, ClearWater, Trout Unlimited and the Recycling and Refuse authority in Coleville removed 2500 pounds of trash out of culverts, which included 1000 pounds of metal. This was all done by 7 volunteers. Bill MacMath, on behalf of all of Spring Township, expressed his appreciation for this effort. They had experienced serious flood damage after 7-10 inches of rain fell in a three or four hour period.

Michelle Halsell, notified the commission of PSU's Sustainable Communities Collaborative Fall Expo at the State College Borough Building on Dev 7th 4:30-6:30 PM. The expo will include student presentations on projects they've been working on (agriculture, architecture, communication, engineering, liberal arts, IST, etc.). She also handed out copies of the Sustainable Communities Collaborative annual report.

Bob Eberhart announced that Lexie successfully defended her MS thesis.

Educational Topic – Chesapeake Bay Pollutant Reduction Plan (CBPRP) and Impaired Waters for Centre Region MS4 Permits

Amy Kerner - Engineer for State College Borough (MS4 Partner)

Don Franson – Walker Township (MS4 Partner)

Background

- Urbanized areas, areas with more than 10,000 people per square mile, are required to have an MS4 permit. Population numbers are based on voting blocks. Urban clusters, like Bellefonte, are not as densely populated and not required to get a permit, but DEP could mandate this.
- The CBPRP is for streams within urbanized areas. The slides list all of these basins, what municipalities deal with them and requirements set by DEP biologists who tested streams. These new permits enforce improvements not only in your stream section but also five miles downstream. Therefore, while Patton Township has no impaired waters, it still needs to take measures because there are impaired waters within 5 miles downstream.

Requirements of CBPRP

- Maps of storm sewer sheds of regulated outfalls will be used to determine planning area and calculated pollutant loads. All planning areas are required to reduce sediments by 10% in five years. This assumes a 5% reduction in total phosphorus (TP) and a 3% reduction in total nitrogen (TN).
- Existing loading is determined from area of storm sewer sheds and percent land use or cover with loading rates grouped into broad categories:
 - TN -10 lb/acre/yr
 - TP – 0.33 lbs/acre/yr
 - Sediment – 234.6 lbs/acre/year
- Municipalities will receive no credit for past nonstructural best management practices (BMPs). Existing structural BMPs (with proper O&M) can reduce existing loading, but everyone still needs to reduce loading over the five year period. Any improvements have to be made within urbanized area. Local requirements for Spring Creek include a 10% reduction in siltation and a 5% reduction in TP.

Planning

- There is a 45 day period for public comment so a plan that is due in December should be ready in October. PSU's permit is due first, so that puts our schedule at the plan being ready in October (10/19/17) for a December (12/2/17) approval.
- There is no sampling done after the 5 year period.
- Phase I: Hire a consultant to come up with a plan jointly between all municipalities in order to save money. This consultant will give us our base loading and where to site BMPs.
- Phase 2: Over the 5 year period, implement the plan (stream bank restoration, retrofitting, new facilities, etc.).

Note: The CBPRP is an unfunded mandate.

Mark noted that over 27 years, the water quality in the bay has not improved. However, that's also in the face of growing populations. Combined storm and sewer systems still exist in a lot of areas. Agricultural runoff also continues to be a problem

Gay wondered if nutrient credits would be a good way to address farm runoff. Mark replied that currently these credits are too cheap to make a difference.

Old Business

SCWA

- At the November 15th meeting, Walt Ebaugh presented "We are not downstream from anywhere."
- Summary:
Our water budget is 100 million gallons/day. 1/10 of this is consumed by current population. Spring Creek gets 86% of its baseflow from groundwater, so consumption of groundwater reduces stream flow. Beneficial reuse water that is processed and pumped into aquifer where it can cool before entering the stream could be a good way to balance human consumption.

ARAVA Institute

- Slides and notes from the master class workshop will be provided with the next meeting minutes. One key recommendation that came out of the workshop is that Spring Creek needs a Watershed Management Plan.
- The development of a Watershed Management Plan will be a regular topic of discussion.
- Cory Miller suggested rather than getting a grant, maybe the major players PSU, UAJA, Water Authorities etc. could pay for the funding this planning process.
- Michele Halsell noted that the Low Impact Development Guide Book provides some excellent examples of what can be done.

Atlas Project Update

- Bob Donaldson discussed the Education Initiative as well as the recently developed Source Water Protection Consortium Website, which is a federal mandate. This can be used for information and linked to the Atlas website.
- Betsie Blumberg is going to author another article on open space with Bob Carline
- The Atlas workgroup has also discussed converting the website from private to public after making a few changes. Mark Stevenson asked for agreement on opening the website to public. Rather than have to wait for the workgroup to come to a consensus, let's set a measurable threshold of readiness or deadline. Bill Sharp agreed that if the group wants to get contributors, we need to open the project up to the public. Bill Macmath moved to approve public access to the Atlas website. Gay Dunne seconded the motion. The movement was unanimously approved.
- Lexie and Michele presented the outline for the DEP Environmental Education Grant.

- Next workgroup meeting is December 8th, David Whiteman, Denny Hameister and Mark Stevenson will attend to approve the grant proposal.

Around the Watershed

Halfmoon Township

- Mark Stevenson gave more updates on renovations and making bathrooms ADA compliant

Bellefonte Borough

- Gay Dunne discussed the Sustainable Communities Collaborative project at the landfill.

Spring Township

- Bill MacMath informed the group that the flood damage last week was estimated at 1 million dollars.

Todd Giddings– The Water-Level Report for the Spring Creek Watershed

- 2016 to date - 29.14 inches of precipitation (104/121 years)
- -17,511 gallons/minute
- Measurements come from stream gage, rain gage and observation well (not far from Ferguson township municipal building) Well CE 686 with 14 years of monitoring that well.
- We went from 10 billion gallons ahead in March to 12 billion gallons behind now. To deal with droughts, the public water authorities have built very deep wells and they have reserve fields so that consumption rates do not exceed capacity.
- Individual authorities are responsible for notifying the public of water use restriction.
- For more detailed information please contact Todd.

Motion to adjourn by Bill Sharp was accepted without objection at 9:13 PM.

Remaining meetings

There are no remaining meetings in 2016. Next meeting is January 18th.

Sign up for Watershed Cleanup Day 2016!

ClearWater Conservancy <jennifer@cleawaterconservancy.ccsend.com> on behalf of
ClearWater Conservancy <adrienne@clearwaterconservancy.org>

Wed 2/17/2016 12:46 PM

To:Franson,Don <dfranson@collegetownship.org>;

Sign up for Watershed Cleanup Day 2016!

Thanks for signing up to be a ClearWater Conservancy volunteer. Come celebrate Earth Day with us
and our partners by taking part in the 20th Annual Watershed Cleanup Day Saturday,
April 23rd from 8 a.m. to noon. Individuals, families and groups will descend on sites throughout
Centre County's watersheds to clean up trash and litter. A picnic to celebrate our volunteers will
immediately follow the cleanup at Spring Creek Park in State College.

Since 1997, Watershed Cleanup Day volunteers have removed 5.8 million pounds of waste from local
streams, roadways, sinkholes, and illegal dumpsites. Please join your neighbors April 23rd to help
keep Centre County beautiful!

To join the 2016 Cleanup as a group or family [Click Here](#)
To sign up as an individual please [Click Here](#)

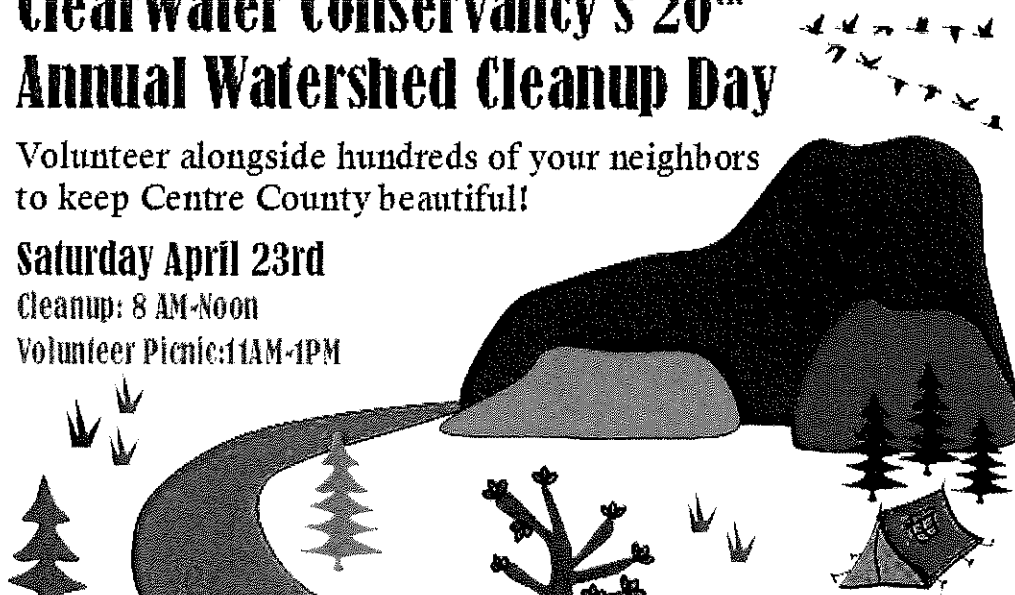
ClearWater Conservancy's 20th Annual Watershed Cleanup Day

Volunteer alongside hundreds of your neighbors
to keep Centre County beautiful!

Saturday April 23rd

Cleanup: 8 AM-Noon

Volunteer Picnic: 11AM-1PM





STAY CONNECTED:



[Forward this email](#)

[SafeUnsubscribe](#)

This email was sent to dfranson@collegetownship.org by adrienne@clearwaterconservancy.org | [Update Profile/Email Address](#) | Rapid removal with [SafeUnsubscribe™](#) | [About our service provider](#).



ClearWater Conservancy | 2555 North Atherton Street | State College | PA | 16803

WATERSHED CLEANUP DAY

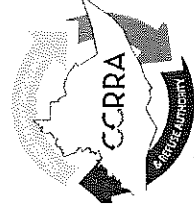
CLEARWATER
conservancy



Thank You to Our Volunteers and Sponsors!

ClearWater Conservancy celebrated Earth Day on April 23 alongside 321 community volunteers at its 20th annual Watershed Cleanup Day! This one day event is aimed at combating littering and illegal dumping in our local watersheds. The 2016 cleanup brought out our greatest number of event participants to date to keep Centre County and Central Pennsylvania beautiful. Thanks to the hard work of these volunteers, ClearWater Conservancy was able to properly dispose of **over 828 tons of trash, or 165,600 pounds**, from roadsides, parks, streams, and sinkholes! This total included over 106,220 pounds of assorted trash, over 26,320 pounds of scrap metal, and over 19,380 pounds of tires which numbered 594. This year's tonnage brings the project total to **over 6.09 million pounds** of waste removed from the landscape since 1997!

The Centre County Recycling and Refuse Authority partnered with ClearWater Conservancy once again this year to make Watershed Cleanup Day a success. CCRRA employees were instrumental in the event planning and handling of logistics at the transfer station on Cleanup Day. In addition to providing technical support, the CCRRA sets aside money in a special fund to help cover the cost of environmental cleanups. The CCRRA works hard all year round to help collect, properly dispose, and recycle Centre County's refuse. For more information about the CCRRA call them at (814) 238-7005 or visit them online at www.centrecountyrecycles.com



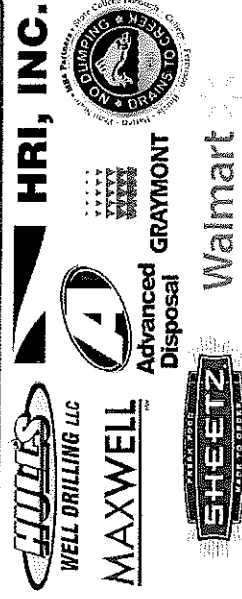
Special thanks to our Sponsor-level supporters: Advanced Disposal, Centre County Recycling and Refuse Authority, the Centre Region MS4 Partners (College, Ferguson, Harris, and Patton Townships, State College Borough, and Penn State University), Graymont, Inc., HRI, Inc., Hull's Well Drilling, LLC, Maxwell Trucking, Sheetz, and Wal-Mart.

Watershed Cleanup Day 2016 was also supported through financial or in-kind donations from the following:

Appalachian Outdoors and Palagonia, Bellefonte Borough, Benner Township, Boggs Township, Centre Region Parks and Recreation, Coldwell Banker/University Realty, Curtin Township, the Coca-Cola Company, Doug's Rug Care, Freeze Thaw Cycles, Giant Food Stores, Glenn O. Hawbaker Recycling and Jim Connor, Hotel State College, Keep Pennsylvania Beautiful, Kelly's Steak and Seafood, McDonald's, Milesburg Borough, Nature's Cover, PA Department of Conservation and Natural Resources, PA Game Commission, PennDOT, Penns Valley Conservation Association, Perkins, Potter Township, Rush Township, Sierra Club Moshannon Group, Snowshoe Township, The Bicycle Shop, Tussey Mountain Outfitters, Wayne Township Landfill, Webster's Bookstore Cafe, and Weis Markets.

Big Thanks to the 2016 Watershed Cleanup Day Planning Committee:

Bob Belinda, Aaron Clair, Lori Davis, Ann Donovan, Gary Dunmire, Rod Fye, Jim Gazza, Adrienne Gemberling, Timothy Gould, Ron Johnson, Sam Komlenic, Jim Lanning, Kevin Nestor, Genie Robine, Joanne Shafer and Ed Zweig.



