June 26, 2015

Pennsylvania Department of Environmental Protection Watershed Program Manager Southcentral Regional Office 909 Elmerton Avenue Harrisburg, PA 17110

RE: MS4 Annual Report Form

NPDES Permit Number PAI 133511

Good Morning:

Enclosed please find the MS4 Annual Report Form from Lower Allen Township, Cumberland County for the above referenced Permit. This report is for the report period April 1, 2014 to March 31, 2015.

Please contact our office with any questions.

Sincerely,

Daniel J. Flint, P.E. NSPE

Community Development Director/Township Engineer

cc: Thomas G. Vernau, Jr., Township Manager

Erin Trone, Assistant Manager

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

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

For the Reporting Per	riod: April	1, 20	1 4	to March 31,	2015	<u>.</u>
**	ss Report al Permittee			Due Date: 6/29/1	5	
	GENER	AL INFO	RMAT	ION		
Permittee Name: Lower Allen	Township		NPDE	S Permit No.: PA	133511	
Mailing Address: 2233 Gettys			Effecti	ve Date:		
City, State, Zip: Camp Hill,			Expira	tion Date:		
MS4 Contact Person: Daniel J	. Flint, P.	.E.	Renew	val Due Date:		
Title: Township Engin	eer		Admin	. Extended?	s 🗌 No	
Phone: 717-975-7575			Munici	pality: Lower All	en Towns	hip
Email: dflint@latwp.o	rg		County	. Cumberlan	d	
Co-Permittees (if applicable):						
	·					
	WATER QU	JALITY I	NFORM	MATION	Mag. Historical	
Are there any discharges to waters wit	hin the Chesapeal	ke Bay Wa	itershed	? □x Yes □ N	0	
Identify all surface waters that receive the requested information (see instruction)	e stormwater disch tions).	arges fror	n storm	sewers within the MS4 u	urbanized area	and provide
Receiving Water Name	Ch. 93 Class.	Impaire	d?	Cause(s)	TMDL?	WLA?
Cedar Run	CWF	No				
Yellow Breeches	CWF	No				
		<u></u>		***************************************		
		<u> </u>				
Identify any Wasteload Allocations (Wload(s)):	/LAs) identified in	TMDLs fo	or the M	S4, if applicable. Identify	the pollutant(s) and mass
N/A						

GENERAL MINIMUM CONTROL MEASURE	(MCM) INFORMATION	
Have you completed all MCM activities required by the permit for this report	ing period? 🔯 Yes] No
Provide current contact name and phone number information for the require	ed MCMs (if same as page 1, lea	ave blank):
MCM	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts		
#2 Public Involvement/Participation		
#3 Illicit Discharge Detection and Elimination (IDD&E)		
#4 Construction Site Storm Water Runoff Control		
#5 Post-Construction Storm Water Management in New Development and Redevelopment		
#6 Pollution Prevention / Good Housekeeping		
MCM #1 – PUBLIC EDUCATION AND OUTREACH	ON STORM WATER IMPA	ACTS
BMP #1: Develop, implement and maintain a written Public Education	and Outreach Program	
Measurable Goal: For new permittees a Public Education and Outr implemented during the first year of permit coverage and shall be re-even needed. For renewal permittees, the existing PEOP shall be reviewed and be designed to achieve measurable improvements in the target audien stormwater pollution and the steps they can take to prevent it.	aluated each permit year therea I revised as necessary. The per	after and revised as mittee's PEOP shall
1. For new permittees only, attach the written PEOP or a summary thereo	f to the first report submitted to	DEP.
2. If you are not a new permittee, did you complete and submit your writte If Yes, provide the latest submission date:	n PEOP to DEP? 🗌 Yes 🔯	No
3. Date of last evaluation of or revision to the PEOP: 3/31/15		10 mm
4. What were the plans and goals for public education and outreach for the	e reporting period?	
See attached		
5. Did the MS4 achieve its goal(s) for the PEOP during the reporting period	d? 🔀 Yes 🗌 No	
Explain the rationale for your answer:		
Successfully completed what was in our	plan	
6. Identify specific plans and goals for public education and outreach for the Mailings to businesses in industrial illicit discharges. Public meeting to	areas rogarding	a l
Concerns, facebook BMP #2: Develop and maintain lists of target audience groups present		
Measurable Goal: For new permittees, the lists shall be developed with		

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.

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PA/14

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MS 4 - Storm Water

Stormwater Program Meeting

Lower Allen Township is issued a permit from the PaDEP to operate the Municipal Separate Storm Sewer System (MS4). As part of that permit, a presentation on the Township's Stormwater Program is made annually at an advertised public meeting. That presentation for 2015 will be held in conjunction with the regular Board of Commissioners meeting on Monday, March 9, 2015, beginning at 7:00 PM at the Township Office, 2233 Gettysburg Road, Camp Hill, Pa. The public is invited to attend an

The federal Clean Water Act (CWA) prohibits the discharge of pollutants into waterways without the appropriate permits. Pennsylvania's Stormwater Management Act (better known as Act 167), MS4 Program, Chapter 102 (Erosion and Sediment Control Requirements), and NPDES Permit Program for Stormwater Discharges Associated with Construction Activities are amongst the Commonwealth's methods for meeting the runoff-related requirements of the Clean Water Act.

For all practical purposes, though, implementation of stormwater management efforts in Pennsylvania occurs at the community level because individual municipalities are ultimately responsible for adopting zoning ordinances, subdivision and land development regulations, and other programs that keep their locality's runoff under control.

Contrary to the common perception, properly planning for stormwater can accomplish this goal while speeding the permitting process, saving on construction costs, and resulting in profitable projects that enhance a community in multiple ways.

- Pennsylvania's Storm Water Management Act (Act 167) Pennsylvania Department of Environmental Protection Fact Sheet on storm water runoff (http://www.stormwaterpa.org/assets/media/regulatory/3930-FS-DEP4101.pdf)
- StormwaterPA MS4 Website StormwaterPA Website (http://www.stormwaterpa.org/ms4-program) Resource Page for Cumberland County (http://stormwaterpa.org/cumberland-county.html)
- United States Environmental Protection Agency EPA Water: Permitting (NPDES) Pollution Prevention & Control EPA Website (http://water.epa.gov/polwaste/npdes/)

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- Cumberland County MS4 Website (http://stormwaterpa.org/cumberland-county.html)
- Lower Allen Township 2013-2014 Annual Report (http://www.latwp.org/wp-content/uploads/2013-2014-Annual-Report.pdf)
- Lower Allen Township 2013-2014 Annual Municipal Activity Report
 (http://www.latwp.org/wp-content/uploads/2013-2014-Annual-Report-Attachment.pdf)

- MS 4 Storm Water (http://www.latwp.org/? page_id=2654)
- Planning
 Commission
 (http://www.latwp.org/?
 page_id=2635)
- Planning Reports
 (http://www.latwp.org/?
 page_id=3982)
- Zoning Hearing
 Board
 (http://www.latwp.org/?
 page_id=2650)

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MUNICIPAL SERVICES CENTER
2233 GETTYSBURG ROAD
CAMP HILL, PA 17011
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Fax 717-737-4182
Monday - Friday - 8:00 am - 4:00 pm

POLICE DEPARTMENT
Emergency Dial 911
Non-emergency 717-238-9676
Records Office 717-975-7575
Fax 717-761-4835
Monday - Friday - 8:00 am - 4:00 pm

LOWER ALLEN POLICE DEPARTMENT (http://www.latwp.org/?page_id=2524)

(http://www.fa

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HOME (HTTP://WWW.LATWP.ORG/) INFORMATION

ELECTED GOVERNMENT AGENDAS & MINUTES

ADMINISTRATION (HTTP://WWW.LATWP.ORG/?PAGE_ID=2358)

COMMUNITY DEVELOPMENT (HTTP://WWW.LATWP.ORG/?PAGE_ID=2458)

Q

PARKS (HTTP://WWW.LATWP.ORG/?PAGE_ID=2507)

PUBLIC
WORKS (HTTP://WWW.LATWP.ORG/?PAGE_ID=2534)

POLICE & PUBLIC SAFETY (HTTP://WWW.LATWP.ORG/?PAGE ID=2509)



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Township News

<>

http://www.latwp.org/ 2/25/2015

AUDIENCE PARTICIPATION: ANY ITEM ON THE AGENDA

President Black inquired if anyone in the audience wished to address any item appearing on the agenda. There was no response.

PRESENTATION: STORMWATER MANAGEMENT PROGRAM

Mr. Dan Flint stated this presentation was part of the Township's Stormwater Management Program, as part of the National Pollutant Discharge Elimination System (NPDES) Phase 2 Municipal Separate Stormwater System (MS4) Permit. He stated this presentation has been advertised and provided copies of the presentation to the Board and audience. Mr. Flint stated there were six minimum control measures (MCM) and outlined the following changes from 2014-2015:

- 1. Public Education and Outreach
- Information on Township Facebook page to be added this year; information to be sent to concrete suppliers re: truck washout requirements; concrete washout note to be added as condition of applicable permits and update complaints database with Municity reporting.
- 2. Public Involvement/Participation
- Add Annual Report to Township website and develop target mailing lists. Use Illicit Discharged Detection and Elimination Plan (IDDE)
 program to identify target area.
- 3. Illicit Discharge Detection and Elimination Plan
- Edit and update the storm sewer system map and obtain and post waste program information, from County Solid Waste Authority
- 4. Construction Site Stormwater Runoff Control Plan
- Add concrete washout information to information provided to permit holders and contractors and improve reporting of construction site
 observations by inspection staff.
- 5. Post-Construction Stormwater Management in New and Re-Development Activities Plan
- Implement BMP tracking system in GIS; contact property owners with current Stormwater Facilities and BMP Maintenance and Monitoring
 Agreements, requesting annual inspection reports and develop and provide an inspection report form to affected property owners.
- 6. Pollution Prevention/Good Housekeeping for Municipal Operations Plan
- Include neighboring municipalities and PA Department of Corrections in annual training; Develop database of all Township facilities and expand Operation and Maintenance Plans to include all facilities.

The Board asked questions during the presentation and Mr. Flint provided answers. President Black asked how much work these updates would be for the Township staff. Mr. Flint stated he isn't sure but there were no new funds to cover the additional staff time. Discussion ensued.

PRESIDENT BLACK

Approval of Check Registers

Vice President <u>YOUNG</u> made a motion to approve the Check Register of March 1, 2015 in the amount of \$294,415.01. Commissioner <u>SCHIN</u> seconded the motion. Motion carried 5-0.

Vice President <u>YOUNG</u> made a motion to approve the Manual Check Register of February 2015 in the amount of \$44,993.99. Commissioner <u>TITZEL</u> seconded the motion. Motion carried 5-0.

ORDINANCE 2015-01: PENSION PLANS

Commissioner <u>SCHIN</u> made a motion to enact <u>Ordinance 2015-01</u>, and ordinance of the Board of Commissioners of Lower Allen Township, Cumberland County, Pennsylvania, Restating the Police and Non-uniformed pension plans to incorporate change required by the Pension Protection Act and the Heroes Earnings Assistance and Relief Act.

Roll Call Vote:

Commissioner Titzel – Aye

Commissioner Schin - Aye

President Black - Aye

Vice President Young - Aye

Commissioner Bucher - Aye

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:
3.	Date of last review or revision to target audience list(s): 3/31/15
BM	IP #3: Annually publish at least one educational item on your Stormwater Management Program
prir iter	asurable Goal: For new permittees, stormwater educational and informational items shall be produced and published in and/or on the Internet within the first year of permit coverage. In subsequent years (and for renewal permittees), the list of ms published and the content in these items shall be reviewed, updated, and maintained annually. Your publications shall nation 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 XX No If Yes, provide the latest submission date:
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?
	Newsletter is published quarterly. See attached
4.	Do you have a municipal website? Yes No (URL:) www.latwp.org If Yes, what MS4-related material does it contain?
5.	See attached Describe any other method(s) used during the reporting period to provide information on stormwater to the public:
	Public meetings, training sessions-attached
6.	Date of most recent review and/or update to published stormwater educational materials: 3/31/15
7.	Identify specific plans for the publication of stormwater materials for the upcoming year:
	Newsletter articles, facebook page, Township website
BM	IP #4: Distribute stormwater educational materials to the target audiences
	asurable Goal: All permittees shall select and utilize at least two distribution methods in each permit year. These are in dition to the newsletter and website provisions of BMP #3.
pos	ntify the two additional methods of distributing stormwater educational materials during the previous year (e.g., displays, sters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements, bill stuffers, sters, presentations, conferences, meetings, fact sheets, giveaways, or storm drain stenciling).
	Presentations, fact sheet, brochures

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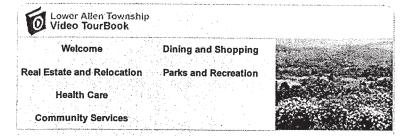
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- Penn State College of Agricultural Science Resource Page (http://agsci.psu.edu/aec/research-extension/conservation-tools/stormwater-management)
- Homeowner's Guide to Stormwater Start your own plan here (http://www.stormwaterguide.org/)
- Cumberland County Recycling and Waster Disposal Main Page (http://www.ccpa.net/124/Recycling-Waste)
- Lower Allen Township 2013-2014 Annual Report (http://www.latwp.org/wp-content/uploads/2013-2014-Annual-Report.pdf)
- Lower Allen Township 2013-2014 Annual Municipal Activity Report (http://www.latwp.org/wp-content/uploads/2013-2014-Annual-Report-Attachment.pdf)
- Code Of Ordinances (http://ecode360.com/LO1571?needHash=truetarget=_blank)
- Zoning Map (http://www.latwp.org/wp-content/uploads/2014/07/zoningmap.jpg)
- The "PERMIT" Process (http://www.latwp.org/?page_id=2638)
- Applications and Forms (http://www.latwp.org/?page_id=2627)
- Fee Schedule, Supplemental Forms and Maps (http://www.latwp.org/?page_id=2632)
- MS 4 Storm Water (http://www.latwp.org/?page_id=2654)
- Planning Commission (http://www.latwp.org/?page_id=2635)
- Planning Reports (http://www.latwp.org/?page_id=3982)
- Zoning Hearing Board (http://www.latwp.org/?page_id=2650)





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Non-emergency 717-238-9676
Records Office 717-975-7575
Fax 717-761-4835
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Commonwealth of Pennsylvania • Department of Environmental Protection

Pennsylvania's Storm Water Management Act (Act 167)

Pennsylvania's Storm Water Management Act (Act 167) was enacted in 1978. This Act was in response to the impacts of accelerated stormwater runoff resulting from land development in the state. It requires counties to prepare and adopt watershed based stormwater management plans. It also requires municipalities to adopt and implement ordinances to regulate development consistent with these plans.

What is accelerated stormwater runoff?

Precipitation that falls on the natural landscape is managed by a system of vegetation, soil, groundwater and surface waters that has formed over time. Natural events shape this system to efficiently handle stormwater through infiltration, evaporation and runoff. When less precipitation is infiltrated into the soil and groundwater or evaporated, either directly to the air or through plants and trees, there is an increase in the volume and rate, or acceleration, of stormwater runoff.

Why is accelerated stormwater runoff a concern?

As changes to the landscape alter the balance of the natural water cycle, accelerated stormwater runoff causes further impacts to the landscape. Higher volumes and rates of stormwater runoff cause increased soil erosion, greater and more frequent flooding, and reshape surface waters through scour and deposition. It also reduces groundwater levels because less precipitation ends up there and this in turn reduces dry weather stream flows that are fed by groundwater. More soil and other water pollutants are picked up and carried further with accelerated stormwater runoff. Depending on the extent of these impacts, serious safety, property and environmental risks can also result.

How does development accelerate stormwater runoff?

Changing the soil cover by placing impervious surfaces (pavement, roofs), removing vegetation (grass, plants, trees) and changing the shape of the land and the way water flows across it can all accelerate stormwater runoff. During construction vegetation is removed, soil is exposed, the landscape is reshaped and impervious surfaces are installed. Following construction, some vegetation is replaced, the impervious surfaces prevent infiltration and may attract new pollution sources and the reshaped landscape alters the flow and destination of stormwater runoff.

How can the impacts of accelerated stormwater runoff be reduced and prevented?

If there is no change from preconstruction to postconstruction stormwater runoff volume, rate and quality, accelerated stormwater runoff will be avoided and the impacts prevented. This is accomplished by minimizing changes to the landscape and implementing stormwater management practices that replicate pre-development conditions.

What is a watershed based Stormwater Management Plan?

Watershed based Stormwater Management Plans provide municipalities with a framework, including model

ordinances and management practices, to control stormwater runoff from new development in a watershed. These plans include standards for managing the quantity and quality of stormwater runoff given the characteristics of the watershed including current and future development plans. The goal is to control post-development stormwater runoff rate, volume and quality to replicate predevelopment conditions. This is to prevent additional downstream flooding and to protect water resources and their uses. The Department of Environmental Protection (DEP) may require counties to develop joint plans where a watershed includes land in more than one county.

How is the public involved in this process?

During the watershed planning process, counties establish plan advisory committees consisting of county and municipal representatives. Counties may also appoint representatives of interest groups and the public. These committees help to define local concerns and develop stormwater control strategies. The processes for county adoption of the plan includes a public hearing. Municipal adoption of ordinances to implement the plan is also an opportunity for public input.

How are Stormwater Management Plans implemented?

Following adoption of the Stormwater Management Plan by the county and approval by DEP, anyone engaged in construction activities in the watershed is required to implement stormwater management measures consistent In addition, each municipality in the with the plan. watershed covered by the plan must, within six months of DEP's approval, adopt ordinances consistent with the plan. This includes zoning, subdivision and development, building code, erosion and sedimentation and postconstruction stormwater management requirements in the This process is also consistent with municipality. municipal obligations under federal National Pollutant Discharge Elimination System (NPDES) permitting requirements for Municipal Separate Storm Sewer Systems (MS4).

What assistance is available to counties and municipalities?

DEP provides technical, administrative and financial assistance to counties in preparing Stormwater Management Plans. DEP pays for 75% of the costs counties incur in preparing plans, and it approves reimbursements to municipalities for 75% of the allowable costs of preparing plans and enacting, administering and implementing stormwater ordinances.

Capital Region Council of Governments 230 S. Sporting Hill Road Mechanicsburg, PA 17050 Phone 717-761-6211 Fax 717-761-7267 capcog@comcast.net

Date	Invoice #
7/1/2014	366

Bill To	
Lower Allen Township 2233 Gettysburg Road Camp Hill, PA 17011	

Quantity	Description	Rate	Amount
	2014 Stormwater Pollution Ad in Patriot News This was a 1/4 page ad, divided by 35 participants. The ad meets requirement #1 of Minimal Control Measure	60.00	60.00
	Payment due 30 days from receipt of the invoice		
	Thank you		
		·	
			1
		Total	\$60.00

The Patriot-News Co. 2020 Technology Pkwy Suite 300 Mechanicsburg, PA 17050 Inquiries - 717-255-8213



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PA

THE PATRIOT NEWS
THE SUNDAY PATRIOT NEWS

17055

Proof of Publication

Under Act No. 587, Approved May 16, 1929 Commonwealth of Pennsylvania, County of Dauphin} ss

Marianne S. Miller, being duly sworn according to law, deposes and says:

That she is the Assistant Controller of The Patriot News Co., a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, with its principal office and place of business at 2020 Technology Pkwy, Suite 300, in the Township of Hampden, County of Cumberland, State of Pennsylvania, owner and publisher of The Patriot-News and The Sunday Patriot-News newspapers of general circulation, printed and published at 1900 Patriot Drive, in the City, County and State aforesaid; that The Patriot-News and The Sunday Patriot-News were established March 4th, 1854, and September 18th, 1949, respectively, and all have been continuously published ever since;

That the printed notice or publication which is securely attached hereto is exactly as printed and published in their regular daily and/or Sunday/ Community Weekly editions which appeared on the date(s) indicated below. That neither he nor said Company is interested in the subject matter of said printed notice or advertising, and that all of the allegations of this statement as to the time, place and character of publication are true; and

That he has personal knowledge of the facts aforesaid and is duly authorized and empowered to verify this statement on behalf of The Patriot-News Co. aforesaid by virtue and pursuant to a resolution unanimously passed and adopted severally by the stockholders and board of directors of the said Company and subsequently duly recorded in the office for the Recording of Deeds in and for said County of Dauphin in Miscellaneous Book "M", Volume 14, Page 317.

PUBLICATION COPY

WILLIAM

his ad #/ 0002304613 ran on the dates shown below:

June 26, 2014

Sworn to and subscribed before me this 11 day of July, 2014 A.D.

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal

Donna M. Maldonado, Notary Public Susquehanna Twp., Dauphin County My Commission Expires Nov. 5, 2017

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

The Patriot-News Co.

2020 Technology Pkwy
Suite 300

Mechanicsburg, PA 17050
Inquiries - 717-255-8213



LOWER ALLEN TOWNSHIP
2233 GETTYSBURG ROAD
ATTN: THOMNAS G. VERNAU JR., MANAGER

CAMP HILL

PA 17011

THE PATRIOT NEWS THE SUNDAY PATRIOT NEWS

Proof of Publication

Under Act No. 587, Approved May 16, 1929 Commonwealth of Pennsylvania, County of Dauphin} ss

Marianne Miller, being duly sworn according to law, deposes and says:

That she is the Assistant Controller of The Patriot News Co., a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, with its principal office and place of business at 2020 Technology Pkwy, Suite 300, in the Township of Hampden, County of Cumberland, State of Pennsylvania, owner and publisher of The Patriot-News and The Sunday Patriot-News newspapers of general circulation, printed and published at 1900 Patriot Drive, in the City, County and State aforesaid; that The Patriot-News and The Sunday Patriot-News were established March 4th, 1854, and September 18th, 1949, respectively, and all have been continuously published ever since;

That the printed notice or publication which is securely attached hereto is exactly as printed and published in their regular daily and/or Sunday/ Community Weekly editions which appeared on the date(s) indicated below. That neither she nor said Company is interested in the subject matter of said printed notice or advertising, and that all of the allegations of this statement as

NOTICE
The following is a list of regularly scheduled meeting of the various Boards and Commissions of Lower Allen Township for 2015, unless otherwise stated and advertised in accordance with pertinent statute. Meetings are held in Gorgas Hall in the Lower Allen Township Municipal Services Center, 2233 Gettysburg Road, Camp Hill, PA 17011.

17011.
LOWER ALLEN TOWNSHIP 2015
MEETING SCHEDULE
Board of Commissioners - 7 pm (2nd
and 4th Monday of each month)
January 12 & 26, February 9 & 23,
March 9 & 23, April 13 & 27, August 10
& 24, September 14 & 28, October 12 & 26,
November 9 & 23, December 14 & 28,
Development Authority - 6 pm (3rd
Monday of the month)

Development Authority - 6 pm (3rd Monday of the month)
January 19, February 17**, March 16, April 20, May 18, June 15, July 20, August 17, September 21, October 19, November 16, December 21
Planning Commission - 7 pm (3rd Tuesday of the month)
January 20, February 17, March 17, April 21, May 20***, June 16, July 21, August 18, September 15, October 20, November 17, December 15

18
Recreation & Parks Board - 7 pm (4th
Wednesday of each month)
January 28, February 25, March 25,
April 22, July 22, August 26, September
23, October 28, November 18*** Park
Tours - 6, pm: May 27, June 10 & 24
Zoning Hearing Board - 7 pm (3rd
Thursday of the month)

Zoning Hearing Board - 7 pm (3rd Thursday of the month)
January 15, February 19, March 19, April 16, May 21, June 18, July 16, August 20, September 17, October 15, November 19, December 17, *Tuesday due to Memorial Day **Tuesday due to Presidents Day **Wednesday due to Primary Election

Election
****3rd Wednesday due to
Thanksgiving
LOWER ALLEN TOWNSHIP
BOARD OF COMMISSIONERS

edge of the facts aforesaid and is duly authorized and empowered to verify this statement on said by virtue and pursuant to a resolution unanimously passed and adopted severally by the f the said Company and subsequently duly recorded in the office for the Recording of Deeds Aiscellaneous Book "M", Volume 14, Page 317.

This ad # 0002321863 ran on the dates shown below:

December 09, 2014

Sworn to and subscribed before me this 12 day of December, 2014 A.D.

Notary Rublic COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL

Sheryl Marie Leggore, Notary Public Hampden Twp., Cumberland County My Commission Expires July 16, 2018

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Everybody Wants Clean Water

Our rivers and streams supply water for:

- Drinking
- Fishing
- Swimming
- Canoeing and boating
- * Wildlife



Stormwater picks up debris, chemicals, dirt, manure and other pollutants as it flows over surfaces such as driveways, roads and lawns. Without proper stormwater management, this polluted runoff flows untreated into our streams, rivers and wetlands.

But you can help! Residents, municipalities, businesses and developers need to work together to prevent stormwater pollution. To learn how you can make a difference and keep our water clean, go to www.capitalregioncog.org and click on "Keeping Our Water Clean" at the top of page.

In compliance with MS4 permits, this ad is sponsored and paid for by the following members and affiliates of Capital Region Council of Governments (CapCOG)

230 Sporting Hill Road, Mechanicsburg, PA 717-761-6211

Camp Hill Borough
Carlisle Borough
Carroll Township
Dauphin Borough
Derry Township
Dillsburg Borough
East Hanover Township
East Pennsboro Township
Fairview Township
Goldsboro Borough
Hampden Township

Lemoyne Borough
Londonderry Township
Lower Allen Township
Lower Paxton Township
Lower Swatara Township
Marysville Borough
Mechanicsburg Borough
Middletown Borough
Monaghan Township
New Cumberland Borough
Newberry Township
Paxtang Borough

Penbrook Borough
Penn Township, Perry Co
Royalton Borough
Shiremanstown Borough
Silver Spring Township
South Hanover Township
Steelton Borough
Susquehanna Township
Swatara Township
Upper Allen Township
West Hanover Township
Wormleysburg Borough

The Patriot-News

THURSDAY, JUNE 26, 2014 . ALL

Everybody Wants Clean Water

Our rivers and streams supply water for:

- Drinking
- # Fishing
- **⇒** Swimming
- * Canoeing and boating
- → Wildlife



Polluted stormwater runoff is the greatest threat to clean water!

Stormwater picks up debris, chemicals, dirt, manure and other pollutants as it flows over surfaces such as driveways, roads and lawns. Without proper stormwater management, this polluted runoff flows untreated into our streams, rivers and wetlands.



But you can help! Residents, municipalities, businesses and developers need to work together to prevent stormwater pollution. To learn how you can make a difference and keep our water clean, go to www.capitairegloncog.org and click on "Keeping Our Water Clean" at the top of page.

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Middletown Borough
Monaghan Township
New Cumberland Borough
Newberry Township
Paxtang Borough

Penbrook Borough
Penn Township, Perry Co
Royalton Borough
Shiremanstown Borough
Sliver Spring Township
South Hanover Township
Steelton Borough
Susquehanna Township
Swatara Township
Upper Allen Township
West Hanover Township
Wormleysburg Borough

Registration required 1 week prior to workshop date Gardening with Nature REGISTRATION FORM

E-mail	Daytime Phone	County	State	City	Address	Name
			ZIP			

Registration Fees:

\$10.00 for Saturday, July 11 program. \$5.00 for each Tuesday evening program.

Please register me for the following workshops:

☐ October 13—\$5.00	June 9—\$5.00
☐ September 8—\$5.00	May 12—\$5.00
□ August 11—\$5.00	April 14—\$5.00
☐ July 11—\$10.00	March 10—\$5.00
heck the box for the sessions you want to attend.	heck the box for the s

Heritage Program

Please make checks payable to: PSCE Program Fund

Total enclosed:

Return registration form and payment to:

Carlisle, PA 17013 310 Allen Road, Suite 601 Penn State Extension, Cumberland County

please call 717-240-6500. For credit card registration,

Gardening with Nature

Join Penn State Master Gardeners for a season-long beautiful garden while preserving a healthy series of informal workshop sessions about creating a

Door prizes at each workshop!

March 10-7:00-8:30 p.m.

Green Your Blues: Creating a Green Plan to \$5.00

Kristen Kyler, Lower Susquehanna Initiative Manage Rainwater

practices can improve stream quality. gardens, native plantings, and other "green" landscaping "Homeowner's Guide to Storm Water," and learn how rain bad news for local streams. Evaluate your property using the Too much rainwater flowing off hard surfaces can be

for homeowners in the Yellow Breeches Creek watershed. hand to introduce the "Reduce Your Storm Water" program The Alliance for the Chesapeake Bay will also be on

April 14--7:00-6:30 p.m.

Use Ecology to Plan Your Garden Pennsylvania's Plant Communities: How to Dr. Greg Podniesinski, Pennsylvania Natural \$5.00

appropriate for different locations around your landscape. can help you to determine which native plants are ecological information found in plant community descriptions Learn about Pennsylvania's plant communities. The

May 12-7:00-8:30 p.m.

\$5.00

Creating a More Bird-Friendly Yard

Paul Zeph, Audubon Pennsylvania Birds use our communities and yards for a variety of

control, and energy conservation. nicely with your goals of a beautiful landscape, storm water many needs. Learn how making a bird-friendly yard can blenc rest-stops. Different plants are needed to provide for these purposes, such as feeding, nesting, roosting, and migratory

June 9---7:00-8:30 p.m. Planting Your Rain Garden

\$5.00

October 13--7:00-8:30 p.m.

\$5.00

Annette MaCoy, Penn State Extension Basics of Garden Design

Horticulture Educator

The end of the gardening season is a good time to

PENN STATE MASTER GARDENERS IN CUMBERLAND 2015 WORKSWOP SERIES AT FREDRICKSEN LIBRARY, CAMP HILL, PA

COUNTY

Lois Kriens & Maggie Pepe, Penn State Master

functioning rain garden while providing habitat for wildlife choose from a palette of plants that will create a beautiful and the right plants for each zone in the garden. Learn how to The success of your rain garden depends on selecting

August 11-7:00-8:30 p.m.

Not All Garden Thugs are Bugs and Slugs Master Gardeners Carol Caplinger & Jason Harrison, Penn State

provide food and habitat for native wildlife. control, and suggestions for alternative native plants that to identify invasive plants using live samples, methods of native plants, insects, fish, birds, and eventually us. Learn how Invasive plants can degrade local habitats and harm

September 8-7:00-2:30 p.m. \$5.00

Backyard Meadows

Milton Hershey School Tim Hoover, retired Environmental Center Advisor,

to plan, install, and care for a beautiful low- (but not no-) maintenance meadow in your own backyard. birds as weil as season-long blooming wildflowers. Learn how suburban landscape, providing habitat for pollinators and Warm season grass meadows can enhance the typical

SPECIAL AFTERNOON PROGRAM more attractive and more functional.

design will help you create a home landscape that is both to plan for improvements or changes in the coming reflect on good and bad features in your landscape and

years. Understanding the basic principles of garden

Saturday, July 11-1:30-4:30 p.m.

& Gardening with Mother Nature Going Native? PA Plants for PA Yards George Weigel, central PA garden writer

afternoon of fun and informative gardening talks

Join garden guru George Weigel for an

garden-worthy native plants for Pennsylvania and not-so-good traits. Learn about 25 of the best the right place and be aware of each plant's good ourselves unnecessary work in the process. kinder, gentler, and better gardeners, while saving best gardener, Mother Nature, we can become landscapes. Then, by taking cues from the world's problems; you still have to pick the right plants for Native doesn't mean no care and no

Pennsylvania Getting Started Garden Guide Pennsylvania Month-by-Month Gardening



TREE PLANTING FUNDS AVAILABLE - HOME STORM WATER ASSESSMENT

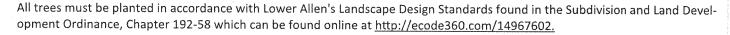
TREE PLANTING GUIDELINES

The Chesapeake Bay Alliance has received a \$3,200 grant for planting trees in the Cedar Run Watershed to assist with storm water management. These funds are being made available to Lower Allen Township residents.

An application to request funding for planting a tree or trees is available on the Lower Allen Township website at www.latwp.org. *Applications will be excepted between April 1st and May 31st.

Since funding is limited, priority will be given to:

- 1) Trees planted along street frontages
- 2) Neighborhoods in which there is a shortage of trees
- 3) Native species
- 4) Clusters of multiple property owners with one planting plan
- 5) Strength of the planting plan



Helpful tips for proper tree planting can be found at: http://stormwater.allianceforthebay.org/take-action/structural-bmps/tree-planting/

Lower Allen staff will contact you if you are selected for funding. Once you have been selected for funding, then purchase, and plant the tree or trees, you will be reimbursed the previously agreed upon amount. Receipts and proof of planting will be required prior to reimbursement.

HOME STORM WATER ASSESSMENT

Home Management Plan

Landscape Maintenance

Grass clippings, leaves, brush and other "bio-degradable" debris that get into our waterways, decrease water quality by producing algae blooms and decreasing the amount of oxygen available for aquatic life.

How do you rate your household?

	I DO	I WILL
 Mow grasses at higher height 	0	0
•Leave grass clippings on the lawn	0	0
Use chemical fertilizers sparingly	0	0
Consider using slow-release nitrogen fertilizers	0	0
 Avoid using fertilizers before a rain event 	0	0
 Not dump yard waste into or near a waterway 	0	0
•Compost yard waste	0	0
 Keep gutters and paved areas cleared 	0	0
(This will prevent grass clippings, leaves and other yard wastes		



from being washed into storm drains)

For more information, visit Department of Environmental Protection (DEP) website www.depweb.state.us.



WINTER READINESS

StormWater Tips for "Fall"ing into Winter

Fall is here! As you button up your yard before Winter comes, are your Fall yard practices protecting our rivers and lakes? They are if you:

- Keep your leaves and grass clippings out of the streets and storm drains. Yard plants that get into our waterways will rob aquatic life of oxygen as they decompose.
- Direct your down spouts away from hard surfaces. Rainwater leaving your roof has collected pollutants that can be safely captured by your lawn. If it runs across hard surfaces and into the storm drains instead this run-off goes directly into our waterways without any treatment.
- Remember that Fall is the best time for your lawn to be dethatched, aerated, seeded, and fertilized. Use phosphorousfree fertilizers at the correct rate. Maintaining a healthy lawn reduces your need to use chemicals that can leave your lawn and enter our waterways where they harm aquatic life.





Preparing your Garden for Winter

You can postpone the inevitable (winter, that is) for a while by covering your vegetables with old sheets or bedspreads on cold nights. The declining light and chilly daytime temperatures will naturally bring plant growth to a halt. Putting your garden to bed for the winter is mostly a matter of cleaning up and covering up. Clear out the annual flowers and vegetables to prevent the possibility of their harboring disease pathogens and insect eggs over the winter. While it appears as if all activity in the garden has stopped, there's a lot going on under the soil until it freezes. Most likely the organic compost you spread to protect the soil during the summer months has substantially decomposed. It's important to spread new compost nowathicker winter layer-to protect plants and soil over the winter months. The idea is not so much to keep the soil warm as it is to

keep the temperature even. Once the soil is frozen, compost keeps it frozen.

If some areas have hopelessly gone to weeds, cover them with black plastic and leave it in place over the winter and into the spring to kill sprouting seeds. Protect small trees or shrubs from extreme cold by surrounding it with a cylinder of snow fencing and pack leaf compost inside the cylinder.

WEATHER EMERGENCIES

Weather emergencies may be declared whenever there is a forecast or accumulation of 3 or more inches or when conditions are dangerous. A Snow Emergency will be declared and announced in the media giving a time (not less than 6 hours) in which **ALL VEHICLES** must be moved off all the streets.

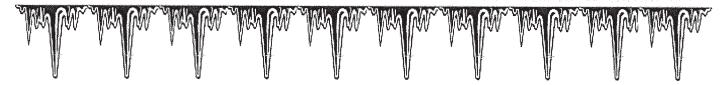
The Public Works department is concerned with keeping major arteries and feeder roads open. As the emergency subsides and crews become available the plows will clear curb to curb and move into residential areas.

Vehicles left on the street during a weather emergency are subject to being ticketed and also towed and stored at the owner's expense. Please adhere to the above regulations so emergency personnel can focus on recovery and returning life to normal in the Township.

Please contact the Police Department at 975-7575 if you have any questions or concerns.



WINTER READINESS



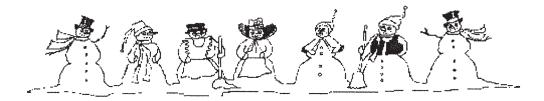
Winter Stormwater Pollution Prevention Tips

As winter approaches and rain turns to snow, it is still important to consider stormwater pollution. Pollutants such as soaps, fertilizers, automotive fluids, and pet waste can collect in the snow pack, accumulating until a thaw suddenly dumps them into the storm water system. Contaminants that end up in the storm drains are carried off, untreated, to streams and larger bodies of water that are used for drinking, swimming, or fishing.

A few helpful habits to reduce the amount of harmful pollutants entering storm drains this winter season:

- Winterizing vehicles. Check that your car is not leaking oil or other fluids. It takes only a small amount of motor oil to pollute thousands of gallons of water. Also, dispose of drained fluids properly. Many service stations will collect used motor oil and recycle it.
- Washing vehicles. On a warm winter day, you may be tempted to break out the hose and bucket to get some of the road grime off of your car. Take a moment to see where that runoff is going. Does it wash down the driveway and into the storm drain? If so, all that salt and dirt will enter a stream.
- De-icing driveways and sidewalks. While it may be habit to stock up on salt for the winter, many people would not consider dumping a bucket of salt on their lawn in the summer. But the results are similar. Salt runs off your sidewalk and onto the surrounding soil. Consider using more environmentally-friendly products which can be found at most home improvement stores.

Practicing healthy pollution prevention habits can keep pollutants from being washed into the storm drains. For more information go to www.stormwaterpa.org.



WEATHER EMERGENCIES

Weather emergencies may be declared whenever there is a forecast or accumulation of 3 or more inches or when conditions are dangerous. A Snow Emergency will be declared and announced in the media giving a time (not less than 6 hours) by which **ALL VEHICLES** must be moved off all the streets.

The Public Works Department's initial priority is keeping major arteries and feeder roads open. As the emergency subsides and crews become available, the plows will clear curb to curb and move into residential areas.

Vehicles left on the street during a weather emergency are subject to being ticketed and also towed and stored at the owner's expense. Please adhere to the above regulations so emergency personnel can focus on recovery and returning life to normal in the Township.

Please contact the Police Department at 975-7575 if you have any questions or concerns.

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.
- 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:

For new permittees only, attach your written PIPP or a summary thereof to the first report submitted to DEP.

- 3. Date of last review and/or update to the PIPP: 3/31/15
- Explain how your PIPP addresses items a, b and c of the Measurable Goal:

See Attached

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:
- 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

MCM #2 - Public Involvement/Participation

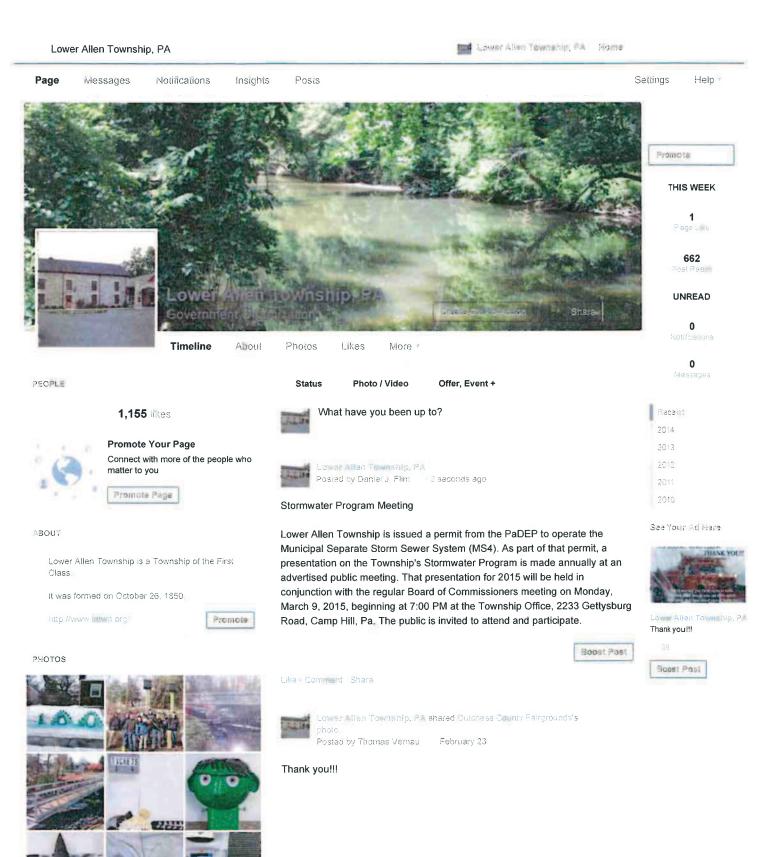
4. a. The public is invited to speak at all Board of Commissioners meetings on any topic/concern pertaining to Stormwater Management and Best Management ractices.

The Township Facebook page is available for comment by the public

b. Township employee active with the Yellow Breeches Watershed Association.

YBWA has quarterly meetings open to the public, as well as an annual general meeting that are open for discussion. YBWA holds streamside cleanup events throughout the year.

c. MS4 Annual Reports are available for viewing on the township website.



POSTS TO PAGE

- United States Environmental Protection Agency - EPA - Water: Permitting (NPDES) -
Pollution Prevention & Control – EPA Website
- Penn State College of Agricultural Science - Resource Page
- Homeowner's Guide to Stormwater - Start your own plan here
- Cumberland County Recycling and Waster Disposal - Main Page
- Lower Allen Township - 2013-2014 Annual Report
- Lower Allen Township - 2013-2014 Annual Municipal Activity Report
Code Of Ordinances
Zoning Map
The "PERMIT" Process
Applications and Forms
Fee Schedule, Supplemental Forms and Maps
MS 4 - Storm Water
Planning Commission
Planning Reports
Zoning Hearing Board

Yellow Breeches Watershed Association Activities Affiliated with Lower Allen Township

Reporting Period 2014-2015

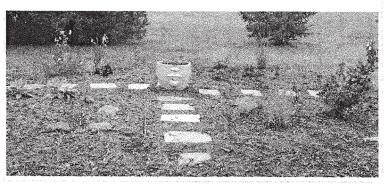
COMMUNITY NEWS



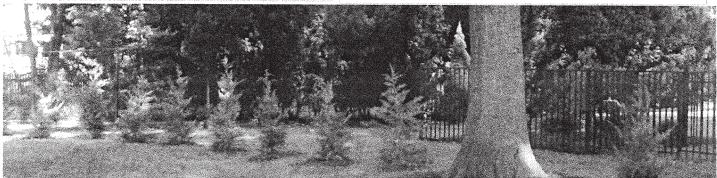
Eagle Scout Frank Lavery built this informational kiosk at Creekwood Park.

Sensory Garden at LACP

Girl Scout Troop 20719 installed this sensory garden next to the Fun Fort at Lower Allen Community Park.



Scout Victor Cavataio planted these trees in Highland Park as a buffer along the perimeter adjacent to neighborhood homes.



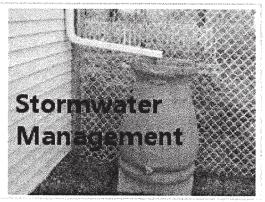
Yellow Breeches Watershed Association Annual Community Gathering

Taking care of Stormwater: Creek Friendly Ideas for Homeowners

A Presentation by Donna Morelli of the Alliance for the Chesapeake Bay, plus hear from the youth sojourners of the Sierra Club Inner City Outings Program who enjoyed a June expedition down the Yellow Breeches

Complimentary food and beverage, special exhibits, and more! Thursday, October 9, 2014, 6:30 p.m. – 8:30 p.m., The Barn at Lower Allen Community Park

Discover the great work of the watershed association, plans for the coming year, and how you can get involved! Please join us!





NEW BUSINESSES IN LOWER ALLEN TOWNSHIP

Heel Your Sole 4922 Louise Drive Ameriprise 5001 Louise Drive

Walmart 3400 Hartzdale Drive Torrid
3529 Capital City Mall Drive

Michelle Mull, Licensed Professional Counselor 1517 Cedar Cliff Drive, Suite 101

COMMUNITY ACTIVITIES



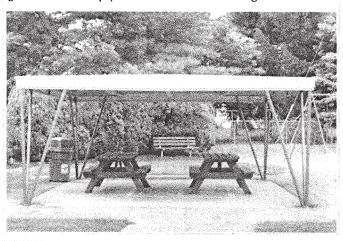
YELLOW BREECHES CLEANUP

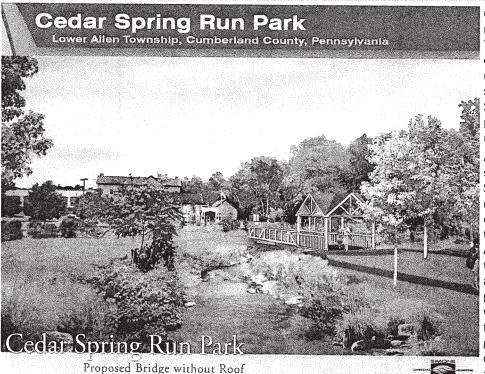
Everyone enjoys the Yellow Breeches Creek. Now it is time to remove all of the trash from the water. Bring your own boat and join us for a massive clean sweep of the Yellow Breeches! Led by experienced paddlers, fed and gloved by generous donations from sponsors, we will paddle/float and scour the creek to remove trash and debris from the water. Please join us for the day. Participants must bring their own kayak or canoe, life jacket, and paddles. For more information and registration forms please visit www.ybwa.org.

SCOUT NEWS

Trevor Krug, son of Earl and Diane Krug of Lower Allen Township, recently completed his Eagle Scout project in the Highland Estates playground on Letchworth Drive. Trevor is a member of Boy Scout Troop 312 in Lewisberry.

Trevor made several improvements to the playground including planting additional landscaping, spreading mulch and Fibar, putting new shingles on the information kiosk, and painting the pavilion, swing set, and benches. We'd like to thank Trevor for his contribution toward improving the Highland Estates playground for the enjoyment of our residents and guests.





Construction will begin this summer on a new 2.5 acre park next to the Lower Allen Township Municipal Services Building located on Gettysburg Road. The park will be named Cedar Spring Run Park, after the stream that runs through it. The Cedar Spring Run stream is the focal point of the park, serving as a way to connect people to nature in an urban environment.

A pedestrian bridge with a pavilion area will span the stream connecting the Municipal Services Building to the park. A path will meander through the park along the banks of the stream and eventually connect to the existing sidewalk on Gettysburg Road. A riparian buffer has been planted along the stream to improve both the appearance and health of the stream in order to provide improved fish habitat. The park will also have a handicapped accessible fishing area. Other elements will include a graded amphitheater area for outdoor classrooms or a place to lunch and a play area that will include swings, climbing logs, and a tunnel.

The park will cost approximately \$650,000. The Department of Conservation and Natural Resources (DCNR) supported the park with two different grants which will cover 50% of the total cost. DCNR supported the park because "green techniques" such as porous pavement, composting toilets, and bike facilities were employed in the design. The park will be open by Spring of 2015.

Yellow Breeches Family Creek Cleanup Planning Meeting Agenda

JULY 19, Z014

- Route/Sections Same as 2013 ١.
- Shuttles Volunteer crew & rental vehicle v. out fitter 11.
- Event/Times Reg. at/after lunch > Supper III.
- What's included/Provided Smick @ reg. & on Water
 Pizza party @ Conclusion IV.

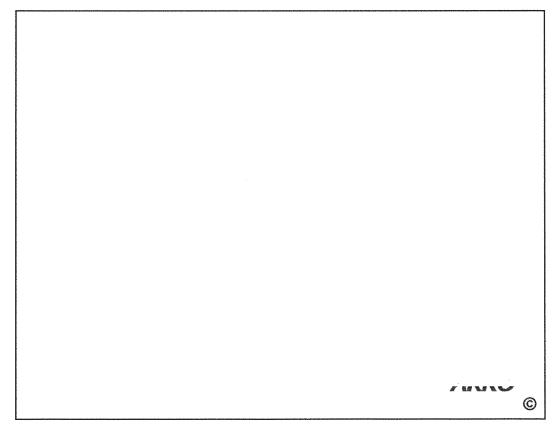
T-shirt

- Team/Roles V.
- Sponsors/Costs PAWC VI.
- VII. **Publicity**

VIII. Other Ground crew-Shadow for safety of litter pickup - Shuttle Scouting stream hazards

Lower Allen Township Participant in CapCOG Training December 3, 2014 Material Handouts







DEP MS4 Inspection



PA DEP



...so, DEP Southcentral Region (Mike Hickman) called/emailed and said DEP is coming for an MS4 inspection.





DEP MS4 Inspection



List of items that DEP requests to have on site, separated and stacked on a table, in order to expedite the inspection process (list provided by Mike Hickman, DEP).

- A copy of all past Annual Reports
- · A copy of the original and renewal NOI
- · A copy of the original and renewal permits
- · The Public Education and Outreach Program (PEOP) (written plan)
- · The Public Involvement and Participation Program (PIPP) (written plan)
- The Illicit Discharge Detection and Elimination (IDD&E) Program (written plan)
- The inventory of municipal facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4
- · The written Operation & Maintenance Plan for municipal facilities and activities
- · The written employee training program
- A map of all outfalls, receiving waters, stormwater collection systems, swales, basins, etc.
- Ordinance prohibiting non-stormwater discharges
- · The stormwater management ordinance
- The Inventory all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to your regulated small MS4.
- The Memorandum of Understanding between the permittee and the County Conservation District.









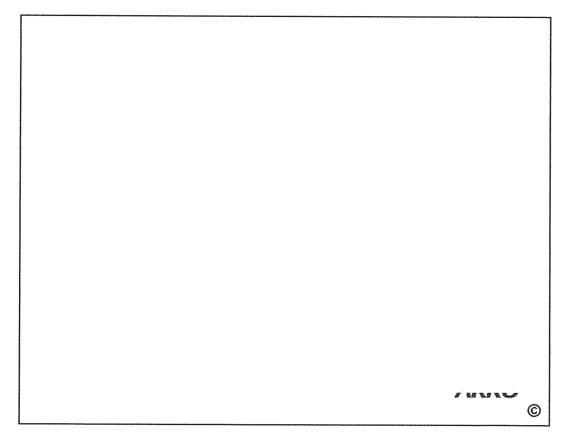
For more information contact Phillip Brath at phillip.brath@thearrogroup.com



DEP MS4 Inspection



MCM	Item	Yes	No	NA
	Public Education and Outreach Program (PEOP) (written plan)	0		
Lists	Lists of target audience groups	П		
1	Published storm-rater educational materials			
	Two methods of distributing educational materials in past year			
	Public Involvement and Participation Program (PIPP) (written plan)	0		
2	Public notice prior to adoption of any ordinance (municipal) or SOP (non-municipal)	n	n	
	At least one public meeting in past year	0		
	Hitcit Discharge Detection and Elimination (IDDSE) Program (written plan)		O	
	Cuttail inspection and illicit discharge tracking system			
3	Complaint tracking system for illicit discharges			
3	Map of all outland receiving waters, stormwater collection system, swales, basins, etc.			
	Stormwater sampling and monitoring records			
	If not relying on PA's program, a written stormwater associated with construction activities program (written plan)		О	
4	if not relying on PA's program, an ordinance (municipal) or SOP (non-municipal) requiring implementation of erosion and sediment control BMPs		O	O
	If not relying on PA's program, written procedures for managing public inquiries of local construction activities			D
	If not relying on PA's program, a written post-construction stormwater management plan			
	If not relying on PA's program, a tracking system containing post-construction BMPs			
5	If not relying on PA's program, inspection results of post-construction BMPs			D
	An ordinance (municipal) or SOP (non-municipal) to enforce post-construction BMPs		O	
***************************************	An inspection program ensuring storm-rater BMPs are properly operated and maintained		O	
	inventory of municipal facilities and land uses that contribute to storm-rater runoff			O
6	Written Operation & Maintenance Plan for municipal facilities addressing housekeeping		40	
	Written employee training program	П		-





DEP Inspection



Illicit Discharge & Outfalls

- Looking for maps, field inspection reports.
- Will visit a couple sites that might be questionable.
 - · use this opportunity to talk about what DEP wants.
- Records of illicit discharge and follow through.
 - · Process for taking a call through follow-up to disposal of clean up.
 - ...not likely that you did not have any illicit discharges.

Municipal Facilities

- Inspect Facilities to see how maintained and operated (oil/fuel, sweepings, salt, stone/sand covered, trash, vehicle washing and drainage)
- Documentation showing inlets, drainage swales and facilities inspected and maintained.
 - · Street sweeping and other logs





DEP MS4 Inspection



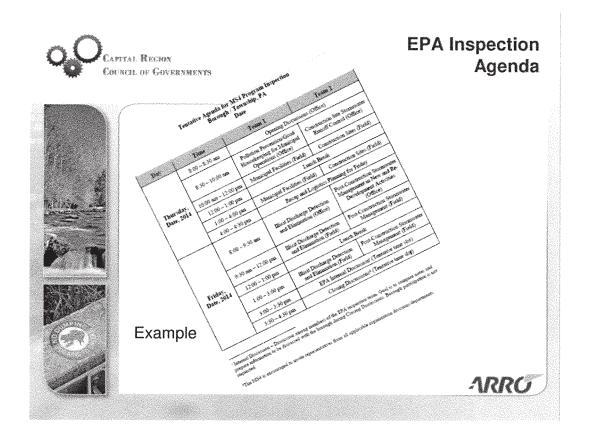
- Inspection at Lemoyne Borough
 - First MS4 Inspection done by DEP in Southcentral Region
- Who, what, where, when...
- Overall experience
 - What we learned
 - What we liked
 - What we were concerned about
- Strategies
 - Records
 - Fire, Police, Staff and Public Works

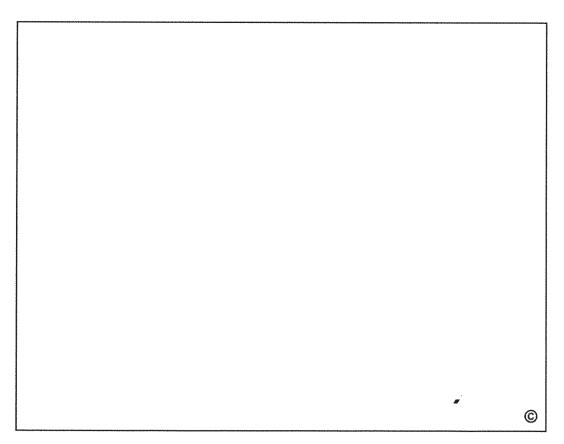
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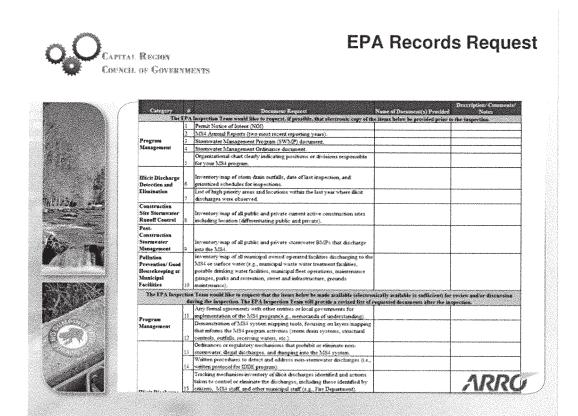
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For more information contact Phillip Brath at phillip.brath@thearrogroup.com









Inspection – what they wanted to see



Illicit Discharge & Outfalls

- Looking for maps, field inspection reports and priority areas.
- Will visit industrial and residential areas to check, trash, sediment, stains/deposits at the outfall, sediment build-up in inlets, and pollutant sources by inlets.
- Public Works, Office Staff, Police Department and Fire Department understanding of Illicit Discharges and their responsibilities (written)
- Process for taking a call through follow-up to disposal of clean up.
- Records of illicit discharge and follow through.
 - · ...not likely that you did not have any illicit discharges.

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EPA MS4 Inspection



Inspection

- Who, what, where, when...

Overall experiences

- What we learned
- What we liked
- What we were concerned about

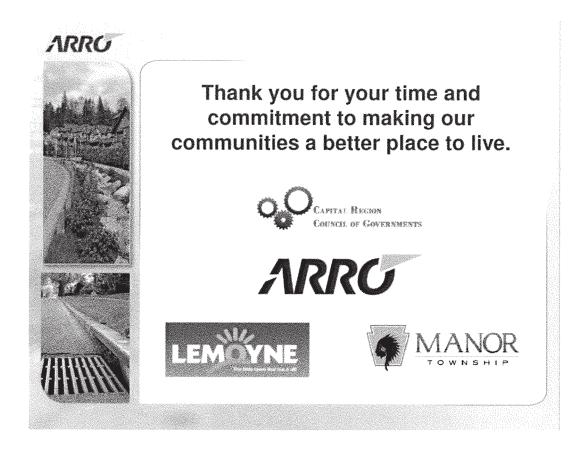
Strategies

- Get your entire team together for MS4 refresher
- Try to keep EPA from splitting your team up
- Make sure Fire Chief & Police Chief are there
- Makes sure County Conservation District Representative is there for MCM 4 & 5 discussion.



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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	3)

3/9/15

- 2. How were meeting(s) advertised to the public? Twp website, newspaper, message board
- in front of Township Building
 3. Indicate where the meeting(s) were held and the number of attendees:

2233 Gettysburg Rd, with 17 attendees

- 4. What types of MS4-related activities did you solicit public involvement and participation for?
- Concerns related to construction activities, illicit discharges
 5. What MS4-related activities did the public participate in?

Streamside cleanup

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:
- Date of last review and/or update to IDD&E program: 3/9/15

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

(http://www.facebook.com//pages/Lower

Allen-

Township-

PA/148273381868996?

Lower Allen Township Facebooksk=timeline

LOWER ALLEN TOWNSHIP, PA - A Township of the First Class

(http://www.latwp.org)

MS 4 - Storm Water

Stormwater Program Meeting

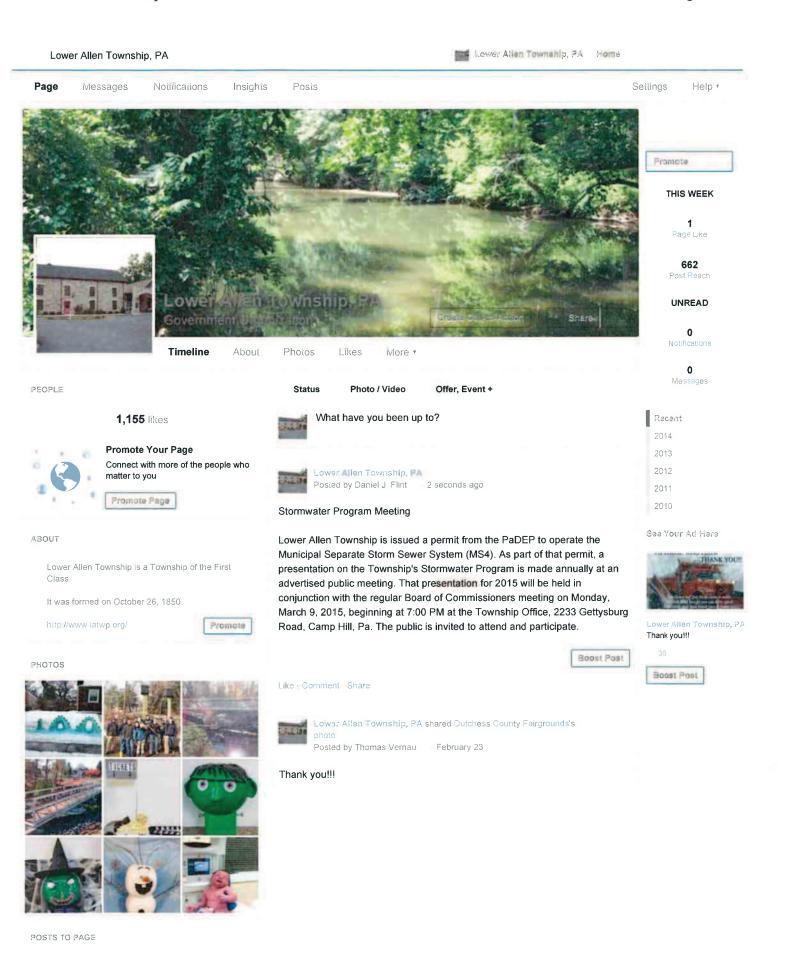
Lower Allen Township is issued a permit from the PaDEP to operate the Municipal Separate Storm Sewer System (MS4). As part of that permit, a presentation on the Township's Stormwater Program is made annually at an advertised public meeting. That presentation for 2015 will be held in conjunction with the regular Board of Commissioners meeting on Monday, March 9, 2015, beginning at 7:00 PM at the Township Office, 2233 Gettysburg Road, Camp Hill, Pa. The public is invited to attend an

The federal Clean Water Act (CWA) prohibits the discharge of pollutants into waterways without the appropriate permits. Pennsylvania's Stormwater Management Act (better known as Act 167), MS4 Program, Chapter 102 (Erosion and Sediment Control Requirements), and NPDES Permit Program for Stormwater Discharges Associated with Construction Activities are amongst the Commonwealth's methods for meeting the runoff-related requirements of the Clean Water Act.

For all practical purposes, though, implementation of stormwater management efforts in Pennsylvania occurs at the community level because individual municipalities are ultimately responsible for adopting zoning ordinances, subdivision and land development regulations, and other programs that keep their locality's runoff under control.

Contrary to the common perception, properly planning for stormwater can accomplish this goal while speeding the permitting process, saving on construction costs, and resulting in profitable projects that enhance a community in multiple ways.

- Pennsylvania's Storm Water Management Act (Act 167) Pennsylvania Department of Environmental Protection Fact Sheet on storm water runoff (http://www.stormwaterpa.org/assets/media/regulatory/3930-FS-DEP4101.pdf)
- StormwaterPA MS4 Website StormwaterPA Website (http://www.stormwaterpa.org/ms4-program) Resource Page for Cumberland County (http://stormwaterpa.org/cumberland-county.html)
- United States Environmental Protection Agency EPA Water: Permitting (NPDES) Pollution Prevention & Control EPA Website (http://water.epa.gov/polwaste/npdes/)
- Penn State College of Agricultural Science Resource Page (http://agsci.psu.edu/aec/research-extension/conservation-tools/stormwater-management)
- Homeowner's Guide to Stormwater Start your own plan here (http://www.stormwaterguide.org/)
- Cumberland County Recycling and Waster Disposal Main Page (http://www.ccpa.net/124/Recycling-Waste)
- Lower Allen Township 2013-2014 Annual Report (http://www.latwp.org/wp-content/uploads/2013-2014-Annual-Report.pdf)
- Lower Allen Township 2013-2014 Annual Municipal Activity Report (http://www.latwp.org/wp-content/uploads/2013-2014-Annual-Report-Attachment.pdf)

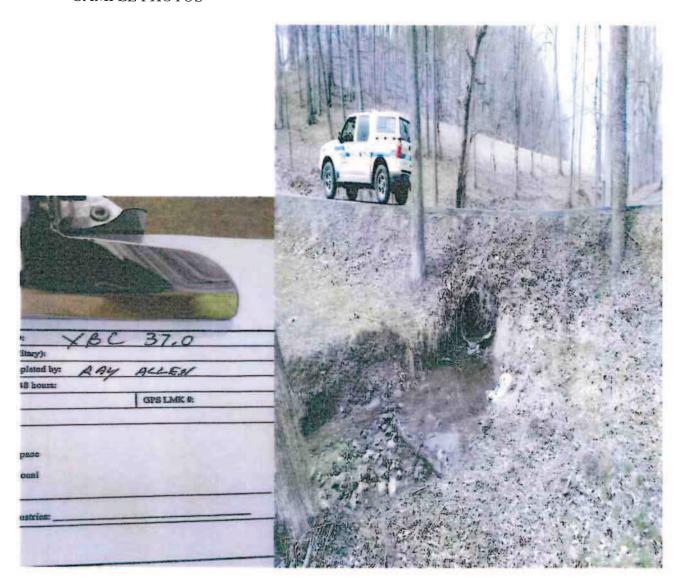


3800-FM-BPNPSM0491 Rev. 4/2014 MS4 Annual/Progress Report

2.	For new permittees only, attach the completed map to the 4 th year Annual Report.
3.	Date of last update or revision to map(s): 3/9/15
4.	Total number of discharge points in your storm sewer system that: Discharge directly to surface waters (outfalls): 9 0 Discharge to storm sewers owned by others: 0
5.	Total number of outfalls that are mapped at this time: 90
per roa	P #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), new mittees shall show, and renewal permittees shall update, the entire storm sewer collection system, including ds, inlets, piping, swales, catch basins, channels, basins, and any other features of the permittee's storm sewer tem including municipal boundaries and/or watershed boundaries.
and	asurable Goals: For new permittees, develop the map(s) by the end of the fourth (4th) year of coverage under the permit update and maintain the map(s) as necessary each year of permit coverage thereafter. For renewal permittees, update I 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? \square Yes \square 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 4 th year Annual Report.
4.	If you are not a new permittee, did you complete and submit your map to DEP? Yes X No
	If Yes, provide the latest submission date:
5.	Date of last update or revision to map: 3/9/15
BN	
BN sci dev Foi out of trait Inv Proma	Date of last update or revision to map: 3/9/15 P #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field eening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures
BN sci dev Foi out of t train Inv Proma elir	Date of last update or revision to map: 3/9/15 IP #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field reening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures reloped under BMP #1. If all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the fall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, asporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance rentory/Sample Collection field sheet excerpted from the Illicit Discharge Detection and Elimination: A Guidance Manual for agram Development and Technical Assessments (CWP, October 2004). Adequate written documentation shall be intained to justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and
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BN sci dev For out of the training Promate elim	Date of last update or revision to map: 3/9/15 P #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field eening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures reloped under BMP #1. For all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the fall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless he presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, is porting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance entory/Sample Collection field sheet excerpted from the Illicit Discharge Detection and Elimination: A Guidance Manual for interior of Justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and ninate the illicit flow also shall be documented. 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
BN sci dev fort oft trai Inv Pro ma elir The rep	Date of last update or revision to map: 3/9/15 P #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field eening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures reloped under BMP #1. Fall permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the fall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, paporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance entory/Sample Collection field sheet excerpted from the Illicit Discharge Detection and Elimination: A Guidance Manual for gram Development and Technical Assessments (CWP, October 2004). Adequate written documentation shall be intained to justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and minate the illicit flow also shall be documented. 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:

LOWER ALLEN TOWNSHIP MS4 2014-2015 AREAS OF POTENTIAL ILLICIT DISCHARGE Legend Neighborhood Commercial General Commerical Business Park District Regional Commercial General Industrial Mineral Recovery Industrial/Commercial (MUN) Mixed Use Neighborhood Single Family Established Residential Single Family Rural Residential Multi-Family Residential

2014 – 2015 MS4 FIELD INSPECTION SAMPLE PHOTOS







YBT 5,2

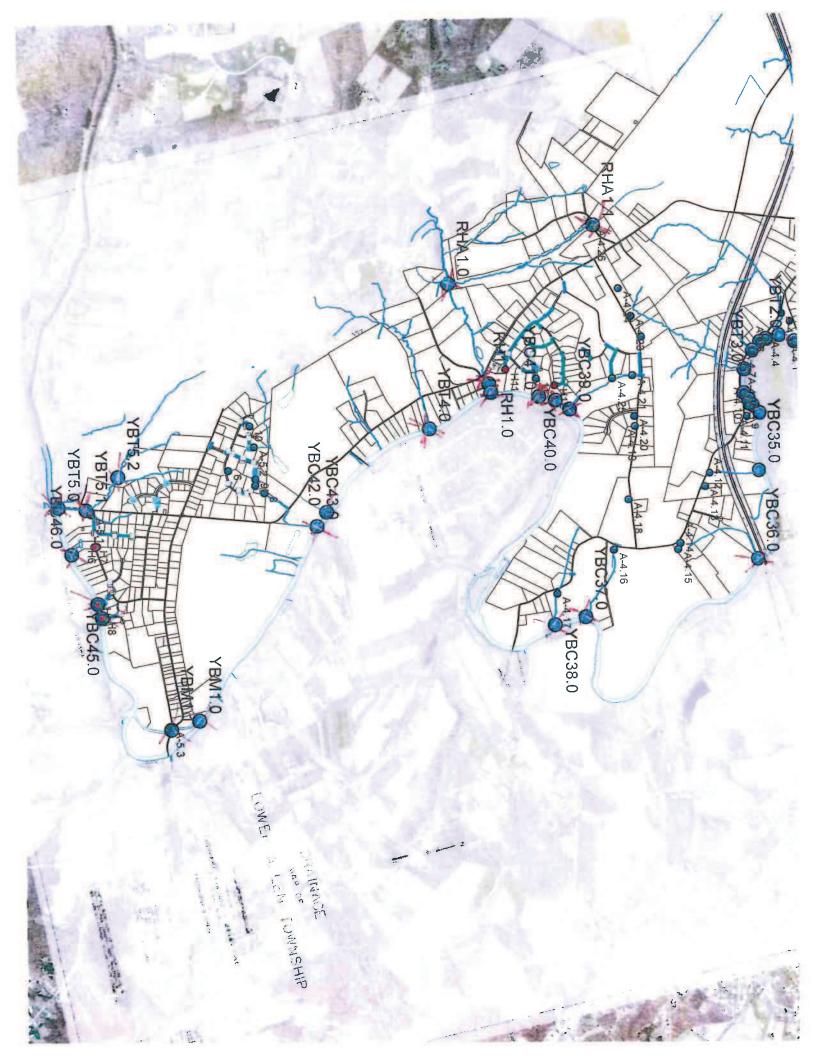
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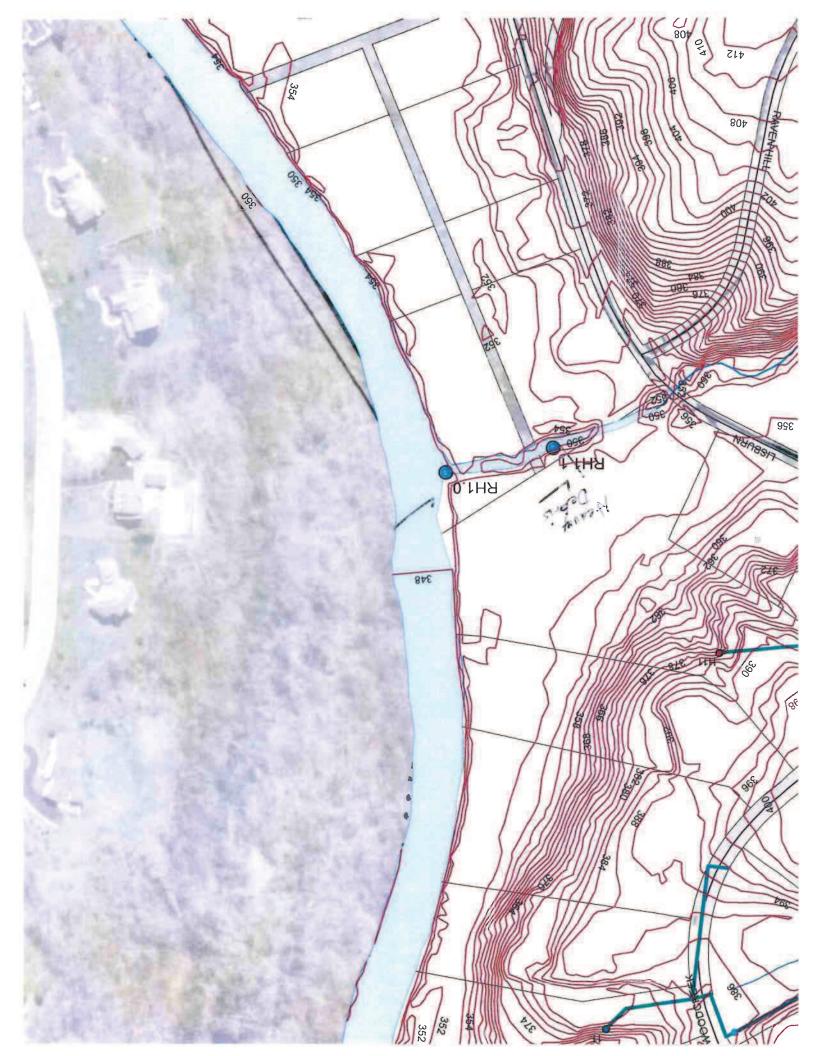
ed by: RAY ALLEN

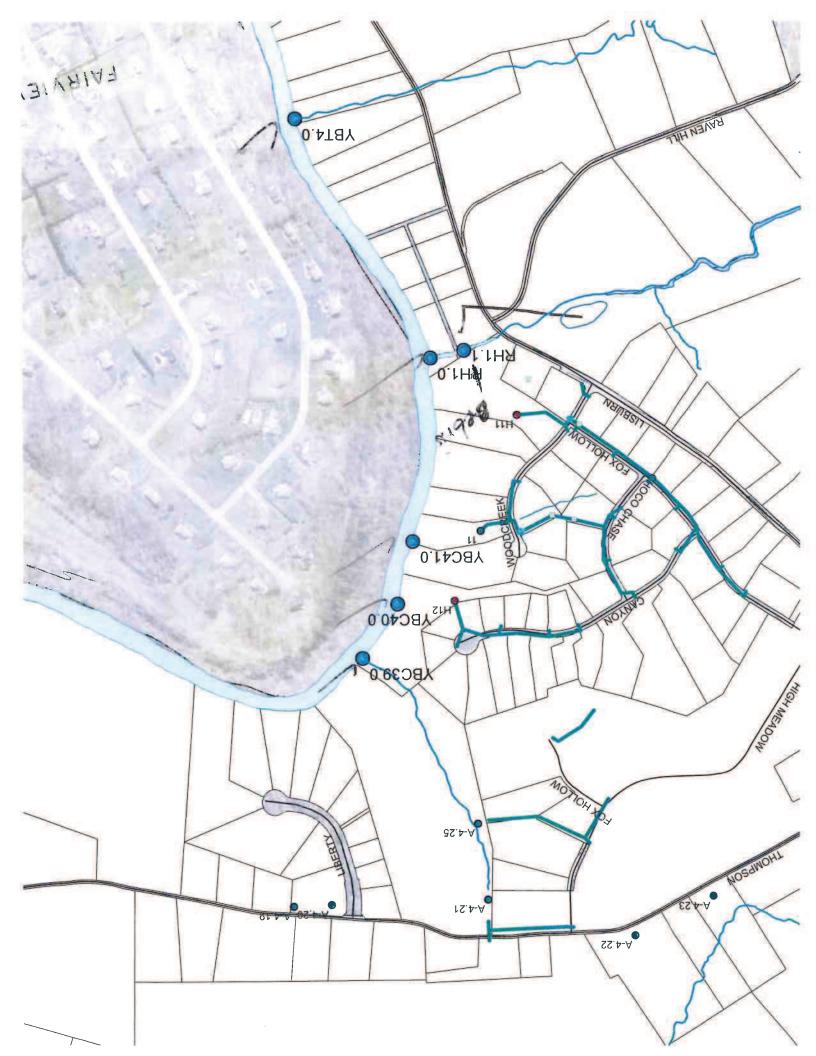
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GPS LMK #:

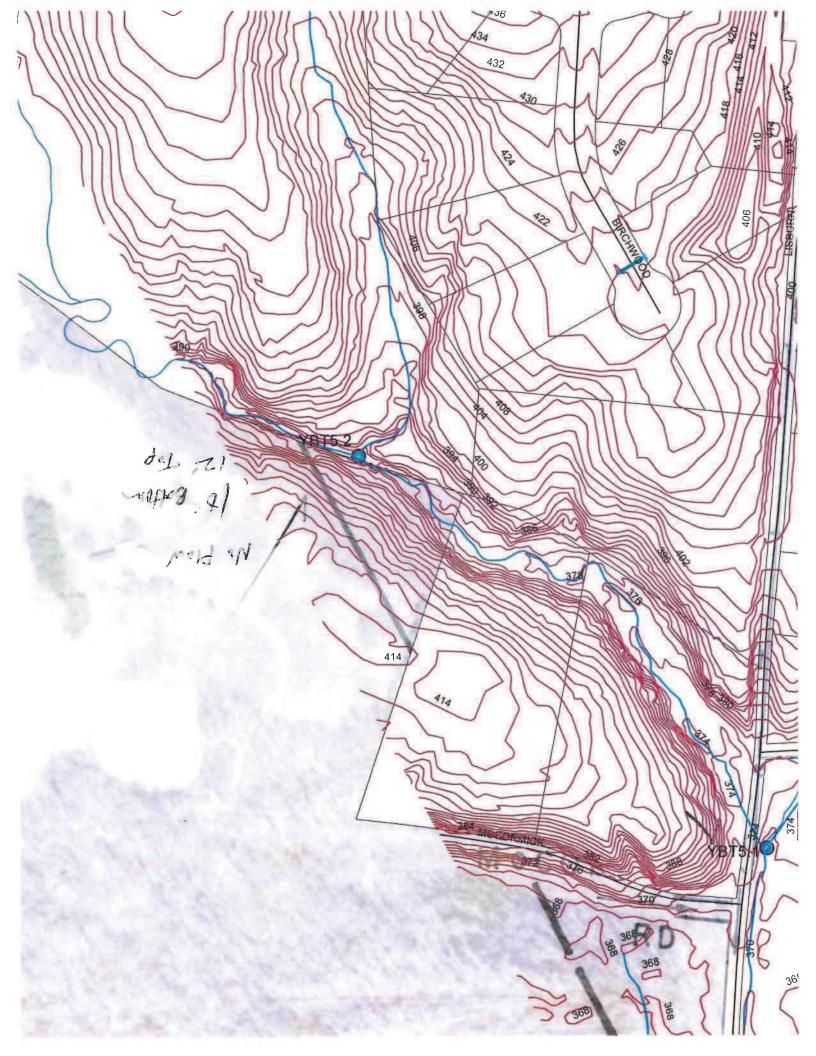
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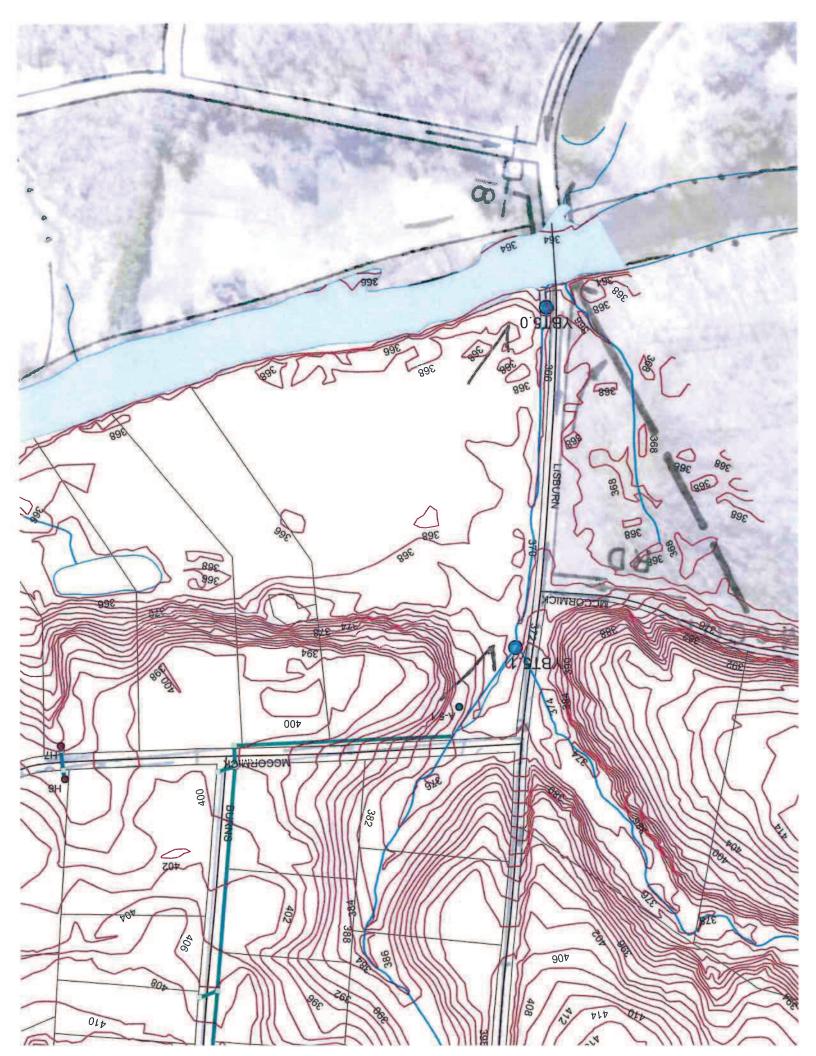