A big thanks to all of our volunteer groups:

Altura International of Centre County Atchley Family Bald Eagle 4X4 Club Bellinger Family Boy Scout Troop 31 Boy Scout Troop 50 Bromley Family Brooks Family Buda Family Cadenza Girl Scout Troop 1253 Callaghan Family Centre Concrete Centre County Conservation District Centre County Recycling and Refuse Authority Centre County Senior Environmental Corps ClearWater Conservancy Board Curtis Group Davis Family	Demchak and Friends Fitzgerald Family Ford Family Freed Group Garlicki Family Gemberling Friends and Family Gildow Family Girl Scout Troop 40417 Graymont, Inc. Hall Family Hixson/States Group HRI Inc. Jones-O'Brien Family Juniaza Valley Audubon Society Junior Girl Scout Troop 40416 Kramlenic and Friends Kragenow Family Lilly Family and Friends Little Juniata River Association Marywoods Group Massaro Construction	Maxwell Family Miller Family Nitzany Groco North Family Organic Climbing Pack 375 Bears Pack 67 Bears Pack 82 Bears Petersen Family PSU Agricultural and Biological Engineers PSU College of Liberal Arts PSU Earth House PSU Environmental Resource Management Society PSU Kinesiology Class PSU Marine Science Society PSU Society of Environmental Systems Engineers Restek Corporation Romani Family Sierra Club Moshannon Group	Spring Creek Trout Unlimited State College Area Roller Derby State High Environmental Club Shiro Group Silson Group Stream Team Taylor Group Team Argentina The Bridge Initiative The Coca-Cola Company Thompson Family Tuttle Group Unitarian Universalist Church VanVactor Friends and Family Wadlington and Hull Group Wuzz Group Young Scholars of Central PA Yoxheimer and Friends Zelss-Lee Group
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If you notice illegal dumping occurring, please report it to:
Centre County Recycling and Refuse Authority
1-800-605-6649

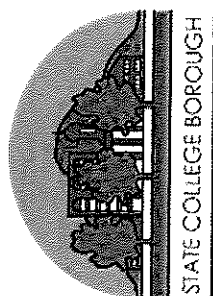
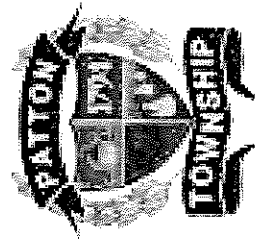
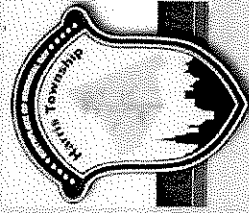
1		Talleyrand Park / Masullo Park	Belleville	8	0	5			
2		Spring Creek (Gamble Mill to treatment plant)	Belleville B/Spring T	2	0	6			
3		Spring Creek - 150 Side Quikfill to McCoy's Dam	Belleville/Spring/Milesburg	9	0	10	1	0.17	
4		Barnes Lane	Benner	2	0	4		0.38	
5		Fillmore Road	Benner			17	4		
6		Purdue Mountain Rd	Benner				2		
7		Rock Road and Spring Creek (the "Rock" to I-99 overpass)	Benner	16	0	20	1	0.14	
8		Roopsburg Rd & adjacent Spring Creek	Benner	3	0	9			
9		Rt. 550 from Spring Creek Rd to Rock Rd.	Benner	10	0	41	8		
10		Spring Creek Rd from Fisherman's Paradise to Rt. 550	Benner	9	0	8			
11		Upper Gyp Road	Benner	7	0	6		0.53	
12		Valley View Rd.	Benner	5	2	2		0.04	
14		Curtin Road from 150 to RR	Boggs	2	0	2			
15		Bald Eagle Creek (Curtin Rd. to Bald Eagle State Park)	Boggs	9	28	28		0.5	
16		Bald Eagle Creek (1-80 to Curtin Bridge)	Boggs	6	0	10			
17		Swamp Poodle Road	Boggs	5	5			0.23	0.5
18	?	Spring Creek (Tussey Mountain to Milesburg)	Boggs						
19		Reed Street	Boggs				20	1.55	
20		Old Rt. 220 (Unionville to the Sheetz at Wingate)	Boggs	7	0	60			
21		Milesburg to Curtin Rd. Bale Eagle	Boggs	11	1	20	16		
22		Old Rt. 220 (Julian to Runville Rd)	Boggs						
23		State College Borough Truck	Centre Region	1				0.4	
24	MS4	College Avenue: Giant Foods to Transfer Road	College	9	0		0	1.04	
25		Dreibelbis Road	College	10	0	23			
26		Hillside Park	College	2	3	3			
27	MS4	Sheep Farm streams / Slab Cabin into Millbrook / Puddingtown pulloff	College	3	3		1		
28	MS4	Slab Cabin Park (park area; stream upstream and into Millbrook; bike paths)	College	2	3	3			
29	MS4	Spring Creek (Rt. 26 to Spring Creek Park)	College	6	5				
30	MS4	Spring Creek Park (to Puddingtown Rd)	College	3	3	3			
31	MS4	Route 26 from College Gardens to Houserville Rd.	College	5	0	29			
32	MS4	Thompson Run (Duck Pond to Millbrook Marsh)	College	14	0	19			
33	MS4	Millbrook Marsh	College	10	7				
36		South Atherton/Slab Cabin Road	College/SC Borough	2	0				
37	MS4	University Drive (Waupelani to S. Atherton)	College/SC Borough	5	0	27			
38		Monument Orvison Rd	Curtin	16	0		106	1.8	1.32
39	MS4	Tadpole Road (Whitehall Road to Gatesburg Road)	Ferguson						
40	MS4	Jo Hays Vista	Ferguson	3	0	3			

March 12, 2016

Rain Barrel Workshop

Presented by: MS4 Partners

(A Combined Centre Region Effort)



NPDES - Phase II

MS4 Permit

National

Pollution

Discharge

Elimination

System

Municipal

Separate

Storm

Sewer

System

Who Has a Permit?

Urbanized Area (2000)

Huston Township

Patton Township

Benner Township

College Township

State College
Borough

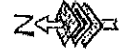
Halfmoon Township

Harris Township

Ferguson Township

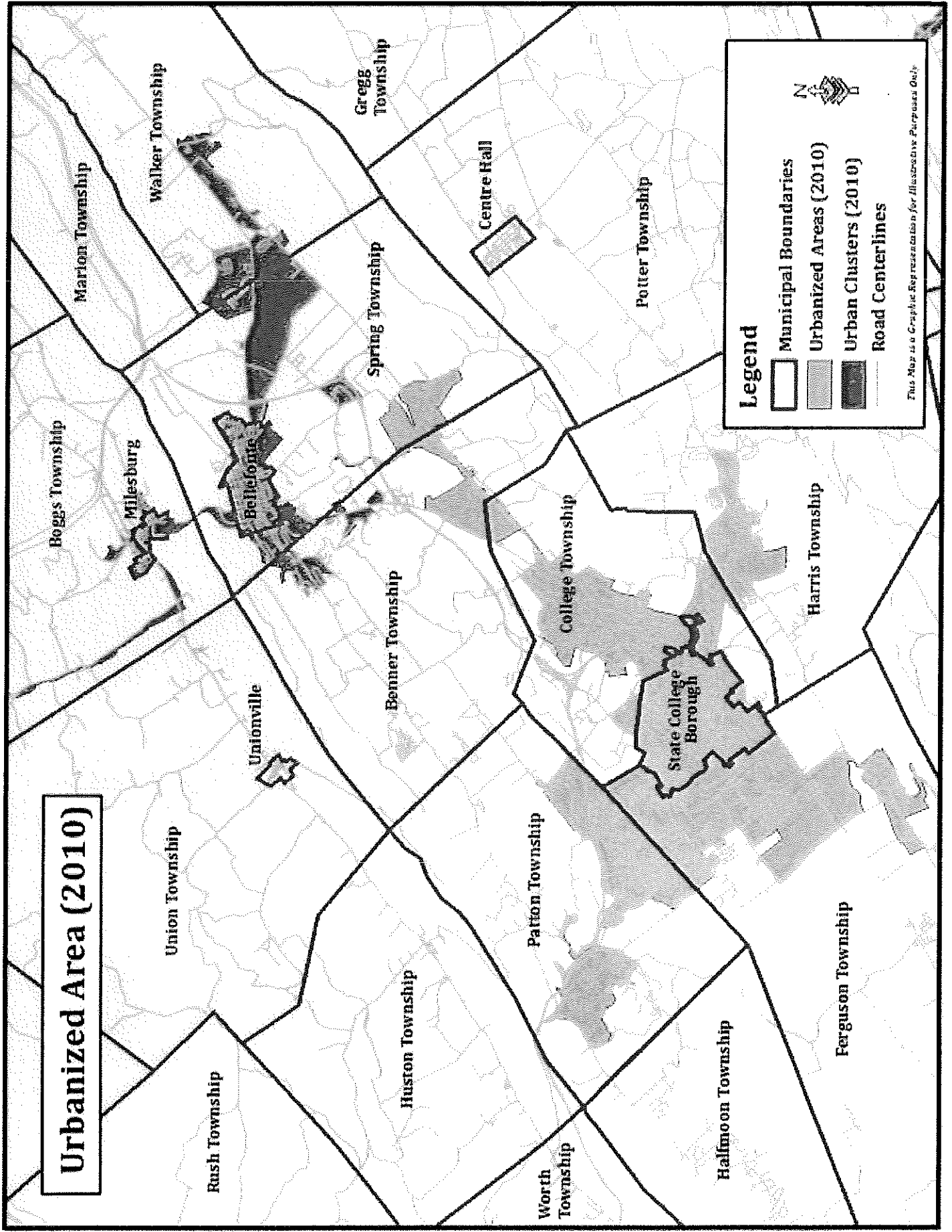
Legend

- Municipal Boundaries
- Urbanized Areas (2000)
- Road Centerlines



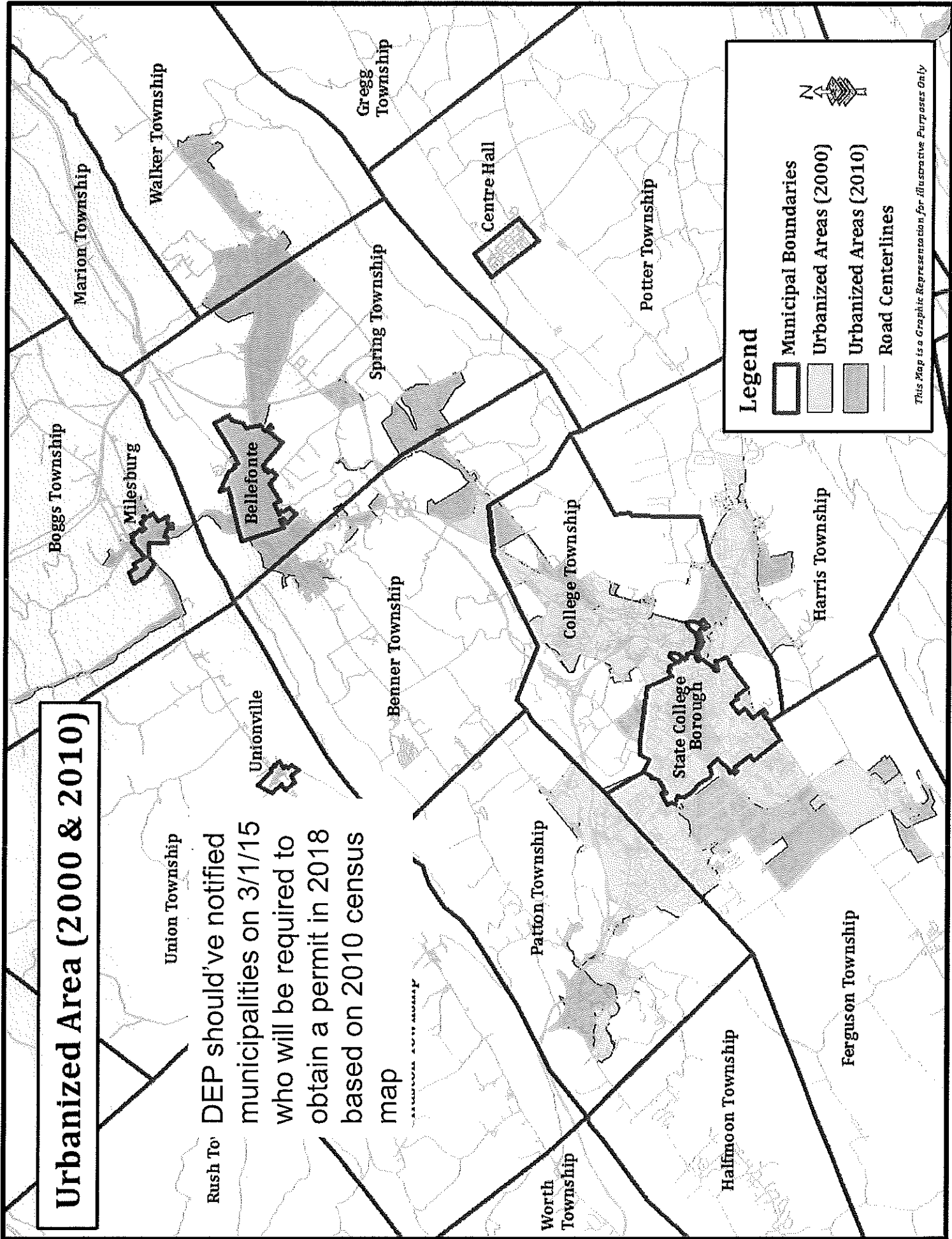
This Map is a Graphic Representation for Illustrative Purposes Only

Urbanized Area (2010)



Urbanized Area (2000 & 2010)

Rush To' DEP should've notified municipalities on 3/1/15 who will be required to obtain a permit in 2018 based on 2010 census map



This Map is a Graphic Representation for Illustrative Purposes Only

Permit Tidbits

- Targeted to Urbanized Areas with a Population Density of $\geq$ 10,000 people/sq. mile (*Based upon 2010 census data*)
- 1st Permit issued in 2003 and covered 5 years (2008)
 - Extension granted for years, 2009-2013
- 2nd Permit issued in 2013 – Each have differing Permit dates

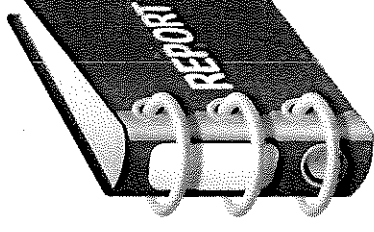
	Permit Effective Date
PSU	6/1/13
Ferguson	9/1/13
Patton	10/1/13
Harris	11/1/13
Borough	11/1/13
College	12/1/13

- Report Due to DEP - 90 days after Permit Year Deadline

What Does Our Permit Require?

- Implement a Stormwater Management Program (including SWM Ordinance)

- Standard Operating Procedures
- Track progress toward goals
 - ◊ Document, Document, Document
- Report on our progress



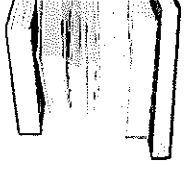
- Chesapeake Bay Pollution Reduction Plan
 - 2018 Permit to include Quantifiable Reduction Requirements

What's Required this Time

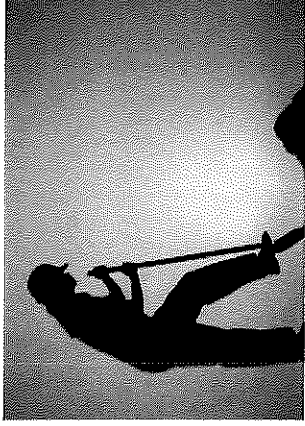
- **Stormwater Management Program:** Six Minimum Control Measures (MCMs) – currently what we do with much more documentation (inspections, tracking, reporting, etc.). **Must have written policies. New criteria have been added.**
- **Chesapeake Bay Pollutant Reduction Plan (CBPRP) :** Based on evaluation of practicable BMPs that will reduce pollutant loads to CB. Schedule of Implementation. Must be approved by PaDEP. Must be sealed by PE. **This is new.**
- **Impaired Waters without TMDL:** Requires prevention of impairments associated with new discharges. Must identify outfalls to impaired streams. Must implement BMPs to ensure new discharges don't cause impairments. Must report on status of BMPs. **This is new.**

Minimum Control Measures

1. Public Education



2. Public
Involvement



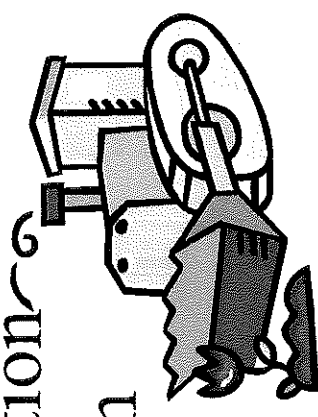
3. Illicit Discharge
Detection and
Elimination



4. Construction Site
Runoff Management

5. Post-Construction
Stormwater
Management

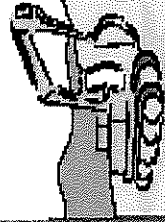
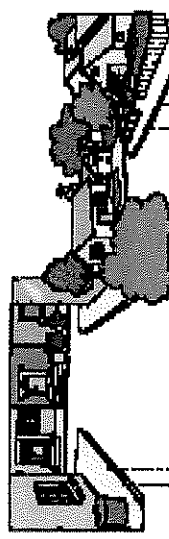
6. Good Housekeeping
and Pollution
Prevention



1. Public Education

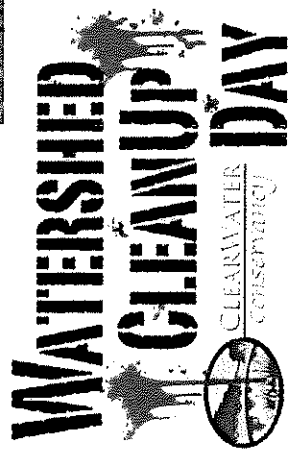
When It Rains, It Drains

Understanding Storm Water
and How It Can Affect
Your Money, Safety, Health,
and the Environment

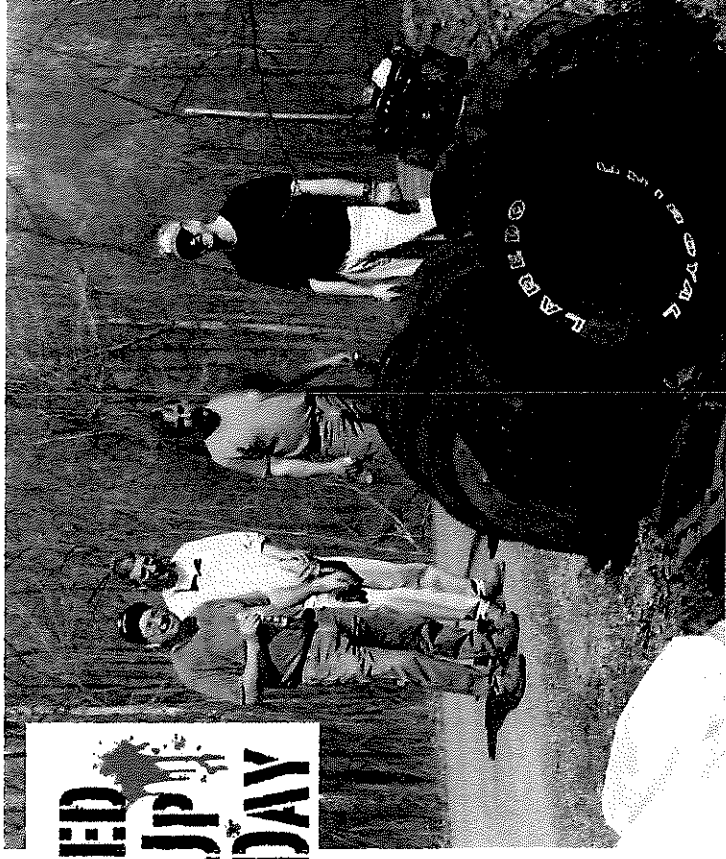


- Develop a written Public Education & Outreach Program (PEOP)
- Send Out Educational Material & Track Who Gets It.

2. Public Involvement



- Develop Written Public Involvement/Participation Plan
- Provide Opportunities for Public Involvement, like:
 - Spring Creek Watershed Cleanup Day
 - Boy Scouts Inlet Stenciling Project
- Hold 1 Public Meeting Per Year



3. Illicit Discharge Detection

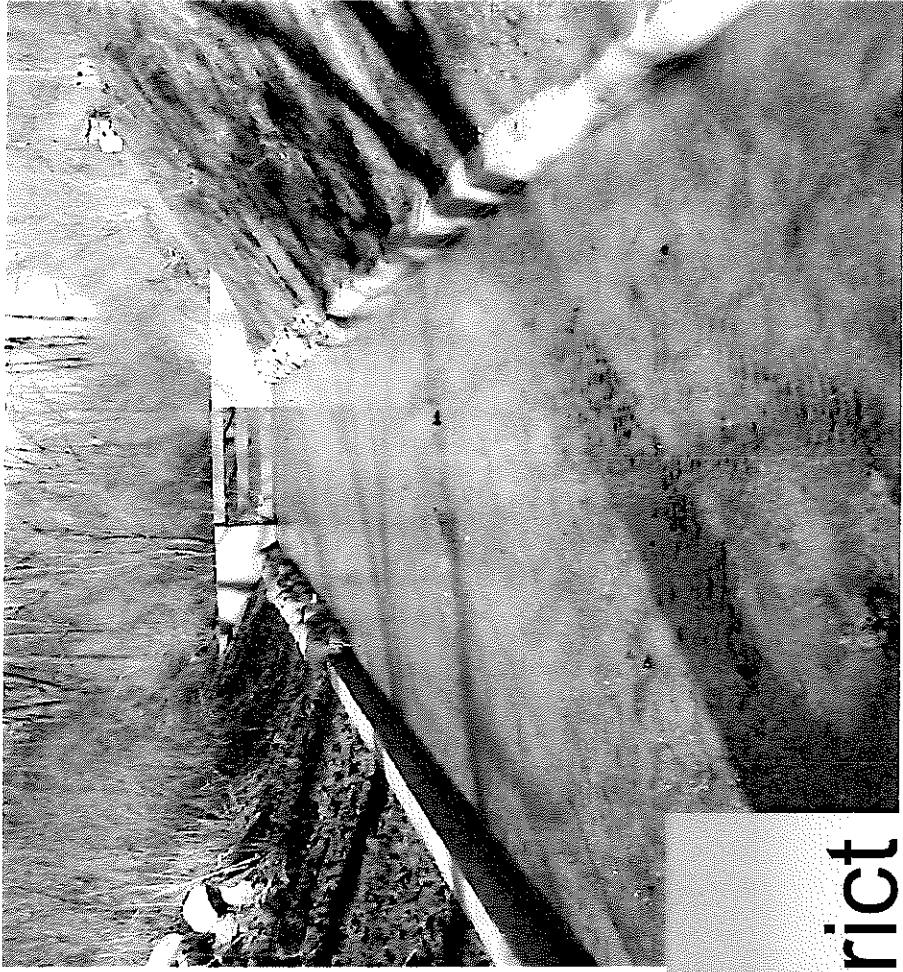
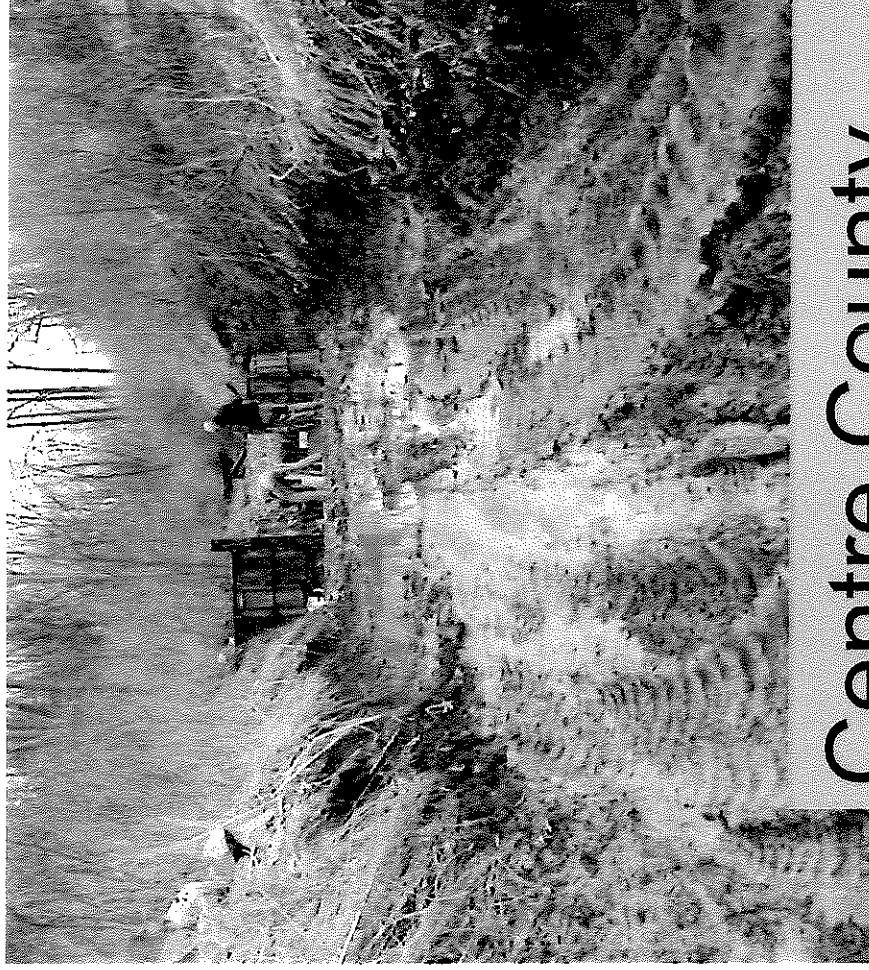


Since 2006 Permit Holders must now test *dry weather* flow:

- Track down illicit discharge
- Ordinance allows for citation for non-compliance
- Maintain Storm System Map
- **Must report each case of illicit discharge or illegal dumping**