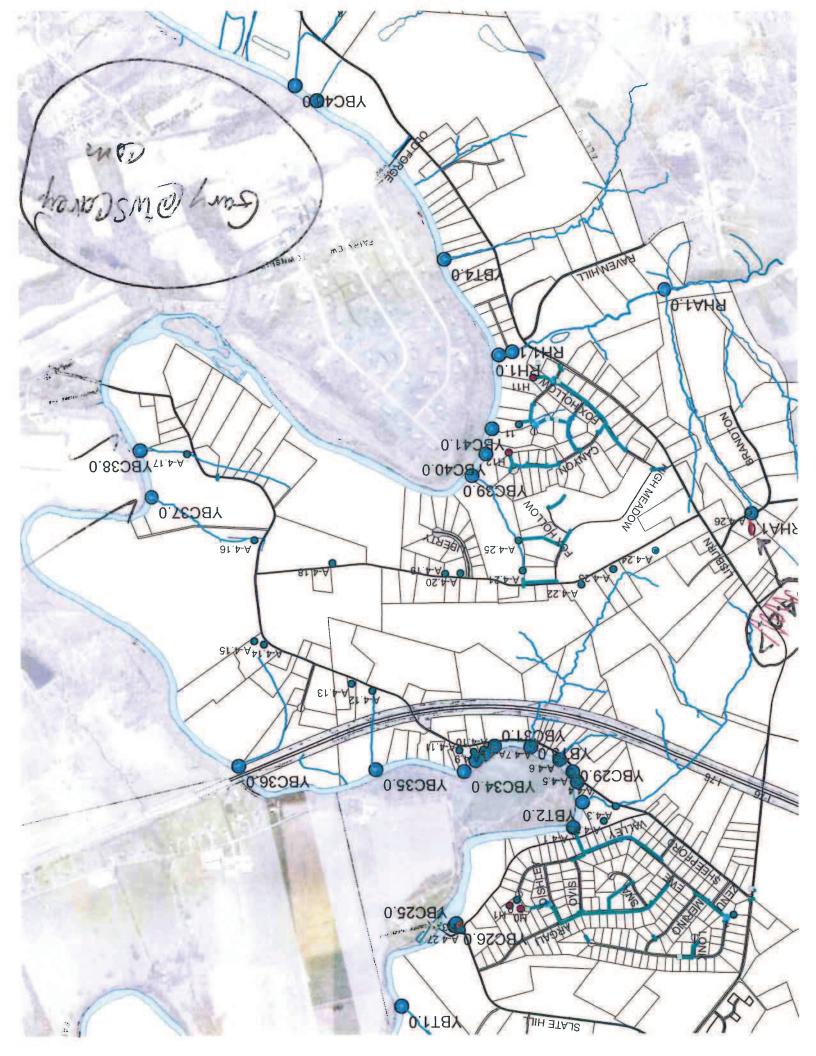


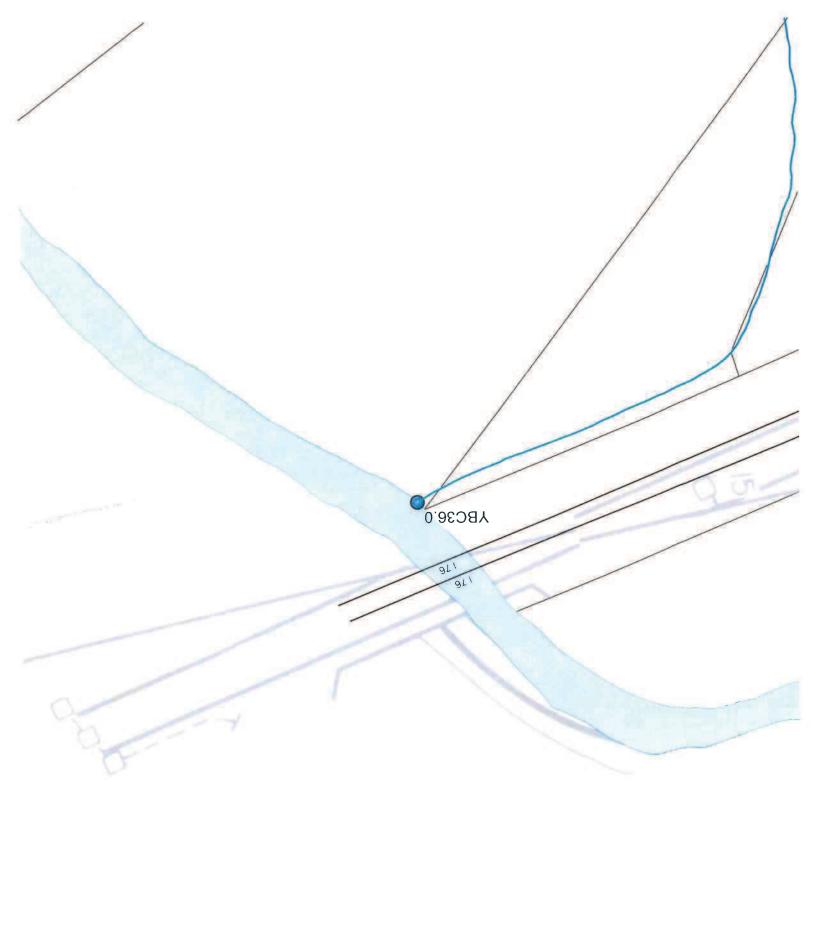


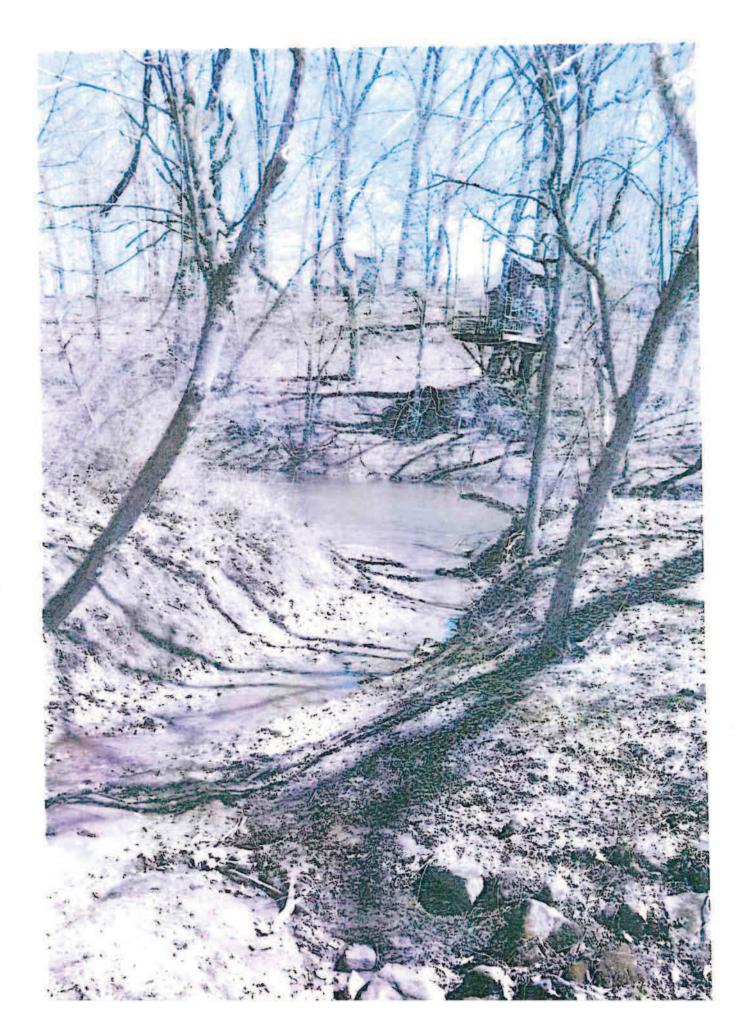


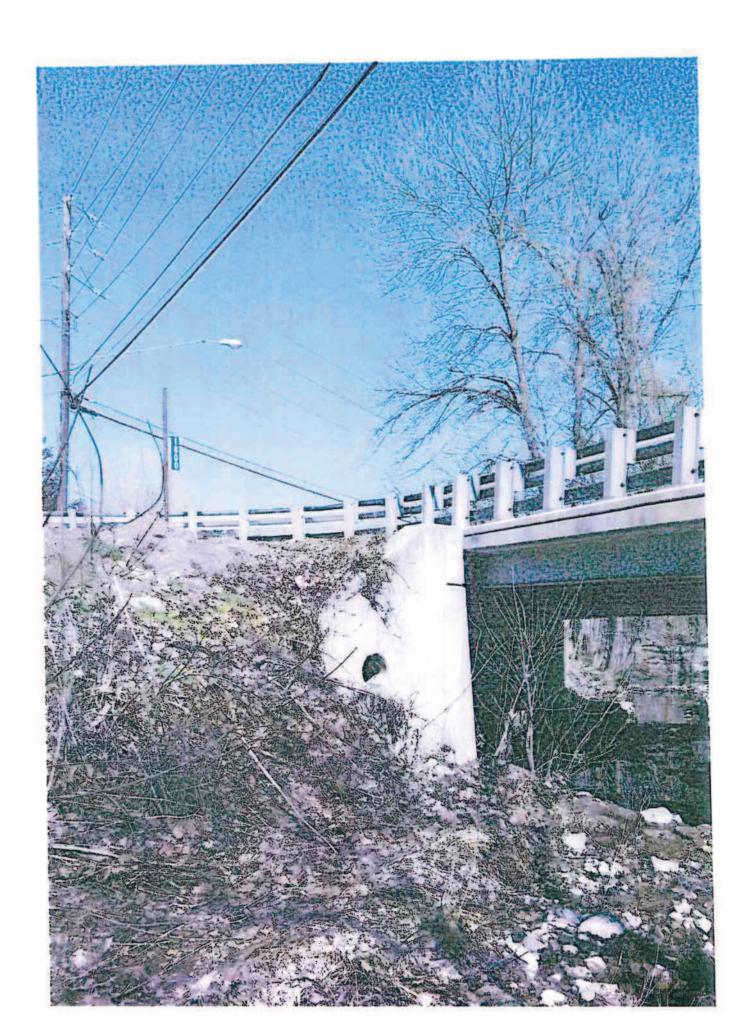












3.	For all permittees, indicate the percent of outfalls screened that revealed dry weather flows: 100 %
4.	Did any dry weather flows reveal color, turbidity, sheen, odor, floating or submerged solids? Yes No
5.	If Yes for #4, attach all sample results to this report with a map identifying the sample 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.
to	IP #5: Enact a stormwater management ordinance (municipal entities) or develop an SOP (non-municipal entities) implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges the regulated small MS4.
from ord Ch	easurable Goal: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance man Act 167 Plan approved by the Department in 2005 or later, the MS4 Stormwater Management Ordinance; or an dinance that satisfies all applicable requirements in a completed and signed MS4 Stormwater Management Ordinance ecklist. (For non-municipal permittees, new permittees shall develop and implement a Standard Operating Procedure (SOP) thin the first year of coverage).
sat	newal permittees must continue to maintain, update, implement, and enforce a Stormwater Management Ordinance that tisfies all applicable requirements. (For non-municipal permittees, the SOP satisfies this requirement. If no existing SOP ists, it should be developed during the first year of coverage).
soi	easurable Goal: New permittees shall submit a letter signed by a municipal official, municipal engineer, or the municipal licitor as an attachment to their first year report certifying the enactment of an ordinance that meets all applicable quirements of this permit. Renewal permittees shall update their existing ordinance, if necessary, and submit documentation 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 3/8/04, amended 2/14/11
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:
	Notices of Violation were issed, attached
BN ge	IP #6: Provide educational outreach to public employees, business owners and employees, property owners, the neral public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.
shi pro of co	easurable Goals: During each year of permit coverage, appropriate educational information concerning illicit discharges all be distributed to the target audiences using methods outlined under MCM #1. If not already established, set up and omote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year permit coverage for the public to use to notify you of illicit discharges, illegal dumping or outfall pollution. Respond to all mplaints in a timely and appropriate manner. Document all responses, include the action taken, the time required to take the tion, 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? Concrete washout guidelines, attached

2014-2015 MS4 FIRST INSPECTION

Section 1: Backgr	round Data				٠. ١	0 = P /		
Subwatershed:				Outfall ID:		BT5.0		
Today's date: 3/	129/15			Time (Mili		00.4	011.516	
Investigators:				Form comp		MAG	ALLEN	
Temperature (°F):	260		(in.): Last 24 hours:		8 hours:	0.28	GPS LMK #:	
Latitude:	Long	itudo:		GPS Unit:			Gro Livite W.	
Сатега:				Photo#s:	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>			
Land Use in Drainag	c Arca (Check all that appl	y):						
☐ Industrial				Open S	pace			
Ultra-Urban Resi	idential			☐ Institut				
Suburban Reside	ntial			Other:				
Commercial				Known In	dustries:			
Notes (e.g., origin o	foutfall, if known):							
	•							
Section 2: Outfa			QUI	(PE		DIMENS	IONS (IN.)	SUBMERGED
LOCATION	***************************************	**********	☐ Circular	☐ Single		Diameter/Dim		In Water:
				☐ Double				☐ No ☐ Partially
			☐ Eliptical					Fully
Closed Pipe	☐ Stccl	ľ	Box	Triple				With Sediment:
	Other:		Other:	Other: _				Partially Fully
							,	VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	Concrete	ŀ	Trapezoid			Depth:	8	
<u></u>	Earthon		☐ Parabolic			Top Width: _	12	
Open drainage	☐ rip-rap					Bottom Widt	_	
	Other:		Other:					<u> </u>
In-Stream	(applicable when	collecting s	amples)					
Flow Present?	Yes	□No	If No, Sk	ip to Section	5			
Flow Description (If present)	Trickle [Moderate	Substantial					
Section 3: Ouan	ititative Characteriz	ation						
Section 2.			FIELD DATA FOR I	LOWING	HUTFALLS			
PA	RAMETER		RESULT			UNIT		QUIPMENT
	Volume					Liter		Bottle
□Flow#1	Time to fill					Sec		
	Flow depth					In		Tape measure
□Flow#2	Flow width		35			Ft, In		Tape measure
	Measured length		3 33			Ft, In		Tape measure
	Time of travel					S		Stop watch
7	emperature					°F		Themometer
	pН					pH Units		Test strip/Probe
	Ammonia					mg/L		Test strip

Section 4: Physical Indicators for Flowing Outfalls Only, Are Any Physical Indicators Present in the flow? CHECKIF C	Sewage Rancid/sour Petroleum/gas U1-Faint U2-Easily detected distance distance	Clear Brown Gray Tellow D1-Faint colors in C2-Clearly visible in 011-Faint colors in cample bottle confidence on Colors in control of confidence controls can control controls control controls control controls c	See severity	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ 1 — Few/slight; origin of origin (e.g., devious oil sheen, und, or floating sheen) ☐ Other:	Section 5: Physical Indicators for Both Flowing and Non-Plowing Outfalls Are physical indicators that are not related to flow present?	se 🗆 🖂 Spalling, Cracking or Chipping 🗎 Peeling Paint	ns \square Oily \square Flow Line \square Paint \square Other:	ation \square Excessive \square Inhibited	ity Colors Colors Ploatables Oil Sheen Suds Excessive Algae Other.	owth \Box Drowin Orange \Box Green \Box Other:	Outfall Characterization	☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious	Collection	le lab?	Trlow Pool	flow trap set?
ion 4: Physical Indicators f Any Physical Indicators Present CHECK TWDICATOR	Odor	Color	Turbidity	Floatables -Does Not Include Trash!!	tion 5: Physical Indicators physical indicators that are 1 rNDICATOR	Outfall Damage	Deposits/Stains	Abnormal Vegetation	Poor pool quality	Pipe benthic growth	tion 6: Overall Outfall Ch	X Unlikely 🔲 Potenti	Souther 7. Date Collection	Sample for the lab?	If yes, collected from:	Intermittent flow trap set?

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

ection 1: Backgr Subwatershed:				Outfall ID:	У	BTS	5,1	
Today's date: 3/	29/15			Time (Mili			•	
Investigators:	<u> </u>			Form comp	oleted by:	RAY	ALLEN	
Temperature (°F):	26°	Rainfal	l (in.): Last 24 hours:	O Last 4	8 hours:	0		
Latitude:	20	Longitude:	•	GPS Unit:			GPS LMK #:	
Camera:				Photo #s:				
Land Use in Drainag	e Area (Check all th	at apply):						
☐ Industrial				Open S	pace			
	dtal			☐ Institut	ional			
Ultra-Urban Resi				Other:				
Suburban Reside	ntial							
☐ Commercial				Known III	uusu ros.			
Notes (e.g., origin of	foutfall, if known):							
Section 2: Outfa	Il Decerintian							
LOCATION		ERIAL	SH	APE		DIMENS	ions (IN.)	SUBMERGED
	KI RCP	☐ CMP	☐ Circular	☐ Single		Diameter/Dime	ensions:	In Water: ☐ No
	ΠPVC	HDPE	Eliptical	☐ Double				Partially Fully
٠	Steel	Basset -	□Box	☐ Triple				
Closed Pipe			Other:	Other:				With Sediment: No Partially
	Other:_		LI Otalet.					Partially
				<u> </u>				
	Concrete	•	☐ Trapezoid			Depth:		
Open drainage	☐ Earthen		☐ Parabolic			Top Width: _		
C Open aranage	☐ rip-rap		Other:			Bottom Widtl	ı:	
	Other:_							<u> </u>
☐ In-Stream	(applicable	when collecting						
Flow Present?	☐ Yes	N	if No, Si	ap to Section	5			
Flow Description	☐ Trickle	☐ Modera	te Substantial					
(If present)								
Section 3: Quar	ititative Chara	cterization						
			FIELD DATA FOR	FLOWING				
PA	RAMETER		RESULT			UNIT		EQUIPMENT
	Volume					Liter		Bottle
□Flow#1	Time to fil	1				Sec		
	Flow depth	1				In		Tape measure
□Flow#2	Flow widt	i	3 33			Ft, In	_	Tape measure
LIFIOW #4	Measured len	igth	3 33			Ft, In		Tape measure Stop watch
	Time of trav	/cl				S		Thermometer
7	Cemperature					°F		Test strip/Probe
	pН				1	oH Units		
	Ammonia					mg/L		Test strip

3. Intermittent flow trap set?	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	☐ Unlikely ☐	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present? INDICATOR CHECKIF Present	Fioatables -Does Not Include Trash!!	Turbidity	Color	Odor	INDICATOR	section 4: Physical Indicators for Flowing Outfalls Only are Any Physical Indicators Present in the flow? Tes
ap set?	m:		etion	Potential (pres	utfall Character						dicators for Both Flows that are not related to f					CHECK IF Present	dicators for Flovors Present in the f
☐Yes ☐No II Yes, type: ☐		☐Yes ☐No		Potential (presence of two or more indicators) Suspect (one or more] Brown Dorange Green Other	Odors Colors Floatables Oil Sheen Suds Excessive Algae Other	☐ Excessive ☐ Inhibited	□ oily □ FI	Spalling, Cracking or Chipping Peeling Paint Cornsion	n-Flowing Outfalls Yes XNo (1/7No. 5) DESCRIPTION	Sewage (Toilet Paper, etc.) Suds Petroleum (oil sheen) Other:	See severity	☐ Clear ☐ Brown ☐ Gray ☐ Yellow☐ Green ☐ Orange ☐ Red ☐ ☐ Other:	leum/gas	DESCRIPTION	wing Ontfalls Only low? ☐ Yes · ☐ No (If No, Skip to Section 5)
OBM Caure can	D Caulit			Suspect (one or more indicators with a severity of 3)			len len			nr	ction 6)	☐ 1 – Few/slight; origin not obvious	1 - Slight cloudiness			RELATI	
				3) [] Obvious]						GOMMENTS	of origin (e.g., possible suds or oil sheen)	12 - Cloudy	sample bottle	☐ 2 — Easily detected	RELATIVE SEVERITY INDEX (1-3)	
											v	(e.g., obvious oil sheen, suds, or floating sanitary materials)	☐ 3 - Some: origin clear	outfall flow	distance	1-3)	

Time (Military): Investigators: Temperature (°F): 26	Section 1: Back	groun	d Data					7.7		
Rating R	Subwatershed:					Outfall II	YEC	46.0		
Temperature (°F): 2	Today's date: 3	120	9/15			Time (Mi	litary):			
Commercial Longitude: GPS Unit: GPS IAMR #:	Investigators:					Form con	pleted by:	PAY A	ALLEN	
Commercial Longitude: GPS Unit: GPS IAMR #:	Temperature (°F):	2	60	Rainfa	ll (in.): Last 24 hours:	O Last	48 hours:	0		
Conserved Cons	Latitude:			Longitude:	•	GPS Unit	:	•	GPS LMK #:	
Industrial	Camera:					Photo #s:				
Ultra-Urban Residential	Land Use in Drains	age Are	a (Check all the	at apply):						
Commercial Com	Industrial					Open	Space			
Notes (e.g., origin of outfall if known):	Ultra-Urban Re	sidenti	al			☐ Institu	itional			
Notes (e.g., origin of outfall, if known):	Suburban Resid	iential				Other:				
Percent Perc	☐ Commercial					Known I	ndustries:			
Closed Pipe CMP CMP Circular Single Diameter/Dimensions: In Water: Pop Partially Pop Partially	Notes (e.g., origin	of outfi	ıll, if known):							
Closed Pipe CMP CMP Circular Single Diameter/Dimensions: In Water: Pop Partially Pop Partially										
Closed Pipe CMP CMP Circular Single Diameter/Dimensions: In Water: Pop Partially Pop Partially	Section 2: Outf	all De	scription							
Closed Fipe	000000000000000000000000000000000000000	*********	000000000000000000000000000000000000000	RIAL	SH	APE		DIMENSIO	NS (IN.)	SUBMERGED
PVC HDPF Eliptical Double Partially Fully Fully			☐ RCP	□смр	☐ Circular	☐ Single		Diameter/Dimen	sions:	
Closed Pipe			□PVC	HDPE	☐ Eliptical	☐ Double				☐ Partially
Other:	Closed Pipe		☐ Steel		Box	☐ Triple				
Concrete			Other:		Other:	Other:				□No
Parabolic										
Parabolic			☐ Concrete		No/m			Denth: 4	/	
Dither: Bottom Width: 12			Earthen					1		
Other: Applicable when collecting samples Flow Present?	Open drainage	,	Trip-rap		☐ Parabolic					
In-Stream Septimistrative Collecting samples					Other:			Bottom Width:	10	
Flow Present? Flow Description (If present) Section 3: Quantitative Characterization FIELD DATA FOR FLOWING OUTFALLS FARAMETER RESULT UNIT FOULPMENT Bottle Time to fill Flow #1 Flow width Flow width Time of travel Flow width Temperature PH Flow Present? In Tape measure Ft, In Tape measure Ft, In Tape measure Ft, In Tape measure Ft, In Tape measure Ft Themometer Ft Themometer PH Units Fet strip/Probe	□ In-Stream			when collecting	samples)					<u> </u>
Trickle						ip to Section	5			
Section 3: Quantitative Characterization	Flow Description									
FIELD DATA FOR FLOWING OUT FALES PARAMETER RESULT UNIT EQUIPMENT [Flow #1] Volume Liter Bottle Time to fill Sec ————————————————————————————————————			1							
PARAMETER RESULT SUNT EQUIPMENT	Section 3: Qua	ntitat	ive Charact	erization	EIEID:DATA EOD	ELD/MINIC	OUTFALIS			
Volume		ND 4 4 P	ETED				************		E	QUIPMENT
Time to fill	γ.	arour)	*************					***************************************		Bottle
Flow #2 Flow width	□Flow#1							Sec		
Flow width								In		Tape measure
					3 35			Ft, In		Tape measure
Time of travel Temperature PH S Stop watch Thermometer pH Units Test strip/Probe	□Flow #2			th T	3 33					Tape measure
Temperature PH Units Test strip/Probe										Stop watch
pH Units Test strip/Probe	,	L		•				°F		Thermometer
Test strip								pH Units	2	leststrip/Probe
								mg/L		Test strip

3. Intermittent flow trap set?	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	☐ Unlikely ☐	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical In Are physical indicators INDICATOR	Floatables -Does Not include Trash!!	Turbidity	Color	Odor	Are Any Physical Indicato	Section 4: Physical Indicators for Flowing Outfalls Only
ip set?	m:		ction	Potential (prese	ıtfall Characteri						dicators for Bot that are not relat				П	CHECKIF Present	licators for Flow
Yes No ii res, type: U China U Causa Causa	w Pool	□ Yes □ No		Potential (presence of two or more indicators) Suspect (one or more indicators with a severity of 3) Under Obvious		☐ ☐ Brown ☐ Orange ☐ Green ☐ Other:	Odors Colors Floatables Oil Sheen Suds Excessive Algae Other:	☐ Excessive ☐ Inhibited	☐ ☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corresion	(If No. 1	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ 1 — Few/slight; origin of origin (e.g., not obvious sheen) ☐ Cther: ☐ 2 — Some; indications ☐ 1 — Few/slight; origin of origin (e.g., not obvious sheen)	2 - Cloudy	□ Clear □ Brown □ Gray □ Yellow □ 1 - Faint colors in sample bottle □ 2 - Clearly visible in sample bottle □ Green	□ Sewage □ Rancid/sour □ Petroleum/gas □ 1 - Faint □ 2 - Easily detected □ 1 - Faint	DESCRIPTION RELATIVE SEVERITY INDEX (1	Flowing Outfalls Only, the flow T Yes . Who (If No. Skip to Section 5)
												(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Opaque	3 - Clearly visible in outfall flow	distance	3)	

ection 1: Backg	round I	Data					00 1	15. 5	
Subwatershed:					Outfall ID		3C 4	15.0	
Today's date: 3	1291	15			Time (Mil		04::		
Investigators:					Form com			ALLEN	
Temperature (°F):	26	, a ·		l (in.): Last 24 hours:			0	GPS LMK #:	
Latitude:			Longitude:		GPS Unit			GPS LIVIN #:	
Camera:					Photo #s:				
Land Use in Draina	ge Area ((Check all tha	t apply):						
☐ Industrial					Open	Space			
Ultra-Urban Res	sidential				☐ Institu	tional			
Suburban Resid	ential				Other:				
Commercial					Known Ir	dustries:			
Notes (e.g., origin o	of outfall,	if known):							
Section 2: Outfa		***************					DIMENS	IONS (IN.)	SUBMERGED
LOCATION	*********		RIAL		IAPE		Diameter/Din		
		RCP	CMP	Circular	☐ Single		18		In Water, No Partially
,]PVC	HDPE	☐ Eliptical	Double				Fully
Closed Pipe		Steel		Вох	☐ Triple				With Sediment:
•		Other:		☐ Other:	Other: _				No Partially
									Fully
		Concrete					Depth:		
		Earthen		☐ Trapczoid			Top Width:		
Open drainage] rip-rap		Parabolic			1		
		Other:		Other:			Bottom Widt	in:	
☐ In-Stream			vhen collecting	samplest					
	100	∃ Yes	MV	***************************************	kip to Section	5			
Flow Present?									
Flow Description (If present)	[Trickle	Moderat	te Substantial					
	4*4 - 4*	- Charact	ization						
Section 3: Quai	nmany	e Characi	EI EATION	FIELD DATA FOR	FLOWING	OUTFALLS			
D7	ARAMET	ED		RESULT			INIT		QUIPMENT
	**********	Volume					Liter		Bottle
∏Flow#1		Time to fill					Sec		
		Flow depth					In		Tape measure
personal are	ļ	Flow width		3 33			Ft, In		Tape measure
□Flow #2	Mo	casured leng	th	3 33			Ft, In		Tape measure
	ļ	ime of trave					S		Stop watch
7	Temperati	ure					°F		Thermometer
	pН					p	H Units		Test strip/Probe
	Ammoni	ia.		-			mg/L		Test strip
4			i			1			

- 1	 Intermittent flow trap set? 	- 1	1. Sample for the lab?	Section 7: Data Collection	☐ Unlikely ☐ Potential	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poorpool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present? INDICATOR CHECKIF Present	Trash!!	Floatables	Turbidity	Color	Odor	INDIGATOR CHECKIN	Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow?
	☐ Yes ☐ No If Yes, type: ☐ CBM	☐Flow ☐Pool	□Yes □No		Potential (presence of two or more indicators) Suspect (one or more indicators with a severity of 3)		☐ ☐ Brown ☐ Orange ☐ Green ☐ Other:	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	1	☐ ☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	Spalling, Cracking or Chipping Peeling Paint Corrosion	L-Flowing Outfalls (HNo. 1) Yes No (HNo. 1) DESCRIPTION	☐ Petroleum (oil sheen) ☐ Other:	Sewage (Toilet Paper, etc.) Suds	See severity	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ 1 -	Sulfide Other:		r Flowing Ontfalls Only n the flow? Tes : No (If No, Skip to Section 5)
					tors with a severity of 3)) COMMENTS		\square 1 — Few/slight; origin \square 2 — Some; indications \square 3 — Some; origin (e.g., obvious oil nossible suds or oil sheen, suds, or floatin	2 - Cloudy	☐ 1—Faint colors in ☐ 2—Clearly visible in ☐ 3—Clearly visible in sample bottle outfall flow	☐ 1 - Faint ☐ 2 - Easily detected distance	RELATIVE SEVERITY INDEX (1-3)	

ction 1: Backgroup to the state of the state	Dunu Dala			Outfall ID:	YEC	44	, <i>O</i>	
Coday's date: 3/	29/15			Time (Military				
	<i>∞1/13</i>			Form complet		ALLEN		
nvestigators:	260	Rainfall	(in.): Last 24 hours:	O Last 48 h				
Comperature (°F):		ongitude:		GPS Unit:	•	GPS LMK	#:	
Latitude:		20511000		Photo#s:				
	Area (Check all that a	oply):						
☐ Industrial	,			Open Spa	ce			
Ultra-Urban Resid	lential			Institution	al			
Suburban Residen	tial			Other:				
☐ Commercial				Known Indus	tries:			
Notes (e.g., origin of	outfall ifknoum):							
Notes (e.g., origin or	oncient, it known).							
ection 2: Outfal	Description							
LOCATION		IAL	SH	APE	DIM	ENSIONS (IN.)		
	☐ RCP	□ CMP	KI Circular	☐ Single	Diameter	Dimensions:	In Water No	
	□PVC	HDPE	☐ Eliptical	☐ Double			Partially Fully	
Closed Pipe	☐ Steel		□Box	☐ Triple			With Sediment:	
Closed Lipe	Other:		Other:	Other:	_		No Partially	
	C Omer.						Fully	
	Concrete							
			☐ Trapezoid		Depth:_			
Open drainage	☐ Earthon		☐ Parabolic		Top Wid	Ith:		
	☐ rip-rap		☐ Other:		Bottom '	Width:		
	Other:						<u> </u>	
☐ In-Stream	(applicable wh	en collecting						
Flow Present?	☐ Yes	0/4 E C	If No, Si	kip to Section 5				
Flow Description (If present)	☐ Trickle	Moderat	c Substantial					
Seedion 20 Over	titative Characte	rization						
Section 3: Quan	manve Characte		FIELD DATA FOR	FLOWING OU	TFALLS			
DAI	RAMETER		RESULT		UNIT		EQUIPMENT	
,,,	Volume				Liter		Bottle	
□Flow#1	Time to fill				Sec			
	Flow depth				In		Tape measure	
	Flow width		3 33		Ft, In		Tape measure	
□Flow#2	Measured length		3 33		Ft, In		Tape measure	
	Time of travel				S		Stop watch	
T	emperature				°F		Thermometer	
	pH				pH Units		Test strip/Probe	
Į.	Uri							

- 1	- 1	 Sample for the lab? 	Section 7: Data Collection	Unlikely	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes KNo	Floatables -Does Not Include Trash!!	Turbidity	Color	Odor	INDICATOR CHECKIF Present
n: ip set?			ction	Potential (prese	ıtfall Characteri						CHECK If Present	dicators for Both that are not relate	0				CHECKIF Present
□Yes	☐ Flow	□Yes		Potential (presence of two or more indicators)	zation	Brown	Odors Suds	☐ Excessive	□oily	Corresion	1	n Flowing and Non-F ed to flow present?	☐ Sewage (Toilet Paper, etc.) ☐ Petroleum (oil sheen)		□ Clear □ Brown □ Green □ Orange	☐ Sewage ☐ Rancid☐ Sulfide ☐ Other:	
□No	☐ Pool	□ No				☐ Orange	ve Alg		펄	Tacking of	DES	Towing Outfalls ☐ Yes ★ No	etc.) 🗌 Suds	See severity	□ Gray	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	DESCRIPTION
If Yes, type:				Suspect (one or more indicators with a severity of 3)		Cureen Country	1]	t		CRIPIZON	(IfNo, Skip to Section 6)			☐ Yellow ☐Other:		
OBM Caulk dam				ndicators with a seve								tion 6)	☐ 1 – Few/slight; origin not obvious	1 - Slight cloudiness	1 - Faint colors in sample bottle	□ l – Faint	
n			rity of 3) L Obvious]						COMPLETE		n possible suds or oil sheen)] [2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
			3.							NIS		(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some: origin clear	outfall flow	distance	X(1-3)	

Section 1: Back	groun	d Data												
Subwatershed:						Outfall ID: Y'BM 1,1								
Today's date: 3	120	9/15				Time (Mil								
Investigators:						Form com	pleted by:	RAY A	WEN					
Temperature (°F):	2	60	R	ainfall	(in.): Last 24 hours:	O Last	48 hours:	0						
Latitude:			Longitud	lo:		GPS Unit			GPS LMK #:					
Camera:				···		Photo #s:								
Land Use in Drains	age Are	a (Check all that	apply):											
☐ Industrial						Open	Space							
Ultra-Urban Re	sidentia	al				☐ Institu	tional							
Suburban Resid	icutial					Other:								
Commercial						Known Ir								
Notes (e.g., origin	of outfi	all, if known):												
Section 2: Outf	**********	scription MATE			CH	APE		DIMENSIO	VS (IN.)	SUBMERGED				
LOCATION			***********		Circular	☐ Single		Diameter/Dimensi	************	In Water				
		RCP	CM	1	•	Double		16/1		No Partially				
, ž		□ PVC	HD			_				Fully				
K Closed Pipe		Steel			Box	Triple				With Sediment:				
		Other:			Other:	Other: _			Partially Fully					
										VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII				
		☐ Concrete			☐ Trapezoid			Depth:						
Mouse desirant		☐ Earthen			☐ Parabolic			Top Width:						
CI Obeu grangage	Open drainage				☐ Other:			Bottom Width:						
		Other:								<u> </u>				
☐ In-Stream		(applicable w	hen colle	eling	samples)									
Flow Present?		☐ Yes	ζı	No	If No, Sk	ip to Section	5							
Flow Description (If present)		☐ Trickle		oderate	: Substantial									
Section 3: Qua	ntitat	ive Characte	erizatio	on										
DECTION 3. QUA					FIELD DATA FOR I	LOWING	HITFALLS							
P	ARAM	ETER		RESULT			UNIT	ı	EQUIPMENT					
		Volume						Liter	Bottle					
□Flow#1		Time to fill					Sec							
	Flow depth						In			Tape measure				
□Flow#2		Flow width			3 37			Ft, In	Tape measure					
Laterow HZ		Measured length	h		> >>			Ft, In		Tape measure				
		Time of travel						S	Stop watch					
	Temper	rature						°F	Thermometer					
	pF	I)	oH Units	Test strip/Probe					
	A-m-m							mg/L	Test strip					

ection 4: Physical Indicators for F ce Any Physical Indicators Present in the form of the seem of the	cal Indicators for Flowing Outfalls Only Indicators Present in the flow? CHECK! CHECK! Present CHECK! Present CHECK! Percolation 15	Clear Brown Gray Yellow 1 - Faint colors in sample bottle	Ustreen □ Orange □ Local See severity □ 1 - Slight cloudiness □ 2 - Cloudy		al Indicators for Both Flowing and Non-Flowing Outfalls ators that are not related to flow present?	fall Damage	posits/Stains	☐ Excessive ☐ Inhibited	Odors Colors Thousables Suds Excessive Algae	benthic growth \square Brown \square Orange \square Green \square Other:	Outfall Characterization	likely 🔲 Potential (presence of two or more indicators) 🔲 Suspect (one or more indicators with a severity of 3) 📋 Obvious	7: Data Collection	male for the lab?	☐Flow ☐Pool	set?
--	--	---	---	--	--	-------------	---------------	-------------------------	--	--	--------------------------	---	--------------------	-------------------	-------------	------

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

Illicit Discharge Detection and Elimination: Technical Appendices Could mut see light in swinlet at Branda

40

ection 1: Backg	I UUIIU DAIA			Outfall ID:		YEM	1.0	
	129/15			Time (Military	y):	<u> </u>		
	× 1//3			Form complet		RAY 1	ALLEN	
Investigators:	260	Rainfal	l (in.): Last 24 hours:	O Last 48 h		0		
Temperature (°F):	26	Longitude:	·	GPS Unit:			GPS LMK #:	
Latitudo:		Dongmare		Photo #s:				
Camera:	ge Area (Check all the	at apply):						
	50111011 (Open Space	ce			
Industrial				☐ Institution				
Ultra-Urban Res								
Suburban Resid	ential							
Commercial				Known Indus	stries:			
Notes (c.g., origin o	of outfall, if known):							
ection 2: Outfa				APE		DIMENS	ONS (IN.)	SUBMERGED
LOCATION		ERIAL		☐ Single		Diameter/Dim	····	In Water:
	□ RCP	☐ CMP	☐ Circular					☐ No ☐ Partially
	□PVC	HDPE	☐ Eliptical	☐ Double				Fully
Closed Pipe	☐ Steel		□Box	☐ Triple				With Sediment:
	Other:_		Other:	Other:	-			☐ No ☐ Partially
								Fully
	Concrete					Depth: 18	11	
	Earthen		Trapezoid			Top Width:	20'	
Open drainage	☐ rip-rap		☐ Parabolic		1		2//	
			Other:			Bottom Width	i:	
	Other:_							
☐ In-Stream	(2222222	when collecting		kip to Section 5				
Flow Present?	▼ Yes			mp to because				
Flow Description (If present)	Trickle	Modera	te Substantial					
Section 3: Qua	ntitative Charac	terization						
			FIELD DATA FOR	FLOWING OU				FORTERSENT
P)	ARAMETER		RESULT		*********	INIT		EQUIPMENT
□Flow#1	Volume					Liter		Bottle
□1:10M #1	Time to fill					Sec		Tape measure
	Flow depth					In		Tape measure
□Flow#2	Flow width		, ,,,			Ft, In		Tape measure
LIFIOW WZ	Measured len	gth	3 33			Ft, In		Stop watch
	Time of trav	cl				S		Themometer
	Temperature					°F		Test strip/Probe
	pН				p).	H Units		
	Ameronia					mg/L	1	Test strip

Section 4: Physical Indicators for Flowing Outlans On the April Physical Indicators Present in the flow?	icators for Flown R Present in the flov	ng Outlails Only w? Yes No (If No, Skip to Section 5)			
INDIGATOR	CHECK IF Present	DESCRI	RELAT	RELATIVE SEVERITY INDEX (1-3)	1-3)
>		☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ 1 – Faint		2 - Easily detected	☐ 3 Noticeable from a distance
Cuci				To Charles della in	T 2 _ Clearly visible in
Color		□ Clear □ Brown □ Gray □ Yellow □ □ 1 - 1	l – Faint colors in sample boule	2 - Clearly visible in sample bottle	outfall flow
		See severity	☐ 1 — Slight cloudiness	2 - Cloudy	3 - Opaque
Turbidity				☐ 2 — Some; indications	3 - Some; origin clear
Floatables -Does Not Include Trash!!		☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ 1 - Few. ☐ Petroleum (oil sheen) ☐ Other: not obvious	slight; origin	of origin (e.g., possible suds or oil sheen)	(e.g., obvious oil sheen, suds, or floating sanitary materials)
Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	dicators for Both	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes—ZNo (IfNo, Skip to Section 6)			
INDICATOR	CHECK If Present	DESCRIPTION		CONTRIBUTION	Ü
Outfall Damage		☐ Spalling, Cracking or Chipping ☐ Peeling Paint☐ Corrosion			
Deposits/Stains		Oily Oflow Line OPaint Other:			
Abnormal Vegetation		☐ Excessive ☐ Inhibited			
Poor pool quality		Odors Colors Dioatables Oil Sheen Suds Decessive Algae Other:			
Pipe benthic growth		☐Brown ☐ Orange ☐ Green ☐ Other:			
Sortion 6: Overall Outfall Characterization	rfall Characteriz	ation			
Section of Overall Co	Potential (preser	Potential (presence of two or more indicators) Suspect (one or more indicators with a sev	ors with a severity of 3)	(3) Dovious	
OHIMALI	4				
Section 7: Data Collection	ction				
 Sample for the lab? 		Yes UNO			
If yes, collected from:	p.				
 Intermittent flow trap set? 	ap set?	☐ Yes ☐ No H Yes, type: ☐ UBM	Caulk dalit		

ection 1: Backg	round Data			Outfall ID	. 1.	AT E	· 1_			
Subwatershed:	1001			Time (Mil	itomely.		<u>مسئو ۾ :</u>			
Today's date: 3	129/15			Form com	nleted hu	BT 5 RAY A	VLENI			
Investigators:	0.05	Dies	P (-) Tant 24 hours	O Last		0	2 0			
Temperature (°F):	33°		ll (in.): Last 24 hours:	GPS Unit:			GPS LMK #:			
Latitude:	Lon	gitudo:		Photo#s:			<u> </u>			
Camera:	- A (Charle all that arm			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
Industrial	ge Area (Check all that app	3).		Open S	Space					
Ultra-Urban Res	idential			☐ Institu	tional					
Suburban Reside	ential			Other:						
☐ Commercial				Known In	dustrics:					
	foutfall, if known):									
viores (e-E-) origin c	n variously at the VIII).									
						-				
Section 2: Outfa			Sh	APE		DIMENSI	ONS (IN.)	SUBMERGED		
LOCATION		**********		•		Diameter/Dime	90 9 000	In Water:		
		CMP	Circular	☐ Single		Diminotonomio	1310113-	□ No □ Partially		
	□PVC □	HDPE	☐ Eliptical	Double				Fully		
Closed Pipe	☐ Steel		Вох	Triple				With Sediment:		
	Other:		Other:	Other:				□ No □ Partially		
								Fully		
	☐ Concrete		Trapezoid			Depth:	-12-11			
4	Earthon					Ton Width:	12'			
AOpen drainage	☐ rip-rap		Parabolic			Bottom Width:	10'			
	Other:		Other:			Bottom width.				
☐ In-Stream	(applicable when	collecting	samples)							
Flow Present?	☐ Yes	No	if No, Sk	ap to Section	5					
Flow Description (If present)	☐ Trickle ☐] Moderat	te Substantial							
		4.								
Section 3: Quai	ntitative Characteriz	ation	FIELD DATA FOR	FLOWING (UTFALLS					
	RAMETER		RESULT			TINL	E	QUIPMENT		
P,	Volume				***********	Liter		Bottle		
□Flow#1	Time to fill	-				Sec				
	Flow depth					In		lape measure		
	Flow width		3 37			Ft, In		Гарс птеазите		
□Flow #2	Measured length		3 37			Ft, In		Tape measure		
	Time of travel					S		Stop watch		
	Cemperature					°F		Thermometer		
	pH			pH Units Test strip/Probe			est strip/Probe			
	Ammonia					mg/L Test strip				

Section 4: Physical Indicators for Flowing Outfalls On Are Any Physical Indicators Present in the flow? Yes	dicators for Flow ors Present in the flo	Y No (If No, Skip to Section 5)		
INDICATOR	CHECK If Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)	1-3)
Odor		☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ 1 - Faint ☐ 2 -	2 Easily detected	3 – Noticeable from a distance
Color		☐ Brown ☐ Gray ☐ Yellow ☐ 1 - Faint colors in	☐ 2 – Clearly visible in sample bottle	3 - Clearly visible in outfall flow
Trubiditu]	See severity	2 - Cloudy	3 - Opaque
Floatables -Does Not Include Trashii		☐ 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 Nor Are physical indicators that are not related to flow present?	idicators for Both	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes KNo (If No. Skip to Section 6)		
INDICATOR	CHECK IF Present	DESCRIPTION	COMMENIS	v
Outfall Damage		Spalling, Cracking or Chipping Peeling Paint Corrosion		
Deposits/Stains		☐Oily ☐FlowLine ☐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	utfall Characteri		1	
Unlikely] Potential (prese	Potential (presence of two or more indicators) Suspect (one or more indicators with a severity of 3)	☐ Obvious	
A. Section 7: Data Collection	ection			
1. Sample for the lab?		☐Yes ☐No		
- 1)m:			
	ap set?	☐ Yes ☐ No If Yes, type: ☐ OBM ☐ Caulk dam		

Subwatershed:						Outfall II	D:	YBE	. 43. geren	0
Today's date: 3	129	7/15				Time (M	ilitary):		, (
Investigators:						Form con	npleted by:	RAY	PLLEN	
Temperature (°F):	3	3 °		Rainfal	l (in.): Last 24 hours:	O Las	48 hours:	Ø İ		
Latitude:			Longit	ude:	•	GPS Uni	t:		GPS LMK #:	
Camera:						Photo#s	:			
Land Use in Drains	age Area	(Check all tha	t apply):	:						
☐ Industrial						Open	Space			
Ultra-Urban Re	sidential					☐ Instit	utional			
Suburban Resid	dential					Other: _				
☐ Commercial						Known I	ndustrics:			
Notes (e.g., origin	of outfall	l, if known):								
ection 2: Outf	**********	cription MATE		*******	CH	APE		DIMENSI	ONS (IN.)	SUBMERGED
LOCATION			*********	VID.	☐ Circular	☐ Single		Diameter/Dime		In Water:
		RCP				l		Diminotonization		□ No □ Partially
		PVC	Пн	DPE	☐ Eliptical	Double				Fully
Closed Pipe		Steel			Box	Triple				With Sediment:
	ļ!	Other:			Other:	Other:				☐ No ☐ Partially
										Fully
		Concrete			Trapezoid			Depth:	71	
Open drainage	. !	Earthen			Parabolic			Top Width:	12	
ea Open uramage		☐ rip-rap						Bottom Width:		
]	Other:			Other:			Dottom wide.	E/	
☐ In-Stream	8	(applicable w	hen col	lecting	samples)					
Flow Present?	7	⊠ Yes		□ No	If No, Sk	ip to Section	5			
Flow Description (If present)	*	Trickle	□м	loderate	: Substantial					
Section 3: Qua	ntitativ	e Characte	erizati	on						
					FIELD DATA FOR F	LOWING	DUTFALLS			
P/	ARAME	rer			RESULT		IJ	NIT	E	QUIPMENT
□Flow#1		Volume					I	Liter		Bottle
LICOTTE		Time to fill		•				Sec		
		Flow depth						In	 	Tape measure
□Flow#2		Flow width			3 33			t, In		lape measure
		leasured length			3 33		I	t, In		Tape measure
	3	Time of travel						S		Stop watch
1	Cemperat	ure				www.		°F		Thermometer
	pН						pł:	I Units	1	est strip/Probe
	Ammon	*		1			,	mg/L	1	Test strip

Ammonia

re Any Physical Indicato	ors Present in the fl	section 4; Physical Indicators Present in the flow? Yes HNo (If No, Skip to Section 5)			
INDICATOR	CHECK If Present	DESCRIPTION	REL	RELATIVE SEVERITY INDEX (1-3)	1-3)
Odor		☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas	□1-Faint	2 – Easily detected	distance
Color		□ Brown □ Gray	☐ 1 – Faint colors in sample bottle	☐ 2 - Clearly visible in sample bottle	3 – Clearly visible in outfall flow
		Creen Crange Care Comme	71 - Siloht cloudiness	☐ 2 - Cloudy	☐ 3 — Opaque
Turbidity	Ì	See severity		7 - Some: indications	☐ 3 - Some; origin clear
Floatables -Does Not Include -Trash!!		Sewage (Toilet Paper, etc.) Suds Petroleum (oil sheen) Other:	l - Few/slight; origin not obvious	of origin (e.g., possible suds or oil sheen)	(e.g., obvious oil sheen, suds, or floating sanitary materials)
Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	dicators for Bot that are not rela	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes ANO (If No. Skip to Section 6)	o Section 6)		
INDICATOR Outfall Damage	CHECKII Present	☐ Spalling, Cracking or Chipping ☐ ☐ Corresion	Peeling Paint		
Deposits/Stains		Oily Oflow Line OPaint Other:			
Abnormal Vegetation		☐ Excessive ☐ Inhibited			
Poor pool quality		Odors Colors Floatables Suds Excessive Algae	Oil Sheen Other:		
Pipe benthic growth		☐ Brown ☐ Orange ☐ Green ☐ Other	ther		
Section 6: Overall Outfall Characterization	ıtfall Character	ization			
X I Imlikely	Potential (pres	two or more indicators)	Suspect (one or more indicators with a severity	/erity of 3) ☐ Obvious	
न					
Section 7: Data Collection	etion				
 Sample for the lab? 		☐ Yes ☐ No			
2. If yes, collected from	m:	☐ Flow ☐ Pool			
 Intermittent flow trap set? 	ap set?	☐ Yes ☐ No If Yes, type:	Caure carre		
1					