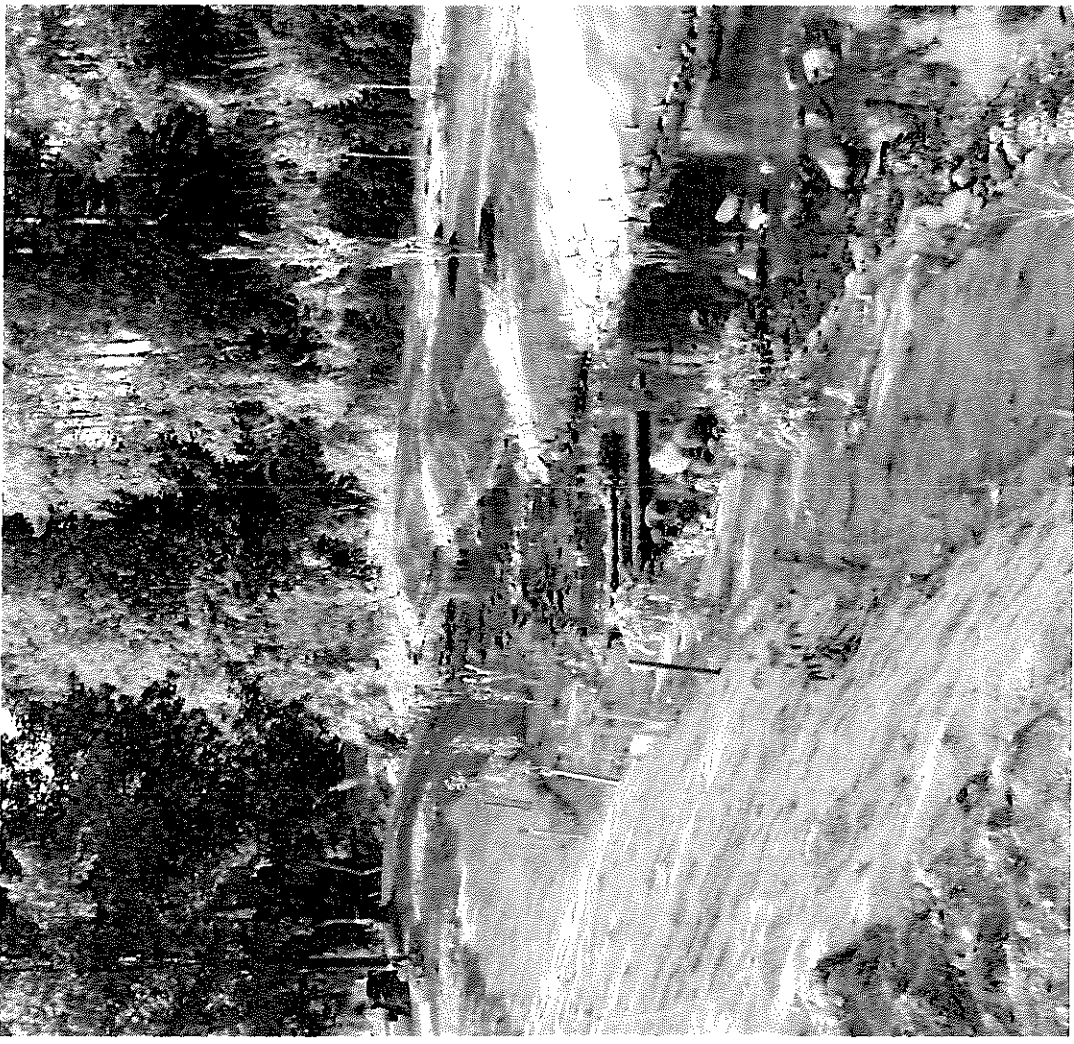
4. Construction Site Runoff Management DEP



Centre County
Conservation District

5. Post-Construction

- Encourage BMP's (Best Management Practices)
- Ordinance Requirements
- Ownership/ Maintenance/ Inspection



6. Pollution Prevention/Good Housekeeping for Municipal Operations

BMP#1 – Develop a Written Prevention Pollution/Good Housekeeping Program – (PPGHP)

BMP#2 – Develop/Implement/Maintain Written Operation & Maintenance Program (O&M)

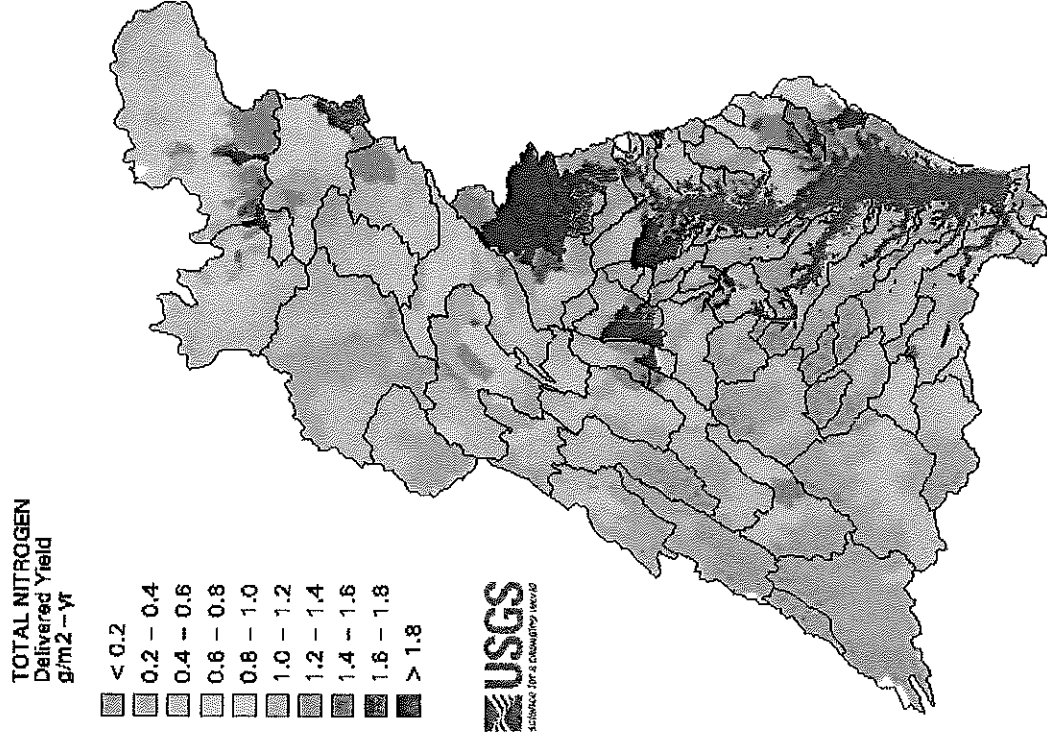
BMP#3 – Develop/Implement an Employee Training Program for Appropriate Topics

Training should be provided to: All municipal employees, contractors, elected officials, police & fire responders, volunteers and contracted personnel

Chesapeake Bay Pollution Reduction Plan (CBPRP)

- The objective of the CBPRP is to implement Best Management Practices (BMPs) to produce tangible improvements to the quality of stormwater discharges in the Chesapeake Bay Watershed.

- *Within 12 months of the effective date of the permit, each MS4 Partners created a plan to reduce nitrogen, phosphorus, and sediment associated with **existing** stormwater discharges.*
(DONE)



CBPRP Steps

1. Describe the drainage area within the UA that discharges to the Chesapeake Bay Watershed.
 - a. Include pervious and impervious cover (%).
2. Describe areas where municipal infrastructure upgrades are planned, and an evaluation of:
 - a. the suitability of green infrastructure
 - b. low impact development (LID) or environmental site design (ESD) BMPs for planned infrastructure upgrades.
3. *Estimate the current loads of Nitrogen (N), Phosphorus (P) and Sediment being discharged from the MS4 annually to surface waters in the Chesapeake Bay Watershed (optional w/current permit). NOT OPTIONAL WITH 2018 PERMIT*

CBPRP Steps (cont.)

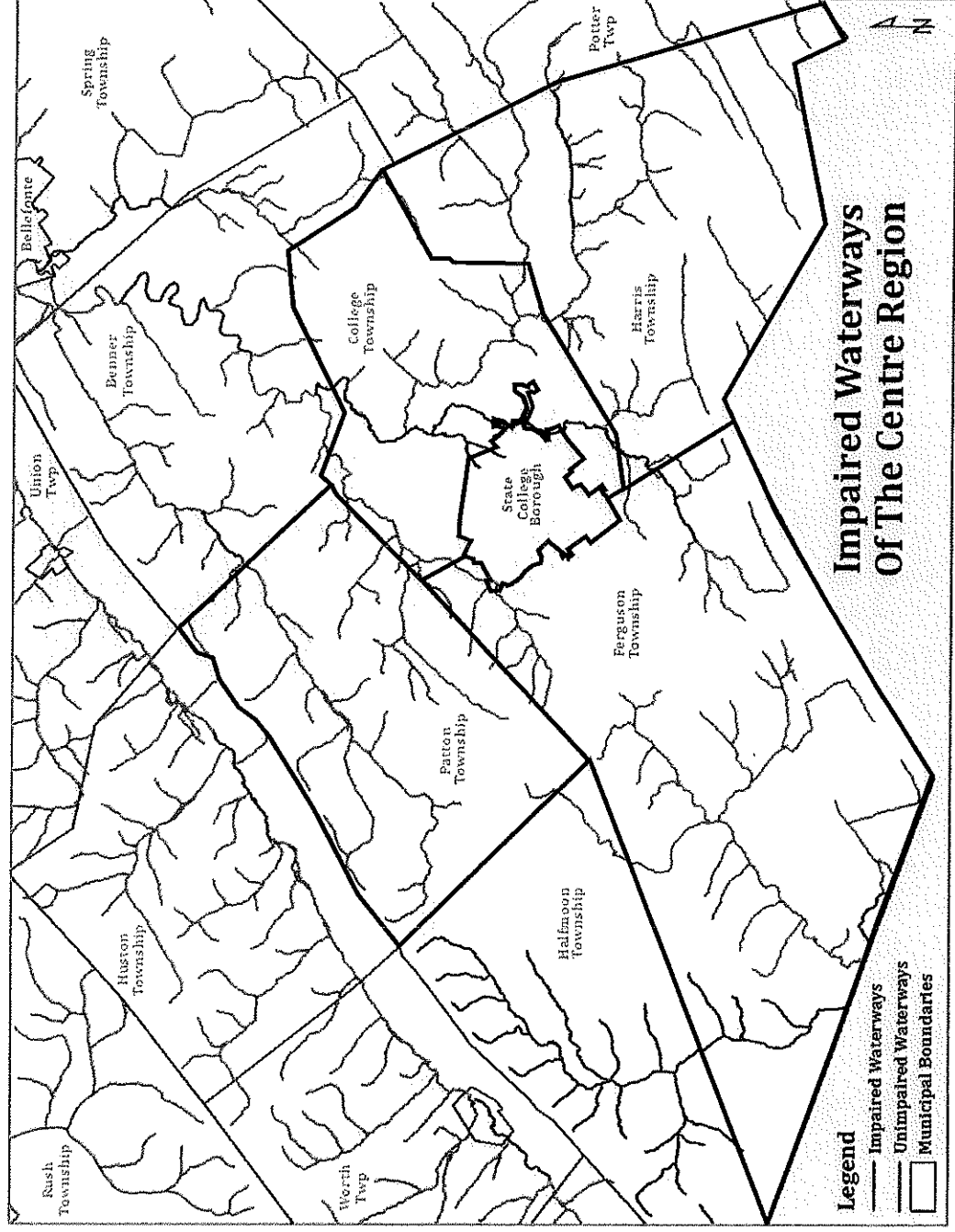
4. Identify each Total Maximum Daily Limit (TMDL) control measure that will be implemented to reduce pollutant loads to the Chesapeake Bay Watershed from the MS4 and include:
 - Location(s) of the BMPs;
 - Implementation schedule;
 - How each BMP is expected to reduce N, P and/or Sediment in the receiving waters;
 - Rationale for selecting the BMP; and
 - Description of the planned inspection, operation and maintenance for the BMP.

Impaired waters without a TMDL



- Ensure that **new** discharges from the permittee's regulated small MS4s do not cause or contribute to exceedances of water quality standards.
- Identify the outfalls
- Identify the BMPs that will be added or modified for new developments.
- Spring Creek impairments are for siltation and thermal modifications

What's defined as impaired by PaDEP in COG's area?

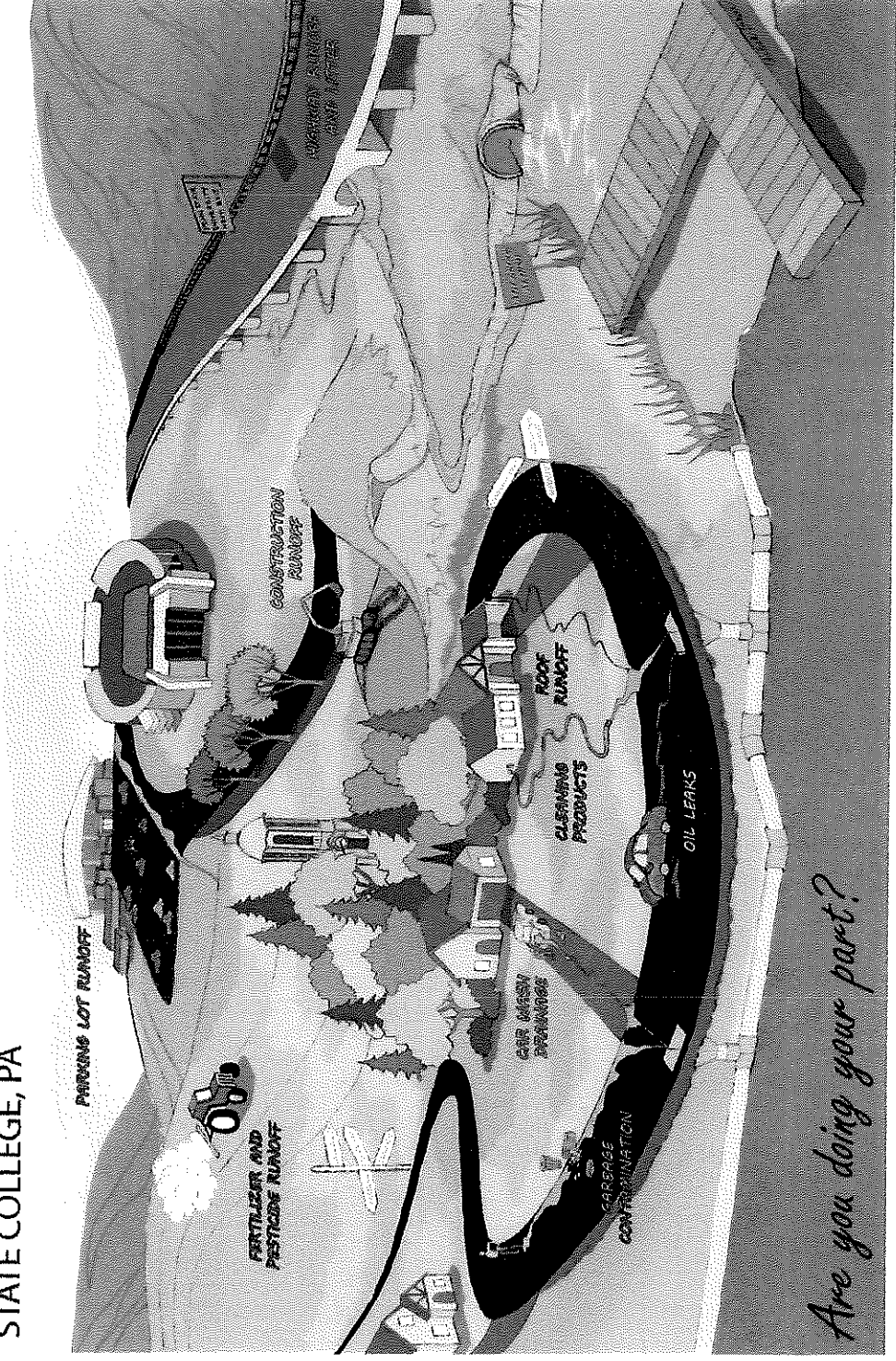


TMDL Control Measure

- 1. Establish and Protect Riparian Forest Buffers**
- 2. Disconnect Impervious Area Program**
- 3. Tree Planting**
- 4. Construct Recharge/Infiltration Facilities**
- 5. Stormwater Basin Retrofits**
- 6. Restore Streambanks**
- 7. Establish Green Infrastructure at facilities that area owned by the municipality and that drain to the regulated small MS4**
- 8. Develop and implement additional provisions to address TMDLs or a separate MS4 TMDL Stormwater Management Ordinance -**

We all need to do our part

STORMWATER
AND OUR COMMUNITY
STATE COLLEGE, PA



Are you doing your part?

Courtesy Chisea Graper

How Can a Rain Barrel Help?

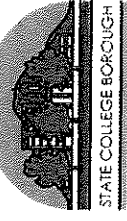
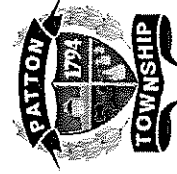
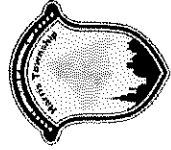
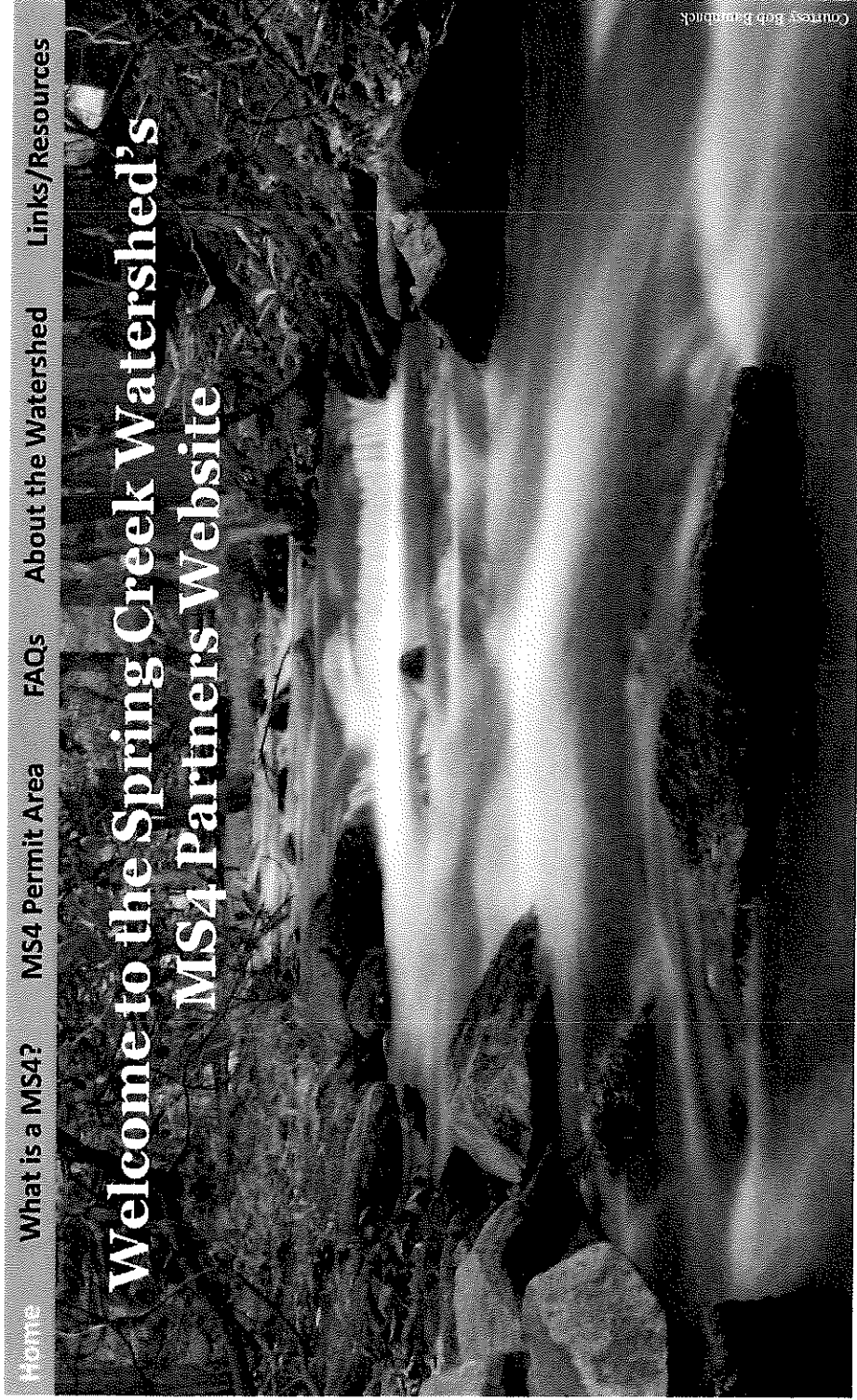


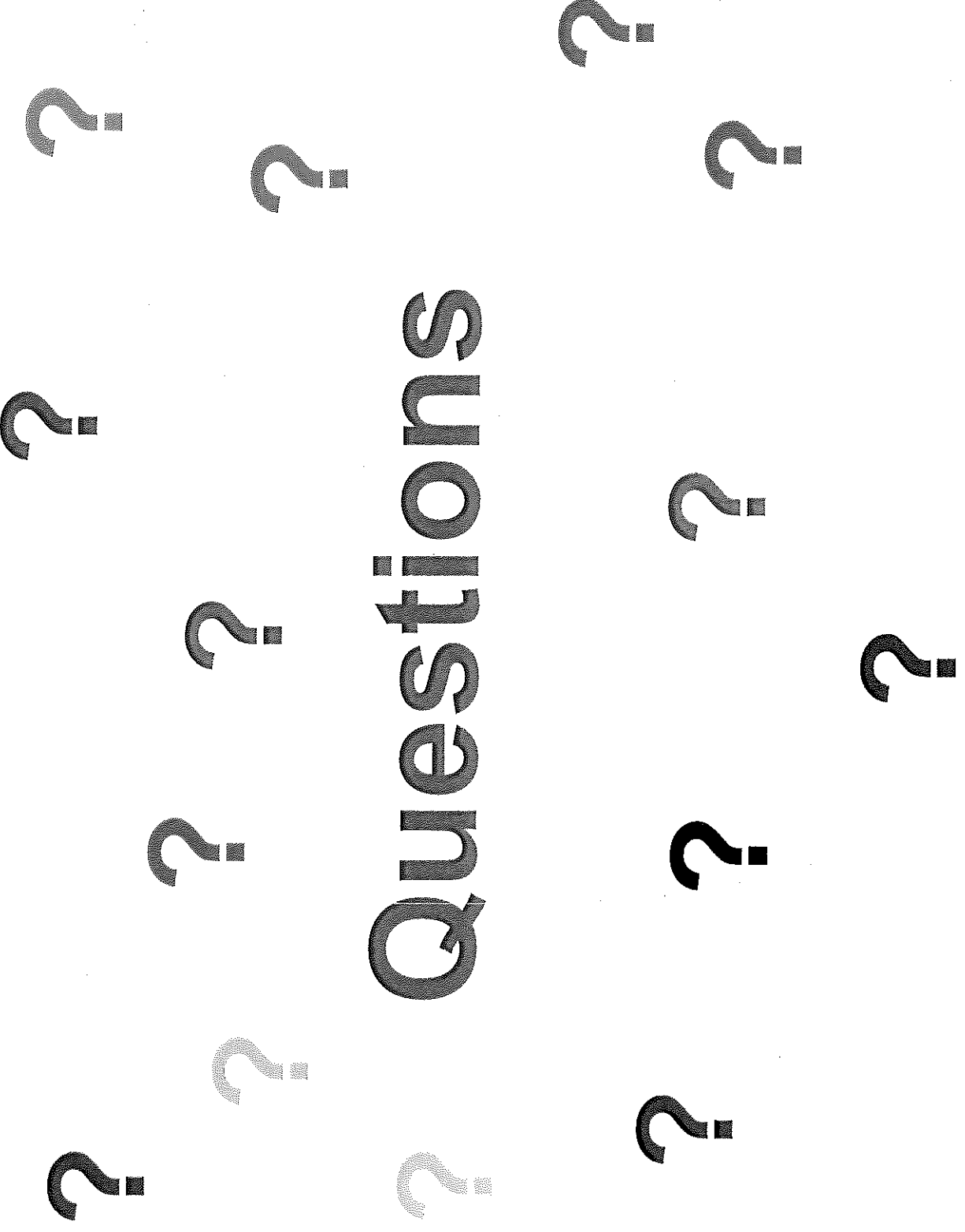
#1 REASON

DISCONNECT
IMPERVIOUS AREA FROM
STORM SEWER SYSTEMS

*Helps to infiltrate stormwater & recharge
aquifer (if not used by the plants) which gets it
out of the storm sewer network*

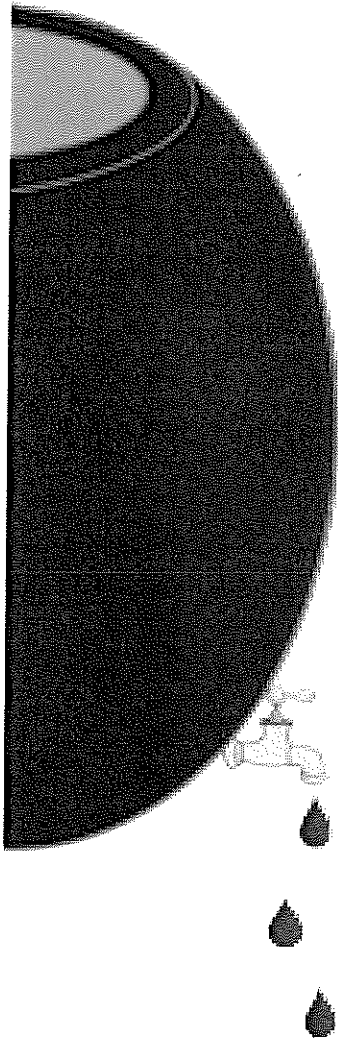
The MS4 Partners are developing a website





Rain Barrel Workshop

Hosted by ClearWater Conservancy
and the local MS4 partners



March 12th

10:00 AM-Noon

All supplies are provided

Alpha Fire Company
2598 Green Tech Drive,
State College

Cost \$35

Sign up online at:

<http://bit.ly/Rainbarrel2016>

Registration is limited to 20 participants -1 rain barrel per household

CWC 2016 Rain Barrel Workshop Sign in Sheet

Reg Status	Pay Status	Last Name	First Name	Signature
REGISTERED	PAID	Bader	Amy	<i>Amy Bader</i>
REGISTERED	PAID	Matthews	Jessica	<i>Jessica Matthews</i>
REGISTERED	PAID	Kingera	Katie	<i>Katie Kingera</i>
REGISTERED	PAID	Tomnay	Neil	<i>Neil Tomnay</i>
REGISTERED	PAID	Matthews	John Sarah	<i>John Sarah Matthews</i>
REGISTERED	PAID	Zappe	Stephen	<i>Stephen Zappe</i>
REGISTERED	PAID	Chester	Denise	<i>Denise Chester</i>
REGISTERED	PAID	Park-Callaghan	Sandra	<i>Sandra Park-Callaghan</i>
REGISTERED	PAID	Moore	Judy	<i>Judy Moore</i>
REGISTERED	PAID	Baldwin	Jennifer	<i>Jennifer Baldwin</i>
REGISTERED	PAID	Dobrinska	Margaret	<i>Margaret Dobrinska</i>
REGISTERED	PAID	Fickes	Marcella	<i>Marcella Fickes</i>
REGISTERED	PAID	Coulter	Tracey	<i>Tracey Coulter</i>
REGISTERED	PAID	Craig	Sandra	<i>Sandra Craig</i>
REGISTERED	PAID	Santamaria	Joanne	<i>Joanne Santamaria</i>
REGISTERED	PAID	Blair	Dorothy	<i>Dorothy Blair</i>
REGISTERED	PAID	Waslohn	Kay	<i>Kay Waslohn</i>
REGISTERED	PAID	Dutrow	Jeanne	<i>Jeanne Dutrow</i>
REGISTERED	PAID	Taylor	Chip	<i>Chip Taylor</i>
REGISTERED	PAID	Stryker	Hazel	<i>Hazel Stryker</i>

MCM #3 Illicit Discharge Detection and Elimination Procedures

Each permit year Harris Township will perform the following tasks:

1. Perform dry weather inspection of 20% of the stormwater outfalls. Reports will be prepared on the DEP form, *Outfall Reconnaissance/Sample Collection Field Sheet*.
2. Perform inspections of 20% of the detention and/or retention facilities. Reports will be prepared on the Harris Township Detention Basin Inspection form.