Section 1: Back	groun	d Data								
Subwatershed:						Outfall I	D:	YBC _	43.0	
Today's date: 3	1/20	9/15				Time (M	ilitary):	·		
Investigators:						Form co	mpleted by:	RAY A	PLLEN	
Temperature (°F):	3	3 5		Rainfa	ll (in.): Last 24 hours:	O Las	t 48 hours:	Ø İ		
Latitude:			Longi	tude:	•	GPS Un	it:		GPS LMK #:	
Camera:						Photo#s	*			
Land Use in Drain	age Are	a (Check all th	at apply):						
☐ Industrial						Oper	Space			
Ultra-Urban R	esidentia	al				☐ Instit	utional			
Suburban Resi	dential					Other: _				
Commercial						Known	Industries:			
Notes (e.g., origin	of outfa	dl, if known):								
Section 2: Outf	all De	scription								
LOCATION	***************************************	MAT	ERIAL		SH	APE		DIMENSI	ONS (IN.)	SUBMERGED
	*******	RCP		MP	☐ Circular	☐ Single	***************************************	Diameter/Dimer	nsions:	In Water:
		□PVC	П	IDPE	☐ Eliptical	☐ Double				☐ No ☐ Partially
☐ Closed Pipe		☐ Steel	- I		□Вох	☐ Triple				Fully
Closen rape		1			Other:	Other:				With Sediment:
		Other:			☐ Otto:-	LI Omer.				Partially Fully
		☐ Concrete				.1		8/1	×	
ز		Earthon			Trapezoid			Depth: 8	ຮ້	
Open drainage	3	☐ rip-rap			☐ Parabolic			Top Width:		
					Other:			Bottom Width:	<u>5</u>	
Пт. си		Other:								<i></i>
☐ In-Stream		(applicable)	vnen co	necting ☐ No		ip to Section	. <			
Flow Present?		X Yes				up to demor				
Flow Description (If present)	`	Trickle		Moderate	Substantial					
Section 3: Qua	ntitati	ive Charact	terizat	ion						
					FIELD DATA FOR	LOWING	OUTFALLS			
P	ARAMI	TER			RESULT		ı	INIT	E)	QUIPMENT
□Flow#1		Volume						Liter		Bottle
Litter at		Time to fill		·				Sec		
		Flow depth						In		ape measure
□Flow#2		Flow width			7 17 			Ft, In	 	ape measure
	1	Measured leng	th		3 33			Ft, In		ape measure
		Time of trave	1					S		Stop watch
	Temper	ature						°F		Thermometer
	pН						pl	H Units	T	est strip/Probe

Test strip

mg/L

Ammonia

Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? Are Any Physical Indicators Present in the flow? CHECK! CHECK!		Sewage Rancid/sour Petroleum/gas D1-Faint D2-Easily detected D3-Noticeable from a distance distance	Clear Brown Gray Yellow 11-Faint colors in 2-Clearly visible in outfall flow sample bottle carry visible in outfall flow	See severity $\square 1$ – Slight cloudiness $\square 2$ – Cloudy	Sewage (Toilet Paper, etc.)	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls (IfNo, Skip to Section 6)	ators that are not retained to now present CHECK IF Present	e Corrosion Chipping Paint Corrosion	S	ution	ity Codors Colors Colors Oil Sheen Oil Sheen Other.		.11 Outfall Characterization	Section 6: Overall Onlian Character Later of two or more indicators) Suspect (one or more indicators with a severity of 3) Obvious		Collection No No	m:	Tyes IN If Yes, type: I Chara	The state of the s
dicators for F or Present in the CHECK IF	Present					idicators for I	s that are not r						oretoll Change	Potential (p	2 to 2 to 2	9	om:	rap set?	70° 20° 10° 10° 10° 10° 10° 10° 10° 10° 10° 1
Section 4: Physical In Are Any Physical Indicat	INDICATOR	Odor	Color		Involuty Floatables -Does Not Include Trashii	Section 5: Physical I	Are physical indicator INDICATOR	Outfall Damage	Denosits/Stains	Abnormal Vegetation	Poor pool quality	Pine benthic growth		Section 6: Overall C		Section 7: Data Collection	2. If yes, collected from:		

Illicit Discharge Defection and Elimination: Technical Appendices

Section 1: Back	groun	d Data								
Subwatershed:						Outfall ID:		BHA	1.0	
Today's date: 3	12	9/15				Time (Mil	itary):	4//		
Investigators:						Form com	pleted by:	RAY	f.O ALLEN	
Temperature (°F):	3	3 5		Rainfa	ll (iu.): Last 24 hours:	O Last 4	18 hours:	0		
Latitude:			Longi	tudo:	•	GPS Unit:			GPS LMK #:	
Camera:						Photo#s:				
Land Use in Drain	age Arc	a (Check all th	at apply	·):						
☐ Industrial						Open S	Space			
Ultra-Urban Ro	esidenti	al				☐ Institut	tional			
Suburban Resid	dential					Other:				
☐ Commercial						Known In	dustries:			
Notes (e.g., origin	ofouti	all, if known):								
Section 2: Outf	all De	scription					.,			
LOCATION		TAM	ERIAL		SHI	APE		DIMENS	ions (in.)	SUBMERGED
		RCP		CMP	☐ Circular	☐ Single		Diameter/Din	nensions:	In Water:
		□PVC		IDPE	☐ Eliptical	☐ Double				Partially Fully
Closed Pipe		Steel			☐ Box	☐ Triple				
		Other:		_	Other:	Other:				With Sediment:
										Partially Fully
		☐ Concrete			-4	1		D-4 3	11	
د	•	Earthon			Trapezoid			Depth:	- /	
Open drainage	•	☐ rip-rap			Parabolic Parabolic			Top Width:_		
		Other:			Other:			Bottom Widt	h: <u>4</u>	
☐ In-Stream		(applicable)		Nectine	l samples)			1		
Flow Present?		Yes	*******	□ No		ip to Section 5	······································			
Flow Description (If present)		7	X		Substantial					
Section 3: Qua	ntitat	ive Charact	terizat	ion	-					
, and the second					FIELD DATA FOR E	LOWING O	UTFALLS			
P.	ARAM	ETER			RESULT		1	INIT	Ē	QUIPMENT
□Flow#1		Volume		T				Liter		Bottle
□riow#1		Time to fill		•				Sec		
		Flow depth						In	1	lape measure
□Flow #2		Flow width		<u> </u>	3 17			Ft, In	:	Tape measure
		Measured leng	th		3 33			Ft, In		Tape measure
		Time of trave	1					S		Stop watch
	Temper	ature						°F		Thermometer
	pН						pl	H Units	ı	est strip/Probe
	Ammo	onia						mg/L		Test strip

3. Intermittent flow trap set?	If yes, collected from:	1. Sample for the lab?	Section 7: Data Collection	Unlikely 🗆	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present? INDICATOR CHECK IF Present	Floatables -Does Not Include Trashii	Turbidity	Color	Odor	INDICATOR	Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? Yes No
ip set?	m:		ction	Potential (presen	tfall Characteriza						dicators for Both Flow that are not related to f					CHECK IF Present	licators for Flowi on Present in the flow
Yes	Flow	☐ Yes		Potential (presence of two or more indicators)	ation	□Brown	☐ Odors	☐ Excessive	□oily □Fic	Spalling, Corrosion	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes X No INDICATOR CHECK IF Present	☐ Sewage (Toilet Paper, etc.) ☐ Petroleum (oil sheen)		☐ Clear ☐ Brown ☐ Green ☐ Orange	☐ Sewage ☐ Rancid/sour ☐ Sulfide ☐ Other:		ng Outfalls Only v/ □ Yes 🕱 No
No If Yes, type:	Pool	□ No				Orange Green Other	Colors Floatables Oi	☐ Inhibited	□ Flow Line □ Paint □ Other:	Spalling, Cracking or Chipping Peeling Paint Corrosion	(IfNo.)	□ Suds □ Other:	See severity	☐ Gray ☐ Yellow ☐ Red ☐ Other:	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	DESCRIPTION	(If No, Skip to Section 5)
Cauk cam				Suspect (one or more indicators with a severity of 3)		her:	Oil Sheen Other:			g Paint	Section 6)	☐ 1 — Few/slight; origin not obvious	☐ 1 — Slight cloudiness	☐ l – Faint colors in sample bottle	□ l - Faint	неш	
				of 3) Obvious							COMMENTS	2 – Some; indications of origin (e.g., possible suds or oil sheen)	2-Cloudy	2 – Clearly visible in sample bottle	2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
											S	(e.g., obvious oil sheen, suds, or floating sanitary materials)	☐ 3 Opaque	3 - Clearly visible in outfall flow	3 – Noticeable from a distance	1-3)	

ection 1: Backg	round	d Data				T 0 15 11 11	~~	ar	440	
Subwatershed:						Outfall ID:		<i>D</i> 1	4.0	
Today's date: 3	129	3/15				Time (Mili		000	All the	
Investigators:						Form com		RFG.	ALLEN	
Temperature (°F):	3	<u>3° </u>			(in.): Last 24 hours:	O Last 4			GPS LMK #:	
Latitude:]	Longi	tudo:		GPS Unit:			GPS LIVIN #:	
Camera:						Photo#s:				
Land Use in Drainag	ge Area	a (Check all that	apply):						
☐ Industrial						Open S	Space			
Ultra-Urban Res	identia	ıl				Institu	tional			
Suburban Reside	ential					Other:				
☐ Commercial						Known In	dustries:			
Notes (e.g., origin o	foutfa	ll, if known):								
Section 2: Outfa	***************************************	000000000000000000000000000000000000000			- Company	APE		DIMENS	ions (in.)	SUBMERGED
LOCATION		MATE		*********		************		Diameter/Din		In Water:
		RCP		CMP	Circular	☐ Single		Dimiloloubil	IOLOROMO.	□ No □ Partially
•		□PVC		HDPE	☐ Eliptical	Double				Fully
Closed Pipe		☐ Steel			Box	Triple				With Sediment:
ę.		Other:			Other:	Other:				☐ No ☐ Partially
										Fully
		☐ Concrete			Trapezoid			Depth: 6	18	
		Earthon						Ton Width:	18	
Open drainage		☐ rip-rap			Parabolic Parabolic			Bottom Widt	u'	
		Other:			Other:			Bottom Widt	ti:	
☐ In-Stream		(applicable w	ien c	ollective	samples)					
Flow Present?		Yes	******	□ No		ip to Section	5			
Flow Description		4								
(If present)		Trickle	<u> </u>	Moderat	e U Suostanna					
Section 3: Quar	ntitat	ivo Characte	eriza	tion						
Section 3. Quai		IVE CHARACE			FIELD DATA FOR	FLOWING (HITFALLS			
P#	RAM	ETER			RESULT			UNIT		QUIPMENT
		Volume	·····					Liter		Bottle
□Flow#1		Time to fill		·				Sec		
		Flow depth						In		Tape measure
- HO		Flow width			2 31			Ft, In		Tape measure
□Flow#2		Measured length	h		7 27			Ft, In		Tape measure
		Time of travel						S		Stop watch
	Cempe	rature						°F		Thermometer
	pŀ	Ŧ]	H Units		Test strip/Probe
	Amm	onia						mg/L		Test strip

section 4: Physical Indicators for Flowing	icators for Flow is Present in the flo	Outfalls Only Yes · N.No (If No., Skip to Section 5)
INDIGATOR	CHECK If Present	DESCRIPTION RELATIVE SEVERITY INDEX (1
Odor		☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ 1 – Faint ☐ 2 – Easily detected distance
Color		
		₹
Turbidity		2-Some; indications 3.
Floatables -Does Not Include Trash!		
Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	dicators for Bot that are not relat	1-Flowing Outfall
INDICATOR	CHECK If Present	# DESCRIPTION
Outfall Damage		Spalling, Cracking or Chipping Corrosion
Deposits/Stains		Oily Flow Line Paint Other:
Abnormal Vegetation		☐ Excessive ☐ Inhibited
Poor pool quality		Odors Colors I Floatables Oil Sheen Suds Excessive Algae Other:
Pipe benthic growth		□ □ Brown □ Orange □ Green □ Other:
Section 6: Overall Outfall Characterization	ıtfall Character	
Unlikely 🗆	Potential (pres	Potential (presence of two or more indicators) Suspect (one or more indicators with a severity of 3) Suspect (one or more indicators with a severity of 3)
Section 7: Data Collection	ction	
 Sample for the lab? 		□Yes □No
- 1	m:	
- 1	ap set?	☐ Yes ☐ No If Yes, type: ☐ OBM ☐ Caulk Cain
1	•	

Section 1: Backg	round Data						
Subwatershed:				Outfall ID:	RH 1.0	<u>></u>	
Today's date: 3	129/15			Time (Military):	0		
Investigators:				Form completed l		LEN	
Temperature (°F):	33°		l (in.): Last 24 hours:	O Last 48 hour			
Latitude:		Longitude:	•	GPS Unit:		GPS LMK #:	
Camera:				Photo#s:			
Land Use in Draina	ge Area (Check all the	at apply):					
☐ Industrial				Open Space			
Ultra-Urban Res	sidential			☐ Institutional			
Suburban Resid	cntial			Other:			
Commercial				Known Industric	s:		
Notes (e.g., origin o	of outfall, if known):						
Section 2: Outfa		***************************************					SUBMERGED
LOCATION	MAT	RIAL		APE	DIMENSIO		In Water:
	□ RCP	☐ CMP	Circular ·	☐ Single	Diameter/Dimens	ions:	□No
	□PVC	HDPE	☐ Eliptical	Double			☐ Partially ☐ Fully
Closed Pipe	☐ Steel	!	□Box	☐ Triple			With Sediment:
	Other:		Other:	Other:			□ No □ Partially
							Fully
	Concrete					31	
,	Earthen		Trapezoid		Depth:	25.1	
Open drainage		`	Parabolic		Top Width:	-32	
	☐ rip-rap		Other:		Bottom Width: _	32	
	Other:						<u> </u>
☐ In-Stream	***************************************	when collecting		A Garden E			
Flow Present?	X Yes			ap to Section 5			
Flow Description (If present)	Trickle	Moderat	c Substantial				
Section 3: Oug	ntitative Charac	terization					
Section 5: Qual	IIIIIII COMITEC		FIELD DATA FOR	FLOWING OUTFA	LLS		
P.	ARAMETER		RESULT		UNIT	E	OULPMENT
	Volume				Liter		Bottle
□Flow#1	Time to fill				Sec		
	Flow depth				In		l'ape measure
- n-	Flow width		7 33		Ft, In		Гаре пъсавите
□Flow #2	Measured leng		3 33		Ft, In		Tape measure
	Time of trave				S		Stop watch
,	Temperature				°F		Thermometer
	pH				pH Units	2	feststrip/Probe
	Ammonia				mg/L		Test strip

	If yes, collected from:	1. Sample for the lab?	Section 7: Data Collection	Unlikely Pot	Section 6: Overall Outfall Characterization	Pipe benthic growth	Aurenh rood zooz	Dogument quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes XNo	Floatables -Does Not Include Trash!!	Turbidity		Color	Odor		INDICATOR CF	ection 4: Physical Indicators for Flowing Outfalls Only re Any Physical Indicators Present in the flow? Yes
Intermittent flow trap set?			1	Potential (presence of two or more indicators)	Characterization			-				CHECK IF Present	ors for Both Flowing are not related to flow	☐ ☐ Sewage		☐ Green	☐ ☐ Clear	☐ Sulfide	☐ Sewage	CHECKIF Prasent	ors for Flowing Outfa sent in the flow? Y
☐ Yes	Flow	□ Yes □		o or more indicators		L Brown L	,		□ Excessive □ I	Oily Flow Line	Spalling, Cracking or Chipping Corrosion		and Non-Flowing (present? Yes	☐ Sewage (Toilet Paper, etc.) ☐ ☐ Petroleum (oil sheen) ☐ ☐	2000	Clouds C		Other:	☐ Rancid/sour ☐ Petroleum/gas		es XNo
No II Yes, type: L		□No]	Country Country	The Grant	Colors	☐ Inhibited	Line Paint Other:	ing or Chipping L Peeling rain	Notidia	Outfalls (If No. Skip to Section 6)	□ Suds □ Other:	See severity		Gray Cellow		Petroleum/gas	DESCRIPTION	(If No, Skip to Section 5)
CDM Cause court				Suspect (one of more muicators while a sorverty	in directors with a consprint			een			186		ction 6)	not obvious		☐ 1 — Slight cloudiness	☐ l - Faint colors in sample boule		□ 1 - Faint	REL	
					erity of 3) Obvious							10	OLIVA MARIO	of origin (e.g., possible suds or oil sheen)	☐ 2 — Some; indications	☐2-Cloudy	sample bottle		2 - Easily detected	RELATIVE SEVERTHY INDEX (12-5)	
							٠							(e.g., obvious on sheen, suds, or floating sanitary materials)	☐ 3 - Some; origin clear	3 - Opaque	outfall flow		distance	I-o)	

ubwatershed:	ound Data			Outfall ID:	RH	1,1	
oday's date: 3/	128/15			Time (Militar	y):		
nvestigators:	64113			Form comple	ted by: RA	y ALLEN	
Comperature (°F):	33°	Rainfall	(in.): Last 24 hours:	O Last 48			
atitude:		ongitude:		GPS Unit:		GPS LMK #:	
Camera:				Photo#s:			
	e Area (Check all that a	opply):					
Industrial	,			Open Spa	ace		
⊐ Ultra-Urban Resi	(dential			☐ Institutio	nal		
Suburban Reside				Other:			
	in the control of the			Known Indu	strics:		
	5						
Notes (e.g., origin of	counti, it known):						
ection 2: Outfal	ll Description						
LOCATION		IAL	SH	APE	DIA	iensions (IN.)	SUBMERGED
	□RCP	□смр	Circular	☐ Single	Diamete	r/Dimensions:	In Water:
	□ PVC	HDPE	☐ Eliptical	☐ Double			Partially Fully
Closed Pipe	☐ Steel		□Вох	☐ Triple			With Sediment:
	Other:		Other:	Other:	_		☐ No ☐ Partially
	Annel	Name of the last o					Fully
	Concrete				- 4	21	
	Earthon		Trapezoid		Depth:	3′,	
Open drainage	Y		Parabolic			~~~	
	☐ rip-rap		Other:		Bottom	Width:	
	Other:						
☐ In-Stream	(applicable wi	***************************************					
	☐ Yes	M No	If No, Sk	ap to Section 5			
Flow Present?							
Flow Description	☐ Trickle	☐ Moderat	e Substantial				
Flow Description (If present)	I		c Substantial				
Flow Description (If present)	Trickle			FIOWINGO	ITFALLS		
Flow Description (If present) Section 3: Quar	ntitative Characte		FIELD DATA FOR	FLOWING O			EQUIPMENT
Flow Description (If present) Section 3: Quar	ntitative Characte			FLOWING O	ETFALES UNIT Liter		EQUIPMENT Bottle
Flow Description (If present) Section 3: Quar	ntitative Characte ARAMETER Volume		FIELD DATA FOR	FLOWING O	UNIT		
Flow Description (If present) Section 3: Quar	ntitative Characte ARAMETER Volume Time to fill	rization	FIELD DATA FOR	FLOWING O	UNIT Liter		
Flow Description (If present) Section 3: Quar	ntitative Characte NRAMETER Volume Time to fill Flow depth	rization	FIELD DATA FOR	FLOWING O	UNIT Liter Sec		Bottle
Flow Description (If present) Section 3: Quar	ARAMETER Volume Time to fill Flow depth Flow width	erization	FIELD DATA FOR RESULT	FLOWING O	Liter Sec In		Bottle Tape measure
Flow Description (If present) Section 3: Quar PA	Time to fill Flow depth Flow width Measured length	erization	FIELD DATA FOR RESULT	FEOWING OF	Liter Sec In Ft, In		Bottle Tape measure Tape measure
Flow Description (If present) Section 3: Quar PA □Flow #1 □Flow #2	ARAMETER Volume Time to fill Flow depth Flow width Measured length Time of travel	erization	FIELD DATA FOR RESULT	FLOWING OL	Liter Sec In Ft, In		Bottle Tape measure Tape measure Tape measure
Flow Description (If present) Section 3: Quar PA □Flow #1 □Flow #2	Time to fill Flow depth Flow width Measured length	erization	FIELD DATA FOR RESULT	FLOWING OL	Liter Sec In Ft, In Ft, In S		Bottle Tape measure Tape measure Tape measure Stop watch

If yes, collected from:	1. Sample for the lab?	Section 7: Data Collection	Unlikely D F	Section 6: Overall Outfall Characterization	Pipe benthic growth		Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Not Are whereign indicators that are not related to flow present?	Floatables -Does Not Include Trash!!	Turbidity	Color		Odor	INDICATOR	Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow?
If yes, collected from:		ion	otential (preser	all Characteriz	E			П			CHECK If Present	cators for Both	<u> </u>					CHECKIF Present	ators for Flowi
☐ Yes ☐ No If Yes, type: ☐			Potential (presence of two or more indicators)		The second of the second secon		Odors Colors Dioanables Oil Sheen Suds Excessive Algae Other	☐ Excessive ☐ Inhibited	□Oily □Flow Line □ Paint □Other:	Spalling, Cracking or Chipping Larening rain	DESCRIPTION	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)	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	See severity	☐ Green ☐ Orange ☐ Red ☐ Other:	Sulline Comer.		DESCRIPTION	ing Outfalls Only . wt Yes No (If No, Skip to Section 5)
OBM Caulk dam			Suspect (one or more indicators with a severity or 3)				en .			Property of the second		ction 6)	☐ 1 – Few/slight; origin not obvious	1 - olight cloudings	sample bottle	T 1 - Paint colors in	□ 1 - Faint	RE	
				Of 3) Ohvious							COMMENTS		of origin (e.g., possible suds or oil sheen)	1 2 - Some: indications	sample bottle	☐ 2 — Clearly visible in	2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
						-					TS		(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some; origin clear	outfall flow	3 - Clearly visible in	3 – Noticeable from a distance	(1-3)	

Section 1: Back	groun	ıd Data					1			
Subwatershed:						Outfall II);)	BC	41.0	
Today's date:	3/2	9/15				Time (M	ilitary):		ALLEA	
Investigators:						Form cor	npleted by:	RAY	ALLES	/
Temperature (°F):		390	Ra	infal	l (in.): Last 24 hours:	Last	48 hours:			
Latitude:			Longitude	»: 		GPS Uni	t:		GPS LMK	¥:
Camera:						Photo#s	:			
Land Use in Drain	age Are	a (Check all the	at apply):							
☐ Industrial						Open	Space			
Ultra-Urban Ro	esidenti	al				☐ Instit	utional			
Suburban Resi	dential					Other:				
☐ Commercial						Known I	ndustries: _			
Notes (e.g., origin	of outfi	all, if known):								
					•					
Section 2: Outf	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		*************	SSSSSS (9 8000000000000000000000000000000000000		
LOCATION			RIAL			APE		S 000000000000000000000000000000000000	ons (In.)	SUBMERGED
		RCP		'	☐ Circular	☐ Single		Diameter/Dime	nsions:	In Water:
		□PVC	HDP	E	☐ Eliptical	☐ Double				☐ Partially ☐ Fully
Closed Pipe					□Box	☐ Triple				With Sediment:
		Other:			Other:	Other:_				□ No □ Partially
										Fully
		Concrete			×			Depth:	- /	
		Earthen			Trapezoid			Top Width:		
Open drainage	•	☐ rip-rap			Parabolic			1	17/	
		Other:			Other:			Bottom Width:	12	
☐ In-Stream		(applicable w	hen collect	line	amplés)					
Flow Present?		П Ү≈		No	***************************************	p to Section	5			
Flow Description		Flatti								
(If present)		☐ Trickle	□ Mod	crate	☐ Substautial					
Section 3: Qua	ntitati	ive Charact	erization							
					FIELD DATA FOR F	LOWING	OUTFALLS			
Pa	ARAMI	ETER			RESULT			UNIT		EQUIPMENT
Пет. "т		Volume		******				Liter		Bottle
Flow#1		Time to fill						Sec		
		Flow depth						Ь		Tape measure
□Flow#2		Flow width	_		3)			Ft, In		Tape measure
		Measured lengt	h)))			Ft, In		Tape measure
		Time of travel						S		Stop watch
	remper.	ature						•k		Thermometer
	pН]	H Units		Test strip/Probe
	Ammo	onia						mg/L		Test strip

VINDEX(1-3)	tected Istance distance			dications 3 - Some; origin clear 5.5. (e.g., obvious oil ids or oil sheen, suds, or floating sanitary materials)	соммеить					-		☐ Obvious					
RELATIVE SEVERITY INDEX (1-3)	2 - Easily detected	☐ 2 – Clearly visible in sample bottle	2 - Cloudy	12 – Some; indications of origin (e.g., possible suds or oil sheen)													
THA	🔲 l – Faint	☐ l — Faint colors in sample boule	☐ 1 — Slight cloudiness	☐ 1 — Few/slight; origin not obvious	tion 6)				u			Suspect (one or more indicators with a severity of 3)				OBM Caulk dam	
(f/No, Skip to Section 5) PPIION	Jgas	☐ Yellow ☐Other:			s (ff.No, Skip to Section 6) DESCRIPTION	pping 🔲 Peeling Paint	☐ Paint ☐ Other:		☐ Floatables ☐ Oil Sheen Algae ☐ Other:	☐ Green ☐ Other:		Suspect (one or more i				If Yes, type:	Glouforna camponal
(f/No, 5	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	Gray Red Gray	See severity	Suds Cother:	wing Outfalls Yes MNo	Spalling, Cracking or Chipping Corrosion	☐ Flow Line ☐	☐ Inhibited	Colors Colors Excessive Algae	Orange		e indicators)		% □	D Pool	% D	1.25
²	Rancid/so	☐ Brown ☐ Orange		Sewage (Toilet Paper, etc.)	and Non-Flor	Spalling,		☐ Excessive	Odors Dads	☐ Brown		or more indi		□Yes	Flow	Yes	
owing Outfa	Sewage Sulfide	Clear Green		Sewage (rs for Both Flowing : re not related to flow i CHECK/FPresent						erization	esence of two					
dicators for Flor Present in the CHECK IF		0			dicators for B that are not re	e and					atfall Charact	Potential (presence of two or mor	offor	Selicon	m.	an set?	all sets
Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow?	Odor	Color	Turbidity	Floatables -Does Not Include Trash!!	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present?	Outfall Damage	Deposits/Stains	Abnormal Vegetation	Poor pool quality	Pipe benthic growth	Section 6; Overall Outfall Characterization	Unlikely	October 7. Data Collection	Section 7: Data Cone	7 If the collected from:		3. memilieni now u

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

Section 1: Backgr	ound Data						
Subwatershed:				Outfall ID:	BC 4	0.0	
Today's date:	129/15			Time (Military):			
Investigators:				Form completed by:	RAY	GLLEN	
Temperature (°F):	390	Rainfal	l (in.): Last 24 hours:	Last 48 hours:			
Latitude:		Longitude:	•	GPS Unit:		GPS LMK #:	
Camera:				Photo#s:			waret planter and the same state of the same sta
Land Use in Drainag	e Area (Check all that	apply):					
Industrial				Open Space			
Ultra-Urban Resi	dential			☐ Institutional			
Suburban Reside	ntial			Other:			
☐ Commercial				Known Industries:			
Notes (e.g., origin of	outfall, if known):						
Section 2: Outfal	l Description						
LOCATION	MATE	RIAL	SHA	APE	DIMENSIO	NS (IN.)	SUBMERGED
	RCP	□смр	☐ Circular	☐ Single	Diameter/Dimen	sions:	In Water:
	□PVC	HDPE	☐ Eliptical	☐ Double			Partially Fully
Closed Pipe	☐ Steel		☐ Box	☐ Triple			With Sediment:
	Other:	<u> </u>	☐ Other:	Other:			□No
							Partially Fully
	☐ Concrete				Depth:	4'	
	☐ Earthen		☐ Trapczoid		Top Width:	6	
Open drainage	rip-rap		Parabolic		1	- J	
	Other:	Fouric	Other:		Bottom Width:		
☐ In-Stream		hen collecting	samples)				
Flow Present?	Yes	□ No	***************************************	ip to Section 5			
Flow Description (If present)	Trickle	☐ Moderate	c ☐ Substantial				
	titatina Chamat	wirefien					
Section 3: Quan	titative Characte	ELEAUOR	FIFI D DATA FOR F	LOWING OUTFALLS			
1Ad:	RAMETER		RESULT		UNIT	E	QUIPMENT
	Volume				Liter		Bottle
□Flow#1	Time to fill				Sec		
	Flow depth				In	1	lape measure
□G1a#0	Flow width		3 33		Ft, In	1	Гаре глеазиге
□Flow#2 _	Measured length	h	3 33		Ft, In		Tape measure
	Time of travel				S		Stop watch
Te	emperature				۰F		Thermometer
	pН				H Units	1	est strip/Probe
	à mmonia				mg/L		Test strip

	 Intermittent flow trap set? 	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	Unlikely	Section 6: Overall Outfall Characterization	mwork armaso sdi J		Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	Floatables -Does Not Include Trash!!	Turbidity	Color		Odor	INDICATOR	section 4: Physical Indicators for Flowing Outfalls Only are Any Physical Indicators Present in the flow?
	ıp set?	n:		ction	Potential (pres	tfall Character							CHECK IT Present	licators for Bot that are not relat					П	CHECKIF Present	icators for Flow s Present in the flo
Comments (controlled infrastructure repairs)?	☐Yes ☐No II Yes, type: ☐)	□Yes □No		Potential (presence of two of more mureaway)	ization Suspect (one or more indicators with a se	-	☐ Brown ☐ Orange ☐ Green ☐ Other.	Odors Colors Floatables Oli Snear		Oily Flow Line Paint Other:		- Sealling Cacking or Ch	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes Mo (If No, Skip to Section 6)	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	See severity	Orange	Clear Brown Gray Cycllow	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas	DESCRIPTION	nng Outfalls Only ow? ☐ Yes ☐ No (If No, Skip to Section 5)
	C CDIAT CHIRT CHIRT	Ognik dam				indicators with a severity			9				nt	stion 6)	not obvious	C. Calgarano and an annual	sample bottle	☐ l —Faint colors in	□ 1 – Faint	REL	
						verity of 3) Obvious								COMMENTS	of origin (e.g., possible suds or oil sheen)	2 - Some; indications	Sample boute	2 - Clearly visible in	2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
														is .	(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some; origin clear	☐ 3 — Opaque	3 - Clearly visible in	distance	(1-3)	

Section 1: Backg	roun	d Data								
Subwatershed:						Outfall ID	· <i>y</i>	BC	39,0	
Today's date: 3	12	9/15				Time (Mil	itary):			
Investigators:						Form com	pleted by:	RAY	ALLEST	•
Temperature (°F):	3	90	R	ainfal	l (in.): Last 24 hours:	Last	48 hours:			
Latitude:			Longitud	lo:	•	GPS Unit:			GPS LMK #:	
Camera:						Photo#s:				
Land Use in Draina	ge Are	a (Check all the	at apply):							
☐ Industrial						Ореп	Space			
Ultra-Urban Res	sidentia	al				☐ Institu	tional			
Suburban Resid	cutial					Other:				
☐ Commercial						Known In	idustries:			
Notes (e.g., origin	of outfi	dl, if known):								
Section 2: Outfa	ıll De	scription								
LOCATION	********	000000000000000000000000000000000000000	RTAL		SHA	APE		**********	IONS (IN.)	SUBMERGED
		RCP	□ CM	IP	Circular	☐ Single		Diameter/Din	ensions:	In Water:
		□PVC	□HD	PE	☐ Eliptical	Double				Partially Fully
Closed Pine					□Box	☐ Triple				
E Closed Pape	Closed Pipe Steel				Other:	Other:			÷	With Sediment:
		Conc								Partially Fully
		☐ Concrete				L		Depth:	5	
		Earthon		•	Trapczoid			Top Width: _	8	
Open drainage		☐ rip-rap			☐ Parabolic			Top Width:_		
					Other:			Bottom Widt	ك	
		Other:_		******						<u> varaanaanaanaa</u>
☐ In-Stream		(applicable)				6	<i>E</i>			
Flow Present?		ÅŽ Yœ		□ No	If No, Sk	ip to Section	3			
Flow Description (If present)		☐ Trickle	MM	oderate	Substautial					
Section 3: Quar	ntitat	ive Charac	terizatio	on						
					FIELD DATA FOR F	TOMING (OUTFALLS			
P./	\RAM	ETER			RESULT			TINE		QUIPMENT
	********	Volume						Liter		Bottle
□Flow#1		Time to fill						Sec		
	Flow depth							In		Tape measure
	Flow width				> >>			Ft, In		Tape measure
LiFlow #2	Flow #2 Measured length				3 23			Ft, In		Tape measure
		Time of trave						S		Stop watch
	rempe	rature						°F		Thermometer
	p¥						p)	H Units		Test strip/Probe
	Amm							mg/L		Test strip

1	 Intermittent flow trap set? 	If yes, collected from	 Sample for the lab? 	Section 7: Data Collection	Unlikely 🗆	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	Floatables -Does Not include Trash!!	Turbidity	Color	Cdor	2	INDICATOR	Section 4: Physical Indicators for Flowing Outfalls Only tee Any Physical Indicators Present in the flow? Tes
	p set?	n:		ELIOII	Potential (presence	tfall Characterizat						CHECK IF Present	licators for Both Fl that are not related t	0					CHECKIF Present	icators for Flowing s Present in the flow?
	☐ Yes	Flow	∐ Yes		Potential (presence of two or more indicators)	ion	□ Brown □ C	Odors O	□ Excessive □ ii	Oily Flow Line	Spalling, Cracking or Chipping Cornosion		Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present?	Sewage (Toilet Paper, etc.)	Sees	□ Clear □ Brown □ □ Green □ Orange □	Sulfide Other:	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas		Outfalls Only Yes Divio
,,,	No li Yes, type:	1	No.	44			Orange Green Other:	Colors Floatables Oil Sheen Excessive Algae Other:	ıl	ine Paint LOther:			Outfalls No (If No, Skip to Section 6)	☐ Suds	See severity	☐ Red ☐Other:		Petroleum/gas	DESCRIPTION	(If No, Skip to Section 5)
	OBM LI Caux dain	Comille			Suspect (one or more maicaiors with a severity or of	i di tana mitha antiquita of		S					tion 6)	☐ 1 – Few/slight; origin not obvious	L - Signt cloudiness			□1-Faint □	RELATI	
						Dhwions							соммемтя	of origin (e.g., possible suds or oil sheen)	7 - Some: indications	sample bottle] 2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
													V	(e.g., obvious oil sheen, suds, or floating sanitary materials)	☐ 3 - Some; origin clear	outfall flow	T 3 - Clearly visible in	☐ 3 – Noticeable from a distance	(1-3)	

Section 1: Back	ground	Data								
Subwatershed:						Outfall II): R	HA1.1		
Today's date:	129	3/15				Time (Mi				
Investigators:						Form con	apleted by:	RAY	ALLESI	
Temperature (°F):	31	90		Rainfal	ll (in.): Last 24 hours:	Last	48 hours:		·	
Latitude:			Longi	tude:	•	GPS Unit	*		GPS LMK #:	
Camera:						Photo #s:				
Land Use in Drains	ige Area	(Check all the	at apply):						
☐ Industrial						Орсп	Space			
Ultra-Urban Re	sidential					☐ Institu	itional			
Suburban Resid	lential					Other:				
☐ Commercial						Known I	adustries:			
Notes (e.g., origin	of outfall	ifknown):								
210100 (0/8/) 0118/10		,,,,								
Section 2: Outfa	all Des	cription					******************			
LOCATION		MAT	RIAL		SHA	APE			ons (IN.)	SUBMERGED
	1	□ RCP		MP.	Circular	☐ Single		Diameter/Dimer		In Water.
		□ PVC	Zi	IDPE .	☐ Eliptical	Double		14		Partially Fully
Closed Pipe		Steel			□Box	☐ Triple				
	l	Other:			Other:	Other:				With Sediment:
İ				_						Partially Fully
		Concrete				!				
		☐ Earthen			☐ Trapezoid			Depth:		
Open drainage					☐ Parabolic			Top Width:		
		☐ rip-rap			Other:			Bottom Width:		
		Other:								<u> </u>
☐ In-Stream		(applicable s	vlien co	**********						
Flow Present?		Yes		□No	If No, Ski	p to Section	5			
Flow Description (If present)	<u> </u>	Arickle		Moderate	Substantial					
Section 3: Quar	ntitativ	e Charact	erizat	ion						
Ì					FIELD DATA FOR F	LOWING	HITFALLS			
P/	RAME	FER			RESULT		ı	INIT	t	QUIPMENT
Пер #s		Volume	•••••					Liter		Bottle
□Flow#1		Time to fill						Sec		
		Flow depth						In		lape measure
□Flow#2		Flow width			3 37			Ft, In	1	lape measure
on n2	M	leasured leng	th .		3			Ft, In		Tape measure
	7	Fime of trave	l					S		Stop watch
1	Cemperat	aire						°F		Thermometer
	pН						pl	H Units	7	est strip/Probe
	Ammon	io						me/L		Test strip

		from a	ible in		in clear is oil or floating erials)														
	(1-3)	3 – Noticeable from a distance	3 – Clearly visible in outfall flow	☐ 3 - Opaque	3 - Some, origin clear (e.g., obvious oil sheen, suds, or floating senitary materials)		I.S												
	RELATIVE SEVERITY INDEX (1-3)	2 – Easily detected	2 – Clearly visible in sample bottle	2-Cloudy	2 - Some, indications of origin (e.g., possible suds or oil sheen)		COMMENTS							of 3)					
	RELI	🔲 l – Faint	☐ 1 —Faint colors in sample boule	☐ I — Slight cloudiness	☐ 1 — Few/slight; origin not obvious	tion 6)		ıt						Suspect (one or more indicators with a severity of 3)			OBM Caulk dam		
(Lf No, Skip to Section 5)		/gas	☐ Yellow ☐Other:			(If No. Skin to Section 6)	DESCR	pping 🔲 Peeling Paint	🗆 Paint 🔲 Other:		☐ Floatables ☐ Oil Sheen Algae ☐ Other:	☐ Green ☐ Other:		Suspect (one or more			If Yes, type:	1	astructure repairs)?
(If No, S	DESCRIPTION	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	☐ Gray	See severity	Suds (on-Flowing Outfalls	1 to [2.50]	Spalling, Cracking or Chipping Corrosion	☐ Flow Line ☐	☐ Inhibited	Colors Colgae	Orange			% L	1000			r needed infr
lls Ordy		Rancid/sc	☐ Brown ☐ Orange		Sewage (Toilet Paper, etc.)	and Non-Flo	present	Spalling Corrosio	O ijo	☐ Excessive	Odors Suds	☐ Brown		or more indi	1 Ve		LFlow	ı z	(e.g., trash o
lowing Outfalls s flow?	j	Sewage	Clear		Sewage (soth Flowing	re not related to 110w CHECK IF Present						erization	resence of two					ge Concerns
licators for Fl	CHECK IF Present					dicators for B	that are not re						ntfall Charac	Potential (presence of two or more indicators)	setion		m:	ap set?	Illicit Dischar
Section 4: Physical Indicators for Flowing Outfalls Only Ann Physical Indicators Present in the flow?	INDICATOR	Odor	Color	Turbidity	Floatables Does Not Include Trashii	Section 5: Physical Indicators for Both Flowing and N	Are physical indicators that are not related to 110W present INDICATOR CHECKIF Present	Outfall Damage	Deposits/Stains	Abnormal Vegetation	Poor pool quality	Pipe benthic growth	Souther 6. Original Onfall Characterization	Section 6: Over all Order	Section 7: Data Collection	1. Sample for the lab?	2. If yes, collected from:	3. Intermittent flow trap set?	Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Illicit Discharge Detection and Elimination: Technical Appendices

Section 1: Back	groun	d Data								
Subwatershed:						Outfall II		BC	380	
Today's date:	10	9/15	,			Time (M	ilitery):			
Investigators:						Form cor	npleted by:	RAY	ALLEST	
Temperature (°F):	3	<i>व</i> ०	Ra	infal	l (in.): Last 24 hours:	Last	48 hours:			
Latitude:			Longitude	:	•	GPS Uni	t:		GPS LMK #:	
Camera:						Photo #s				
Land Use in Drain	age Are	a (Check all tha	t apply):							
☐ Industrial						Open	Space			
Ultra-Urban Re	sidenti	al				☐ Instit	utional			
Suburban Resid	icutial					Other:				
Commercial						Known I	ndustries:			
Notes (e.g., origin	of outfi	all, if known):								
Section 2: Outf	*****	1 0000000000000000000000000000000000000	RIAL		CHI	APE		DIMENSI	ons (IN.)	SUBMERGED
Kelearitek					☐ Circular	☐ Single		Diameter/Dime		In Water:
		RCP	□ CMP					Diamotorbinio	1310113.	□ No □ Partially
		PVC	HDP	E	☐ Eliptical	Double				Fully
Closed Pipe		☐ Steel			Box	Triple				With Sediment:
		Other:			Other:	Other:				☐ No☐ Partially
										Fully
		Concrete			☐ Trapezoid			Depth:		
	`	Earthon						Top Width:		
Open drainage	:	☐ rip-rap			Parabolic					
		Other:			Other:			Bottom Width:		
☐ In-Stream		(applicable w	hen collec	tillg	samples)					
Flow Present?		☐ Yes	Г	No	If No, Ski	ip to Section	5			
Flow Description (If present)		☐ Trickle	☐ Mod	lerate	: Substantial					
Section 3: Qua	ntitat	ive Charact	erization							
5.00					FIELD DATA FOR F	LOWING	DUTFALLS			
P)	ARAM	ETER			RESULT			TINE	E	QUIPMENT
	******	Volume						Liter		Bottle
□Flow#1		Time to fill						Sec		
		Flow depth						In	1	ape measure
□Flow#2		Flow width	-		1 17			Ft, In	1	Tape measure
LIGH #7	Measured length,							Ft, In	3	Sape measure
		Time of travel						S		Stop watch
1	remper	ature						°F		Thermometer
	pН						p	H Units	Т	est strip/Probe
	Ammo	onia						mg/L		Test strip

RELATIVE SEVERITY INDEX (1-3)	2 - Easily detected distance distance	2 - Clearly visible in 3 - Clearly visible in sample bottle	+	2 – Some; indications (e.g., obvious oil sheen, suds, or floating sheen, suds, or floating sheen)	COMMENTS		1	tree stump of out tall				of3) 🔲 Obvious				
KELA	□ l – Faint	☐ 1 — Faint colors in sample bottle	☐ 1 — Slight cloudiness	☐ 1 – Few/slight; origin not obvious	stion 6)	nt		7	en			Suspect (one or more indicators with a severity of 3)			OBM Caulk dam	
(JfNo, Skip to Section 5) tPTION	leum/gas	☐ Yellow ☐Other:	y	Ľ	falls No (If No, Skip to Section 6) DESCRIPTION	Chipping 🔲 Peeling Paint	☐ Paint ☐ Other:	pe	Colors Floatables Oil Sheen Excessive Algae	e Creen Other:		Suspect (one or more			If Yes, type:	Contraction Construction
INo DESCR	e 🔲 Rancid/sour 🔲 Petroleum/gas	☐ Brown ☐ Gray ☐ Orange ☐ Red		Sewage (Toilet Paper, etc.) 🔲 Suds Petroleum (oil sheen) 📋 Other:	n-Flowing Out	Spalling, Cracking or Chipping Corresion	Oily Thow Line	☐ Excessive	Odors Color	☐ Brown ☐ Orange		wo or more indicators)	☐ Yes ☐ No	T Hlow		
Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow?	Sewage	Clear		Sewas	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present? CHECK IF Present			· · · · · · · · · · · · · · · · · · ·			Souther 6. Oversil Outfall Characterization	Potential (presence of two or mor	ection		om:	rap set?
Section 4: Physical Inc Are Any Physical Indicate INDICATOR	Odor	Color	Turbidity	Floatables -Does Not Include Trash!!	Section 5: Physical In Are physical indicators (NDICATOR	Outfall Damage	Denocits/Stains	Ahnorms Vecetation	Poor pool quality	Pine benthic growth	O llenavo sa mattor S	V Unlikely	칭	- 1	2. If yes, collected from:	3. Intermittent flow trap set?

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

Section 1: Backg	round	l Data				1		1.6.2	5) //=	1
Subwatershed:						Outfall ID	: >	LBC RAY	37,0	
Today's date: 🕏	129	9/15				Time (Mil	itary):			
Investigators:								RAY	ALLESI	
Temperature (°F):	3	90		Rainfal	l (in.): Last 24 hours:		48 hours:			
Latitudo:			Longi	tudo:		GPS Unit			GPS LMK #:	
Свитега:						Photo#s:				
Land Use in Draina	ge Arca	(Check all the	at apply):						
☐ Industrial						Open	Space			
Ultra-Urban Re	sidential	1				Institu	tional			
Suburban Resid	cutial					Other:				
☐ Commercial						Known Ir	ıdustrics:			
Notes (e.g., origin										
Section 2: Outfa	************	*************	ERIAL		eu	APE		DIMENSI	ONS (IN)	SUBMERGED
LOCATION	***********		********	***********	□ Circular	☐ Single		Diameter/Dimer		In Water:
	l	□ RCP		CMP		1				□ No □ Partially
		PVC	П	IDPE	☐ Eliptical	Double				Fully
Closed Pipe		Steel			☐ Box	Triple				With Sediment:
		Other:			Other:	Other:	····			□ No □ Partially □ Fully
		Concrete			Trapezoid	<u> </u>		Depth: Top Width: Bottom Width:	4'	
		Earthon						Ton Width	22	
Open drainage		☐ rip-rap			Parabolic			D. W. Wildel	- 11	
		Other:			Other:			Bottom Midta:	11	
☐ In-Stream		(applicable)		illecting	samples)					
Flow Present?		Y.Yes	*********			ip to Section	5			
Flow Description (If present)					c Substantial					
Section 3: Quai	ntiteti	ve Charac	teriza	tion						·
					FIELD DATA FOR I	LOWING	OUTFALLS			
P.	ARAME	TER		1	RESULT			UNET	I	OULPMENT
		Volume						Liter		Bottle
□Flow#1		Time to fill						Sec		
		Flow depth						In		Tape measure
□Flow#2		Flow width			3 11			Ft, In		Tape measure
TILION HY	1	Measured leng	ţth		33			Ft, In		Tape measure
		Time of trave	:l					S		Stop watch
1	rempera	ature						°F		Thermometer
	pН]	oH Units		leststrip/Probe
	Ammo	nia						mg/L		Test strip

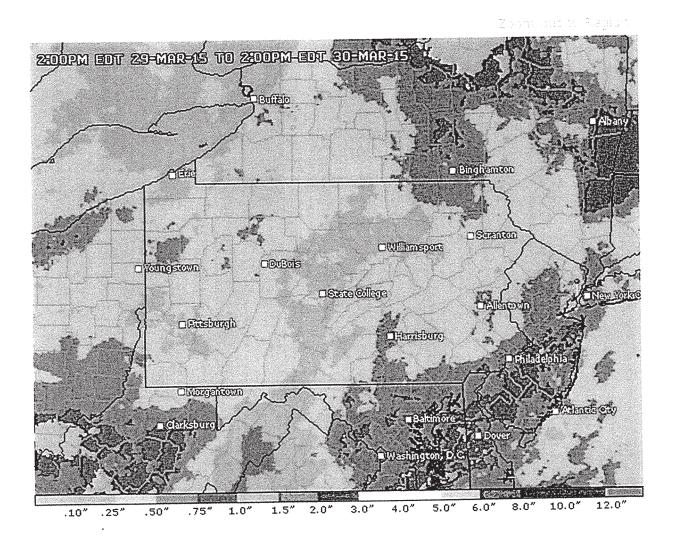
Intermittent flow trap set?	- 1	 Sample for the lab? 	Section 7: Data Collection	Officery		Social 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	ADDITION A SECURIOR	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present?	Floatables -Does Not Include Trashi!	Turbidity	Color		Odor	INDICATOR CH	ection 4: Physical Indicators for Flowing Outfalls Only
?					ential (presence of t	Characterization							CHECK If Present	ors for Both Flowin are not related to flov	□ □ Sewag		☐ ☐ Green	☐ Clear	□ □ Sewage	CHECK IF Present	rs for Flowing Outf
∐Yes ∐	□ Flow □	□ Yes □ No			Potential (presence of two or more indicators)		☐ Brown ☐ Orange	Suds DEx	اا	☐ Excessive ☐ Inhibited	Oily Flow Line	Spalling, Cracking or Chipping Corresion	- 888	g and Non-Flowing O	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Othe	See severity	"		e	DESCRIPTION	No
No # 155, Vpr. [1])!	No			Suspect (one or more		ange Li Green Li Chier.	ve Algae	lors	ibited	ne Paint Other:	g or Chipping Line results rain]	utfalls $(If No, Skip to Section 6)$	Suds Other:	rerity	ed Other:	ray □Yellow	txoleum/gas	YTION	(If No, Skip to Section 5)
[ORW Caulk dam				Suspect (one or more indicators with a severity of 3)				8					tion 6)	☐ 1 — Few/slight; origin not obvious	T - Outre and annual	sample bottle	☐ l — Faint colors in	□ 1 – Faint	AIBA	
					of 3) Obvious									COMMENTS	of origin (e.g., possible suds or oil sheen)	72 - Some; indications	72 - Cloudy	2 - Clearly visible in	2 - Easily detected	RELATIVE SEVERITY INDEX (4-3)	
								•							(e.g., obvious oil sheen, suds, or floating sanitary materials)	☐ 3 - Some; origin clear	☐ 3 — Opaque	3 - Clearly visible in	distance	33)	

ction 1: Backgro				Outfall ID:	YEX	2 36.	<u>a</u>	
Foday's date:	3/29/15			Time (Militar	гу):			•
investigators:	1/21/10			Form comple	cted by:	RAY A	LEEN	
	260	Rainfall	(in.): Last 24 hours:	D Last 48	ponts: 🥥			
Latitude:		itude:	•	GPS Unit:		GI	SLMK#:	
Camera:				Photo#s:				
Land Use in Drainage	Area (Check all that apply	y):						
Industrial				Open Sp	acc			
Ultra-Urban Resid	ential			☐ Institutio	mal			
Suburban Residen				Other:				
•	, in			Known Indu	ustrics:			
Commercial		· · · · · · ·						
Notes (c.g., origin of a	outiaii, ii kiiowii):							
Section 2: Outfall	Description							
LOCATION	MATERIA		SH	APE		DIMENSION		SUBMERGED
	□RCP □	CMP	☐ Circular	☐ Single]	Diameter/Dimensio	ns:	In Water:
	□PVC □	HDPE	☐ Eliptical	☐ Double				☐ Partially ☐ Fully
Closed Pipe	☐ Steel		□Box	☐ Triple				With Sediment:
	Other:		Other:	Other:				□ No □ Partially
					l			Fully
	Concrete		Α.			. 74	P	
	Earthon		Trapezoid			Depth: 4 Top Width: 3		
Open drainage	N		☐ Parabolic			Top Width:	· ·	
	☐ rip-rap		Other:			Bottom Width:	۵	
	Other:							<u> </u>
☐ In-Stream	(applicable when							
Flow Present?	Yes	□ No	If No, S	kip to Section 5				
Flow Description (If present)	Trickle [Moderat	e Substantial					
	1/~							
Section 3: Quant	titative Characteriz	ation						
			FIELD DATA FOR	- EFOMING O		TINI		QUIPMENT
PAI	RAMETER		RESULT		**********	Liter		Bottle
□Flow#1 _	Volume					Sec		
	Time to fill					In		Tape measure
	Flow depth	_	3 33			Ft, In		Tape measure
□Flow#2	Flow width		, "			Ft, In		Tape measure
[Measured length					S		Stop watch
	Time of travel					°F		Thermometer
Te	emperature				'n	H Units		Test strip/Probe
	pH				, , , , , , , , , , , , , , , , , , ,	mg/L		Test strip
1	Ammonia					war.		

GNo (IFNo. Skip to Section S) DESCRIPTION RELATIVE-SEVERITY INDEX (14-3)	□ Rancid/sour □ Petroleum/gas □ 1 - Faint □ 2 - Easily detected □ 3 - Noticeable from a distance □ Other: □ Other:	Gray	See severity	per, etc.) \square Suds \square 1 – Few/slight; origin of origin (e.g., 6.g., obvious oil not obvious etc.) \square Other:	iection 5: Physical Indicators for Both Flowing and Non-Flowing Qutfalls Are physical indicators that are not related to flow present?	Spalling, Cracking or Chipping Paint Corrosion	y 🗆 Flow Line 🗡 Paint 🗎 Other:	cessive Inhibited	ors Colors Floatables Oil Shean	own 🗆 Orange 🗆 Green 🗀 Other:		e indicators) 🔲 Suspect (one or more indicators with a severity of 3) 🔲 Obvious			☐ Pool	☐ No If Yes, type: ☐ OBM ☐ Caulk dam	Soorton 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?
E	☐ 1 —Faint	☐ 1 — Faint colors in sample bottle	☐ 1 — Slight cloudiness	☐ 1—Few/slight, origin not obvious	ction 6)	int			na g			indicators with a severi					
Skip to Section 5) 1	m/gas	☐ Yellow ☐Other:			SESCR				Floatables			Suspect (one or more					rastructure repairs)?
DESCR	id/sour 🔲 Petroleu r:			etc.)	Flowing Outfal	lling, Cracking or Cl esion	☐ Flow Line C					indicators)		% □	Pool	% □	h or needed inf
Outfalls Only	☐ Sewage ☐ Rancid ☐ Sulfide ☐ Other:	lear Brown reen Orange		Sewage (Toilet Paper, etc.)	wing and Non-l		10	☐ Excessive	Odors Suds	☐ Brown	u(Potential (presence of two or more indicators)		□ Yes	Flow	□ Yes	cerns (e.g., tras
sators for Flowing C Present in the flow? L CHECKIF		Clear			rs for Both Flow re not related to f						Tharacterizatio	ntial (presence					Discharge Con
ral Indicator					cal Indicato			hation	lity	owth		Pote	10.00	he lab?	ded from:	It yes, collected mont. Intermittent flow trap set?	Non-Illicit
ection 4: Physical Indicators for Flowing Outfalls Only re Any Physical Indicators Present in the flow? CHECKIF TANDICATOR	Odor	Color	Turbidity	Floatables Does Not Include Trashil	section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	Ourfall Damage	original Control of	A Learner Venetation	Poor pool quality	Dine henthic orowth	The country of the state of the	Section of Over		Section 7: Data Collection	1	2. If yes, collected hour.	Section 8: Any

Illicit Discharge Defection and Elimination: Technical Appendices

1st Inspection



Section 1: Backgr	ound Data							
Subwatershed:			,	Outfall ID:	Ý	BT5.0		
Today's date: 3/	29/15	3/3/	15	Time (Mili	tery):			
Investigators:		1		Form comp	oleted by:	PAY A	WEN	
Temperature (°F):	260 41	Rainfal	l (in.): Last 24 hours:	O Last 4	8 hours:	0		
Latitude:		Longitude:	•	GPS Unit:		•	GPS LMK #:	
Camera:				Photo#s:				
Land Use in Drainag	e Area (Check all that	apply):						
☐ Industrial				Open S	расс			
☐ Ultra-Urban Resi	dential			Institut	ional			
Suburban Reside	ntial			Other:				
Commercial				Known In	dustries:			
Notes (c.g., origin of	foutfall, if known):							
Section 2: Outfal	THE PROPERTY OF THE PROPERTY O			APE		DIMENSIO	VIS (EN)	SUBMERGED
LOCATION	MATE	***********				Diameter/Dimens	~~~~	In Water:
	□ RCP	☐ CMP	Circular Circular	☐ Single		Diameter Dimens	1000.	□ No □ Partially
	□PVC	HDPE	☐ Eliptical	Double	N	1. 1. 8		Fully
Closed Pipe	☐ Stccl		Вох	☐ Triple	Br	fe IL.	- T8'	With Sediment:
	Other:		Other:	Other:_		E	1"	☐ No ☐ Partially
						7		Fully
	☐ Concrete					Depth:	8	
	Earthen		Trapezoid			Ton Width: 12	22	
NOpen drainage	☐ rip-rap		☐ Parabolic			Top with.	10	
	Other:		Other:			Bottom Width:	10	
\		hen collecting) (belomos					
In-Stream		nen contecting		âp to Section :	5			
Flow Present?	Yes	-			-			
Flow Description (If present)	Trickle	Moderat	c Substantial					
Section 3: Quan	titative Characte	erization						
Deteron D. Quan			FIELD DATA FOR	FLOWING C	HITFALLS			
PAI	RAMETER		RESULT			UNIT	1	QUIPMENT
	Volume					Liter		Bottle
□Flow#1	Time to fill					Sec		
	Flow depth					In		Таре measure
-	Flow width		3 33			Ft, In		Tape measure
□Flow#2	Measured lengt	h	3 33			Ft, In		Tape measure
	Time of travel					S		Stop watch
70	emperature					°F		Themometer

Teststrip/Probe

Test strip

pH Units

mg/L

pН

Ammonia

Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? 🗌 Yes · 🕍 No (If No, Skip to Section 5)	CHECKIF CHECKIF DESCRIPTION RELATIVE-SEVERITY INDEX (1-3)		Clear Brown Gray Crellow C1-Faint colors in C2-Clearly visible in sample bottle sample bottle	See severity \square 1 – Slight cloudiness \square 2 – Cloudy		Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes No (IfNo, Skip to Section 6) DESCRIPTION DESCRIPTION		cite/Staine	al Vecetation	pool quality \square Codors \square Colors \square Floatables \square Other:		Omfall Characterization	ikely \Box Potential (presence of two or more indicators) \Box Suspect (one or more indicators with a severity of 3) \Box Obvious	: Data Collection		T Yes	
jection 4: Physical Indi tre Anv Physical Indicator	INDICATOR	Odor	Color	Turkidity	Floatables -Does Not Include Trash!!	Section 5: Physical Ind Are physical indicators	Outfall Damage	Denceite/Staine	Abnormal Vegetation	Poor pool quality	Pipe benthic growth	nO lloneivO e mottero	Variable of Transition of Tran	칭	1. Sample for the fact	- 1	3. Intermittent now us

Illicit Discharge Defection and Elimination: Technical Appendices

Section 1: Backs	groun	d Data										
Subwatershed:				}	Outfall ID	: <u> </u>	BT 5,	1				
Today's date: 3	120	9/15	3/2	1//10	Time (Mi	itary):						
Investigators:			- ()	1(11)	Form con	pleted by:	RAY A	WEN				
Temperature (°F):	2	60 41	Rainfa	ll (in.): Last 24 hours:	O Last	48 hours:	0					
Latitude:			Longitude:		GPS Unit	:		GPS LMK #:				
Camera:					Photo#s:							
Land Use in Drains	ige Are	a (Check all tha	t apply):									
☐ Industrial					Open	Space						
Ultra-Urban Re	sidentie	ıl			☐ Institu	tional						
Suburban Resid	lcutial				Other:							
☐ Commercial					Known L	ıdustrics:						
Notes (e.g., origin of outfall, if known): Section 2: Outfall Description												
	***************************************	*******************************			IAPE		DIMENSION	IS (IN.)	SUBMERGED			
ROCETION		***************************************	RIAL				Diameter/Dimensi		In Water:			
		Z RCP	☐ CMP	☐ Circular	☐ Single		Distiller	01131	□No			
		□ PVC	HDPE	Eliptical	Double				Partially Fully			
Closed Pipe		☐ Steel		□Box	☐ Triple		1-5	~	With Sediment:			
		Other:		Other:	Other:_		1	1.	No Partially			
		Concre	ete	Pipe			(4	12.5	Partially Fully			
		Concrete										
		☐ Earthen		☐ Trapezoid			Depth:					
Open drainage	:			☐ Parabolic			Top Width:	-				
		☐ rip-rap		Other:			Bottom Width:					
		Other:							<u> </u>			
☐ In-Stream		(applicable w	hen collecting	***************************************								
Flow Present?		☐ Yes	No	If No., S.	kip to Section	5						
Flow Description (If present)		☐ Trickle	☐ Moderat	te Substantial								
Section 3: Qua	ntitati	ive Charact	erization									
				FIELD DATA FOR	FLOWING	***************						
P)	RAMI	ETER		RESULT		ı	INIT	Ē	QUIPMENT			
□Flow#1		Volume					Liter		Bottle			
LINION WI		Time to fill					Sec		2			
		Flow depth					In		l'ape measure			
□Flow#2		Flow width		33			Ft, In		l'ape measure			
LILION HZ		Measured lengt	h	3 33			Ft, In		Tape measure			
		Time of travel					S		Stop watch			
1	Cemper	ature					°F		Themometer			
	pН	•				P	H Units	3	eststrip/Probe			
	Ammo						mg/L		Test strip			

١	- 1	1. Sample for the lab?	Section 7: Data Collection	☐ Unlikely ☐	Section 6: Overall Outfall Characterization	Fibe centific growm	Si the Alice and Alice	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present?	Floatables -Does Not Include Trash!!	Turbidity	Color	Odor	INDICATOR CHECKIF Present
2019	••		tion	Potential (presence o	fall Characterization		3					CHECK IF Present	lcators for Both Flov hat are not related to f	□ □ Ser		☐ ☐ Clear	☐ ☐ Sewage ☐ Sulfide	CHECK IF Present
コマル	□ Flow [□Yes [Potential (presence of two or more indicators)	,		☐ Brown	Odors C	☐ Excessive ☐	□ Oily □ Flow Line	Spalling, Crac Corrosion		ving and Non-Flowing ¢ flow present? ☐ Yes	☐ Sewage (Toilet Paper, etc.) [☐ Petroleum (oil sheen) [Se	☐ Brown	☐ Rancid/sour	
□No If Yes, type:	Pool	IJNo					Orange Green Other	Colors Floatables Oil Sheen Excessive Algae Other:	☐ Inhibited	Line Paint Other:	Spalling, Cracking of Chipping L. Feeling Felling.	J (Market)	Qutfalls s Dano (If No, Skip to Section 6)	☐ Suds	See severity	☐ Gray ☐ Yellow ☐ Red ☐ ☐Other:] Petroleun/gas	DESCRIPTION
OBM Caulk dam				Suspect (one or more indicators with a severity of 3)			eri	Sheen er:			K Ollie	T. C.	Section 6)	☐ 1 — Few/slight; origin not obvious	L I - Siight cloudiness	□ l − Faint colors in sample bottle	□ 1 – Faint	NB N
				of 3) Obvious	1								COMMENDO	of origin (e.g., possible suds or oil sheen)	72 - Some: indications	sample bottle	2 - Easily detected	RELATIVE SEVERITY INDEX (1.3)
													0	(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some; origin clear	outfall flow	distance	(1.3)

Section 1: Backs Subwatershed:	ground Data			Outfall ID:	1BC 46.0		
Today's date: 3	129/15	2)	21/15	Time (Milit			
Investigators:	141113	- 2 (7/13	Form comp		ALLEN	
Temperature (°F):	260 4	O Ra	infall (in.): Last 24 hours:		8 hours: O		
Latitude:		Longitude		GPS Unit:	2	GPS LMK #:	
Camera:				Photo#s:			
Land Use in Drains	age Area (Check all th	at apply):					
Industrial				Open S	pace		
☐ Ultra-Urban Re	sidential			☐ Instituti	ional		
Suburban Resid				Other:			
	icutat				lustries:		
Commercial	C (CN (C)			100711 200			
Notes (e.g., origin	of outfall, if known):						
Section 2: Outf	all Description						
LOCATION		ERIAL	SH	IAPE		ONS (IN.)	SUBMERGED
	□ RCP	☐ CMP	☐ Circular	☐ Single	Diameter/Dime	nsions:	In Water:
	□ PVC	HDP	E ☐ Eliptical	☐ Double			Partially Fully
Closed Pipe	☐ Steel		□Вох	☐ Triple			With Sediment:
	Other:_		Other:	Other:			□ No □ Partially
							Fully
	☐ Concrete		·		Depth: 4	1	
	Earthon		Trapezoid		Top Width:	10'	
Open drainage	☐ rip-rap		Parabolic Parabolic		_	12/10/	: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	Other:		Other:		Bottom Width	8	
Fixe Stunes			ting samples)				
☐ In-Stream	Yes	************		kip to Section S	i		
Flow Present?			-				
Flow Description (If present)	Trickle	Mod	lerate Substantial				
G - 4 - 2 - O	-titativa Charas	torization	•				
Section 5: Qua	ntitative Charac	HELIZATIOI	FIELD DATA FOR	FLOWING 0	UTFALLS		
	ARAMETER	I	RESULT		UNIT		EQUIPMENT
	Volume				Liter		Bottle
□Flow#1	Time to fill				Sec		
	Flow depth				In		Tape measure
Tiples: 40	Flow width		7 1>		Ft, In		Tape measure
□Flow#2	Measured len	gth .	3 H		Ft, In		Tape measure
	Time of trav	cl			S		Step watch
	Temperature				°F		Thermometer
	рН				pH Units		Teststrip/Probe
	Ammonia				mg/L		Test strip

 Intermittent flow trap set? 	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	□ Unlikely □	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present? TNDICATOR CHECKIPPresent	Floatables •Does Not Include Trashii	Turbidity	Color	Odor	INDICATOR	Are Any Physical Indicators Present in the flow? Yes
ıp set?	P.		ction	Potential (pres	tfall Character						dicators for Both Flow that are not related to f CHECKIT Present					CHECK!f Present	ns Present in the fl
☐Yes ☐No If Yes, type: ☐)	□Yes □No		Potential (presence of two or more indicators) Suspect (one or more indicators with a se		☐ Brown ☐ Orange ☐ Green ☐ Other	Odors Colors Floatables Oil Sheen Suds Excessive Algae Other	☐ Excessive ☐ Inhibited	Oily Diew Line Daint Dother:	Spalling, Cracking or Chipping Peeling Paint Corrosion	n-Flowing Outfalls (If No. :	Sewage (Toilet Paper, etc.) Suds Petroleum (oil sheen) Other:	See severity	☐ Clear ☐ Brown ☐ Gray ☐ Yellow☐ Green ☐ Orange ☐ Red ☐ Other:	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	DESCRIPTION	owf ☐ Yes · No (If No, Skip to Section 5)
OBM Cauk dam							ien			nr.	ation 6)	☐ 1 – Few/slight; origin not obvious	1 - Slight cloudiness	l - Faint colors in sample boule	□ 1 - Faint	RE	
				rentry of 3)]						COMMENTS	of origin (e.g., possible suds or oil sheen)	12 - Cloudy	2 - Clearly visible in sample bottle	2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
											To	(e.g., obvious oil sheen, suds, or floating sanitary materials)	13 - Some: origin clear	outfall flow	distance	(4.3)	

ection 1: Backg Subwatershed:					Outfall ID:	4BC	- 45.	0
Today's date: 3,	129/15		3/31/15		Time (Milite	-	,	
Investigators:	11/10		-12111		Form compl	eted by:	AY ALL	EN
Temperature (°F):	260	410 1	Rainfall (in.): Las	st 24 hours: 6	D Last 48	hours: O		
Latitude:		Longitu	ic:		GPS Unit	ŧ	GPS	LMK#:
Camera:					Photo#s:			
Land Use in Draina	ge Area (Check al	that apply):						
☐ Industrial					Open Sp	acc		
Ultra-Urban Res	idential				Institution	nal		
Suburban Resid	ential				Other:			
Commercial					Known Indi	ıstrics:		
Notes (e.g., origin o	foutfall, if know	1):						
Section 2: Outfa LOCATION		ATERIAL		SHAI	PE	D	IMENSIONS	IN.) SUBMERGED
HOLEANALEIN	□ RCP	□ CN	IP ECircular	***************************************	☐ Single	Diam	cter/Dimensions	In Water.
	☐ PVC	THE COLUMN	1	1_	Double		1811	Partially
J)SIA:	☐ Box		☐ Triple			Fully
Closed Pipe	Steel		-		-			With Sediment:
	Other		Other:	l'	Other:			Partially Fully
	Conce	ctc	☐ Trapez	oid		Dept	h:	
Open drainage	☐ Eartho	n	☐ Parabo	lic		Top	Width:	
L. Open arming	☐ rip-raj	•	Other:			Botto	om Width:	- <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>
	☐ Other	·			************			<u> </u>
☐ In-Stream	(applical	ile when coll	ecting samples)					
Flow Present?	☐ Yes		No	If No, Skip	to Section 5			
Flow Description (If present)	☐ Trick	le 🗆 M	oderate Sub	stantial				
Section 3: Quar	ıtitative Char	acterizati	on					
			FIELD D	DATA FOR FL	OWING O	ITFALLS		
PA	RAMETER		R	ESULT		UNIT		EQUIPMENT
□Flow#1	Volum	c				Liter		Bottle
FILLOW MY	Time to	fill				Sec		Tana an an anna
	Flow de	pth				In To I		Tape measure Tape measure
□Flow#2	Flow wi			**		Ft, In		Tape measure
	Measured		-			Ft, In		Stop watch
	Time of t	ravel				°F		Themometer
1	Cemperature					pH Uni	ts	Test strip/Probe
	pН							Test strip
	Ammonia					mg/L	'	TMP STITE

Intermittent flow trap set?	If yes, collected from:	1. Sample for the lab?	Section 7: Data Collection	□ Unlikely □	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poorpool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Non Are physical indicators that are not related to flow present? INDICATOR CHECKIFP-essur	Floatables -Does Not Include Trashil	Turbidity	Color	Odor	INDIGATOR	Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? Yes · L
p set?	n:		ction	Potential (presence	tfall Characterizati		П			П	dicators for Both Flow that are not related to f					CHECKIF Present	licators for Flowing as Present in the flow?
Yes No 11 xes, type:	w Pool	□Yes □No		Potential (presence of two or more indicators) Suspect (one or more indicators with a sev		☐ Brown ☐ Orange ☐ Green ☐ Others	Odors Colors Floatables Oil Sheen Suds Excessive Algac Other	☐ Excessive ☐ Inhibited	□Oily □Flow Line □ Paint □ Other:	Spalling, Cracking or Chipping Peeling Paint Corrosion	-Flowing Outfalls (If No. ;	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	See severity	□ Clear □ Brown □ Gray □ Yellow □ Green □ Orange □ Red □ □Other:	□ Sewage □ Rancid/sour □ Petroleum/gas □ Sulfide □ Other:	DESCRIPTION	Outfalls Only Yes · No (If No, Skip to Section 5)
ODM Caux win				indicators with a severity of 3) Obvious			ten			Int	ction 6) COMMENTS	I - Few/slight; origin of origin (e.g., not obvious possible suds or oil sheen)	1 - Slight cloudiness 2 - Cloudy		☐ 1 - Faint ☐ 2 - Easily detected	RELATIVE SPURKITY INDEX (1-3)	
											i di	(e.g., obvious oil sheen, suds, or floating sanitary materials)	- Cpaque	outfall flow	distance	1-3)	

Section 1: Backgroun	d Data			YEC	440
Subwatershed:		101	Outfall ID:	150	1 700
Today's date: 3/2	9/15 °	1/31/15	Time (Military):	0011 0	11 15
Investigators:	- 2: 11:0	1	Form completed by:	PAY A	WEIV
Temperature (°F): 2	60 410 R	tainfall (in.): Last 24 hours:	O Last 48 hours:	0	GPS LMK #:
Latitude:	Longitud	le:	GPS Unit:		OLD HAREN.
Camera:			Photo#s:		
Land Use in Drainage Are	a (Check all that apply):				
☐ Industrial			Open Space		
☐ Ultra-Urban Residenti	al		☐ Institutional		
Suburban Residential			Other:		
☐ Commercial			Known Industries:		
Notes (e.g., origin of outf	all, if known):				
	_				
Section 2: Outfall De			Т АРЕ	DIMENSIO	NS(IN.) SUBMERGED
LOCATION	MATERIAL		☐ Single	Diameter/Dimens	
	□RCP □CM	9 1			No Partially
	□PVC XHE	PE Eliptical	☐ Double		Fully
Closed Pipe	☐ Steel	□Вох	☐ Triple		With Sediment:
	☐ Other:	☐ Other:	Other:		☐ Partially
					☐ Fully
	☐ Concrete			Depth:	
	☐ Earthon	☐ Trapczoid		Top Width:	
Open drainage	☐ rip-rap	Parabolic		Į.	NIIIIIIIIIIII
		☐ Other:		Bottom Width: _	
	Other:				
☐ In-Stream	(applicable when coll		Skip to Section 5		
Flow Present?	☐ Yes	No If No, S	skip to decision		
Flow Description (If present)	☐ Trickle ☐ M	oderate Substantial			
Section 3: Quantita	nye Characterizati	OIL	FLOWING OUTFALE	S	
		RESULT		UNIT	EQUIPMENT
PARAN		KESUDI		Liter	Bottle
□Flow#1	Volume Time to fill			Sec	
				In	Tape measure
	Flow depth Flow width	3 33		Ft, In	Tape measure
□Flow#2	Measured length	3 11		Ft, In	Tape measure
	Time of travel			S	Stop watch
				۰F	Thermometer
	erature			pH Units	Teststrip/Probe
	H nonia			mg/L	Test strip

	- 1	 Sample for the lab? 	Section 7: Data Collection	Carta a Data Calla	Unlikely 🗆	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Donate Comme	Denosits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes ANO	Floatables -Does Not Include Trashii	Turbidity	Color	Odor	INDICATOR GHEGRIF Present
ıp set?	m:		ction	ation .	Potential (prese	tfall Characteri							CHECK IF Present	dicators for Both that are not relate					CHECK IF Present
□Yes	☐ Flow	☐ Yes			Potential (presence of two or more indicators)	zation	□Brown	Suds	T Excessive	3.	□ oily	Spalli Corro	resent	h Flowing and Non-F ed to flow present?	☐ Sewage (Toilet Paper, etc.) ☐ Petroleum (oil sheen)		☐ Clear ☐ Brown ☐ Green ☐ Orange	☐ Sewage ☐ Rancid	
o S	□ Pool	□ No					☐ Orange ☐	Excessive Algae	٦.	-1	☐ Flow Line ☐ Paint	Spalling, Cracking or Chipping Corrosion	DESC	lowing Outfalls □ Yes \No	etc.) 🗌 Suds	See severity	☐ Gray	Usour 🏻 Petroleum/gas	DESCRIPTION
If Yes, type:					Suspect (one or more indicators with a se		Green Gouer		71		☐ Other:	Peeling Paint	RIPTON	(If No, Skip to Section 6)			☐ Yellow ☐Other:		
OBM Caulk dam					idicators with a severity		-							ion 6)	☐ 1 — Few/slight; origin not obvious	1 - Slight cloudiness	☐ 1 — Faint colors in sample boule	□ 1 - Faint	RE
					verity of 3) Obvious								CINIDINITION		of origin (e.g., possible suds or oil sheen)	1 2 - County	sample bottle	2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)
													Ū		(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some: origin clear	outfall flow	distance	(1-3)

Section 1: Backg	round Data			Outfall ID	· YBM	1,1	
Subwatershed:	100/15		21-11-	Time (Mil		• 7 /	
Today's date: 3	149/15		3/3//15	Form com		ALLEN	r
Investigators:	- 1 0' 11	J, 0 1.	tainfall (in.): Last 24		48 hours: <i>O</i>	710-61	
Temperature (°F):	260 4			GPS Unit		GPS LMK	#:
Latitude:	· ·	Longitu	16:	Photo#s:			
Camera:	A (Charles)	shas annitrate		74010 1101			
Land Use in Draina	ge Area (Check all	mac appry).		□ Ореп	Znoce		
☐ Industrial							
☐ Ultra-Urban Re	sidential			☐ Institu			
Suburban Resid	ential			,			
☐ Commercial				Known Ir	dustries:		
Notes (e.g., origin	of outfall, if known)	:					
Section 2: Outis		TERIAL		SHAPE	DIME	NSIONS (IN.)	SUBMERGED
HEIGHNIEN	□ RCP	CV	IP Circular	☐ Single	Diameter/I	Dimensions:	In Water
		•	1	☐ Double	16	ji	⊠No □ Partially
ÿ	PVC	Пнг					Fully
Closed Pipe	☐ Steel		Box	☐ Triple			With Sediment:
	Other:		Other:	Other:_			Partially
							Fully
	Concre	to	☐ Trapezoid		Depth:		
	☐ Earthor	1	☐ Parabolic		Top Widt	h:	
Open drainage	☐ rip-rap					7idth:	
	Other:		Other:				<u> </u>
☐ In-Stream	(applicabl	e when coll	ecting samples)				
Flow Present?	☐ Yes	ζ	ZAVQ .	If No, Skip to Section	5 Check	ripe @	2 renda
Flow Description	☐ Trickle	1	oderate Substan	ทัดใ		1	
(If present)	LI THEKE	, 11141	odotato El Davision				
Section 3: Quar	ntitative Chars	cterizati	on				
			FIELD DAT	A FOR FLOWING	OUTFALLS		
P)	LRAMETER		RESI	HΤ	TINU		EQUIPMENT
TE:#1	Volume				Liter		Bottle
□Flow#1	Time to fi	ill			Sec		6 0
	Flow dep	th			In		Tape measure
□Flow#2	Flow wid	th	3 33		Ft, In		Tape measure
hands we of the	Measured le	ngth	3 33		Ft, In		Tape measure Stop watch
	Time of tre	avel			S		Themometer
′	Pemperature				%		Teststrip/Probe
	pН				pH Units		
	A				mg/L	ı	Test strip

Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? CHECKER	icators for Flor	wing Outfall low? Yes	Z	(JFNo, SH	(Jf.No, Skip to Seatlon S)	34	ATTIVE SEVERETTY TO THE	(-2)
INDICATOR	CHECK IF Present		D	DESCRIPTION		PEL	RELATIVE SEVERITY INDEX (1-3)	(2)
Odor		Sewage Suffide	☐ Rancid/sor ☐ Other:	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	gas	🔲 lFaint	2 - Basily detected	☐ 3 – Noticeable from a distance
Color		Clear Green	☐ Brown ☐ Orange	Gray	☐ Yellow ☐Other:	☐ 1 — Faint colors in sample bottle	2 – Clearly visible in sample botile	3 - Clearly visible in outfall flow
Turbidity				See severity		1 – Slight cloudiness	□2-Cloudy	☐ 3 - Opaque
Fioatables Does Not include Trash!!		Sewage (Toilet Paper,	Sewage (Toilet Paper, etc.)	Suds		🔲 l – 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-F Are physical indicators that are not related to flow present? TOPICATOR CHECKII Present	licators for Both Flow that are not related to f	th Flowing an ted to flow pr present		lowing Outfalls Yes X No	(Jf.No, Skip to Section 6) DESCRIPTION	stion 6)	GOMMENTS	0.
Outfall Damage			Spalling, C	ng, Cracking or Chipping sion	ping 🔲 Peeling Paint	nt.		
Deposits/Stains				Flow Line P	☐ Paint ☐ Other:			
Abnormal Vegetation			☐ Excessive	☐ Inhibited				
Poorpool quality			Odors Suds	Colors Excessive A	☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Excessive Algae	8		
Pipe benthic growth			☐ Brown	Orange	Green Other:			
Section 6: Overall Outfall Characterization	tfall Character	fzation						
V Unlikely	Potential (presence of two or more indicators)	sence of two (or more indic	ators)	Suspect (one or more	Suspect (one or more indicators with a severity of 3)	of 3)	
Section 7. Date Collection	offon							
Section /: Data Conc.	arous .		☐ Yes	oN □				
1	ii.		☐ Flow	Pool	- [ľ		
1	ip set?		☐ Yes	o _N	If Yes, type:	OBM Caulk dam		
2	licit Discharge	Concerns (e		needed infra	or needed infrastructure repairs)?			

Illicit Discharge Detection and Elimination: Technical Appendices

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Section 1: Backs	ground I	Data					S }	<i>i</i> ^	
Subwatershed:					Outfall ID		YEM	/.0	
Today's date: 3	1291	15	3/31	15	Time (Mil				
Investigators:			٠ ' '			pleted by:		ALLEN	
Temperature (°F):	26	· 41	Rainfal	l (in.): Last 24 hours:		48 hours:	0		
Latitude:			Longitude:	•	GPS Unit			GPS LMK #:	
Camera:					Photo#s:				
Land Use in Drains	ige Area (C	Check all that	apply):						
☐ Industrial					Open				
☐ Ultra-Urban Re	sidential				Institu	tional			
Suburban Resid	lential				Other:				
☐ Commercial					Known In	idustries:			
Notes (e.g., origin	of outfall,	if known):							
G . 41 0 . 45	-11 70								
Section 2: Outfa	000000000000000000000000000000000000000	ription MATE	LATS	SH	APE		DIMENSI	ons (IN.)	SUBMERGED
10/530.100	******] RCP	CMP	☐ Circular	Single		Diameter/Dimer	asions:	In Water:
	-]PVC		☐ Eliptical	☐ Double				☐ No ☐ Partially
		_	Споль	Вох	☐ Triple				Fully
Closed Pipe] Steel			Other:				With Sediment:
	-	Other:		Other:	[] Omer: _				Partially Fully
		7.0		8	<u> </u>		-ta	1	
		Concrete	1	Trapezoid 5	. *		Depth: 10	5	
Open drainage		Earthen		☐ Parabolic		13-7	Top Width:	<u> </u>	
1] rip-rap		Other:	7	8"	Bottom Width:	25	
		Other:							<u> </u>
☐ In-Stream	6	ipplicable w	ien collecting	samples)					
Flow Present?	Þ	⊈Y¤	□ No	If No, Sk	ap to Section	5			
Flow Description (If present)	E	Trickle	Moderate	Substantial					
Section 3: Quar	ntitative	. Characte	rization						
Ž				FIELD DATA FOR I	FLOWING (HITFALLS			
P/	ARAMETI	R		RESULT			TINU	Ē	QUIPMENT
□Flow#1		Volume					Liter		Bettle
	3	lime to fill					Sec		Page
	F	Flow depth		•			In		Pape measure
□Flow#2	F	Flow width		11			Ft, In		Tape measure
	Me	asured length	<u> </u>	3 33			Ft, In		Tape measure Stop watch
	Ti	ime of travel					S		Themometer
1	Pemperatu	re					°F		Testship/Probe
	pН					P	H Units		
	Ammonia	ì					mg/L		Test strip

Section 7: Data Collection 1. Sample for the lab?	Ĕ	Section 7: Data Collection	☐ Unlikely ☐ Potenti	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes Zho INDICATOR CHECK FREESENT	Floatables -Does Not Include ·	Turbidity	Color	Odor	INDICATOR CHECKIN	section 4: Physical Indicators for Flowing Outfalls Only see Any Physical Indicators Present in the flow!
			Potential (presence of two or more indicators)	aracterization						rs for Both Flowing a re not related to flow p CHECK IF Present			☐ Clear	☐ Sewage	Kif ant	for Flowing Outfalls (tin the flow? Yes
7.58		1V.c	or more indicators		□ Brown □	Odors O	☐ Excessive ☐	Oily Flow Line	Spalling, Crack Corrosion	nd Non-Flowing (resent? Yes	, etc.)	See	☐ Brown ☐	☐ Rancid/sour ☐ Petroleum/gas	DESCH	S ONLY XINO
	7.514	No			Orange Green Other	Colors	☐ Inhibited	Line Paint Other:	Spalling, Cracking or Chipping L. Peeling Paint Corrosion	OESCRIPTION .	☐ Suds ☐ Other:	See severity	☐ Gray ☐ Yellow ☐ Red ☐ ☐ Cher:	Petroleum/gas	DESCRIPTION	(If No, Skip to Section 5)
			Suspect (one or more indicators with a severity of 3)			en en			2	tion 6)	☐ 1 — Few/slight; origin not obvious	☐ 1 —Slight cloudiness	☐ 1 – Faint colors in sample bottle	□ l – Faint	RELO	
			of3) 🔲 Obvious							СОМИВИЗ	of origin (e.g., possible suds or oil sheen)	Da Sana indications	sample bottle	2 - Easily detected	RELATIVE SEVERUTY INDEX (1-3)	
										υ	(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some: origin clear	outfall flow	distance	1-3)	

Section 1: Back	kground Data						
Subwatershed:			Outfall !	D:	BT 5	5,2	
Today's date:	3/29/15	3/31/15	Time (A	filitary):			
Investigators:		υ (Form co	mpleted by:	RAY 1	PLLEN	
Temperature (°F):	: 33° 41	Rainfall (in.): Last 24	hours: O La	st 48 hours:	9	·	
Latitude:	Longi	tudo:	GPS Un	it:		GPS LMK #:	
Camera:	*****		Photo#	s:			
Land Use in Drain	nage Area (Check all that apply):					
☐ Industrial			□Оре	n Space			
☐ Ultra-Urban R	esidential		☐ Insti	tutional			
Suburban Resi	idential		Other:_				
☐ Commercial			Known	Industries:			·
Notes (e.g., origin	of outfall, if known):						
LOCATION			SHAPE		DIMENSH	ONS (IN.)	SUBMERGED
	□RCP □C	MP Circular	☐ Single		Diameter/Dimer		In Water:
		IDPE Eliptical	□ Double				☐ No ☐ Partially
П. ст. м. г. г. г. г. г. г. г. г. г. г. г. г. г.				·		· · · · · · · · · · · · · · · · · · ·	Fully
Closed Pipe	☐ Steel	Box	Triple	1			With Sediment:
	Other:	_ Other:	_ Other:				□ No □ Partially □ Fully
	☐ Concrete	Y			Same	Alu	
<i>y</i>	Earthon	Trapezoid	111-	1	Depth: Top Width:	12.	
Open drainage	inp-rap	Parabolic Parabolic	1.4.5	10			
	Other:	Other:		ولنو	Bottom Width:	10	
☐ In-Stream	(applicable when co	lecting samples)					<u> </u>
Flow Present?	***************************************		No, Skip to Section	: 5			
Flow Description (If present)		Anderate Substanti					
Section 3: Oug	ntitative Characterizati	ion					
Section S. Qua	intrative Character Kat		FOR FLOWING	BUREALIS			
P.	ARAMETER	RESU			NIT	£	QUEPMENT
	Volume				iter		Bottle
□Flow#1	Time to fill	•			Sec		
	Flow depth				In	1	ape measure
□Flow#2	Flow width	3 33		F	t, In	T	ape measure
LILANT TE	Measured length	3 3)		F	t, In	3	ape measure
	Time of travel				S		Stop watch
1	l'emperature				°F	1	Thermometer
	pН			pН	Units	To	est strip/Probe