Each outfall and detention/retention facility will be inspected once per 5 year permit cycle.

When a potential illicit material is detected the following steps will be taken:

1. Inspector shall notify the Township Engineer.
2. Township engineer shall visit site and determine if an illicit discharge is present. Testing, as may be deemed necessary by the Township Engineer will be performed by the Township or by a third party.
3. If an illicit discharge is found to exist, the Township shall notify DEP and or the Centre County Conservation district and the owner of the property. Township will follow up until a satisfactory resolution to the issue is achieved.
4. Township maintains a field book documenting reported potential illicit discharges and the outcome of the investigation. Field book is permanently bound to prevent unauthorized revisions to the report.

Citizen complaints in reference to a potential Illicit Discharge are to be directed to the Township Manager. Township manager will e mail the Township Engineer. Township Engineer will follow steps 2 and 3 and 4 as noted above.

Last Revised January 23, 2017

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 1	
Today's date: 8/12/2016		Time (Military): 15:00	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 222893	Longitude: 1960464	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream (applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight, origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 4	
Today's date: 6/13/2016		Time (Military): 11:00	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 75	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 223682	Longitude: 1963613	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15 In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream (applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		75	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab? ☐ Yes ☒ No

2. If yes, collected from: ☐ Flow ☐ Pool

3. Intermittent flow trap set? ☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

bottom of pipe rusty

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 5	
Today's date: 8/5/2016		Time (Military): 16:00	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 80	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 225801	Longitude: 1954892	GPS Unit:	GPS LMK #:
Camera:		Photo #:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18 In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		80	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 7	
Today's date: 8/5/2016		Time (Military): 16:30	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 80	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 224639	Longitude: 1955808	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☒ Suburban Residential		Other: _____	
☐ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		80	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☒ Paint ☐ Other:	white-colored stripe inside pipe
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 17	
Today's date: 7/29/2016		Time (Military): 15:15	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 222771	Longitude: 1951630	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☒ Single ☒ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: 42w x 30h	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Clogged with trash / debris

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 19	
Today's date: 6/13/2016		Time (Military): 11:15	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 75	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 223772	Longitude: 1964165	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: 15 _____	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(Applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		75	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 21	
Today's date: 8/11/2016		Time (Military): 14:45	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 221878	Longitude: 1958358	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: _____ 18 _____	In Water: ☐ No ☒ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(Applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☒ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g. trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 22	
Today's date: 8/11/2016		Time (Military): 15:30	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 221953	Longitude: 1958551	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☒ Suburban Residential		Other: _____	
☐ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: 36	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 23	
Today's date: 8/11/2016		Time (Military): 15:30	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 221968	Longitude: 1958598	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☒ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: 18	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		in	Tape measure
	Flow width	____' ____"	Ft, in	Tape measure
	Measured length	____' ____"	Ft, in	Tape measure
	Time of travel		s	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 24	
Today's date: 8/11/2016		Time (Military): 15:45	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 221996	Longitude: 1958684	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☐ Suburban Residential		Other: _____	
☒ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 25	
Today's date: 8/11/2016		Time (Military): 16:00	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 222095	Longitude: 1958854	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☒ Suburban Residential		Other: _____	
☒ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 26	
Today's date: 8/10/2016		Time (Military): 15:45	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 222597	Longitude: 1959292	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☒ Suburban Residential		Other: _____	
☐ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: 18	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream (applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (if present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 27	
Today's date: 6/13/2016		Time (Military): 11:00	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 75	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 223820	Longitude: 1963995	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☒ Suburban Residential		Other: _____	
☐ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(Applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature	75	°F	Thermometer	
pH		pH Units	Test strip/Probe	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 30	
Today's date: 8/11/2016		Time (Military): 14:45	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 221894	Longitude: 1958407	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: 15	In Water: ☐ No ☒ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☒ Yes ☐ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☒	See severity	☐ 1 - Slight cloudiness	☒ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight origin not obvious	☐ 2 - Some indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☒ Other: cloudiness	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☒ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 33	
Today's date: 8/9/2016		Time (Military): 16:15	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 85	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 224244	Longitude: 1954838	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☐ Institutional	
☐ Suburban Residential		Other: _____	
☒ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15 In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		85	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☒ Other: cloudiness	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illlicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 39	
Today's date: 8/17/2016		Time (Military): 10:30	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 75	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitude: 223174	Longitude: 1959758	GPS Unit:	GPS LMK #:
Camera:		Photo #:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18 In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☒ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature	75	°F	Thermometer	
pH		pH Units	Test strip/Probe	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Sulfide ☐ Rancid/sour: ☐ Petroleum/gas ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Green ☐ Brown ☐ Orange ☐ Gray ☐ Red ☐ Yellow ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Petroleum (oil sheen) ☐ Suds ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☒ Yes ☐ No (If No, Skip to Section 6)

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	☒	☐ Spalling, Cracking or Chipping ☐ Corrosion ☐ Peeling Paint	outlet plugged by lodged silt bag
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Colors ☐ Suds ☐ Excessive Algae ☐ Oil Sheen ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely
 ☐ Potential (presence of two or more indicators)
 ☐ Suspect (one or more indicators with a severity of 3)
 ☒ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

see Section 5

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 40	
Today's date: 8/17/2016		Time (Military): 10:45	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 75	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 223408	Longitude: 1960140	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☒ Suburban Residential ☐ Commercial		☐ Open Space ☐ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 36 In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream (applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		75	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only
Are Any Physical Indicators Present in the flow? ☐ Yes ☒ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☒	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: Spring Creek		Outfall ID: 61	
Today's date: 8/5/2016		Time (Military): 16:45	
Investigators: CH & DF		Form completed by: CH	
Temperature (°F): 80	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 223213	Longitude: 1955155	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☒ Open Space ☐ Institutional Other: <u>Boal Mansion (Historical Site)</u> Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>28w x 21h</u> In Water: ☐ No ☒ Partially ☐ Fully With Sediment: ☐ No ☒ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		80	°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☒ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 - Faint	☐ 2 - Easily detected	☐ 3 - Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 - Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	☐ 3 - Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 - Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 - Few/slight; origin not obvious	☐ 2 - Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☒ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☒ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes ☒ No
2. If yes, collected from:	☐ Flow ☐ Pool
3. Intermittent flow trap set?	☐ Yes ☒ No If Yes, type: ☐ OBM ☐ Canik dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

MEMORANDUM OF UNDERSTANDING (MOU)
between
HARRIS TOWNSHIP
and
CENTRE COUNTY CONSERVATION DISTRICT (CCCD)
for
**ADMINISTRATION OF EROSION AND SEDIMENTATION CONTROL PLANS AND
NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PLANS**

I. INTENT OF PARTICIPANTS

The intent of this MOU is to document the procedures and delegation of responsibilities relative to the administration of Erosion and Sedimentation Control plans and NPDES plans associated with land development or subdivision. This MOU is intended to meet the requirements of the Pennsylvania Department of Environmental Protection's Municipal Separate Storm Sewer System (MS4) Permit Part A.2.h (Sharing Responsibility) for Minimum Control Measures (MCM's) #4, and Best Management Practices 1 through 3 of MCM #5.

II. BACKGROUND

The CCCD has a delegation agreement with the Department of Environmental Protection (DEP) to administer the applicable regulations of Pennsylvania Code, Title 25, Environmental Protection, Chapter 102, Erosion and Sediment Control (Chapter 102). The CCCD administers and reviews Erosion and Sedimentation Control plans to verify compliance with Chapter 102. The CCCD administers General and Individual NPDES permit applications for compliance with Chapter 102. For General NPDES permit applications, the CCCD conducts an administrative review of the Post Construction Stormwater Management (PCSM) component. For Individual NPDES permit applications, the CCCD conducts an administrative review and the DEP conducts a technical review of the PCSM component. For General and Individual NPDES permits, The CCCD reviews the as built PCSM plans and the recorded Stormwater Management Operation and Maintenance Plan as part of the NPDES permit termination process. The Harris Township Act 167 Stormwater Management Ordinance requires that projects having over 5,000 square feet of disturbance have an approved Erosion and Sedimentation Control plan.

III. EROSION AND SEDIMENTATION CONTROL PROCEDURE

- A. For projects with over 5,000 square feet of disturbance, The CCCD agrees to review Erosion and Sedimentation Control plans in accordance with the applicable regulations of Pennsylvania Code, Title 25, Environmental Protection, Chapter 102, Erosion and Sediment Control. Upon receipt of an acceptable Erosion and Sedimentation Control plan, the CCCD will submit a copy of the approval letter to Harris Township.
- B. For projects with over 5,000 square feet of disturbance, Harris Township will not issue final approval of the land development or subdivision plan until such time as an Erosion and Sedimentation Control plan approval letter from the CCCD has been received.
- C. When on-site inspections of the construction are performed by the CCCD, the CCCD will submit a copy of the inspection findings to Harris Township.
- D. The Township will notify the CCCD via e-mail of any suspected deficiencies in the implemented Erosion and Sedimentation Control features that may be noted by Harris Township staff or as may be reported by residents.

E. CCCD will respond to Harris Township stating the findings of the CCCD relative to the Township notification.

F. CCCD will notify Harris Township when final stabilization of the project has been approved.

IV. NPDES PROCEDURE

A. For projects requiring a General NPDES permit, the CCCD agrees to review the General NPDES permit application and the Erosion and Sediment Control Plan in accordance with the applicable regulations of Pennsylvania Code, Title 25, Environmental Protection, Chapter 102, Erosion and Sediment Control. Upon receipt of an acceptable General NPDES permit and E&S plan, the CCCD will submit a copy of the approval letter to Harris Township.

B. For General and Individual NPDES permits, the CCCD agrees to inspect the as built PCSM facilities and to review documents prepared by the responsible professional relative to the as built conditions of the PCSM and verify that the Stormwater Management Ownership and Maintenance Plan has been recorded at the Centre County Recorder of Deeds office, as part of the NPDES permit termination process. Harris Township will perform spot site inspections during construction of the PCSM.

V. ADMINISTRATIVE PROVISIONS

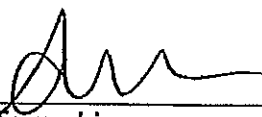
A. Nothing in this MOU is intended to or will be construed to limit or affect in any way the authority or legal responsibilities of Participants.

B. Nothing in this MOU binds the Participants to perform beyond their respective authorities.

C. This agreement is rendered void if the Department of Environmental Protection changes the delegation status of the CCCD such that the CCCD is no longer responsible for the administration of Title 25, Environmental Protection, Chapter 102, Erosion and Sediment Control.

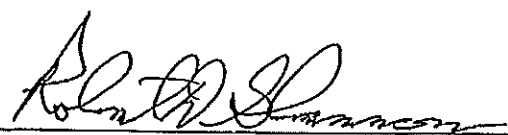
VI. TERM OF THE AGREEMENT

This MOU will take effect on January 1, 2016 and will remain in effect until such time as either Participant shall notify the other Participant that they no longer wish to participate in the MOU. Intent to terminate must be made via letter a minimum of 30 days prior to the termination date.



Harris Township
By: Amy K. Farkas, Harris Township Manager

12/9/15
Date



Centre County Conservation District
By: Robert Shannon, Chairman CCCD

12/7/15
Date

MCM #3 Illicit Discharge Detection and Elimination Procedures

Each permit year Harris Township will perform the following tasks:

1. Perform dry weather inspection of 20% of the stormwater outfalls. Reports will be prepared on the DEP form, *Outfall Reconnaissance/Sample Collection Field Sheet*.
2. Perform inspections of 20% of the detention and/or retention facilities. Reports will be prepared on the Harris Township Detention Basin Inspection form.

Each outfall and detention/retention facility will be inspected once per 5 year permit cycle.

When a potential illicit material is detected the following steps will be taken:

1. Inspector shall notify the Township Engineer.
2. Township engineer shall visit site and determine if an illicit discharge is present. Testing, as may be deemed necessary by the Township Engineer will be performed by the Township or by a third party.
3. If an illicit discharge is found to exist, the Township shall notify DEP and or the Centre County Conservation district and the owner of the property. Township will follow up until a satisfactory resolution to the issue is achieved.
4. Township maintains a field book documenting reported potential illicit discharges and the outcome of the investigation. Field book is permanently bound to prevent unauthorized revisions to the report.

Citizen complaints in reference to a potential Illicit Discharge are to be directed to the Township Manager. Township manager will e mail the Township Engineer. Township Engineer will follow steps 2 and 3 and 4 as noted above.

Post Construction Stormwater Best Management Practice Facilities Acceptance and Inspection Procedures for Harris Township

The following steps will be taken for any land development requiring construction of stormwater management BMP's. Steps 3 through 5 will be taken for existing stormwater management facilities

1. All land development projects with over 5,000 SF of new impervious are required to submit a Stormwater Management Site Plan for Township approval. The SWMSP must meet the requirements of the Harris Township Act 167 Spring Creek Stormwater Management Ordinance. After all technical questions have been addressed, the Township engineer will issue a consistency letter. The Township engineer will not sign the municipal signature block until the Centre County Conservation District has approved the Erosion and Sediment Control Plan and DEP has approved the NPDES permit (if required).
2. Prior to issuance of occupancy permit and/or release of surety the as-built drawings of stormwater BMP's supplied by the developer or his agent will be reviewed by Township staff. The Township engineering department will notify the zoning department.
3. Engineering department staff will inspect approximately 20% of the detention and/or retention facilities within the Township each year. Priority will be given to structures with past deficiencies and/or to recently completed structures.
For basins\raingardens\infiltration trenches the Items to be inspected will include:
 - Inside, top, and bottom of embankment.
 - Discharge points within structure.
 - Outlet structure.
 - Outlet discharge.For underground structures the items to be inspected will include:
 - Inspection portals. (if portals have a solid cover the cover is to be removed)
 - Discharge Points.
4. Notification will be made to the owners of BMP's exhibiting major deficiencies.
5. Reports of the inspections and notifications will be kept on file.

Last Revised January 19, 2015 (reviewed January 23, 2017 with no revisions)

Harris Basins

Number	Inspection	Deficiency	Outlet Structure	Corrective	Comments
1	8/6/2015	None		No	
2	8/6/2015	None		No	
3	8/11/2016	None		No	
4	8/11/2016	None		No	
5	8/17/2016	None		No	
6	8/5/2015	None		No	
7	7/2/2015	None		No	
8	7/12/2016	None	CONC. Type M	No	
9	7/12/2016	None	CONC. Type M	No	outlet pipe has been grouted to outlet structure
10	7/12/2016	None	CONC. Type M	No	outlet pipe has been grouted to outlet structure
11	7/11/2016	None	CONC. Type M	No	
12	7/11/2016	None	CONC. Type M	No	Erosion & Sedimentation
13	7/11/2016	None	CONC. Type M	No	Erosion & Sedimentation
14	6/24/2016	None	CONC. Type M	No	sinkhole repaired
16	8/10/2016	None		No	
17	6/24/2016	None	CONC. Type M	No	sediment deposits at infall pipes
19	Basin Nonexistent			No	
20	8/6/2015	None		No	
21	6/13/2016	None		No	
22	6/13/2016	None		No	
23	7/11/2016	Animal Burrow	CONC. Type M	No	Erosion & Sedimentation
24	Unavailable			No	
26	6/30/2014	None		No	
27	6/30/2014	None		No	
28	6/13/2016	None		No	
29	6/24/2016	None	CONC. Type M	No	sinkhole repaired
30	8/6/2015	None		No	
31	8/1/2016	None	None	No	built to buffer flow from outfall
32	8/17/2016	None		No	underground basin
33	8/17/2016	None		No	underground basin
34	8/17/2016	None		No	underground basin

Harris Township Stormwater BMP's
Last Revised January 22, 2016

BMP #	Type	Location	Owner/Operator	Year Built	Urbanized	Latitude/Longitude
1	Basin	318 Kimport Boalsburg	Meyers Estate HOA c/o Michael Green 400 Belle Ave Boalsburg	1970's	Yes	40°47'1.3"/77°47'15.7"
2	Basin	Indian Hill Road	Chris Bahr c/o Eve Powars-Bahr 122 Kaywood Drive	1980's	Yes	40°47'3.2"/77°46'51.3"
3	Basin	Springfield Commons	GTW Assoc. 1951 Pine Hall Road State College, PA 16801	2005	No	40°46'31.2"/77°47'11.6"
4	Basin	Springfield Commons	GTW Assoc. 1951 Pine Hall Road State College, PA 16801	2005	No	40°46'31.9"/77°47'9.4"
5	Basin	Ashworth Woods	Calibre Boalsburg Assoc II P.O. Box 215 State College Pa 16804	1995	Yes	40°46'40.2"/77°47'2.4"
6	Basin	202 Willowbrook Drive	Harris Township, P.O. Box 20 Boalsburg, Pa 16827	1970's	Yes	40°46'53.8"/77°46'18.6"
8	Basin	Huntridge Manor Rosslyn Rd.	Huntridge Manor HOA c/o Robert Macqueen 672 Rosslyn Rd Boalsburg, Pa 16827	2000	No	40°47'4.7"/77°45'13.2"
9	Basin	Huntridge Manor Rosslyn Rd.	Huntridge Manor HOA c/o Robert Macqueen 672 Rosslyn Rd Boalsburg, Pa 16827	2000	No	40°46'56.8"/77°45'2.8"
10	Basin	Huntridge Manor Rosslyn Rd.	Huntridge Manor HOA c/o Robert Macqueen 672 Rosslyn Rd Boalsburg, Pa 16827	2000	No	40°47'21.4"/77°45'14.5"
11	Basin	Huntridge Manor Rosslyn Rd.	Huntridge Manor HOA c/o Robert Macqueen 672 Rosslyn Rd Boalsburg, Pa 16827	2000	No	40°47'2.9"/77°45'1.5"
12	Basin	171 Technology Drive	Boalsburg Investment Group, P.O. Box 670 Boalsburg, PA 16827	2010	No	40°46'41.8"/77°46'25.3"
13	Basin	171 Technology Drive	Boalsburg Investment Group, P.O. Box 670 Boalsburg, PA 16827	2010	No	40°46'39.2"/77°46'39.7"
14	Basin	Fairfield Subdivision	Daniel Hawbaker 5881 W. Buffalo Run Rd, Port Matilda, PA 16870	1970's	Yes	40°46'30.4"/77°48'58.9"
16	Basin	3939 S. Atherton Street	Gary Weinken 3949 S. Atherton St. S.C. PA 16803	1980's	Yes	40°46'55.4"/77°47'58.0"
17	Basin	Fairfield Subdivision	Daniel Hawbaker 5881 W. Buffalo Run Rd, Port Matilda, PA 16870	1980's	Yes	40°46'38.3"/77°48'39.1"
20	Basin	Indian Hill Road	Garry McShea, 1220 Earleystown Rd, Boalsburg, PA 16827	1980's	Yes	40°46'58.3"/77°46'39.6"
21	Basin	Jacks Mill Drive (Elksview)	CDFJ LLC 2221 Upper Brush Valley Road, Centre Hall, PA 16828	2008	Yes	40°46'50.0"/77°45'55.4"
22	Basin	Jacks Mill Drive	unknown	1990's	Yes	40°46'50.7"/77°45'58.1"
23	Basin	Liberty Hill	TOAPAIVLP c/o Traditions of America, King of Prussia Road #370 19087	2007	No	40°46'46.1"/77°47'21.5"

Last Revised January 22, 2016

[illegible]

HARRIS TOWNSHIP

Post Office Box 20, 224 East Main Street, Boalsburg, PA. 16827
Website: www.harristownship.org

(814) 466-6228 Office
(814) 466-3396 Fax

May 27, 2016

KBBH Partnership
2300 South Atherton Street
State College, Pennsylvania 16801

Re: Grass & Weed Violation - #25-13-111 - Discovery Drive Detention Basin

Dear KBBH Partnership:

It was recently reported to staff that grass and weeds at the above referenced property are presently in violation of the provisions pertaining to such in the Harris Township Code of Ordinances. An inspection of the property revealed the complaint to have merit.

Chapter 5, Subchapter B., Section 5.52 of the Harris Township Code of Ordinances regulates grass and weed growth as follows:

No person, firm, partnership, or corporation owning or having a present interest in (including renting) or occupying any real estate having one or more primary uses which are residential, commercial, or industrial in nature shall permit any grass or weeds or vegetation whatsoever, not edible nor planted for some useful or ornamental purpose, to grow or remain on such premises, including any portion of the premises occupied by a street or alley, so as to exceed a height of twelve (12) inches, or to throw off any unpleasant or noxious odor or to conceal any filthy deposit or to create or to produce pollen. All such vegetation is hereby declared to be a nuisance and detrimental to the health, safety, cleanliness, and comfort of the inhabitants of the Township.

Therefore, Harris Township will require that all grass and weeds on the above referenced property be brought into compliance with the requirements of these regulations within five (5) days of the date of this letter. Failure to do so may result in one citation being filed at the office of the local District Justice, Thomas Jordan, for each day the property remains in violation.

If you should have any questions regarding this matter, please contact me at 466-6228.

Sincerely,



Todd K. Shea
Zoning/Ordinance Enforcement Officer

cc: Township Manager
Board of Supervisors

Harris Township Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Program

A copy of this plan is to be available at the maintenance buildings.

The guidelines of this plan are to be followed to the greatest extent practicable.

Any questions concerning this plan can be directed to the Maintenance Director or the Township Engineer

Last Revised January 21, 2016 (Reviewed Jan 25, 2017 no revisions)

Overview

Harris Township is located within the State College Urbanized Area as designated by the Environmental Protection Agency. The Urbanized Area includes all of the Borough of State College and portions of College, Ferguson, Harris, and Patton Townships. Being part of a federally designated urbanized area, Harris Township was required to obtain a National Pollution Discharge Elimination System (NPDES) Individual Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4). The NPDES MS4 permit was obtained in March of 2003 remained in effect until October 31, 2013. On November 1, 2013 a new NPDES (MS4) permit was issued. This permit will remain in effect until October 31, 2018. One of the requirements of the NPDES MS4 permit is that the Township implement a Pollution Prevention and Vehicle Operations and Maintenance Program. The Pollution Prevention program outlines the procedures to be followed when inspecting and maintaining stormwater facilities located within Township right of way. Good Housekeeping outlines the procedures to be followed when Operating and Maintaining fleet vehicles.

Pollution Prevention

Inspection:

All stormwater facilities located within Township right of way (inlets and pipes) are to be inspected on a yearly basis. Note the locations of any inlets or pipes found to have excessive debris and or structural deficiencies. Note the locations of facilities requiring cleaning and or maintenance on a "Stormwater Facilities cleaning and/or Maintenance Form."

Stormwater facilities not within Township right of way are to be inspected by engineering staff. The Engineer will notify the owners of facilities where deficiencies are noted

Cleaning:

Carefully inspect the debris before removal to determine if any foreign substances such as oil, grease, household chemicals, or any foreign material other than anti skid, stones, dirt or leaves are present. (Note: Confined space entry protocols are to be followed at all times.)

If the presence of foreign material is suspected, do not remove the debris. Notify the engineering department of the location of the suspect material and a member of the engineering department will inspect the location. If it is determined that there may be a foreign substance, the material is to be placed in a plastic garbage bag and disposed of in accordance with DEP guidelines. If possible, determine source of the foreign material. Fill out the Stormwater Facilities Cleaning and/or Maintenance form and give to Engineer.

If no foreign materials are suspected debris may be removed from inlets using either the vac truck or hand methods.

Maintenance:

Repair damaged or deteriorated inlets to ensure that inlets and pipes function as designed. Notify the engineering department if inlets or piping appear to be improperly sized or located. An example of this would be evidence of ponding of water at an inlet indicating that the inlet surcharges during storm events.

Good Housekeeping

Vehicle Maintenance:

All maintenance activities are to be performed within the maintenance buildings. All used motor oil, and other fluids are to be stored in the recycling barrels until such time as they are properly disposed of. Immediately clean up spilled oil or other fluid and place clean up materials in the designated receptacles. Do not track spilled materials outside of the buildings. Inspect floor for signs of leaking or dripping fluids. If drippings are noted on the floor determine the source of the leak and make the required repairs. Place drip pans to capture fluids.

Vehicle Washing:

Wash vehicles at the Boalsburg Fire Company facilities when practical. The floor drains at the BFC Facilities are equipped with an oil and grease separator and discharge to the University Joint Authority treatment system. When washing vehicles, look for signs of leaking or dripping fluids.

Fueling:

Each day before beginning fueling vehicles, visually inspect the fuel storage tank and containment area. Verify the tank is sound and that the containment area is free of debris. When fueling up do not “top off” the tank as this may result in spillage of fuel. Clean any spills immediately with absorbent material designed for fuel spills. Sweep up the absorbent material immediately.

Deicing Operations:

When loading salt onto the trucks ensure that salt spilled during the loading operation is either placed on the truck or placed back onto the pile underneath the shed roof such that precipitation does not fall onto the salt. Load salt and an equal volume of antiskid as per the township procedure. Verify that the spreaders are functioning properly to ensure an even distribution at the calculated rate.