Test strip

mg/L

Ammonia

3. Intermittent now map serv		 Sample for the lab? 	Section 7: Data Collection	Unlikely	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poorpool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes, KN No INDICATOR GHECK//Fresent	Floatables •Does Not Include Trashil	Turbidity	Color	Odor	INDIGATOR	Section 4: Physical Indicators for Flowing Outfalls Only. Are Any Physical Indicators Present in the flow? Yes
ap setr	m:		etion	Potential (presen	utfall Characteriza						idicators for Both Flows that are not related to f					CHECKIF Present	dicators for Flowi ors Present in the flov
	☐ Flow	□Yes		Potential (presence of two or more indicators)	ation	□Brown	□ Odors	☐ Excessive	□ oily □	Spalling, (Corrosion	Flowing and Non-Flod to flow present?	☐ Sewage (Toilet Paper, etc.) ☐ Petroleum (oil sheen)		□ Clear □ Brown □ Green □ Orange	☐ Sewage ☐ Rancid/sı ☐ Sulfide ☐ Other:		ng Outfalls Only √/ □ Yes · □ WNo
	Pool	□ No				Orange O	☐ Colors ☐ FI ☐ Excessive Algae	☐ Inhibited	☐ Flow Line ☐ Paint	Spalling, Cracking or Chipping Corrosion	wing Outfalls Yes Ki No DESCR	other:	See severity	☐ Gray ☐ 1 ☐ Red ☐ 0	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	DESCRIPTION	(JfNo, Skip to Section 5)
ءُ ا	If Ves type: OBM			sect (one or more in		☐ Green ☐ Other	Be Contables Oil Sheen Other:		Other:	Peeling Paint	185581 ra			☐ Yellow [Section S)
	M Caulk dam			Suspect (one or more indicators with a severity of 3)							m 6)	☐ 1 – Few/slight; origin not obvious	☐ 1 — Slight cloudiness	l – Faint colors in sample bottle	□ 1 ~ Faint	REL	
				of3) Obvious]						COMMENTS	of origin (e.g., possible suds or oil sheen)	2-Cloudy	2 - Clearly visible in sample boule	☐ 2 – Easily detected	RELATIVE SEVERITY INDEX (4-3)	
											G	(e.g., obvious oil (e.g., obvious oil sheen, suds, or floating sanitary materials)	1 3 - Opaque	3 - Clearly visible in outfall flow	distance	(1-3)	

Section 1: Bacl Subwatershed:	sg. vunu Data			Outfall ID:	1102	413	n
	7 1701:00	3/	21/1-	Time (Military):	YOU	43	<i>, ()</i>
Investigators:	3/29/15	5/	91 115	Form completed by	: RAY A	17 5:01	·····
	228 11	الم الم	W.C. V. Tast Od barra				
Temperature (°F):	: 33° 4	/	all (in.): Last 24 hours:			GPS LMK #:	
Latitude: Camera:		Longitude:		GPS Unit: Photo#s:		GI D LAVILLE W.	
	nage Area (Check all th			FROW #S.			
	nage Area (Check an to	ar appry):		proof to the			
☐ Industrial				Open Space			
Ultra-Urban R	esidential			Institutional			
Suburban Res	idential			Other:			
☐ Commercial				Known Industries:			
Notes (e.g., origin	of outfall, if known):						
					<u> </u>		
*******************	fall Description		1				
LOCATION	TAM V	ERIAL		HAPE	DIMENSIO		SUBMERGED
	RCP	☐ CMP	☐ Circular	☐ Single	Diameter/Dimens	ions:	In Water:
	□PVC	HDPE	☐ Eliptical	☐ Double		···	☐ Partially ☐ Fully
Closed Pipe	☐ Steel		□Вох	☐ Triple			With Sediment:
	Other:	····	Other:	Other:	l va		□No
				1 .	nath		☐ Partially ☐ Fully
	☐ Concrete			4 6.60	10	1. 81	
	Earthon		Trapezoid	4 17	Depth:	2/	
Open drainag	e rip-rap		Parabolic 8	6/6	Top Width:	<u></u>	
			Other:	C:	Bottom Width: _	5	
P-1	Other:			8.			<i>XIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</i>
☐ In-Stream	***************************************	viten collecting					
Flow Present?	Yes) If No, S	kip to Section 5			
Flow Description (If present)	Trickle	☐ Modera	te Substantial				
Section 3: Qua	ntitative Charac	terization					
			FIELD DATA FOR	FLOWING OUTFALE	5		
P	ARAMETER		RESULT		TINU	į.	QUIPMENT
□Flow#1	Volume				Liter		Bottle
	Time to fill	·			Sec		
	Flow depth				<u>In</u>		Tape measure
□Flow#2	Flow width		3 37		Ft, In		Tape measure
	Measured leng	th	7 37 		Ft, In		Tape measure
	Time of trave	1			S		Stop watch
	Temperature				۰F		Thermometer
	_77				nH Units	•	Teststrip/Probe

Test strip

mg/L

Ammonia

Are Any Physical Indicators Present in the flow?	B Present in the flo	Section 4: raysteat fatheractic for first of the flow? Yes Yes (If No, Skip to Section 5)			
INDIGATOR	CHECK If Present	DESCRIPTION	REL	RELATIVE SEVERITY INDEX (1-3)	(4.3)
Odor			□ 1 - Faint	2 - Easily detected	☐ 3 Noticeable from a distance
		Clear DBrown DGray DYellow	☐ l — Faint colors in	2 - Clearly visible in	3 - Clearly visible in
Color		Orange Red	sample bottle	sample bottle	outrail riow
P]	03	☐ 1 — Slight cloudiness	□2-Cloudy	☐ 3 — Opaque
Floatables -Does Not Include	0	☐ 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 Are physical indicators that are not related to flow present?	licators for Bot that are not relat	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes MNo (If No. Skip to Section 6)	ction 6)	COMMENTS	
Owfall Damage		Spalling, Cracking or Chipping	nt		
Denosite/Stains		□Oily □Flow Line □Paint □Other:			
	 	Excessive Inhibited			
ADMOLLIA & Special]	- 1	e		
Poor poor quanty		Excessive origin			-
Pipe benthic growth		☐ Brown ☐ Orange ☐ Green ☐ Other	_		
Section 6: Overall Outfall Characterization	tfall Characteri			ı	
V IJnlikelv	Potential (pres	Potential (presence of two or more indicators) Suspect (one or more indicators with a se	indicators with a severity of 3)	of3)	
CX -					
Section 7: Data Collection	ction				
 Sample for the lab? 		☐ Yes ☐ No			
- 1	n:	☐ Flow ☐ Pool			
- 1	n set?	☐Yes ☐No If Yes, type: ☐	OBM Caulk dam		
	,				

Section 1: Back	ground D	ata						- , ,	
Subwatershed:				/	Outfall ID:		YBC_	43.0	
Today's date: 3	1291	15	3/	31/15	Time (Milita		·		
Investigators:			LD	· P	Form comple	eted by:		ALLEN	
Temperature (°F):	33°	· 71	Rainfa	ll (in.): Last 24 hours:	O Last 48	hours:	<u> </u>		
Latitude:			Longitude:		GPS Unit:			GPS LMK #:	
Camera:		·			Photo#s:				
Land Use in Drain	age Area (Ch	ock all the	at apply):						
☐ Industrial					Open Sp	ace			
Ultra-Urban Re	esidential				☐ Institutio	nal			
Suburban Resid	dential				Other:				
Commercial				•	Known Indu	stries:			
Notes (e.g., origin	of outfall, if	known):							
		•							
							•		
Section 2: Outf	**************************************	*********							
LOCATION		MATI	RIAL		APE			ions (in.)	SUBMERGED
	D:	RCP	☐ CMP	☐ Circular	☐ Single		Diameter/Dir	nensions:	In Water:
	D	PVC	HDPE	☐ Eliptical	☐ Double				Partially Fully
Closed Pipe		Steel		□Вох	☐ Triple				With Sediment:
		Other:		Other:	Other:				□ No □ Partially
					000				Fully
		Concrete		4	Ye -		37	12 8'	
ز	12	Earthen		Trapezoid	112/T	ı	Depth; Top Width:	10 12	
DOpen drainage		rip-rap		Parabolic	18	\$	1		
		Other:		Other:	5- 1		Bottom Widt	h:	
☐ In-Siream			then collecting	someles					<u> </u>
Flow Present?	72222	Yes	□ No		ap to Section 5				
	/				.p 10 12 12 12 1				
Flow Description (If present)	拉	Trickle	Moderate	Substantial					
0 4 0	4*4 4* 4								
Section 3: Qua	nntanye (Snaract	erizanon	FIELD:DATA FOR	EDOMENIC OFF	TEALS			
	ARAMETER			RESULT	LONGICO		TINE		QUIPMENT
		/olume				*********	Liter		Bottle
□Flow#1		me to fill	•				Sec		
		ow depth					In		Tape measure
		ow width)))			Ft, In		Tape measure
□Flow #2		ured lengt	h	3 33			Ft, In		Tape measure
		c of travel					S		Stop watch
	Temperature						°F		Thermometer
	pН					p	H Units		Teststrip/Probe
	Ammonia						mg/L		Test strip

RELATIVE SEVERITY INDEX (I-3)	☐ 2 - Easily detected ☐ 3 - Noticeable from a	2 – Clearly visible in sample bottle	iloudiness	of origin (e.g., possible suds or oil sheen)	COMMENTS						th a severity of 3) 🔲 Obvious			Caulk dam
(JFNo, Skip to Section 5) DESCRIPITION	☐ Rancid/sour ☐ Petroleum/gas ☐ 1 — Faint ☐ Other:	Gray Yellow 🔲 1 – Faint colors in Sample bottle	See severity 🔲 1 – Slight cloudiness	Suds	wing Outfalls Yes X Wo (IfNo, Skip to Section 6) DESCRIPTION	Spalling, Cracking or Chipping 🔲 Feeling Faint Corrosion	□ Flow Line □ Paint □ Other:	☐ Inhibited	Colors Floatables Oil Sheen Excessive Algae Other	☐ Orange ☐ Green ☐ Other:	cators) 🔲 Suspect (one or more indicators with a severity of 3)	°Z C	Pool	If Yes, type: 🔲 OBM
\ \$	Sewage Suffide	Clear Green		Sewage (Toilet Paper, etc.)	Section 5: Physical Indicators for Both Flowing and Non-Flowing Out Are physical indicators that are not related to flow present?	Spalling.		☐ ☐ Excessive	stopO 🔲 🗎	☐ ☐ Brown	Outfall Characterization Potential (presence of two or more indicators)	Vec	ST D	□ Yes
Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? CHECKIE TINDICATIOR		Color	Turbidity	Floatables -Does Not include Trashii	Section 5: Physical Indicators for Both Flowing and Non Are physical indicators that are not related to flow present? INDICATOR CHECKEPPESENT	Outfall Damage	Deposits/Stains	Abnormal Vegetation	Poor pool quality	Pipe benthic growth	Section 6: Overall Outfall Characterization	Section 7: Data Collection	- 1	2. If yes, collected from: 3. Intermittent flow trap set?

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

Section 1: Backs	Ground Data					
Subwatershed:		.)	Outfall ID:	RHA 1	.0	
Today's date: 3	129/15 2	1/31/13	Time (Military):	1-47		
Investigators:		•	Form completed by	y: RAY A	LLEN	
Temperature (°F):	330 420	Rainfall (in.): Last 24 hours	: O Last 48 hours			
Latitude:	Longitu	ude:	GPS Unit:		GPS LMK #:	
Camera:			Photo#s:			
Land Use in Drains	age Area (Check all that apply)	•				
☐ Industrial			Open Space			
Ultra-Urban Re	sidential		☐ Institutional			
Suburban Resid	lential		Other:			
☐ Commercial			Known Industries			
Notes (e.g., origin	of outfall, if known):					
Section 2: Outfa	all Description					
LOCATION		G	НАРЕ	DIMENSIO	INE (EV)	SUBMERGED
	□RCP □C	MP Circular	☐ Single	Diameter/Dimen	sions:	In Water: □ No
	□PVC □H	DPE Eliptical	☐ Double			Partially
Closed Pipe	☐ Steel	□Вох	☐ Triple			Fully
	Other:	Other:	Other:			With Sediment:
						☐ Partially ☐ Fully
	Concrete			-2/1	3'	
	Earthen	Trapezoid		Depth:		
Open drainage	1	☐ Parabolic		Top Width: 5		
	☐ rip-rap	Other:		Bottom Width:	4.	
	Other:					<i>XIIIIIIIIIIIII</i>
☐ In-Stream	(applicable when col					
Flow Present?	Yes	□ No IfNo,	Skip to Section 5			
Flow Description (If present)	Trickle M	Indente Substantial				
Section 3: Oua	ntitative Characterizati	ion				
		***************************************	C FLOWING OUTFAL	LS		
P.7	ARAMETER	RESULT		UNIT	E	QUIPMENT
□Flow#1	Volume			Liter		Bottle
TIL TOW WI	Time to fill	•		Sec		
	Flow depth			In		Pape measure
□Flow#2	Flow width	3 33		Ft, In	 	Pape measure
full to it it as	Measured length	3 33		Ft, In		Pape measure
	Time of travel			S		Stop watch
	remperature			°F		Thermometer
	pН			pH Units	3	eststrip/Probe
	Ammonia			mg/L		Test strip

3. Intermittent flow trap sel?	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	Unlikely	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality		Abnormal Vegetation	Deposits/Stains	Outfall Damage	INDICATOR	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	Floatables -Does Not Include Trashll	Turbidity	Color		Odor	INDICATOR	Section 4: Physical Indicators for Flowing are Any Physical Indicators Present in the flow?
ap set?	r.		tion	Potential (prese	fall Characteri]				CHECK If Present	icators for Both hat are not relate	П		П			CHECK IT Present	cators for Flow s Present in the flo
Compared for the short of needed infrastructure repairs)?	w Pool	☐Yes ☐No		Potential (presence of two or more indicators)		L Brown L Orange L Green L Curson	Suds Excessive Algae		☐ Excessive ☐ Inhibited	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	Spalling, Cracking or Chipping Peeling Paint Cornosion	DESCRIPTION	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. Stap to Section 6)	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	See severity	☐ Green ☐ Orange ☐ Red ☐ Other:	e L Cuici:	_	DESCRIPTION	Section 4: Physical Indicators for Flowing Outfalls Only / Are Any Physical Indicators Present in the flow? Tes · KNo (If No, Skip to Section 5)
	ORM Caulk dam			THE CHARLES IN THE PARTY OF THE	dinators with a severity of 3)								on 6)	not obvious		<u> </u>		□ l – Faint □ □	RELATI	
					3)							4411111414		of origin (e.g., possible suds or oil sheen)	72 - Some: indications	sample bottle	o _ Clasely visible in	2 Easily detected	RELATIVE SEVERITY INDEX (1-3)	
							•							(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some; origin clear	outfall flow	☐ 3 – Clearly visible in	3 – Noticeable from a distance	(a)	

Outfall ID:

Section 1: Background Data

Subwatershed:

Today's date: 3	129/15	3/3//5	Time (Military):			
Investigators:			Form completed by:	RAY A	LLEN	
Temperature (°F):	33° 42	Rainfall (in.): Last 24 hours:	O Last 48 hours:	O		
Latitude:	Longi	tude:	GPS Unit:		GPS LMK #:	
Camera:			Photo#s:			
Land Use in Drain	age Area (Check all that apply):				
☐ Industrial			Open Space			
☐ Ultra-Urban Re	esidential		Institutional			
Suburban Resid	dential		Other:			
☐ Commercial		·	Known Industries:			
Notes (e.g., origin	of outfall, if known):					
Section 2: Outf	all Description					
LOCATION		SH	APE	DIMENSIO	NS (IN.)	SUBMERGED
	□RCP □C	MP Circular	☐ Single	Diameter/Dimen	sions:	In Water:
	□PVC □F	IDPE Eliptical	☐ Double			Partially Fully
☐ Closed Pipe	☐ Steel	Вох	☐ Triple			With Sediment:
;	☐ Other:	_ Other:	Other:			□No
						☐ Partially ☐ Fully
	☐ Concrete			24/	K.	
1	Earthon	Trapezoid		Depth:Top Width:Bottom Width:	6	
Open drainage	rip-rap	Parabolic		Top Width:	1101	
	Oiher:	Other:		Bottom Width: _	950	
☐ In-Stream	(applicable when co	Necting samples)				<u> </u>
Flow Present?	Yes		ip to Section 5			
Flow Description (If present)	1	Moderate Substantial				
Section 3: Oug	ntitative Characterizat	ion				
Laboren De Qua			LOWING OUTFALLS			
P)	ARAMETER	RESULT		INIT	E	DULPMENT
□Flow#1	Volume			Liter		Bottle
Tition #1	Time to fill	•		Sec		
	Flow depth			In		ape measure
□Flow#2	Flow width	3 11		Ft, In		ape measure
	Measured length	3 33		Ft, In		ape measure
	Time of travel			S		Stop watch
	remperature			°F		Thermometer (Day)
	pH		p	H Units	1	eststrip/Probe
•	Ammonia			mg/L		Test strip

Section 4: Physical Indicators for Flowing Outfalls Only, Are Any Physical Indicators Present in the flow? Tes	licators for Flow rs Present in the flo	Outfalls Only Yes N.No	(If No, Skip to Section 5)			
INDICATOR	CHECK If Prasent	DESCRIPTION	2	RELA	RELATIVE SEVERITY INDEX (1-3)	1-3)
Odor				□ 1 – Faint	2 - Easily detected	distance
		☐ Clear ☐ Brown ☐ Gray		1 - Faint colors in	☐ 2 – Clearly visible in	3 - Clearly visible in
Color		1		sample bottle	sample bottle	outfall flow
Turbidity		See soverity		☐ 1 — Slight cloudiness	2 Cloudy	Da Come: origin clear
Floatables -Does Not Include Trashi!		Sewage (Toilet Paper, etc.) Suds Petroleum (oil sheen) Other	1001.0 	☐ 1 – Few/slight; origin not obvious	2 - Some; indications of origin (e.g., possible suds or oil sheen)	de.g., obvious oil sheen, suds, or floating sanitary materials)
Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	dicators for Boti that are not relat	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes 1 No	ls (If No, Skip to Section 6)	5)		
Outfall Damage		Spalling, Cracking or Chipping Corresion	ipping 🔲 Peeling Paint			
Deposits/Stains		□Oily □Flow Line □	□ Paint □ Other:			
Abnormal Vegetation		☐ Excessive ☐ Inhibited				
Poor pool quality		Odors Colors C	Floatables Oil Sheen			
Pipe benthic growth		☐ Brown ☐ Orange	☐ Green ☐ Other:			
Section 6: Overall Outfall Characterization	tfall Characteri	zation				
Unlikely	Potential (prese	Potential (presence of two or more indicators)	Suspect (one or more indicators with a severity of 3)	tors with a severity o	f3) 🗌 Obvious	

Section 7: Data Collection	ction					
 Sample for the lab? 		□Yes □No				
If yes, collected from:	n:	☐ Flow ☐ Pool				
	ip set?	□Yes □No	If Yes, type: OBM	Caulk dam		
L						

section 1: Backgr	round Data				
Subwatershed:		1	Outfall ID:	2H 1.0	>
Today's date: 3	129/15	3/31/15	Time (Military):		
Investigators:			Form completed by:	RAY AC	LEN
Temperature (°F):	33° 42	Rainfall (in.): Last 24 hours:	O Last 48 hours:	0	
Latitude:	Longitu	de:	GPS Unit:	!	GPS LMK #:
Camera:			Photo#s:		
Land Use in Drainag	ge Area (Check all that apply):				
☐ Industrial			Open Space		
Ultra-Urban Res	idential		☐ Institutional		
Suburban Reside	ential		Other:		
☐ Commercial			Known Industries:		
Notes (e.g., origin o	foutfall, if known):				
Section 2: Outfa	ll Description			16	
LOCATION	MATERIAL	S	HAPE	DIMENSIO	
	□RCP □C	MP Circular ·	☐ Single	Diameter/Dimens	□No
	□PVC □H	DPE Eliptical	☐ Double		Partially Fully
Closed Pipe	☐ Steel	□Box	☐ Triple		With Sediment:
	Other:	Other:	Other:		□No □Partially
					Fully
	☐ Concrete			Depth:	15.5 MMMMMM
11	Earthon	Trapezoid		Topin.	25' \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Open drainage	☐ rip-rap	Parabolic -	5.5	Tob Minn:	-32 (\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
		☐ Other:	2	Bottom Width: _	<i>⇒</i> ∽ \((((((((((((((((((((((((((((((((((((
	Other: {applicable when col				V////
☐ In-Stream	V 227		Skîp to Section 5		
Flow Present? Flow Description	*				
(If present)	Trickle LIN	Moderate Substantial			
Section 3: Quar	ititative Characterizat	ion			
		FIELD DATA FOR	EFLOWING OUTFALL		
P#	RAMETER	RESULT		UNIT	EQUIPMENT
□Flow#1	Volume			Liter	Bottle
LIA ION WI	Time to fill	•		Sec	70
	Flow depth			In	Tape measure
□Flow#2	Flow width	,))		Ft, In	Tape measure
· ·	Measured length	, , ,,,		Ft, In	Tape measure
	Time of travel			S	Stop watch
7	Cemperature			°F	Thermometer
	pН		<u> </u>	pH Units	Test strip/Probe
	Ammonia			mg/L	Test strip

DESCRIPTION Described De	section 4: Physical Indicators for Flowing Cuttains Cuttains Care Any Physical Indicators Present in the flow? Yes	Present in the flow	Y Ces · XNo (If No, Skip to Section 5)			
Indidestors: Petroleum/gas In-Faint colors in carporative cry, etc.) Gray Yellow Clother: See severity Clother: Clother	INDICATOR	CHECK If Present		REL	RELATIVE SEVERITY INDEX (1-3)	1-3)
Own Gray Cellow Color Color Color	Odor			□1-Faint	2 – Easily detected	3 – Noticeable from a distance
Tubidity Tubidity	Color		□ Brown □ Gray	l - Faint colors in sample boule	2 - Clearly visible in sample bottle	3 – Clearly visible in outfall flow
er, etc.)				☐ 1 — Slight cloudiness	□2-Cloudy	3 - Opaque
L-Flowing Outfalls	Floatables -Does Not Include Trashii			☐ 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)
indicators) DESCRIPTION Peeling Paint Peeling Paint Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Other: Indicators) Suspect (one or more indicators with a severity of 3) One of Pool Other: Other	Section 5: Physical Indi Are physical indicators th	cators for Both F	L-Flowing Outfalls ☐ Yes MNo (ction 6)		
Deposits/Stains	Outfall Damage		Spalling, Cracking or Chipping	nt		
Abnormal Vegetation	Deposits/Stains		☐ Flow Line ☐ Paint			
Poor pool quality Pipe beathic growth Pipe bea	Abnormal Vegetation		ı			
Pipe benthic growth	Poorpool quality		☐ Colors ☐ Floatables ☐ Excessive Algae	iem		
ction 6: Overall Outfall Characterization Unlikely Potential (presence of two or more indicators) Suspect (one or more indicators with a severity of 3) client 7: Data Collection Sample for the lab? Yes No Pool If yes, collected from: Yes No Pool Caulk dam Caulk dam Yes Yes, type: OBM Caulk dam Caulk dam Caulk dam Yes No No No No No No No N	Pipe benthic growth		☐ Orange ☐ Green			
Unlikely	Section 6: Overall Out	fall Characteriza				
Sample for the lab? If yes, collected from: Intermittent flow trap set? Intermittent flow trap set? Intermittent flow trap set? Intermittent flow trap set? Intermittent flow trap set? Intermittent flow trap set? Intermittent flow trap set?	Unlikely 🔲 l	Potential (present	two or more indicators)	indicators with a severity		
Sample for the lab? If yes, collected from: Intermittent flow trap set? If Yes If Yes If Yes Intermittent flow trap set? If Yes Intermittent flow trap set? If Yes Intermittent flow trap set? If Yes Intermittent flow trap set?						
Sample for the lab? If yes, collected from: Intermittent flow trap set? If Yes I Yes I No If Yes, type: OBM	Section 7: Data Collect	ion				
If yes, collected from: If yes, collected from:						
Intermittent flow trap set?	- 1		Paol]		
	1 1	set?	□ No If Yes, type:			

Section 1: Backp	ground Data						
Subwatershed:)		Outfall ID:	H 1,1		
Today's date: 3	129/15	3/	31/15	Time (Military):			
Investigators:	6			Form completed by:	RAY A	LLEN	
Temperature (°F):	33° 42	Rainfal	il (iu.): Last 24 hours:	O Last 48 hours:	0		
Latitude:	l Lor	igitude:	•	GPS Unit:		GPS LMK #:	
Camera:				Photo#s:			
Land Use in Draina	ge Area (Check all that app	oly):					
☐ Industrial				Open Space			
Ultra-Urban Re	sidential			☐ Institutional			
Suburban Resid	cutial			Other:			
Commercial				Known Industries:			
Notes (c.g., origin o	of outfall, if known):						
Section 2: Outfa	***************************************					NG- CELON	SUBMERGED
LOCATION		***********		IAPE	DIMENSIO	***************************************	In Water:
	□ RCP □]CMP	☐ Circular	☐ Single	Diameter/Dimens	sious:	□No
	□PVC □	HDPE	☐ Eliptical	☐ Double			☐ Partially ☐ Fully
Closed Pipe	☐ Steel		□Вох	☐ Triple			With Sediment:
	Other:		☐ Other:	Other:			□No □Partially
							Fully
	☐ Concrete		[] (Francoscial		Depth:	21	
	Earthen		☐ Trapezoid		Top Width:	31,	
Open drainage	□ гір-гар		Parabolic		1	~~	
	Other:		Other:		Bottom Width: _		
☐ In-Stream	(applicable when	collecting	(esigmae				
Flow Present?	☐ Yes	No		kip to Section 5			
Flow Description		1-					
(If present)	☐ Trickle [_ Moderate	c Substantial				
Section 3. Oug	ntitative Characteri	ration					
Decision 5. Qua	untility Constitution		FIELD DATA FOR	FLOWING OUTFALLS			
P./	ARAMETER		RESULT		UNIT	ŧ	TRAMETUO
	Volume				Liter		Bottle
□Flow#1	Time to fill	1:			Sec		
	Flow depth				In		Sape measure
□Flow#2	Flow width		3 33		Ft, In		Tape measure
Imil: 10W HA	Measured length		3 31		Ft, In		Tape measure
	Time of travel				S		Stop watch
7	remperature				°F		Thermometer
	pН			1	pH Units]	eststrip/Probe
	Ammonia		•		mg/L		Test strip

section 4: Physical Indicators for Flowing Outfalls Only a Arm Physical Indicators Present in the flow?	icators for Flows	ing Ontfalls Only W Yes : No (If No, Skip to Section 5)			
INDIGATOR	CHECK!r Present	pascru	REL	RELATIVE SEVERITY INDEX (1-3)	1-3)
Oder	-		□ 1 - Faint	2 - Easily detected	3 – Noticeable from a distance
]		☐ 1 — Faint colors in sample boule	2 - Clearly visible in sample bottle	3 – Clearly visible in outfall flow
		Green Committee Committee	☐ 1 — Slight cloudiness	☐2-Cloudy	☐ 3 – Opaque
Turbidity		See severity	Lal · · ···	2 – Some; indications	☐ 3 - Some; origin clear
Floatables -Does Not Include Trash!!		☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	of origin (e.g., possible suds or oil sheen)	(e.g., obvious oil sheen, suds, or floating sanitary materials)
Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present?	dicators for Both	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Are physical indicators that are not related to flow present? Yes Physical indicators that are not related to flow present? Yes Physical indicators that are not related to flow present?	ection 6)		
2		Spalling, Cracking or Chipping	aint		
]	Toil. Triow Line Traint TOther:			
Deposits/Stains					
Abnormal Vegetation	內	A Excessive I Impored			
Poor pool quality		☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	lean		٠
Pipe benthic growth		☐ Brown ☐ Orange ☐ Green ☐ Other			
L Section 6: Overall Outfall Characterization	tfall Characteri			1	
Unlikely 🔲	Potential (prese	two or more indicators)	Suspect (one or more indicators with a severity of 3)	of 3) L Obvious	
Section 7: Data Collection	ction				
1 Sample for the lab?		□Yes □No			
- 1	m:	∏Flow ☐ Pool			
	m sel?	☐Yes ☐No If Yes, type: ☐	OBM Caulk dam		
3. Intermittent now hap son	ily acti				

ection 1: Backgro	ınd Data		Lo comment	1BC-	111 2	
Subwatershed:		1-1	Outfall ID:	E	41.0	
Foday's date: 多人	39/15 3	[31/15	Time (Military):	1 01 1	ALLEN	
investigators:	- 1/ 5		Form completed by:	KAY	ALLEST	<u> </u>
Temperature (°F):		infall (in.): Last 24 hours			GPS LMK #:	
Latitude:	Longitud		GPS Unit:		10,02	
Camera:			Photo#s:			
Land Use in Drainage	Area (Check all that apply):		PT 6 8			
☐ Industrial			Open Space			
☐ Ultra-Urban Reside	ntial		Institutional			
Suburban Resident	ial		Other:			
☐ Commercial			Known Industries:			
Notes (e.g., origin of o	utfall, if known):					
Section 2: Outfall	Description					
LOCATION	MATERIAL		SHAPE		ions (IN.)	SUBMERGED
	□RCP □CM	P Circular	☐ Single	Diameter/Dim	cosious:	In Water:
	□PVC □HD	PE Eliptical	☐ Double			☐ Partially ☐ Fully
Closed Pipe	☐ Steel	□Box	☐ Triple			With Sediment:
Closen rapo	Other:	Other:	Other:			☐ No ☐ Partially
						Fully
	Concrete		1-12'-1		c + c'	
		Trapezoid _	T AT	Depth:	10/08	
Open drainage	Earthen Earthen	☐ Parabolic	4 00 4	Top Width:	1-1-1	
	☐ rip-rap	Other:	700-4	Bottom Widt	h: 12 +8	
	Other:	Rock and f	abric 1			<u> </u>
☐ In-Stream	(applicable when colle	***************************************				
Flow Present?	☐ Yes	Ino ijna	o, Skip to Section 5			
Flow Description (If present)	☐ Trickle ☐ M	oderate Substantial				
Section 3: Quant	itative Characterizatio	on	OR FLOWING OUTFAL			
		RESULT		UNIT		EQUIPMENT
PAR	AMETER	KESULI		Liter		Bottle
□Flow#1	Volume			Sec		
	Time to fill			In		Tape measure
-	Flow depth Flow width	3 33		Ft, In		Tape measure
□Flow#2	Measured length	3 33		Ft, In		Tape measure
-	Time of travel			S		Stop watch
77.	mperature			۰F		Thermometer
16				pH Units		Test strip/Probe
	pH Ammonia			mg/L		Test strip
	•		Adiagn			D-3

Intermittent flow trap set?	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	Unlikely	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes ANO INDICATOR CHECKIFPresent	Floatables -Does Not Include ' Trashii	Turbidity	Color	Odor	INDIGATOR	Are Any Physical Indicators Present in the flow?
p set?	n:		rtion	Potential (preser	tfall Characteriz			K			licators for Both Flow that are not related to for the children of the childre			П		CHECKIF Present	rs Present in the flo
□Ycs	☐ Flow	□Ү⇔		Potential (presence of two or more indicators)	ation	☐ Brown	□ Oders	A Excessive	□oily	Spalling, (Corrosion	. Flowing and Non-F	Sewage (Toilet Paper, etc.) Petroleum (oil sheen)		☐ Clear ☐ Brown ☐ Green ☐ Orange	□ Sewage □ Rancid □ Sulfide □ Other:		wid Yes Wino
□ No	☐ Pool	□ No		-		□ Orange □	Colors Floatables	ve	☐ Flow Line ☐ Paint	Spalling, Cracking or Chipping Corrosion	lowing Outfalls	etc.) 🗌 Suds	See severity	☐ Gray	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	DESCRIPTION	to (Jf No, Skip to Section 5)
If Yes, type:	1			uspect (one or more i		☐ Green ☐ Other			t Other:	Peeling Paint	(If No. S			☐ Yellow ☐Other:			to Section 5)
				Suspect (one or more indicators with a severity of 3)			В				tion 6)	☐ 1 – Few/slight; origin not obvious	☐ 1 — Slight cloudiness	☐ 1 — Faint colors in sample bottle	□1-Faint		
Ħ				rity of 3) L Obvious	1						COMMENTS	of origin (e.g., possible suds or oil sheen)	2-Cloudy	2 - Clearly visible in sample bottle	2 – Easily detected	RELATIVE SEVERITY INDEX (1-3)	
											SIR	(e.g., obvious oil sheat, suds, or floating sanitary materials)	1 3 - Opaque	outfall flow	distance	C(1-3)	

Section 1: Backg	round Data					
Subwatershed:			Outfall ID:	YBC 4	0.7	
Today's date: 🕏	129/15	3/31/15	Time (Military):	by: <i>RAY</i> #		
Investigators:	.		Form completed	by: RAY F	LLEST	
Temperature (°F):	390 41	Rainfall (in.): Lest 24 hour	s: Last 48 hou			
Latitude:	Longit	ude:	GPS Unit:		GPS LMK #:	
Camera:			Photo#s:	······		
Land Use in Draina	ge Area (Check all that apply)	:				
☐ Industrial			Open Space			
Ultra-Urban Res	sidential		☐ Institutional			
Suburban Resid	cntial		Other:			
☐ Commercial			Known Industrie	s:		
Notes (e.g., origin o	of outfall, if known):					
	•					
Section 2: Outfa	***************************************				(5.00)	SUBMERGED
LOCATION			SHAPE	DIMENSIO		In Water:
	□ RCP □ C	MP Circular	☐ Single	Diameter/Dimens	ions:	□No
	□PVC □H	DPE Eliptical	☐ Double			☐ Partially ☐ Fully
Closed Pipe	☐ Steel	□Box	☐ Triple			With Sediment:
	Other:	Other:	Other:			□ No □ Partially
						Fully
	☐ Concrete			Double	¥'5',	
	☐ Earthon	☐ Trapezoid		Depth:	#12	
Open drainage	rip-rap	Parabolic		l l	& , 	
	Other: Fresh	TIC Other:		Bottom Width:	Q.	
☐ In-Stream	(applicable when co	Herting tomplest				<u> </u>
Flow Present?	Yes	***************************************	, Skip to Section 5			
Flow Description	16		,			
(If present)	Trickle 🔲	Moderate Substantial				
Santian 2. Once	-titative Characterizat	ion				
Section 5: Quan	ntitative Characterizat		R FLOWING OUTE	MAS		
D7	ARAMETER	RESULT		TINU	E	DUPMENT
	Volume			Liter		Bottle
□Flow#1	Time to fill			Sec		
	Flow depth			In	7	ape measure
	Flow width	3 37		Ft, In	2	ape measure
□Flow #2	Measured length	3 33		Ft, In	7	ape measure
	Time of travel			S		Stop watch
	Pemperature			°F	•	Thermometer
	рН			pH Units	Т	estistrip/Probe
	Ammonia			mg/L		Test strip

 Intermittent flow trap set? 	If yes, collected from:	 Sample for the lab? 	Section 7: Data Collection	Unlikely	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poorpool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes No INDICATOR CHECKIFFRESENT	Fioatables -Does Not Include Trashil	Turbidity	Color	Odor	INDICATOR	Section 4: Physical Indicators Fresent in the flow? Tes . No
ıp sel?	n:		ction	Potential (prese	tfall Characteri						dicators for Both Flow that are not related to f	П			П	CHECK If Brasent	as Present in the flo
□ Yes	☐ Flow	□Yes		Potential (presence of two or more indicators)	zation	☐ Brown	□ Odors	☐ Excessive	□ oily □	Spalling, (Corrosion	1 Flowing and Non-Flo	☐ Sewage (Toilet Paper, etc.) ☐ Petroleum (oil sheen)		☐ Clear ☐ Brown ☐ Green ☐ Orange	☐ Sewage ☐ Rancid/s ☐ Sulfide ☐ Other:		WI Wes . MNo
□ No If Yes, type:	☐ Pool	No				□ Orange □ Green □		☐ Inhibited	☐ Flow Line ☐ Paint ☐ Other:	Cracking or Chipping	. DESCRU	.) □ Suds □ Other:	See severity	☐ Gray ☐ Yellow ☐ Red ☐ ☐ Cher:	leum/gas	DESCRIPTION	(If No, Skip to Section 5)
: LOBM LI Cauk cam				Suspect (one or more indicators with a severity of 3)		Other	Oil Sheen			reoling rails	IFNo, Skip to Section 6) PRICIN	☐ 1 – Few/slight; origin not obvious	1 - Slight cloudiness	l – Faint colors in sample boule	□1-Faint	KE	
				yors) Li Covious]						COMMENTS	of origin (e.g., possible suds or oil sheen)	1 2 - Cloudy	sample bottle	□ 2 - Easily detected	RELATIVE SEVERITY INDEX (1-3)	
											v	(e.g., obvious oil sheen, suds, or floating sanitary materials)	73 - Some: origin clear	outfall flow	distance	(1-a)	

Section 1: Backg	round Data				_
Subwatershed:			Outfall ID:	YEC 3	9,0
Today's date:	129/15	3/3/15	Time (Milita		
Investigators:	49		Form compl	eted by: RAY	gli Est
Temperature (°F):	390 42	Rainfall (in.): Last 24 ho	urs: Last 48	hours:	
Latitude:	Long	itude:	GPS Unit:		GPS LMK #:
Camera:			Photo#s:		
Land Use in Draina	ge Area (Check all that apply	<i>'</i>):			
☐ Industrial			Open Sp	acc	
☐ Ultra-Urban Res	sidential		Institution	onal	
Suburban Resid	cutial		Other:		
☐ Commercial			Known Indi	ıstrics:	
Notes (e.g., origin o	ofoutfall, if known):				
Section 2: Outfa	ll Description				NS/EN: SUBMERGED
LOCATION	MATERIAL		SHAPE	DIMENSIC	
	□ RCP □	CMP Circular	☐ Single	Diameter/Dimen	□No
	□PVC □	HDPE Eliptical	☐ Double		Partially Fully
Closed Pipe	☐ Steel	Вох	☐ Triple		With Sediment:
-	Other:	Other:	Other:	_	□ No □ Partially □ Fully
					VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	Concrete	Trapezoid	17	Depth:	5 / /> \////////////////////////////////
Open drainage	Earthen	Parabolic	()	Top Width:	_ % ,\/////////
par Open uraningo	rip-rap	Other:	6	Bottom Width:	\$ 4 \/////////
	Other:				-
☐ In-Stream	(applicable when c	ollecting samples)			
Flow Present?	₹ Yes	□No If	Vo, Skip to Section 5		
Flow Description (If present)	☐ Trickle	Moderate Substantial	l		
Section 3: Oua	ntitative Characteriza	ation			
			FOR FLOWING O	ITFALLS	
P.J	ARAMETER	RESUL	T	UNIT	EQUIPMENT
□Flow#1	Volume			Liter	Bottle
LIL TON TI	Time to fill			Sec	
	Flow depth			<u>I</u> n	Tape measure
□Flow#2	Flow width)))		Ft, In	Tape measure
Buenda war of 11 day	Measured length	3 33		Ft, In	Tape measure
	Time of travel			8	Stop watch
	Гетрегание			°F	Thermometer
	pН			pH Units	Test strip/Probe
				mg/L	Test strip

sical Indica al Indicators P.	Present in the flow? Y		(If No, Skip to Section 5) DESCRIPTION our		RELEASELY E-SEVERLETY INDEX (13) 2 - Easily detected 2 - Clearly visible in sample bottle 2 - Cloudy
Turbidity			See severity	☐ 1 — Slight cloudiness	2 - Cloudy
Floatables -Does Not Include Trashl!		☐ Sawago (Tollet Paper, etc.) ☐ ☐ Petroleum (oil sheen) ☐	Suds	☐ 1 – Few/slight; origin not obvious	2 - Some; indications of origin (e.g., possible suds or oil sheen)
Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present? Yes No	tors for Both Flowi are not related to fic CHECKIP Present	ng and Non-Flowing (ow present? ☐ Yes	Outfalls VI No (IfNo, Skip to Section 6)	stion 6)	
Outfall Damage			- 85		COMMENTS
Deposits/Stains		Spalling, Cracking or Chipping Corrosion	DESCRIPTION ng or Chipping Peeling Paint	nt	сомме
Abnormal Vegetation				nt	RAWNOD
Poor pool quality		Spalling, Cracki Corresion Corresion Doily Delow L Dexcessive De		nt	СОММЕЛ
		Illing, Cra	Floatables	en nt	COMMEN
Pipe benthic growth		Illing, Cra	Floatables	en nt	COMMEN
Pipe benthic growth Section 6: Overall Outfall	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Illing, Cra	ng or Chipping	en en	
	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ssive [ng or Chip	ping Peeling Paint aint Other: Other: Other: Peeling Paint Peeling P	
Pipe benthic growth Section 6: Overall Outfall William Data Collection Section 7: Data Collection	Characterization ential (presence of t	Spalling, Cracki Corrosion Corrosion Corrosion Corrosion Corrosion Corrosion Corrosive	ng or Chip	nt dicators with a severity	
Pipe benthic growth Section 6: Overall Outfall Unlikely Pot Section 7: Data Collection 1. Sample for the lab?	Characterization ential (presence of t	Spalling, Cracki Spalling, Cracki Corrosion Corrosion Corrosion Corrosion Corrosion Dexcessive Descessive Descessive Descessive Descessive Descense Corrosion Corro	ng or Chip ine	en indicators with a severity	
Pipe benthic growth Section 6: Overall Outfall Will Unlikely Pote Pote Pote Section 7: Data Collection 1. Sample for the lab? 2. If yes, collected from:	Characterization ential (presence of t	Spalling, Cracki Corrosion Corrosion Corrosion Corrosion Corrosion Corrosion Corrosive In Inc. Codors Codor	ng or Chip ine	een en	

Section 1: Back	ground	l Data								
Subwatershed:						Outfall ID	· R.	HAI.1		
Today's date:	109	3/15		3/	31/15	Time (Mil				
Investigators:			-4	i		Form com	pleted by:	RAY	ALLEST	
Temperature (°F):	3	90 4	40 1	Rainfal	l (in.): Last 24 hours:	Last-	48 hours:			
Latitude:		i	Longitu	đe:	•	GPS Unit			GPS LMK#:	
Camera:						Photo#s:				
Land Use in Drains	age Area	(Check all t	hat apply):				٠.			
☐ Industrial						Open	Space			
Ultra-Urban Re	sidential	Ī				☐ Institu	tional			:
Suburban Resid	loutial					Other:				
☐ Commercial						Known In	ıdustrics:			
Notes (c.g., origin	of outfal	l, if known):								
Seetion 24 Outfi	- U Dec	ovintion								
Section 2: Outford LOCATION	000000000000000 D	************	ERIAL		SHI	APE		DIMENSI	NS (IN.)	SUBMERGED
		RCP	□ CM	IP	Circular	☐ Single		Diameter/Dimer		In Water:
	1	□PVC	Zihi	1		☐ Double		24	<i>''</i>	≥ No □ Partially
Closed Pipe	- 1	Steel	76		Вох	☐ Triple		•		Fully
Closen Pipe										With Sediment:
		Other:_		?o.e	Other: Wall	Other:_				Partially Fully
				vice	00901					
		Concrete	•	1	☐ Trapezoid			Depth:		
Open drainage		☐ Earthen			Parabolic			Top Width:		
		☐ rip-rap			Other:			Bottom Width:		
		Other:_								
☐ In-Stream		{applicable	when coll	ecling	samplės)					
Flow Present?		XXX CS		□No	If No, Ski	ip to Section	5			
Flow Description (If present)	Í	Trickle	ΠМ	oderate	Substantial					
Section 3: Qua	ntitati	ve Charac	eterizatio	on						
					FIELD DATA FOR F	LOWING	HUTFALLS			
P)	ARAME	TER			RESULT			INIT	E	DUIPMENT
□Flow#1		Volume					1	Liter		Bottle
		Time to fill	ı					Sec		
		Flow depth						In		ape measure
□Flow#2		Flow width	1		37			Ft, In		ape measure
	y	Acasured len	gth)))]	Ft, In	7	Pape measure
		Time of trav	cl					S		Stop watch
1	Fempera	ture						°F		Thermometer
	pН						pl	H Units	T	est strip/Probe
	Ammo	nia.						mg/L		Test strip

RELATIVE SEVERITY INDEX (12-3)	2 – Easily detected distance	2 – Clearly visible in sample bottle	☐ 2 - Cloudy	ght; origin of origin (e.g., c.g., origin creat possible suds or oil sheen)	COMMENTS						h a severity of 3)				Canik dam	Cauth Carry	
alls Only (I/No, Skip to Section 5) DESCRIPTION	;		See severity 🔲 1 – Slight cloudiness	Sewage (Toilet Paper, etc.) Suds Intercept origin Intercept of Sheers Intercept Intercept origin Intercept origin Intercept In	g and Non-Flowing Outfalls present? Yes AANo (IfNo, Skip to Section 6) DESCRIPTION	Spalling, Cracking or Chipping Decling Paint Corrosion	Oily OffwLine OFain Other:	☐ Excessive ☐ Inhibited	Odors Colors Ploatables Oil Shem Excessive Algae	☐Brown ☐ Orange ☐ Green ☐ Other:				□ Yes □ No	v DPool	☐ Yes ☐ No If Yes, type: ☐ U.D.M. ☐ Y	Commune (e.g. trash or needed infrastructure repairs)?
Section 4: Physical Indicators for Flowing Outfalls Ork. Are Any Physical Indicators Present in the flow? CHECKIF INDICATOR	□ Sewage	Olear Olear			Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls Are physical indicators that are not related to flow present?		Cesino		l quality	Pipe benthic growth	erall	ly Potential (presence of two or more indicators)	Section 7: Data Collection	Sample for the lab?	If yes, collected from:	Intermittent flow trap set?	
Section 4: Physical Are Any Physical INDICATOR	Odor	Color	Turbidity	Floatables Does Not include Trashii	Section 5: Physica Are physical indica	Outfall Damage	Total Olaffer	Abromel Vecatation	Poor pool quality	Pipe bent	Section 6: (Unlikely	Section 7:]	1. Sample		1	1

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or neeged intrastructure repairs).