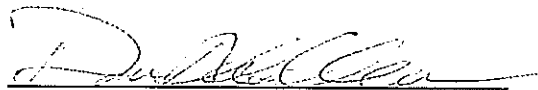
Pollution Prevention and Good Housekeeping For Municipal Operations and Maintenance Program

**Public Works Informational Meeting
January 25, 2017**

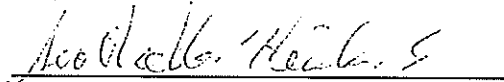
Attendance:

Road Crew:

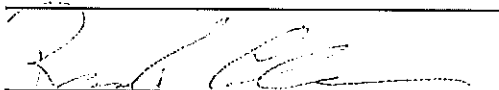
Don Addleman



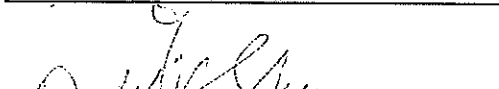
Scott Heimbach



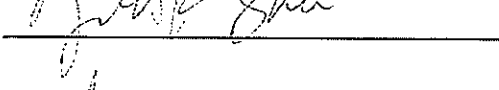
Dave Aukerman



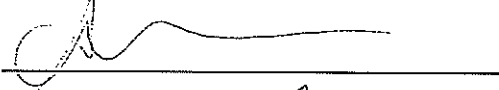
Randy Clouser



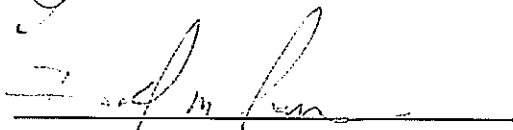
**Zoning Officer
Todd Shea**

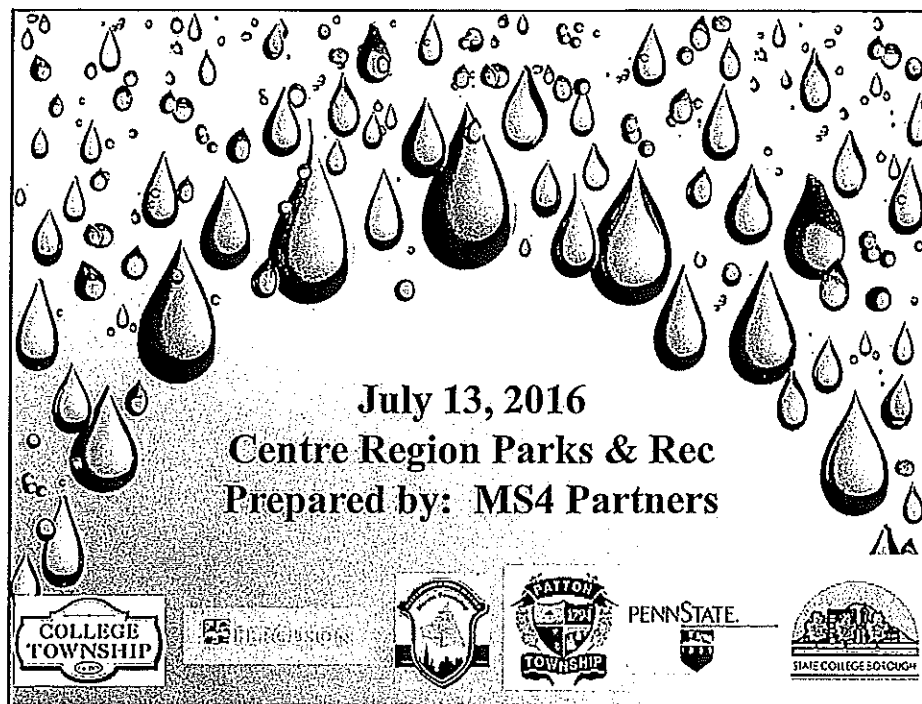


**Twp Manager
Amy Farkas**



**Twp Engineer
Don Franson**

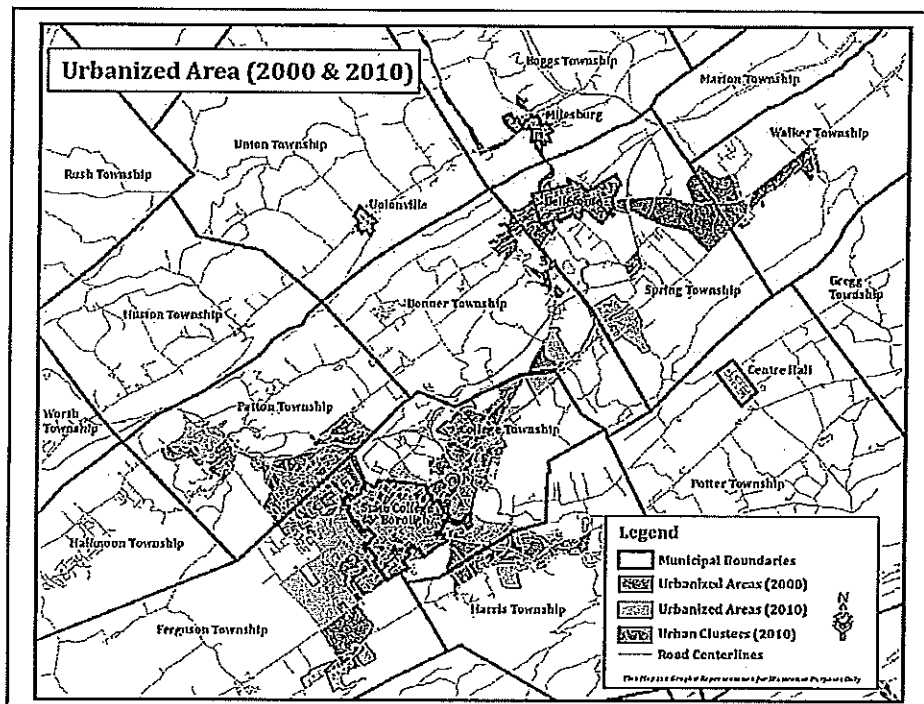




NPDES - Phase II MS4 Permit

National	Municipal
Pollution	Separate
Discharge	Storm
Elimination	Sewer
System	System

Who Has a Permit?



What Does Our Permit Require?

- Implement a Stormwater Management Program (including SWM Ordinance)
 - Standard Operating Procedures
 - Track progress toward goals
 - ◊ Document, Document, Document
 - Report on our progress
- Chesapeake Bay Pollution Reduction Plan



Minimum Control Measures

1. Public Education



4. Construction Site
Runoff Management

2. Public
Involvement



5. Post-Construction
Stormwater
Management

3. Illicit Discharge
Detection and
Elimination



6. Good Housekeeping
and Pollution
Prevention



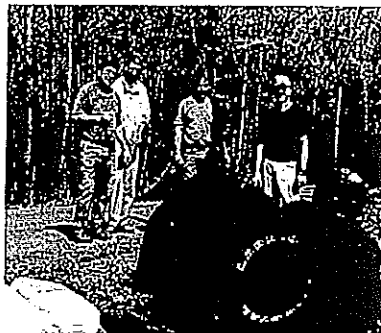
1. Public Education



- Develop a written Public Education & Outreach Program (PEOP)
- Send Out Educational Material & Track Who Gets It.

2. Public Involvement

- Develop Written Public Involvement/Participation Plan (PIPP)
- Provide Opportunities for Public Involvement, like:
 - Spring Creek Watershed Cleanup Day
 - Boy Scouts Inlet Stenciling Project
- Hold 1 Public Meeting Per Year



3. Illicit Discharge Detection

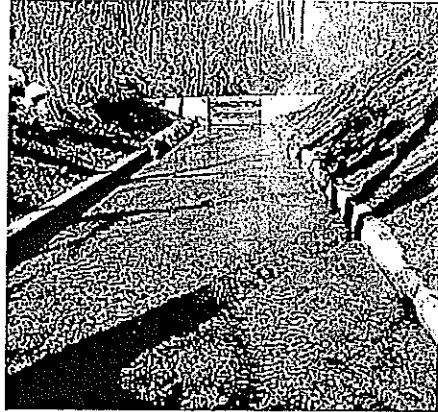
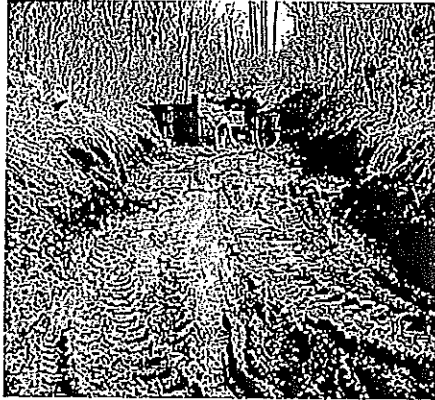


Since Year 3, Permit Holders must now test *dry weather* flow:

- Track down illicit discharge (IDDE)
- Ordinance allows for citation for non-compliance
- Maintain Storm System Map
- Must report each case of illicit discharge or illegal dumping

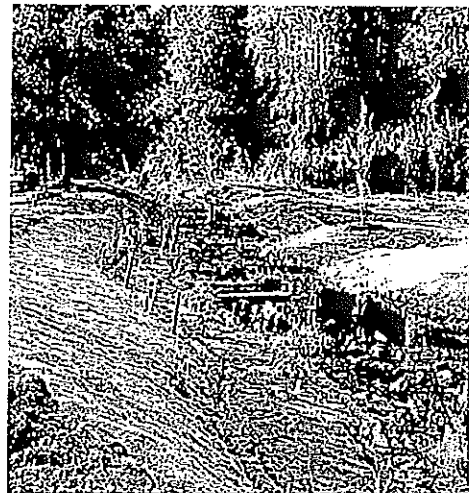
Report any sighting of illicit dumping

4. Construction Site Runoff Management DEP



5. Post-Construction

- Encourage BMP's (Best Management Practices)
- Ordinance Requirements
- Ownership/ Maintenance/ Inspection



6. Pollution Prevention/Good Housekeeping for Municipal Operations

BMP#1 – Develop a Written Prevention Pollution/Good Housekeeping Program – (PPGHP)

BMP#2 – Develop/Implement/Maintain Written Operation & Maintenance Program (O&M)

BMP#3 – Develop/Implement an Employee **Training Program** for Appropriate Topics

Training should be provided to: All municipal employees, contractors, elected officials, police & fire responders, volunteers and contracted personnel

BMP#3 – Employee Training Program Park Maintenance Key Points

- 1 – Equipment Maintenance
- 2 – Equipment Fueling
- 3 – Waste Collection/Management
- 4 – Stormwater BMP Maintenance
- 5 – Illicit Discharge Detection/Elimination

Equipment Maintenance

- All major equipment maintenance is to be performed at the CRPR shop.
- Emergency maintenance in field requires containment of leaking fluids, clean up with absorbent material, and proper disposal.
- Routinely inspect equipment to look for leaking fluids and report for repairs.
- Cleaning of equipment is to be performed at CRPR shop in location that drains to sanitary sewer – not in parking lot.

Equipment Fueling

- Equipment fueling is generally performed off-site.
- Equipment fueling performed in parks done with care to minimize spills. If fuel spill, clean up with absorbent material and dispose of properly.
- Do not top off equipment – leave room for fuel to expand when hot.

Waste Collection / Disposal

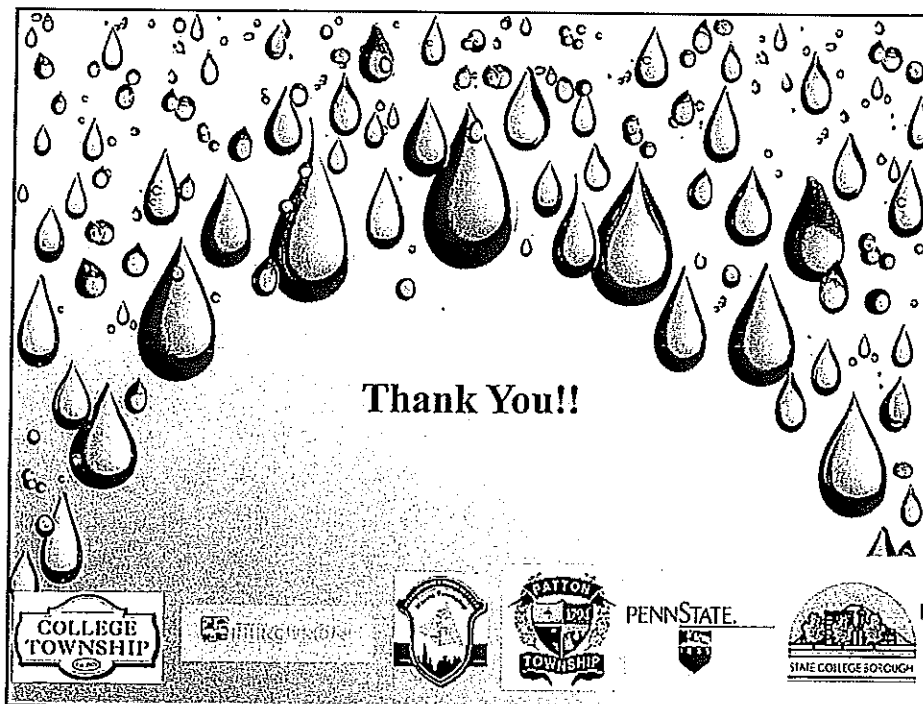
- Ensure trash receptacles are routinely emptied.
- If dumpsters are leaking, report to have new dumpster replaced with water tight dumpster. Keep dumpster lids closed to keep rain water out.
- Ensure doggie pot dispensers are always full to provide opportunity for park users to collect pet waste.
- Always pick up trash in park and dispose of properly – do not mow over trash.

Stormwater BMP Maintenance

- Ensure that BMP outlet structures are not block/clogged.
- Report to Municipal Engineer any BMP that has standing water for more than 3 days after rainfall.
- Report to the Municipal Engineer any sinkhole in any BMP immediately.
- Mow in accordance with established program. Not all BMPs get mowed all the time – some are only once a year.
- Report any soil erosion in BMPs (or anywhere in the parks)

Illicit Discharge Detection / Elimination

- What is it? – anything that isn't clean/clear water.
- Report any suspected Illicit Discharge you observe to the Municipal Engineer
- Report any observed dumping to the Municipal Engineer



Centre Region Parks and Recreation
MS4 Employee Training
July 13, 2016

Kate Burge

Dany L. Farrell

GRANT RALSTON

Clinton Rupaka

Andrew Ford

Michael Huey

Mary Homan

Gray Spindler

Denning Secrest

Sister Secrest

Hank Conn

Dan Hartzell

Red Wynn

Joe Chalkers

Cale Woods

TISSANY BARTO

Lindsay Jameson

Anthony Montresor

1/2 Cant