Section 1: Back	ground Data					
Subwatershed:		, ,	Outfall ID:	<u> </u>	38,0	
Today's date:	129/15	3/3//15	Time (Military):			
Investigators:	-	21-1	Form completed by	. RAY	ALLEST	
Temperature (°F):	390 42	Rainfall (in.): Last 24 hours:	Last 48 hours			
Latitude:	Longit	nge:	GPS Unit:		GPS LMK#:	
Camera:			Photo#s:			
Land Use in Drains	age Area (Check all that apply)	:				
☐ Industrial			Open Space			
Ultra-Urban Re	sidential		☐ Institutional			
Suburban Resid	lential		Other:			
☐ Commercial			Known Industries:			
	of outfall, if known):					
riotos (esg., esig.a.	or output, ir moving.					
Section 2: Outf	all Description					
LOCATION	MATERIAL	SI	IAPE	DIMENS	IONS (IN.)	SUBMERGED
	□RCP □C	MP Circular	Single	Diameter/Dim	ensions:	In Water:
	□PVC □H	DPE Eliptical	☐ Double			Partially Fully
Closed Pipe	☐ Steel	☐ Box	☐ Triple			
	Other:	Other:	Other:			With Sediment:
						Partially Fully
	☐ Concrete				11.	
	Earthen	Trapezoid		Depth:	6	
Open drainage		☐ Parabolic		Top Width:_		
/~	☐ rip-rap	Other:		Bottom Widt	h:12'	
	Other:					<u> </u>
☐ In-Stream	sapplicable when co					
Flow Present?	Ŋ Yes	□ No If No, S	kip to Section 5			
Flow Description (If present)	Trickle 1	Moderate Substantial				
Section 3: Oua	ntitative Characterizat	ion				
			FLOWING OUTFAL	LS		
P.	ARAMETER	RESULT		UNIT	Ē	OUEPMENT
	Volume			Liter		Bottle
□Flow#1	Time to fill			Sec		
	Flow depth			In		Tape measure
I I I I I I I I I I I I I I I I I I I	Flow width	7 33		Ft, In		Pape measure
□Flow#2	Measured length	3 33		Ft, In		Pape measure
	Time of travel			S		Stop watch
-	Cemperature			°F		Thermometer
	pH			pH Units	1	eststrip/Probe
	Ammonia			mg/L		Test strip

Section 4: Physical Indicators for Flowing Outfalls Only Are Any Physical Indicators Present in the flow? CHECKIF INDICATOR Present	ndicators for Flor ton Present in the fl CHECKIF Present	wing Outfall low? □ Yes	્રેટ્રી	(IFNo, SI	(J/No, Skip to Section 5) PPTON	1174	RELATIVE SEVERITY INDEX (1-4)	1.3)	
Odor		Sewage Sulfide	Rancid/sov	☐ Rancid/sour ☐ Petroleum/gas ☐ Other:	/gas	🔲 1 – Faint	2 – Easily detected	🔲 3 – Noticeable from a distance	
Color	П	Clear Cfreen	☐ Brown ☐ Orange	☐ Gray	☐ 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 Trashil		Sewage (Toilet Paper,	Sewage (Tollet Paper, etc.)	Suds		1 – Few/slight; origin not obvious	2 – Some; indications of origin (e.g., possible suds or oil sheen)	3 - Some; origin elear (e.g., obvious oil sheen, suds, or floating sanitary meterials)	
Section 5: Physical Indicators for Both Flowing and Non. Are physical indicators that are not related to flow present?	ndicators for Bot	th Flowing a	nd Non-Flor resent?	Floying Outfalls	s (HNo, Skip to Section 6)	ction 6)	GOMMENTS		
INDICATOR Outfall Damage			Spalling, (Spalling, Cracking or Chipping Corresion	ping 🔲 Peeling Paint	nt			
T. Carlotte C.			10	☐ Flow Line ☐ F	☐ Paint ☐ Other:				
Abnormal Vegetation			☐ Excessive	Inhibited		1	ree stump or	tout fall	
Poorpool quality			spns 🗀	Colors Colsac Excessive Algae	☐ Floatables ☐ Oil Sheen Algae ☐ Other:	8			
Pipe benthic growth			□ Brown	Orange	☐ Green ☐ Other:				
erall	Juffall Character	ization	indian and indica	indicators		Suspect (one or more indicators with a severity of 3)	of3)		
Unlikely	Fotential (presence of two of mode	sence or two	or more man						-
Section 7: Data Collection	lection								Г
1. Sample for the lab?	57		J⊻es	%					Т
1	rom:	L	☐ Flow	D Pool	- 1	ľ			
	trap set?		□Yes	% □	If Yes, type:	OBM Cauk dam			7
5	-Illicit Discharge	Concerns (e.g., trash or	needed infra	structure repairs)?				

Illicit Discharge Detection and Elimination: Technical Appendices

Section 1: Backg	round Data				2	
Subwatershed:		1)	Outfall ID:	YBC	37,0	
Today's date:	129/15	3/31/15	Time (Military):			
Investigators:	72	· · ·	Form completed	by: RAY.	gli Est	
Temperature (°F):	390 44 1	Rainfall (in.): Last 24 hours:	Last 48 hou	rs:		
Latitude:	Longitu	de:	GPS Unit:		GPS LMK #:	
Camera:			Photo#s:			
Land Use in Draina	ge Area (Check all that apply):					
☐ Industrial			Open Space			
☐ Ultra-Urban Res	sidential		☐ Institutional			
Suburban Resid	ential		Other:			
☐ Commercial			Known Industric	:s:		
Notes (c.g., origin o	Foutfall, if known):					
	. ,					
Section 2: Outfa	ll Description					
LOCATION	MATERIAL	SH	APE	DIMENSIO		SUBMERGED
	□RCP □CI	MP Circular	☐ Single	Diameter/Dimer	sions:	la Water: □No
	□PVC □H	DPE Eliptical	☐ Double			Partially Fully
Closed Pipe	☐ Stccl	Вох	☐ Triple			With Sediment:
_	Other:	Other:	Other:			□No
						☐ Partially ☐ Fully
	☐ Concrete	_			11.1	
	Earthon	Trapezoid		Depth:	7 21	
Open drainage	1	☐ Parabolic		Top Width:		
	☐ rip-rap	Other:		Bottom Width:	—11´	
	Other:					<i>Milliania</i>
☐ In-Stream	tapplicable when col	***************************************				
Flow Present?	Yes	□ No If No, Si	kip to Section 5			
Flow Description (If present)	Trickle 🗆 🗅 N	Ioderate Substantial				
Section 3. Oug	atitative Characterizati	ion				
DECEMBER OF QUAI	amento Characterman	FIELD DATA FOR	FLOWING OUTF	ALLS		
Dž	ARAMETER	RESULT		UNIT	E	OULPMENT
	Volume			Liter		Bottle
□Flow#1	Time to fill			Sec		
	Flow depth			In	1	l'age measure
	Flow width	7 75		Ft, Iu		Tape measure
□Flow#2	Measured length	3 33		Ft, In		Tape measure
	Time of travel			S		Stop watch
,	Comporature			۰F		Thermometer
	pH			pH Units	1	Teststrip/Probe
	Ammonia			mg/L		Test strip

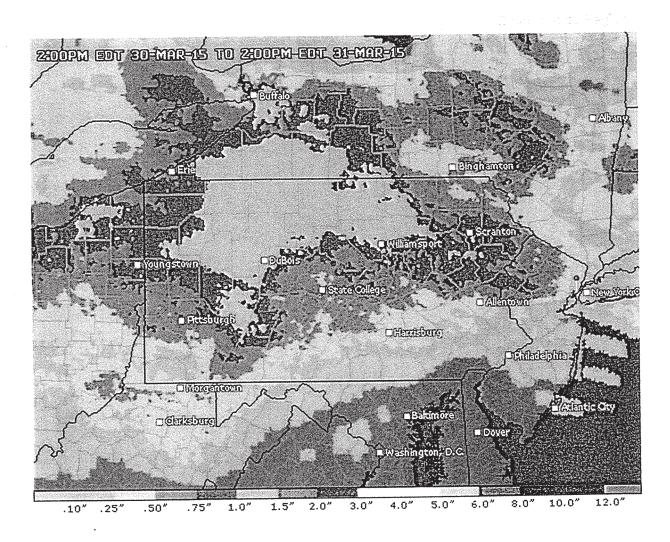
2. If yes, collected non: 3. Intermittent flow trap set?		Section 7: Data Collection	Nunlikely 🗆	Section 6: Overall Outfall Characterization	Pipe benthic growth	Poor pool quality	Abnormal Vegetation	Deposits/Stains	Outfall Damage	Section 5: Physical Indicators for Both Flowing and Nor Are physical indicators that are not related to flow present? INDICATOR CHECK/Fresent	Floatables -Does Not include Trashii	Turbidity	Color	Odor	INDICATOR CHECKIT
n: p set?		ction	Potential (presence	tfall Characterizatio						licators for Both Flow that are not related to f CHECK IF Present			☐ Clear		CHECK IF Present
	☐ Yes ☐ Pool		two or more indicators)		□ Brown □ Orange □	Odors Colors II I	☐ Excessive ☐ Inhibited	Oily Flow Line Paint	Spalling, Cracking or Chipping Corrosion	L-Flowing-Outfall	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	See severity	☐ Brown ☐ Gray ☐ Orange ☐ Red	leum/gas	DESCRIPTION
If Yes, type: OBM Caulk			Suspect (one or more indicators with a severity of 3)		☐ Green ☐ Other:	Floatables Oil Sheen Other:		□ Other:	L reeing raint	130 55 331 r.,	☐ 1 – Few/slight; oris	1 - Slight cloudiness	☐ Yellow ☐ 1 - Faint colors in sample boule	□ 1 – Faint	
dam			verity of 3) L Obvious]						COMMENTS	igin of origin (e.g., possible suds or oil sheen)			2 - Easily detected	RELATIVE SEVERITY INDEX (4-3)
										TIS	(e.g., obvious oil sheen, suds, or floating sanitary materials)	3 - Some: origin clear	outfall flow	distance	(1-3)

ction 1: Backgro	una naix	. ,	Outfall ID:	BC 36.	0
	100/15	13415	Time (Military):		
'oday's date:	3/22/13	10/10	Form completed by:	RAY AL	LEN
nvestigators:	260 446 Ra	nfall (in.): Last 24 hours:	7) Last 48 hours:		
	Longitude		GPS Unit:	GPS	SLMK#:
etitude:	2005		Photo#s:		
Camera:	Area (Check all that apply):				
	time (one or one - II a)		□ Ореп Ѕрасс	-35	7,4
Industrial			Institutional	182	<i>f</i> '
Ultra-Urban Resid			Other:		C Debris, stump
Suburban Residen	tial				stump
Commercial			Known Industries:		
Notes (e.g., origin of	outfall, if known):				
ection 2: Outfal		q	HAPE	DIMENSIONS	(IN.) SUBMERGED
LOCATION	MATERIAL		☐ Single	Diameter/Dimension	In Water:
	□ RCP □ CM		☐ Double		Partially
	□PVC □HD				Fully
Closed Pipe	☐ Steel	□Box	☐ Triple		With Sediment:
	Other:	Other:	Other:		Partially Fully
•					VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	☐ Concrete	Trapezoid		Depth: 24 Top Width: 35	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	Earthon			Top Width: 35	;
Open drainage	☐ rip-rap	Parabolic		Bottom Width:	8
	Other:	Other:		Dollow	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	(applicable when calls	otino somples)			
☐ In-Stream	***************************************		Skip to Section 5		
Flow Present?					
Flow Description (If present)	Trickle DM	oderate Substantial			
Section 3: Quar	ititative Characterizatio	ON CTERNATA ED	R FLOWING OUTFA	115	
		RESULT		UNIT	EQUIPMENT
P.A	RAMETER			Liter	Bottle
□Flow#1	Volume			Sec	
	Time to fill			In	Tape measure
	Flow depth	3 33		Ft, In	Tape measure
□Flow #2	Flow width	3 33		Ft, In	Tape measure
	Measured length		·	S	Stop watch
	Time of travel			°F	Thermometer
	Pemperature			pH Units	Test strip/Probe
	pH			mg/L	Test strip
1	Ammonia			***6~	

Outfall Reconnaissance Inventory Field Sheet

IIIIcit Discharge Defection and Elimination: Technical Appendices

2 nd Inspection



Township of Lower Allen, PA Wednesday, June 17, 2015

Chapter 184. Stormwater Management

[HISTORY: Adopted by the Board of Commissioners of the Township of Lower Allen 2-14-2011 by Ord. No. 2011-01.^[1] Amendments noted where applicable.]

GENERAL REFERENCES

Building construction and safety standards — See Ch. 70. Filling and excavating — See Ch. 98. Floodplain management — See Ch. 110. Subdivision and land development — See Ch. 192. Zoning — See Ch. 220.

184a References 원 184b Appendix A 원 184c Map 원

[1] Editor's Note: This ordinance also repealed former Ch. 184, Stormwater Management, adopted 3-8-2004 by Ord. No. 2004-03.

Article I. General Provisions

§ 184-1. Short title.

This chapter shall be known and may be cited as the "Lower Allen Township Act 167 Stormwater Management Ordinance."

§ 184-2. Statement of findings.

The governing body of the municipality finds that:

- A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines floodplain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety and increases nonpoint source pollution of water resources.
- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety and welfare and the protection of people of the commonwealth, their resources and the environment.
- Stormwater is an important water resource, which provides groundwater recharge for water supplies and base flow of streams, which also protects and maintains surface water quality.
- D. Federal and state regulations require certain municipalities to implement a program of stormwater

This report is official notification that a representative of the Department of Environmental Protection has conducted an inspection of your earth disturbance activity to determine compliance with Title 25, Chapter 92a, National Pollutant Discharge Elimination System, Title 25, Chapter 102, Erosion and Sediment Control, and the Pennsylvania Clean Streams Law. This representative may be an employee of the local County Conservation District, which by delegation agreement with the Department of Environmental Protection, is authorized to investigate complaints, inspect earth disturbance activities and conduct compliance actions. Any violations observed by the Department/Conservation District have been noted on this report form and constitute unlawful conduct as defined in Section 611 of the Clean Streams Law.

There will be no written confirmation of those violations from the Department. Failure to take corrective actions to resolve the violations may result in administrative, civil and/or criminal penalties being instituted by the Department of Environmental Protection as defined in Section 602 of the Clean Streams Law of Pennsylvania. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

This report does not constitute an Order or appealable action of the Department. Nothing contained herein shall be deemed to grant or imply immunity from legal action for any violation noted herein.

For further information or assistance please contact:

Vincent McCollum Cumberland County Conservation District 310 Allen Road, Suite 301 Carlisle, PA 17013 717-240-7812



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERWAYS ENGINEERING AND WETLANDS

Permit No. <u>PAG-02-0021-13-016</u> Report No. <u>14-02</u>

EARTH DISTURBANCE INSPECTION REPORT

Project Name Rossmoyne Business Center Hotel	Inspection Date 7/24/2014 Inspection Time 930ar	<u>n</u>	
Weather Conditions 70's sunny	Total Project Area 5.07		
Location Rossmoyne Business Center	Total Disturbed Area 4.41		
Municipality Lower Allen Twp	County Cumberland		
Receiving Water(s) UNT to Cedar Run	Designated/Existing Use CWF		
	Brad Shullenberger		
(name & address) High Hotels, LTD	HL Wiker, Inc		
1853 Penn Way	709 Hartman Station Rd		
Phone () Lancaster, PA 17601	() <u>Lancaster, PA 17605</u>		
Site Representative (name) Garland Treese	Inspector (name) Vince McCollum		
(title) Site Superintendent	(title) <u>District Technician</u>		
Town of the control o			
Type of Inspection (check only one)	Photographs Taken Yes ⊠ No □		
,	w-up ⊠ Complaint ☐ Final ☐		
Site Description & Observations Most of the site,	excluding the parking lot area, is seeded and mulched. Ba	iffle is	
	nded is seeded and mulched and the ECB is installed. Disc		
with Site Rep about getting ECB installed in curb cut ar	reas before paving is installed, so grass has time to grow and	d area	
is stable to handle runoff from impervious area.			
		·	
⊠ Contin	nued on page 3 of <u>4</u>		
Permit and Plan Requirements	Type of Activity (check as many as appropriate)	h-Warris	
Y N	☐ Other		
☑ ☐ Written Erosion & Sediment Plan required	☐ Pub. Road Constr./Maint. (PRC) ☐ Pvt. Road/Residence (P	RRS)	
Written Post Construction Stormwater Management Plan required	Res. Subdivision (RSBD) 🛛 Comm./Indust. Dev. (CN	/IN)	
☐ ☑ Erosion & Sediment Plan requested	☐ Govmt. Facilities (GOV) ☐ Recreation Facilities (RI	ECF)	
Post Construction Stormwater Management Plan requested	☐ Utilities Facilities (UTL) ☐ Agricul. Activities (AGA)	ı	
☐ ☑ E & S Permit required	☐ Sewer/Water Systems (SWS) ☐ Pipeline (PL)		
	☐ Remediation/Restoration (RRES) ☐ Silviculture (SILV)		
☐ Phased Constr. ☑ Non-Phased Constr.			
Permit #: PAG-02-0021-13-016 Exp. Date: 9/30/2018			
Page 1 of <u>4</u>			
☐ White - Inspector ☐ Yellow - Responsible	Party Pink - Department Goldenrod - 0	Other	



☐ White - Inspector

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERWAYS ENGINEERING AND WETLANDS

Permit No.	PAG-02-0021-13-016
Report No.	14-02

☐ Goldenrod - Other

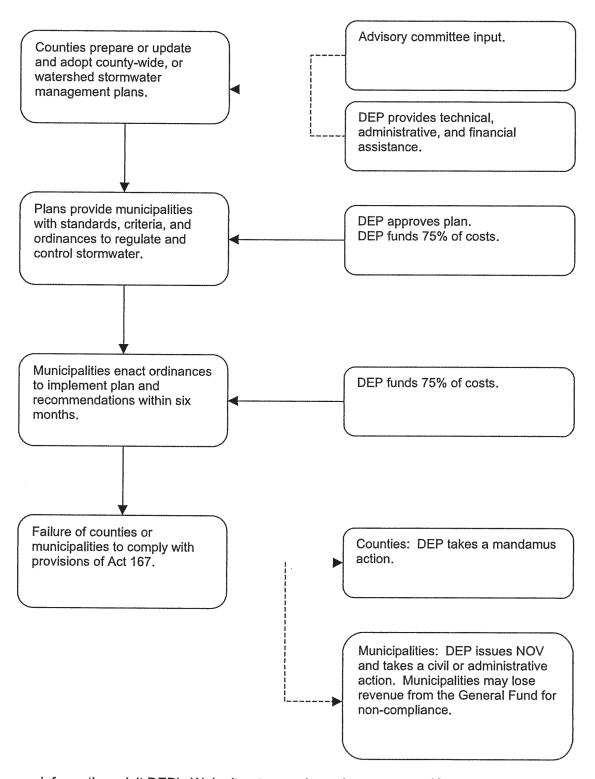
☐ Pink - Department

EARTH DISTURBANCE INSPECTION REPORT

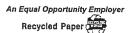
Proje	ct N	lame Rossmoyne Business Center Hotel Inspection Date 7/24/2014 Inspection T	ime <u>930am</u>
nspe	ctic	on Findings	Reference
1.		violations observed at this time.	
2.		lure to (check all that apply).	
	a.	10 H 10 H 1 (F10) Ph.	(102.4)
	b.	have E&S Plan available onsite.	☐ (102.4)
	c.	submit an E&S Plan as requested.	(102.4)
	d.	implement effective E&S Best Management Practices (BMPs).	(102.4)
	e.	maintain effective E&S BMPs.	(102.4)
	f.	use Antidegradation Best Available Combination of Technologies (ABACT) BMPs for discharges to High Quality or Exceptional Value Waters.	☐ (102.4)
	g.	obtain an NPDES Permit for Stormwater Discharges Associated with Construction Activities.	(102.5)
	h.	obtain an E&S Permit.	(102.5)
	i.	prepare and implement a PPC Plan.	(102.5)
	j.	submit Notice of Termination.	(102.7)
	k.	develop written Post Construction Stormwater Management (PCSM) Plan.	(102.8)
	١.	have PCSM Plan available onsite.	(102.8)
	m.	submit PCSM Plan as requested.	☐ (102.8)
	n.	implement effective PCSM BMPs.	☐ (102.8)
	ο.	maintain effective PCSM BMPs.	(102.8)
	p.	perform reporting and recordkeeping as required.	(102.8)
	q.	implement riparian buffer or riparian forest buffer.	(102.14)
	r.	meet regulatory requirements for riparian forest buffer.	(102.14)
	s.	provide temporary stabilization of the earth disturbance site.	(102.22)
	t.	provide permanent stabilization of the earth disturbance site.	(102.22)
	u.	comply with permit conditions.	(402 CSL)
3.	Se	diment or other pollutant was discharged into waters of the Commonwealth.	(401 CSL)
4.	Site	e conditions present a potential for pollution to waters of the Commonwealth.	(402 CSL)
5.	Oth	ner (describe).	
6.	Oth	ner (describe).	
7.	Oth	ner (describe).	П
8.	Oth	ner (describe).	
9.	Oth	ner (describe).	Code Chanters
	Ins	spection of this project has revealed site conditions which constitute violations of 25 Pa. a and/or 102 and the Clean Streams Law, the act of June 22, 1937, P.L. 1987, 35 P.S. §691.	1 et seg.
	020	Additional information regarding these violations can be found on the back of this pa	
		Additional implination regarding these from the course of the second sec	0
		Page 2 of <u>4</u>	

☐ Yellow - Responsible Party

ACT 167 STORMWATER MANAGEMENT PLANNING PROCESS



For more information, visit DEP's Web site at www.depweb.state.pa.us, Keyword: "Stormwater."





COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERWAYS ENGINEERING AND WETLANDS

Permit No. <u>PAG-02-0021-13-016</u> Report No. <u>14-02</u>

EARTH DISTURBANCE INSPECTION REPORT

Project Name Rossmoyne Business Center	Hotel Ins	pection Date <u>7/24/2014</u>	Inspection Time 930am
Continuation Sheet			
Site Description & Observations			
			. 7. 14. 14. 14. 14. 14. 14. 14. 14. 14. 14
	1000		
	MANAGE OF THE PROPERTY OF THE		Markettan alleman and the control of
	· · · · · · · · · · · · · · · · · · ·		
Compliance Assistance Measures Contin	nue to maintain F	&S hmn's as nor nian	
Compilative Assistance measures Contin	Tue to maintain L	ao bilips as per piari.	
			
	and the second s		
Follow-up Inspection will occur on or abo	out (date)		
		1/-1 10	2ll- 7/25/2014
(Signature of Site Representative)	(Date)	(Inspector's Signature)	7/25/2014 (Date)
	(,	(· · · · · · · · · · · · · · · · · · ·	(==/
The Site Representatives' signature acknowledges to discuss it with the inspector. The signature does	that they have read to not necessarily me	he report and received a copy an an the signee agrees with the rep	d that they were given an opportunity oort.
	Page 3	of <u>4</u>	
☐ White - Inspector ☐ Yellow - Re	esponsible Party	☐ Pink - Departme	nt Goldenrod - Other

This report is official notification that a representative of the Department of Environmental Protection has conducted an inspection of your earth disturbance activity to determine compliance with Title 25, Chapter 92a, National Pollutant Discharge Elimination System, Title 25, Chapter 102, Erosion and Sediment Control, and the Pennsylvania Clean Streams Law. This representative may be an employee of the local County Conservation District, which by delegation agreement with the Department of Environmental Protection, is authorized to investigate complaints, inspect earth disturbance activities and conduct compliance actions. Any violations observed by the Department/Conservation District have been noted on this report form and constitute unlawful conduct as defined in Section 611 of the Clean Streams Law.

There will be no written confirmation of those violations from the Department. Failure to take corrective actions to resolve the violations may result in administrative, civil and/or criminal penalties being instituted by the Department of Environmental Protection as defined in Section 602 of the Clean Streams Law of Pennsylvania. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

This report does not constitute an Order or appealable action of the Department. Nothing contained herein shall be deemed to grant or imply immunity from legal action for any violation noted herein.

For further information or assistance please contact:

Vincent McCollum Cumberland County Conservation District 310 Allen Road, Suite 301 Carlisle, PA 17013 717-240-7812

LOWER ALLEN TOWNSHIP 2233 GETTYSBURG ROAD CAMP HILL, PA. 17011 (717) 975-7575 FAX (717) 737-4182

NOTICE OF VIOLATION OF THE CODE OF LOWER ALLEN TOWNSHIP CHAPTER 184 KNOWN AS "STORMWATER MANAGEMENT" AND CEASE AND DESIST ORDER NO.2014-12

Charter Homes	Paul Commero
(Name of Record Owner)	(Name of Occupant or other Person
•	Against whom action may be taken)
1190 Dillerville Road	
Lancaster, PA 17601	
(Address of Record Owner)	(Address of occupant or other Person
	Against whom action may be taken)
Re: 1445 Arcona Road, Mechanicsburg, PA	13-10-0256-011
(Location of Property upon which violation exists)	(Tax Map/Parcel)
• •	
the violations are listed on the second page of this Notice. must correct the following-listed violations no later than such condition as to create a hazard or menace to the public	the Ordinance which you have violated and an explanation of You must comply with this Notice of Violation promptly and May 23, 2014. In no case shall you abandon the premises in ic safety, health, morals or welfare.
Violation has been filed with the Township Commissioner Township Chapter No. <u>184</u> . Violation of Chapter No. <u>1</u> proceedings before a District Justice where the District Justice Where the District Justice Dollars, plus all costs of prosecution, including the action. Each day that a violation continues shall constitute	84 may result in the institution of civil enforcement
Date: May 13, 2014	Township Engineer

Section 184-11(A) 1-2 184-12(B)-184-30(E) <u>Description of violation and requirements which have not been met:</u>

Earth disturbance without any E&S controls, stone pad/impervious coverage constructed. Stormwater management controls not in place

Permit not obtained prior to construction activity.

A Whenever the vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules and Regulations, Part I, Commonwealth of Pennsylvania, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, "Erosion Control," and in accordance with the Cumberland County Conservation District and the standards and specifications of the municipality.

This listing of violations may not represent all violations presently occurring on this property. Other violations may appear upon application for required permits or upon further investigation, and the Township right to take any and all action authorized to enforce it's "Code" as to all violations.

This list represents only violations of the "Code", Chapter No. <u>184</u>. Violations of other Sections may have occurred and the Township reserves it's rights to enforce these and any other "Code" Sections.

Permits are required for Demolition, Construction, Reconstruction, Alterations and Major Repairs to all structures of all types.

Date: May 13, 2014

Daniel J. Flint, P.E.

Township Engineer

LOWER ALLEN TOWNSHIP 2233 GETTYSBURG ROAD CAMP HILL, PA. 17011 (717) 975-7575 FAX (717) 737-4182

NOTICE OF VIOLATION OF THE CODE OF LOWER ALLEN TOWNSHIP CHAPTER 184 KNOWN AS "STORMWATER MANAGEMENT" AND CEASE AND DESIST ORDER NO.2014-13

Vitran Pennsylvania	
(Name of Record Owner)	(Name of Occupant or other Person
4400 P.W. W. P. V.	Against whom action may be taken)
1190 Dillerville Road	
Lancaster, PA 17601	
(Address of Record Owner)	(Address of occupant or other Person
	Against whom action may be taken)
Re: 1200 St. John's Road	13-10-0256-011
(Location of Property upon which violation exist	s) (Tax Map/Parcel)
Chapter No. 184, as amended. The Section or Sections of the violations are listed on the second page of this Notice must correct the following-listed violations no later than such condition as to create a hazard or menace to the purple Please be advised that you have the right to appeal this it is Board of Appeals of Lower Allen Township within thirt is misapplied Chapter No. 184 of the "Code". Failure to commence action to correct the violation with Violation has been filed with the Township Commission Township Chapter No. 184. Violation of Chapter No. proceedings before a District Justice where the District Hundred Dollars, plus all costs of prosecution, including action. Each day that a violation continues shall constitution.	Notice of Violation and Cease and Desist Order in writing to the y (30) days if you believe that I have misinterpreted or in the time specified above, unless an appeal of this Notice of hers, constitutes a violation of the "Code" of Lower Allen
Date: May 13, 2014	Township Engineer

Section 184-11(A) 1-2 184-12(B)-184-30(E) <u>Description of violation and requirements which have not been met:</u>

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Permits are required for Demolition, Construction, Reconstruction, Alterations and Major Repairs to all structures of all types.

Date: May 13, 2014

Daniel J. Flint, P.E.

Township Engineer





LOWER ALLEN TOWNSHIP 2233 GETTYSBURG ROAD CAMP HILL, PA. 17011 (717) 975-7575 FAX (717) 737-4182

NOTICE OF VIOLATION OF THE CODE OF LOWER ALLEN TOWNSHIP CHAPTER 184 KNOWN AS "STORMWATER MANAGEMENT" AND CEASE AND DESIST ORDER NO.2014-13

Brooks Edge LP	Triple Crown-John Yarnell
(Name of Record Owner)	(Name of Occupant or other Person
	Against whom action may be taken)
5351 Jaycee Avenue	
YY 11 D. 1844	
Harrisburg, PA 17112	(Address of occupant or other Person
(Address of Record Owner)	Against whom action may be taken)
	Against whom action may be taken)
Re: 850 Lisburn Road	13-24-0803-018
(Location of Property upon which violation exists)	sts) (Tax Map/Parcel)
the violations are listed on the second page of this Not must correct the following-listed violations no later that such condition as to create a hazard or menace to the purple Please be advised that you have the right to appeal this Board of Appeals of Lower Allen Township within this misapplied Chapter No. 184 of the "Code". Failure to commence action to correct the violation with Violation has been filed with the Township Commission Township Chapter No. 184. Violation of Chapte	sof the Ordinance which you have violated and an explanation of ice. You must comply with this Notice of Violation promptly and an May 30, 2014. In no case shall you abandon the premises in public safety, health, morals or welfare. Solution Notice of Violation and Cease and Desist Order in writing to the irty (30) days if you believe that I have misinterpreted or thin the time specified above, unless an appeal of this Notice of oners, constitutes a violation of the "Code" of Lower Allen and I have may result in the institution of civil enforcement to Justice may impose a fine of not more than Five (\$500.00) and the Townships' attorney's fees, incurred as a result of such itute a separate offense and may subject you to a daily fine. The at law or in equity which may be necessary to enforce the provisions
Date: May 28, 2014	Township Engineer

Section 184-11D. Description of violation and requirements which have not been met:

Earth disturbance without Erosion&Sediment controls in place.

For all regulated earth disturbance activities, erosion and sediment control BMP's shall be designed, implemented, operated and maintained during the regulated earth disturbance activities(e.g., during construction) to meet the purposes and requirements of this chapter and to meet all requirements under the PA Code Title 25.

A Whenever the vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules . and Regulations, Part I, Commonwealth of Pennsylvania, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, "Erosion Control," and in accordance with the Cumberland County Conservation District and the standards and specifications of the municipality.

This listing of violations may not represent all violations presently occurring on this property. Other violations may appear upon application for required permits or upon further investigation, and the Township right to take any and all action authorized to enforce it's "Code" as to all violations.

This list represents only violations of the "Code", Chapter No. <u>184</u>. Violations of other Sections may have occurred and the Township reserves it's rights to enforce these and any other "Code" Sections.

Permits are required for Demolition, Construction, Reconstruction, Alterations and Major Repairs to all structures of all types.

Date: May 28, 2014

Daniel J. Flint, P.E.

Township Engineer

LOWER ALLEN TOWNSHIP 2233 GETTYSBURG ROAD CAMP HILL, PA. 17011 (717) 975-7575 FAX (717) 975-2287

NOTICE OF VIOLATION OF THE CODE OF LOWER ALLEN TOWNSHIP CHAPTER 184 KNOWN AS "STORMWATER MANAGEMENT" AND CEASE AND DESIST ORDER NO.2014-25_

CH and N Site Construction	Matt Eshelman
(Name of Record Owner)	(Name of Occupant or other Person
	Against whom action may be taken)
1190 Dillerville Road	
Lancaster, PA 17601	
(Address of Record Owner)	(Address of occupant or other Person
(Fladious of Robota O Whor)	Against whom action may be taken)
Re: 1445 Arcona Lane, Mechanicsburg, PA	13-10-0256-011
(Location of Property upon which violation exists)	(Tax Map/Parcel)
Chapter No. 184, as amended. The Section or Sections of the O the violations are listed on the second page of this Notice. You must correct the following-listed violations upon receipt of no condition as to create a hazard or menace to the public safety, he Please be advised that you have the right to appeal this Notice of Board of Appeals of Lower Allen Township within thirty (30) of misapplied Chapter No. 184 of the "Code". Failure to commence action to correct the violation within the to Violation has been filed with the Township Commissioners, control Township Chapter No. 184. Violation of Chapter No. 184 proceedings before a District Justice where the District Justice Hundred Dollars, plus all costs of prosecution, including the Township may also institute other appropriate action at law or of Chapter No. 184.	must comply with this Notice of Violation promptly and tice. In no case shall you abandon the premises in such lealth, morals or welfare. of Violation and Cease and Desist Order in writing to the days if you believe that I have misinterpreted or ime specified above, unless an appeal of this Notice of institutes a violation of the "Code" of Lower Allen may result in the institution of civil enforcement may impose a fine of not more than Five (\$500.00) ownships' attorney's fees, incurred as a result of such parate offense and may subject you to a daily fine. The
Date: October 9, 2014 Engin	eering Technician

Section 184-37(B). - <u>Description of violation and requirements which have not been met:</u> Prohibited discharges and connections

Discharges to the municipality's separate storm sewer system or to waters of the commonwealth which are not composed entirely of stormwater shall be prohibited, except as provided in Subsection C, and discharges allowed under a state or federal permit..

Concrete washwater is a prohibited discharge.

Corrective Action to be taken:

Maintain proper stormwater management practices. Use approved concrete washout.

A Whenever the vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules . and Regulations, Part I, Commonwealth of Pennsylvania, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, "Erosion Control," and in accordance with the Cumberland County Conservation District and the standards and specifications of the municipality.

This listing of violations may not represent all violations presently occurring on this property. Other violations may appear upon application for required permits or upon further investigation, and the Township has the right to take any and all action authorized to enforce it's "Code" as to all violations.

This list represents only violations of the "Code", Chapter No. <u>184</u>. Violations of other Sections may have occurred and the Township reserves it's rights to enforce these and any other "Code" Sections.

Permits are required for Demolition, Construction, Reconstruction, Alterations and Major Repairs to all structures of all types.

Date:October 9, 2014	Raymond J. Allen
	Engineering Technician

LOWER ALLEN TOWNSHIP 2233 GETTYSBURG ROAD CAMP HILL, PA. 17011 (717) 975-7575 FAX (717) 975-2287

NOTICE OF VIOLATION OF THE CODE OF LOWER ALLEN TOWNSHIP CHAPTER 184 KNOWN AS "STORMWATER MANAGEMENT" AND CEASE AND DESIST ORDER NO.2014-24

Delaware Valley Concrete	Jeff Stellwagon
(Name of Record Owner)	(Name of Occupant or other Person
	Against whom action may be taken)
248 E. County Line Rd, P.O. Box 457	
Hatboro, PA 19040	
(Address of Record Owner)	(Address of occupant or other Person
	Against whom action may be taken)
Re: 1445 Arcona Road, Mechanicsburg, PA 17055	13-10-0256-011
(Location of Property upon which violation exists)	(Tax Map/Parcel)
You are hereby notified that you are violating the Lower Allen To Chapter No. 184, as amended. The Section or Sections of the Ord the violations are listed on the second page of this Notice. You must correct the following-listed violation upon receipt of notice condition as to create a hazard or menace to the public safety, here Please be advised that you have the right to appeal this Notice of Board of Appeals of Lower Allen Township within thirty (30) day misapplied Chapter No. 184 of the "Code". Failure to commence action to correct the violation within the time Violation has been filed with the Township Commissioners, constructions. 184. Violation of Chapter No. 184 menace and the Code of Chapter No. 184 menace action to Chapter No. 184 menace	inance which you have violated and an explanation of the state comply with this Notice of Violation promptly and e. In no case shall you abandon the premises in such alth, morals or welfare. Violation and Cease and Desist Order in writing to the sys if you believe that I have misinterpreted or the specified above, unless an appeal of this Notice of stitutes a violation of the "Code" of Lower Allen
rownship Chapter No. 184. Violation of Chapter No. 184 in proceedings before a District Justice where the District Justice management Hundred Dollars, plus all costs of prosecution, including the Towaction. Each day that a violation continues shall constitute a separation of Chapter No. 184.	vnships' attorney's fees, incurred as a result of such trate offense and may subject you to a daily fine. The
Date: October 9, 2014 Enginee	ering Technician

Section 184-37(B) - <u>Description of violation and requirements which have not been met: Prohibited discharges and connections</u>

(B) Discharges to the municipality's separate storm sewer system or to waters of the commonwealth which are not composed entirely of stormwater shall be prohibited, except as provided in Subsection C, and discharges allowed under a state or federal permit..

Concrete washwater is a prohibited discharge.

Corrective	Action	to be	taken:

Maintain proper stormwater management practices. Use approved concrete washout.

A Whenever the vegetation and topography are to be disturbed, such activity must be in conformance with Chapter 102, Title 25, Rules . and Regulations, Part I, Commonwealth of Pennsylvania, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, "Erosion Control," and in accordance with the Cumberland County Conservation District and the standards and specifications of the municipality.

This listing of violations may not represent all violations presently occurring on this property. Other violations may appear upon application for required permits or upon further investigation, and the Township has the right to take any and all action authorized to enforce it's "Code" as to all violations.

This list represents only violations of the "Code", Chapter No. <u>184</u>. Violations of other Sections may have occurred and the Township reserves it's rights to enforce these and any other "Code" Sections.

Permits are required for Demolition, Construction, Reconstruction, Alterations and Major Repairs to all structures of all types.

Date: October 10, 2014	Raymond Allen
Duto <u>. Outsour 19, 2011.</u>	Engineering Technician

Lower Allen Township

2233 Gettysburg Road Camp Hill, Pa. 17011 Complaints Report

From: 04/01/2014

To: 03/31/2015

Comp#	Date	Туре	Tax Id	Legal Address	Inspector	Status
14-50343	4/14/2014	4 Stormwater Mgmt.	13-24-0799-143	131 LIMESTONE DRIVE		
Desc:						Closed
a	allegedly dum	nping wood, railings etc	into creek		. *	
4.4.500.40	445004		40.04.0700.440	400 LIMEOTONE DDIVE		
14-50346	4/15/2014	4 Stormwater Mgmt.	13-24-0799-142	129 LIMESTONE DRIVE		
Desc:						Closed
C	iumpea nis w	vooden jungle gym alon	g vvard trucking tence			
14-50366	4/30/2014	4 Stormwater Mgmt.	13-24-0795-004	4700 GETTYSBURG ROA	.D	
Desc:		. •			•	Closed
C	concerned ab	oout amount of runoff fro	om parking lot area onto	the roadway		, 0,000
14-50387	5/1/2014	Stormwater Mgmt.	13-10-0256-011	1445 ARCONA ROAD		
Desc:						Closed
٧	vork done on	construction site for job	b trailer prior to obtainin	g permit E&S controls not in p	olace	
14-50383	5/9/2014	Stormwater Mgmt.	13-25-0010-260	95 DEERFIELD ROAD		
Desc:	0/0/2014	Otomwater wight.	10 20 00 10 200	OO DEEK IEED KOKS		Closed
	concerned ab	oout dirt pile(in right rea	r corner of property from	m 105 Deerfield) blocking natur	al drainage and	Ciosea
c	creating stagr		comor or proporty mor	, , , , , , , , , , , , , , , , , ,		
14-50419	5/30/2014	4 Stormwater Mgmt.	13-24-0799-175A	1200 SAINT JOHNS ROA	D	
Desc:						Closed
á	a white substa	ance flowing into Cedar	Run from the terminal's	s parking lot.		
14-50446	6/11/2014	4 Stormwater Mgmt.	48-24-0795-072	200 SOMERSET DRIVE		
Desc:						Closed
r	nowing grass	s into the street				
14-50459	6/17/2014	4 Stormwater Mgmt.	48-24-0795-045	313 SOMERSET DRIVE		
Desc:	0, 11,201	. Otominator mgmt.	.0 0,00 0 10			Closed
	olowing grass	s into street				Ciosca
"	0.0				• •	•

Lower Allen Township

2233 Gettysburg Road Camp Hill, Pa. 17011 Complaints Report

From: 04/01/2014

To: 03/31/2015

Comp # Date

ate Type

Tax Id

Legal Address

Inspector

Status

14-50497 7/

7/2/2014 Stormwater Mgmt.

13-25-0010-001

233 CREEKWOOD DRIVE

Desc:

Closed

It has been brought to our attention that the drain pipe and stone infiltration and drainage feature installed in your front yard needs to be maintained. Drainage water from your site is once again being obstructed, cannot reach the street right-of-way and is backing up into the yard of your neighbor. The stones installed at the discharge pipe last year must have settled and were not visible at the site inspection last week. Drainage is not being directed to the street as approved and originally installed.

Please re-establish the drainage around the tree near the street and keep water from ponding over the adjacent property. Let me know when this work is completed.

14-0077

10/20/201 Stormwater Mgmt.

13-24-0793-145

5218 ROYAL DRIVE

Desc:

Closed

blowing grass onto the street

15-0061

3/11/2015 Stormwater Mgmt.

13-26-0247-087

5043 RAVENWOOD ROAD

Desc:

Closed

Sediment controls not in place - no silt fence downslope from disturbed area and no silt bag in the storrm water inlet

Lower Allen Township

2233 Gettysburg Road Camp Hill, Pa. 17011 Complaints Report

From: **04/01/2014**

To: **03/31/2015**

Totals by Complaint Type & Status

ComplaintType	Complaint Status		Count	
Stormwater Mgmt.			11	
•		Total:	11	
	Closed		11	

Best Management Practices

Follow these BMPs to control pollutant discharges. The objectives are: 1) to keep pollutants from contacting rain, and 2) to keep pollutants from being dumped or poured into the storm drains. The goal is "only rain in the storm drain."

How to properly dispose of concrete wastes:

- \$ Use a squeegy or similar tool to remove all excess concrete from the chute.
- \$ Place all excess concrete in a form, holder, box, or a designated washout area where it may be removed once it is hardened. You may need to make a number of smaller piles because solid concrete is very heavy. All concrete finishing tools and pumping hoses should also be cleaned in the washout area.
- \$ Use the minimum amount of water to wash down the chute, finishing tools, and any other equipment.
- \$ Remove the concrete sediment from the street, gutters, and area surrounding the washout area before it hardens.
- \$ Dispose of concrete wash water properly. Two examples are described below.

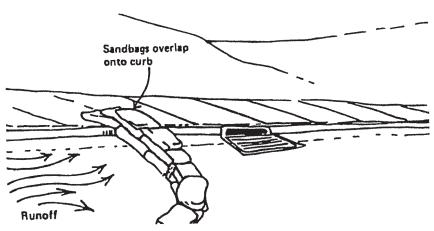
Disposing of Washwater

<u>Preferred Practice</u>: Contain all washwater on soil, preferably in a bowl shaped area to prevent the wash water from flowing from the washout area.

Alternate Practice:

- 1. Find the storm drain immediately down stream from the designated washout area. Block the storm drain and dam an area to collect the washwater. One effective control method is to use sandbags. To properly install, first wet down the sand bags, then compact them tightly to one another and to the curb so that no silty water can flow through.
- 2. Allow particles to settle and allow the water to evaporate.
- 3. Remove any remaining concrete sediment.
- 4. Discard the concrete particles to the trash or landfill.

Remember, it is illegal to dispose of concrete or washwater in the storm drain. Also, do not dispose of concrete in the sanitary sewer.



^{*}Hazardous Materials must comply with hazardous materials storage and disposal requirements.

PA DEP - Concrete Washout Guidelines

CONCRETE WASHOUT - For any project on which concrete will be poured or otherwise formed on site, a suitable washout facility must be provided for the cleaning of chutes, mixers, and hoppers of the delivery vehicles unless such a facility will be used at the source of the concrete. Under no circumstances may wash water from these vehicles be allowed to enter any surface waters. Make sure that proper signage is provided to drivers so that they are aware of the presence of washout facilities.

Washout facilities should not be placed within 50 feet of storm drains, open ditches or surface waters. They should be in a convenient location for the trucks, preferably near the place where the concrete is being poured, but far enough from other vehicular traffic to minimize the potential for accidental damage or spills. Wherever possible, they should be located on slopes not exceeding a 2% grade. Additional information on washouts may be obtained from EPA's stormwater website at: http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=1 17&minmeasure=4.

Compost Sock Washout

Wherever compost sock washouts are used, a suitable impervious geomembrane should be placed at the location of the washout. Compost socks should be staked in the manner recommended by the manufacturer around perimeter of the geomembrane so as to form a ring with the ends of the sock located at the upslope corner (Figure 3.18). Care should be taken to ensure continuous contact of the sock with the geomembrane at all locations. Where necessary, socks may be stacked and staked so as to form a triangular cross-section.

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Stormwater Best Management Practice

Concrete Washout



Minimum Measure

Construction Site Stormwater Runoff Control

Subcategory

Good Housekeeping/Materials Management

Description of Concrete Washout at **Construction Sites**

Concrete and its ingredients

Concrete is a mixture of cement, water, and aggregate material. Portland cement is made by heating a mixture of limestone and clay containing oxides of calcium, aluminum, silicon and other metals in a kiln and then pulverizing the resulting clinker. The fine aggregate particles are usually sand. Coarse aggregate is generally gravel or crushed stone. When cement is mixed with water, a chemical reaction called hydration occurs, which produces glue that binds the aggregates together to make concrete.

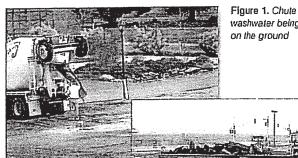
Concrete washout

After concrete is poured at a construction site, the chutes of ready mixed concrete trucks and hoppers of concrete pump trucks must be washed out to remove the remaining concrete before it hardens. Equipment such as wheelbarrows and hand tools also need to be washed down. At the end of each work day, the drums of concrete trucks must be washed out. This is customarily done at the ready mixed batch plants, which are usually off-site facilities, however large or rural construction projects may have on-site batch plants. Cementitious (having the properties of cement) washwater and solids also come from using such construction materials as mortar, plaster, stucco, and grout.

Environmental and Human Health Impacts

Concrete washout water (or washwater) is a slurry containing toxic metals. It's also caustic and corrosive, having a pH near 12. In comparison, Drano liquid drain cleaner has a pH of 13.5. Caustic washwater can harm fish gills and eyes and interfere with reproduction. The safe pH ranges for aquatic life habitats are 6.5 - 9 for freshwater and 6.5 - 8.5 for saltwater.

Construction workers should handle wet concrete and washout water with care because it may cause skin irritation and eye damage. If the washwater is dumped on the ground (Fig. 1), it can run off the construction site to adjoining roads and enter roadside storm drains, which discharge to surface waters such as rivers, lakes, or estuaries. The red arrow in Figure 2 points to a ready mixed truck chute that's being washed out into a roll-off bin, which isn't watertight. Leaking washwater, shown in the foreground, will likely follow similar



washwater being dumped on the ground

Figure 2. Chute washwater leaking from a roll-off bin being used as a washout container

paths to nearby surface waters. Rainfall may cause concrete washout containers that are uncovered to overflow and also transport the washwater to surface waters. Rainwater polluted with concrete washwater can percolate down through the soil and alter the soil chemistry, inhibit plant growth, and contaminate the groundwater. Its high pH can increase the toxicity of other substances in the surface waters and soils. Figures 1 and 2 illustrate the need for better washout management practices.

Best Management Practice Objectives

The best management practice objectives for concrete washout are to (a) collect and retain all the concrete washout water and solids in leak proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters or into the ground water, and (b) recycle 100 percent of the collected concrete washout water and solids. Another

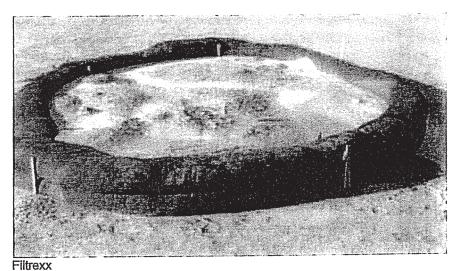
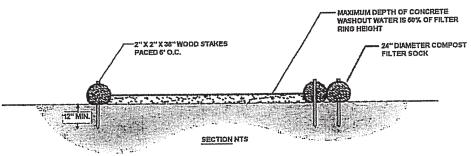
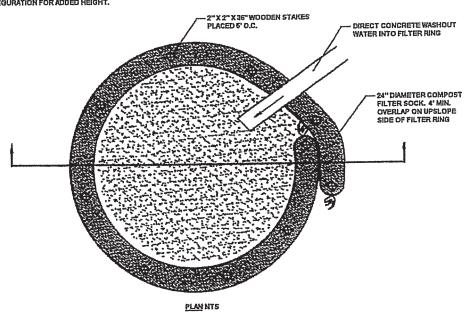


FIGURE 3.18 Typical Compost Sock Washout Installation



- NOTES:

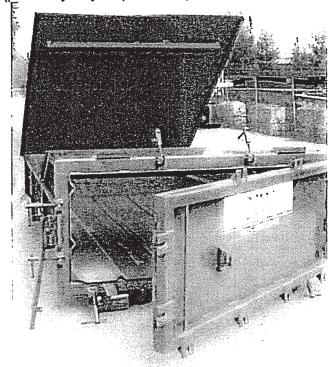
 1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
 2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.



A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks. Adapted from Filtrexx

Prefabricated Washout Containers

Care should be taken to ensure that the containers are intended by the manufacturer for use as concrete washout BMPs, that they are watertight, and appropriately sized. Accumulated materials must be properly disposed of (preferably recycled) when they reach the cleanout level.



All World Equipment

Self-installed Washouts

These types of washouts should be excavated below grade to prevent runoff of the wash water and minimize the potential for breaching. They should be sized to handle solids, wash water, and rainfall. A good rule of thumb is that 7 gallons of wash water are required to wash one truck chute and 50 gallons for the hopper of a concrete pump truck.

For larger sites, a below-grade washout should be a minimum of 10 feet wide and provide at least 12 inches of freeboard above the liquid and solid waste anticipated between cleanout intervals. The pit should be lined with plastic sheeting of at least 10-mil thickness (with no holes or tears) to prevent leaching of liquids into the ground.



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Washwater Recyling Systems

Washwater recycling systems have also been developed which separate the solids from the washwater, capturing both in impermeable bags and allowing them to be recycled. These systems may be used in lieu of washouts if manufacturers' specifications are followed. Care must be taken to prevent the filtered water from entering any surface waters.

Sediment Basins and Sediment Traps

Sediment basins and sediment traps may not be used as concrete washout devices, since they discharge directly to surface waters. This discharge would have an adverse effect upon the receiving water. In addition, continued use of a basin or trap as a washout facility would significantly reduce the storage capacity of the basin or trap.

<u>Maintenance</u>

All concrete washout facilities should be inspected daily. Damaged or leaking washouts should be deactivated and repaired or replaced immediately.

Accumulated materials should be removed when they reach 75% capacity.

Plastic liners should be replaced with each cleaning of the washout facility.

objective is to support the diversion of recyclable materials from landfills. Table 1 shows how concrete washout materials can be recycled and reused.

Table 1 - Recycling concrete washout materials

	Concrete Washout Materials					
Uses of Recycled Materials	Washwater	Cernent fines*	Fine aggregate	Coarse aggregate	Hardened concrete	Unused wet concrete
Reused to washout additional mixer truck chutes or drums	х					
Reused as a ready mixed concrete ingredient	х	Χp	х	х		
Reused as an ingredient of precast concrete products, e.g., highway barriers, retaining wall blocks, riprap	х	х	х	х		х
Reused as crushed concrete products, e.g., road base or fill		х	х	х	х	
Reused to pave the yards of ready mixed concrete plants						х
Returned back to a surface water, e.g., river, lake, or estuary	Χ ^c					

- Fine particles of cementitious material (e.g., Portland cement, stag cement, fly ash, silica fume)
- b. Recyclable, if allowed by the concrete quality specifications
- c. Treated to reduce the pH and remove metals, so it can be delivered to a municipal wastewater treatment plant, where it is treated further and then returned to a natural surface water

Washwater recycling, treatment, disposal

Washwater from concrete truck chutes, hand mixers, or other equipment can be passed through a system of weirs or filters to remove solids and then be reused to wash down more chutes and equipment at the construction site or as an ingredient for making additional concrete. A three chamber washout filter is shown in Figure 3. The first stage collects the coarse aggregate. The middle stage filters out the small grit and sand. The third stage has an array of tablets that filter



Figure 3. Concrete washout filter

out fines and reduces the pH. The filtered washwater is then discharged through a filter sock. An alternative is to pump the washout water out of the washout container (Fig 4) and treat the washwater off site to remove metals and reduce its pH, so it can be delivered to a publicly owned treatment works (POTW), also known as a municipal wastewater treatment plant, which provides additional treatment allowing the washwater to be discharged to a surface water. The POTW should be

contacted to inquire about any pretreatment requirements, i.e., the National Pretreatment Standards for Prohibited Dischargers (40CFR 403.5) before discharging the washwater to the POTW. The washwater can also be retained in the washout container and allowed to

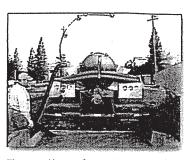


Figure 4. Vacuuming washwater out of a washout container for treatment and reuse

evaporate, leaving only the hardened cementitious solids to be recycled.

Solids recycling

The course aggregate materials that are washed off concrete truck chutes into a washout container can be either separated by a screen and placed in aggregate bins to be reused at the construction site or returned to the ready mixed plant and washed into a reclaimer (Fig. 5). When washed out into a reclaimer, the fine and course aggregates are separated out

and placed in different piles or bins to be reused in making fresh concrete. Reclaimers with settling tanks separate cement fines from the washwater, and these fines can also be used in new concrete unless prohibited by the user's concrete quality specifications.

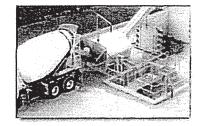


Figure 5. Ready mixed truck washing out into a reclaimer

Hardened concrete recycling

When the washwater in a construction site concrete washout container has been removed or allowed to evaporate, the hardened concrete that remains can be crushed (Fig. 6) and reused as a construction material. It makes an excellent aggregate for road base and can be used as fill at the

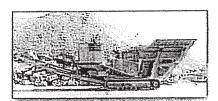


Figure 6. Crushed concrete stockpile and crusher

construction site or delivered to a recycler. Concrete recyclers can be found at municipal solid waste disposal facilities, private recycling plants, or large construction sites.

Wet concrete recycling

Builders often order a little more ready mixed concrete than they actually need, so it is common for concrete trucks to have wet concrete remaining in their drum after a delivery. This unused concrete can be returned to the ready mixed plant and either (1) used to pour precast concrete products (e.g., highway barriers, retaining wall blocks, riprap), (2) used to pave the ready mixed plant's yard, (3) washed into a reclaimer, or (4) dumped on an impervious surface and allowed to harden, so it can be crushed and recycled as aggregate. Unused wet concrete should not be dumped on bare ground to harden at construction sites because this can contribute to ground water and surface water contamination.

Washout Containers

Different types of washout containers are available for collecting, retaining, and recycling the washwater and solids from washing down mixed truck chutes and pump truck hoppers at construction sites.

Chute washout box

A chute washout box is mounted on the back of the ready mixed truck. If the truck has three chutes, the following procedure is used to perform the washout from the top down: (1) after the pour is completed, the driver attaches the extension chute to the washout box, (2) the driver then rotates the main chute over the extension chute (Fig. 7) and washes down the hopper first then the main chute, (3) finally the driver washes down the flop down chute and last the extension chute hanging on the box. All washwater and solids are captured in the box.

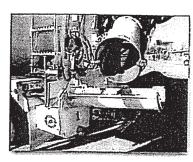


Figure 7. Chute washout box

After the wash down, washwater and solids are returned to the ready mixed plant for recycling. A filter basket near the top of the washout box separates out the coarse aggregates so they can be placed in a bin for reuse either at the construction site or back at the cement plant.

Chute washout bucket and pump

After delivering ready mixed concrete and scraping the last of the customer's concrete down the chute, the driver hangs a washout bucket shown in Figure 8 (see red arrow) on the end of the truck's chute and secures the hose to insure no leaks. The driver then washes down the chute into the bucket to remove any cementitious material before it hardens. After washing out the chute, the driver pumps (yellow arrow points to the pump) the washwater, sand, and other fine solids from the bucket up into the truck's drum to be returned to the

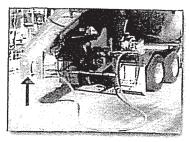


Figure 8. Chute washout bucket and pump

ready mixed plant, where it can be washed into a reclaimer. A removable screen at the bottom of the washout bucket prevents course aggregate from entering the pump. This course aggregate can also be returned to the plant and added to the coarse aggregate pile to be reused. All the materials are recycled.

Hay bale and plastic washout pit

A washout pit made with hay bales and a plastic lining is shown in Figure 9. Such pits can be dug into the ground or built above grade. The plastic lining should be free of tears or holes that would allow the washwater to escape (Fig. 10). After the pit is used to wash down the chutes of multiple ready mixed trucks and the washwater has evaporated or has been vacuumed off, the remaining hardened solids can be broken up and removed from the pit. This process may damage the hay bales and plastic lining. If damage occurs, the pit will need to be repaired and relined with new plastic. When the hardened solids are removed, they may be bound up with the plastic lining and have to be sent to a landfill, rather than recycled. Recyclers usually accept only unmixed material. If the pit is going to be emptied and repaired more than a few times, the hay bales and plastic will be generating additional solid waste. Ready mixed concrete

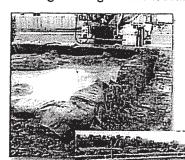


Figure 9. Hay bale and plastic washout pit



trucks can use hay bale washout pits, but concrete pump trucks have a low hanging hopper in the back that may prevent their being washed out into bale-lined pits.

Vinyl washout container



Figure 11. Vinyl washout pit with filter bag

The vinyl washout container (Fig. 11) is portable, reusable, and easier to install than a hay bale washout pit. The biodegradable filter bag (Fig. 12) assists in

extracting the concrete solids and prolongs the life of the vinyl container. When the bag is lifted, the water is filtered out and the remaining concrete solids and the bag can be disposed of together in a landfill, or the hardened concrete can be delivered to a recycler. After the solids have been removed several times and the container is full of washwater, the washwater can be allowed to evaporate, so the container can be reused. The washwater can be removed more quickly by placing another

filter bag in the container and spreading water gelling granules evenly across the water. In about five minutes, the water in the filter bag will turn into a gel that can be removed with the bag. Then the gel and filter bag can be disposed to together.

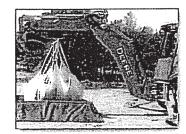


Figure 12. Extracting the concrete solids or gelled washwater

Metal washout container

The metal roll-off bin (Fig. 13) is designed to securely contain concrete washwater and solids and is portable and reusable. It also has a ramp that allows concrete pump trucks to wash out their hoppers (Fig. 14). Roll-off providers offer recycling services, such as, picking up the roll-off bins after the washwater has evaporated and the solids have hardened,

replacing them with empty washout bins, and delivering the hardened concrete to a recycler (Fig. 15), rather than a landfill. Some providers will vacuum off the washwater, treat it to remove metals and reduce the pH, deliver it to a wastewater treatment plant for additional treatment and

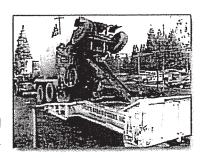


Figure 13. Mixer truck being washed out into a roll off bin

subsequent discharge to a surface water. Everything is recycled or treated sufficiently to be returned to a natural surface water.

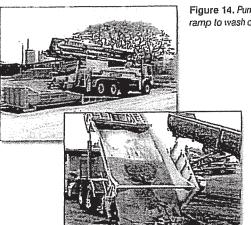


Figure 14. Pump truck using the ramp to wash out into a roll-off bin

Figure 15.
Delivering
hardened Concrete
to a recycler

Another metal, portable, washout container, which has a rain cover to prevent overflowing, is shown in Figure 16. It is accompanied by an onsite washwater treatment unit, which reduces the pH and uses a forced weir tank system to remove the coarse aggregate, fine aggregate, and cement fines. The

washwater can then be reused at the construction site to wash out other mixer truck chutes and equipment. The solids are allowed to harden together and can be taken to a concrete recycler (Fig. 17) to be crushed and used as road base or aggregate for making precast products, such as retaining wall blocks. All materials are recycled.



Figure 16. Washout container with a rain cover and onsite washwater treatment

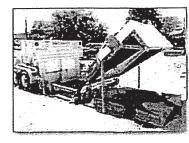


Figure 17. Delivering hardened concrete to a recycler

Siting Washout Facilities

Concrete washout facilities, such as washout pits and vinyl or metal washout containers, should be placed in locations that provide convenient access to concrete trucks, preferably near the area where concrete is being poured. However they

Stormwater Best Management Practice: Concrete Washout

should not be placed within 50 feet of storm drains, open ditches, or waterbodies. Appropriate gravel or rock should cover approaches to concrete washout facilities when they are located on undeveloped property. On large sites with extensive concrete work, washouts should be placed at multiple locations for ease of use by ready mixed truck drivers. If the washout facility is not within view from the pour location, signage will be needed to direct the truck drivers.

Operating and Inspecting Washout Facilities

Concrete washout facilities should be inspected daily and after heavy rains to check for leaks, identify any plastic linings and sidewalls have been damaged by construction activities, and determine whether they have been filled to over 75 percent capacity. When the washout container is filled to over 75 percent of its capacity, the washwater should be vacuumed off or allowed to evaporate to avoid overflows. Then when the remaining cementitious solids have hardened, they should be removed and recycled. Damages to the container should be repaired promptly. Before heavy rains, the washout container's liquid level should be lowered or the container should be covered to avoid an overflow during the rain storm.

Educating Concrete Subcontractors

The construction site superintendent should make ready mixed truck drivers aware of washout facility locations and be watchful for improper dumping of cementitious material. In addition, concrete washout requirements should be included in contracts with concrete delivery companies.

Reference

NRMCA 2009. Environmental Management in the Ready Mixed Concrete Industry, 2PEMRM, 1st edition. By Gary M. Mullins. Silver Springs, MD: National Ready Mixed Concrete Association.

Websites and Videos

Construction Materials Recycling Association www.concreterecycling.org

National Ready Mixed Concrete Association www.nrmca.org

National Ready Mixed Concrete Research and Education Foundation www.rmc-foundation.org

Additional information and videos on concrete washout containers and systems can be found by a web search for "concrete washout."

Photograph Credits

Figures 1, 2. Mark Jenkins, Concrete Washout Systems, Inc.

Figure 3. Mark Shaw, Ultra Tech International, Inc.

Figure 4. Mark Jenkins, Concrete Washout Systems, Inc.

Figure 5. Christopher Crouch, CCI Consulting

Figure 6. William Turley, Construction Materials Recycling Association

Figure 7. Brad Burke, Innovative Concrete Solutions, LLC

Figure 8. Ron Lankester, Enviroguard

Figures 9, 10. Mark Jenkins, Concrete Washout Systems, Inc.

Figures 11, 12. Tom Card, RTC Supply

Figures 13, 14, 15. Mark Jenkins, Concrete Washout Systems, Inc.

Figures 16, 17. Rick Abney Sr., Waste Crete Systems, LLP

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Don't Let Storm Water Run Off With Your Time and Money!

What the Construction Industry Should Know About Storm Water In Our Community

The construction industry plays an important role in improving our community's quality of life by not only providing new development, but also protecting our streams and rivers through smart business practices that prevent pollution from leaving construction sites.

Storm water runoff leaving construction sites can carry pollutants such as dirt, construction debris, oil, and paint off-site and into storm drains. In our community, storm drains carry storm water runoff directly to local creeks, streams, and rivers with no treatment. Developers, contractors, and homebuilders can help to prevent storm water pollution by taking the following steps:

What is Storm Water?

Storm water is water from precipitation that flows across the ground and pavement when it rains or when snow and ice melt. The water seeps into the ground or drains into what are commonly called storm sewers. These are the drains you see at street corners or at low points on the sides of streets. Collectively, the draining water is called storm water runoff.

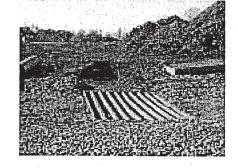
- 1. Comply with storm water permit requirements.
- 2. Practice erosion control and pollution prevention practices to keep construction sites "clean."
- 3. Conduct advanced planning and training to ensure proper implementation on-site.

The remainder of this fact sheet addresses these three steps.

Storm Water Permit Requirements for Construction Activity

Planning and permitting requirements exist for construction activities. These requirements are intended to minimize storm water pollutants leaving construction sites.

- Pennsylvania's Erosion and Sediment Pollution Control Program (25 Pa. Code, Chapter 102) requires Erosion and Sediment Control Plans for all earth disturbing activities.
- The National Pollutant Discharge Elimination System (NPDES)
 Permit Program (25 Pa. Code, Chapter 92) requires that
 construction activities disturbing greater than one acre submit a
 Notice of Intent for coverage under a general NPDES permit.



Knowing your requirements before starting a project and following them during construction can save you time and money, and demonstrate that you are a partner in improving our community's quality of life. For more information about these programs, contact your local county conservation district office or the Department of Environmental Protection.

Erosion Control Practices:

- Perimeter controls (e.g. silt fence)
- Sediment traps
- Immediate revegetation
- · Phased, minimized grading
- Construction entrance
- Protection of streams and drainage ways
- Inlet protection



An Ounce of Prevention

Rain that falls onto construction sites is likely to carry away soil particles and other toxic chemicals present on construction sites (oil, grease, hazardous wastes, fuel). Storm water, if not properly managed, carries these pollutants to streams, rivers, and lakes. Erosion and sediment control practices can serve as a first line of defense.

Pollution Prevention Practices:

- Designated fueling and vehicle maintenance area away from streams.
- · Remove trash and litter.
- · Clean up leaks immediately.
- Never wash down dirty pavement.
- Place dumpsters under cover.
- · Dispose of all wastes properly.

minimizing clean up and maintenance costs, and the impacts to water resources caused by soil erosion during active construction. Erosion controls can reduce the volume of soil going into a sediment control device, such as a sediment trap, therefore, "clean out" frequencies are lower and maintenance costs are less. When possible, divert water around the construction site using berms or drainage ditches.

In addition, use pollution prevention and "good housekeeping measures" to reduce the pollution leaving construction sites as well. This can be as simple as minimizing the pollution source's contact with rainwater by covering it, maintaining a "clean site" by reducing trash and waste, and keeping vehicles well maintained.

The Best Laid Plans

Plans such as erosion and sediment control plans and storm water pollution prevention plans are important tools for outlining the erosion control and pollution prevention practices that you will use to manage storm water runoff prior to breaking ground. Developing good plans allows for proper budgeting and planning for the life of the project. Proper installation and maintenance of erosion and storm water controls is essential to a plan that works. Training for on-site staff helps to ensure the proper installation and maintenance of erosion controls and pollution prevention practices. Inspect controls and management techniques regularly to ensure they are working, especially after storm events. If polluted storm water is leaving the site, you may need to repair or add additional storm water controls.



The Bigger Storm Water Picture

Your community is preventing storm water pollution through a comprehensive storm water management program. This program addresses storm water pollution from construction, but it also deals with new development, illegal dumping to the storm sewer system, and municipal operations. It will also continue to educate the community and get everyone involved in making sure the only thing that storm water contributes to our streams is . . . water! Contact your community or the Pennsylvania Department of Environmental Protection for more information about storm water management.

For more information:

Pennsylvania Association of Conservation District's: http://www.pacd.org/default.html

Pennsylvania Handbook of Best Management Practices for Developing Areas: http://www.pacd.org/products/bmp/bmp_handbook.html

Storm Water Manager's Resource Center: http://www.stormwatercenter.net

Pennsylvania Department of Environmental Protection: http://www.dep.state.pa.us



2.	Is there a well-publicized method for employees, businesses and the public to report stormwater pollution incidents? Yes No
3.	Township e-mail account as well as Facebook 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	e 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).
ins	MP #1: Develop your program consisting of all procedures necessary to comply with the requirements of this MCM. ur program shall provide for construction stormwater permitting, construction inspection, and enforcement of stallation and maintenance of the necessary E&S control measures. Your program shall describe clearly how your orgram will be coordinated with DEP's NPDES Construction Stormwater Permitting program.
you For writing again each Re Au	reasurable Goals: For new permittees, the written program for this MCM shall be developed during the first year of permit verage; nevertheless, you are responsible for implementation of this MCM during entire term of this permit, including the time of a are developing your program. If all permittees, your program shall be reviewed and updated during each year of permit coverage. The purpose of the ten program is to establish clear roles and responsibilities for the implementation of the MCM #4 requirements. An rement between the permittee, the CCD, and any other resources to be used by the permittee that clearly defines roles for chentity is recommended. If an agreement is made, you shall place and keep a written copy in your file, consistent with the tention of Records requirements in this Permit. Please note that in accordance with Section A.2.h in Part A of the thorization to Discharge, as the permittee you are responsible to ensure that implementation of all requirements under this rmit are fulfilled.
1.	For new permittees only, attach the written stormwater associated with construction activities program to the first report submitted to DEP. N/A
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: 2/14/11
BM sec	IP #2: The permittee shall enact, implement, and enforce an ordinance to require the implementation of erosion and diment control BMPs, as well as sanctions to ensure compliance.
Me tha	asurable Goal : Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance t meets all applicable requirements of this permit. (Non-municipal permittees shall develop and implement an SOP).
as	asurable Goal: Permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor an attachment to their first periodic report certifying the enactment and implementation of a stormwater management inance 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:

2014-2015 MS4

Conditions placed on various permits pertaining to Stormwater Maintenance

[Type here]

Curb, sidewalk and driveway must each be placed individually, with joints separating each one.

Curb cut and adjacent accessible ramp to sidewalk must be installed at intersection.

Street pavement must be restored in-kind at completion of curb/driveway.

Street tree(s) must be planted in accordance with the approved Subdivision Plan prior to issuance of a Certificate of Occupancy.

Standard Single Family Home conditions:

Concrete monuments and property corner pins must be in place in accordance with the approved Subdivision Plan prior to issuance of a Certificate of Occupancy.

Iron pins are required to be placed at each property corner to verify setbacks at footing inspection and must be visible at final site inspection prior to issuance of a Certificate of Occupancy.

Concrete monuments, if applicable, and property corner pins are required to be placed at each property corner to verify setbacks at footing inspection and must be visible at final site inspection prior to issuance of a Certificate of Occupancy.

Within the public right-of-way, all driveways shall be paved with 4" of portland cement concrete or 1" bituminous material over a 4" aggregate base.

A separate permit for work in the street right of way for the driveway, apron and utilities shall be required.

Prior to occupancy the property owner must execute a SWM Facilities and BMP Maintenance and Monitoring Agreement with Lower Allen Township.

A Standard Stormwater Facilities and Best Management Practices Maintenance and Monitoring Agreement with the Township must be recorded before a Certificate of Occupancy is issued.

Permittee shall return all right-of-way improvements to their pre-project condition including sidewalks soil and grass, cross walks stripes and stop bars and any other pavement markings. Markings shall be completed with thermo plastic tape.

Designated BMP infiltration trench area must be protected from compaction during construction. Infiltration area must be staked /or fenced before start of construction, and not disturbed during construction.

All runoff from the dwelling must be directed to the infiltration area.

Be advised the holder of this permit is responsible for the proper clean-up of equipment and work area and proper containment and disposal of concrete wash water in compliance with EPA, DEP, and Township regulations. Concrete washout facilities must be provided at the job site prior to delivery of concrete or an alternative method of concrete clean up and disposal must be provided.

Structures in street or road right-of-way – In areas where there is curbing or curbing is proposed, structures, including mailbox structures, may be constructed in the right-of-way providing they are no closer than 18" from the face of curb. In areas where there is no curbing and none is proposed.

Standard Erosion and and Sediment Control Conditions:

Erosion and Sediment Control measures are required for this project in accordance with Pennsylvania Department of Environmental Protection and US Environmental Protection Agency including:

- 1. Installation and maintenance of a Rock Construction Entrance.
- 2. Installation of a silt barrier fence or silt sock down slope of all stock piles and disturbed areas prior to earth disturbance, and maintained until final restoration of disturbed areas.
- 3. Installation of a concrete washout area with signage identifying the area is required.
- 4. Protection of storm water inlet and outlet features is required.
- 5. Designated BMP areas on the site must be protected from compaction during construction.
- 6. A Standard Stormwater Facilities and Best Management Practices Maintenance and Monitoring Agreement with the Township must be recorded before a Certificate of Occupancy is issued.
- 7. Diversion swale must be installed according to the approved plan.
- 8. Temporary sediment controls must be in place prior to earth disturbance according to the approved plan.
- 9. Please be advised the holder of this permit is responsible for the proper clean-up of equipment and work area and proper containment and disposal of concrete wash water in compliance with EPA, DEP, and Township regulations. Concrete washout facilities must be provided at the job site prior to delivery of concrete or an alternative method of concrete clean up and disposal must be provided.

Standard Public Sidewalk and Apron conditions:

- 1. Contact the Township at least 24 hours before starting work to schedule an inspection.
- 2. Traffic control must be in accordance with PennDOT Pub. 2131.
- 3. Sidewalk must be installed to the line, grade and cross section as shown on the approved Subdivision Plan and/or Township Standard, and in compliance with ADA accessibility standards.
- 4. The method for constructing the driveway connection to the sidewalk, curb and street must be approved by the Township Engineer prior to commencing this work.
- 5. Curb, sidewalk and driveway must each be placed individually, with joints separating each one.
- 6. Within the public right-of-way all driveways shall be paved with 4" of Portland cement concrete or 1" of bituminous material over a 4" aggregate base.

Standard Street Cut conditions:

- 1. Contact the Township at least 24 hours before starting work to schedule an inspection.
- 2. Traffic control must be in accordance with PennDot Pub. 213.
- 3. Temporary and permanent restoration shall be in accordance with attached details or as shown on the approved plans. Applicant is responsible for maintenance of pavement until accepted by the Township.

M54 Annual/Progress Report
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.

Identify the mechanism(s) in place to regulate construction site operators and wastes produced at construction sites:
 DEP State program followed. Site inspections to verify
 that BMPs are adhered to

2. During the reporting period what has been the results of implementing the mechanism(s) described above?

Prompt action taken to correct violations

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:

Information is entered into computer with codes personnel assigned to inspect and follow up, results documented

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: 3/9/15

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ara	JLD	DJF	DJF	DJF	DJF	DJF	DJF	DJF	RJA	JME	1	RSA	RJA	RJA	RJA	RJA	RJA	Date Empl oyee		Allen	:				В
4732 Gettysburg Rd	4713 Gettysburg Rd – Bortek	Gettysburg Rd at Audobon Rd	4641 Westport Drive – MEPS	St Johns Rd – Gettysburg Rd to US 15	Edgar Lane Channel	Deerfield Rd at Allendale Way	1301 Carlisle Rd – CCHS	Chatham Rd/Elmhurst Rd	ate Hill Rd.	Rd between Spangler and west end of SCIC	Mill Rd and west end of SCIC property	<u> </u>	sing		3400 Hartzdale Dr	4915 Ritter Rd	1302 Slate Hill Rd.	Location		Allen Township	•				C
									20130363	MS4	MS4	20140069	20130535				Pending	Permit #	Identifier						D
2013-01							2008-11								2012-07	2013-03		SLD or DP #							Ш
	MS4	MS4	MS4	MS4	MS4	MS4		MS4										Other							П
Rain event inspection. Minimal basin storage, basin not yet seeded/planted.	Rain event inspection. Upstream flowing ok, not near top of bank. Downstream, starting to pond at outlet.	Rain event inspection. Roadside swales filling, no flow on roadway.	Rain event inspection. Second channel cut has been reestablished. Follow up with upstream property owner.	Rain event inspection. System ok, no excessive flow in street.	Rain event inspection. Moderate channel flow. New gabion wall extension performing ok.	Rain event inspection. Repaired pipe section draining.	Rain event inspection. Rain garden with minimal storage, performing ok.	Rain event inspection. New catch basin working properly.	Site and BMP inspection. Level spreader needed at the BMP	Reported observations from May 28 to CCCC (McCollum)	disturbance from UGI pipeline project	Cheerved ton-dressing final grading and speding of earth	Site inspection. Grading.	Inspected grass parking area. Grid reported exposed.	Walmart E and S – ok	Checked concrete washout and E and S measures - ok	Meeting w/ Hartman and Assoc.								G
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Drive site.					52
			4641 Westport Drive - MEPS	5/27/14 DJF	
MS4 Site inspection.	2014-01 M	20140051	1445 Arcona Rd	5/21/14 RJA	5
MS4 Contact: Kelly Hollinger re: rock channel maintenance needed.	M		4641 Westport Drive – MEPS	5/16/14 DJF	50
		20140069	850 Lisburn Rd.	5/14/14 RJA	49
Confirmed with Britt that CCCP approved plant species @ riparian buffer	2012-07		3400 Hartzdale Dr	5/13/14 RJA	48
		20140174	3506 Hartzdale Dr	5/13/14 RJA	47
MS4 Phone: Jeremy Miller, HT, re: rain garden design.	S		LAT	5/7/14 DJF	46
			5017 Hart Crossing	5/6/14 RJA	45
Phone: Jim Shultz. SWM and EandS criteria for temp. office trailer.	2014-01		Highpoint – 1445 Arcona Road	5/6/14 DJF	44
MS4 Phone: pool service contractor re: requirements for pool water discharge			1719 Olmsted Way	5/5/14 DJF	43
Rain event in crosspipe dr	3		New York Ave	4/30/14 DJF	42
	×		Lebanon Ave	4/30/14 DJF	41
	M		Nina Alley	4/30/14 DJF	40
MS4 Rain event inspection. Check roadside drainage.	3		Schuylkill Ave	4/30/14 DJF	39
MS4 Rain event inspection. Check roadside drainage.	M		Santa Maria Ave	4/30/14 DJF	38
MS4 Rain event inspection. Check roadside drainage.	M		Massachusetts Ave	4/30/14 DJF	37
MS4 Rain event inspection. Check roadside drainage.	M		Laural Ave	4/30/14 DJF	36
MS4 Rain event inspection. Check roadside drainage.	M		Fernwood Ave	4/30/14 DJF	35
MS4 Rain event inspection. Check roadside and low point/potential crosspipe drainage.	X		Cedar Ave	4/30/14 DJF	34
MS4 Rain event inspection Check roadside drainage.	M		Rana Villa Ave	4/30/14 DJF	33
MS4 Rain event inspection. Check roadside drainage.	M		Primrose Ave	4/30/14 DJF	33
MS4 Rain event inspection. Check roadside and low point drainage.	- A		Rosemont Ave	4/30/14 DJF	31
			Indian Lane	4/30/14 DJF	30
	S.		Brandton Rd	4/30/14 DJF	29
Rain event inspection. Check roadside and crosspipe drainage.			St Johns Rd – Lisburn Rd to Slate Hill Rd.	4/30/14 DJF	28
MS4 Rain event inspection. Check roadside drainage.	Μ		Slate Hill Rd (backside)	4/30/14 DJF	27
Rain event inspection. Clear, no ponding.			Oneida Rd low point	4/30/14 DJF	26
MS4 Rain event inspection. Pump not running, not needed.	M		Seneca SW pump	4/30/14 DJF	25
Rain event inspection. Discharge from basin properly controlled. No further action required.		20120516	3601 Simpson Ferry Rd, Trinity HS	4/30/14 DJF	24
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Site inspection: sinkhole mitigation and repair.	MS4			400 Block Deerfield Rd.	7/3/14 DJF	79	
Field view of project sites re: drainage improvements needed.	MS4			2015 Streets for paving	7/2/14 DJF	78	_,
Site grading inspection requested by neighbor.			20130562	1656 Lowell Ln	7/1/14 RJA	77	_,
Phone: Brad Bock re: construction starting; E and S controls.		2007-12		1215 Manor Drive	7/1/14 DJF	76	7
Phone and field meeting with Jim Hoffman re: channel repairs.	MS4			4641 Westport Drive – MEPS	7/1/14 DJF	75	~1
	MS4			400 Block Deerfield Rd.	6/30/14 DJF	74 6	
Field meeting with Jake from JVH re: channel repairs.	MS4			4641 Westport Drive MEPS	6/27/14 DJF	73 6	7
Field inspection.	MS4			Locust Street System	6/27/14 DJF	72 6	_1
E and S controls at neighbor's corner pin. Yarnall e-mailed.				Brooks Edge	6/26/14 RJA		_1
Phone: Frank Lentz re: SWM/Eand S controls		2014-02		4732 Gettysburg Rd	6/18/14 DJF		7
Impervious coverage calc. For driveway and slab permit.			20140247	1418 Carlisle Rd.	6/18/14 RJA	1	തി
contractor dumped wastewater into curb inlet-contractor notified			20140153	254 Ewe Road	6/16/14 JME	68 6	െ
Phone: Frank Lentz re: BMP OandM notes.		2014-02		4732 Gettysburg Rd	6/16/14 DJF		രി
LD plan.		20-4-08		3500 Capital City Mail Drive	6/16/14 DJF	66 6	<u></u>
Phone: Tim Diabline: SWM requirements for Field and Stream	MIS4	201		Seneca Road	6/13/14 DJF	65	6
Weeting, county work municipal working group	MS4			LAT	6/12/14 DJF	64 6	တ
system damage.	WIV4			3506 Capital City Mall Drive	6/11/14 DJF	<u>გ</u>	တ
Title in the impatient potential sinkholo: storm sower					DJF	62	ത
Progress inspection pre-final site conditions				Meridian	6/11/14 RJA,	\dashv	П
Field view to investigate sinkhole.	MS4			1711 Cedar Cliff Drive	6/11/14 DJF	\dashv	ച
Phone: Jeremy Miller, HT, re: CBPRP requirements	MS4			LAT	6/10/14 DJF	\dashv	തി
Site tour of BMPs at LAT Building with environmental group with CAPCOG.	MS4			2233 Gettysburg Rd.	6/6/14 dJF		O1
SWM.	MS4			3130 Morningside Drive	6/4/14 DJF	58	5
Site meeting re: SWM and EandS controls		2014-01		Highpoint – 1445 Arcona Road	6/2/14 DJF	57	5
Phone/e-mail: Rick Castranio re: potential revisions to site, SWM.	MS4			3130 Morningside Drive	5/30/14 DJF		ري ن
Field meeting with Supt. See NOV. Advised to Stop Work until sediment on road corrected.		2013-07		850 Lisburn Rd: Brooks Edge	5/28/14 DJF		ري ا
Phone: Kelly Hollinger re: runoff/erosion to MEPS from Lena Drive site.	MS4			4641 Westport Drive - MEPS	5/28/14 DJF		ري آن
Phone: Rick Fraven, Carlisle Borougn, re: WS4 permiumg requirements.	MS4			LAT	5/28/14 DJF		ပ်
	П	Ш	D	C	A B		

A B 7/3/14 DJF 7/9/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 07/14/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/15/14 RJA 07/15/14 RJA 07/15/14 RJA 07/15/14 DJF 07/25/14 RJA 07/25/14 DJF 07/30/14 DJF 08/01/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF		7	7		OHEGIL
7/3/14 DJF 7/9/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/15/14/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/25/14 RJA 07/25/14 RJA 07/25/14 DJF 08/01/14 DJF 08/01/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF		D	П	-	
7/9/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 7/11/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/16/14 DJF 07/16/14 DJF 07/28/14 DJF 07/28/14 DJF 07/28/14 DJF 08/01/14 DJF 08/01/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF 5024 Simpson Ferry Rd – WSWD parking lot		DP 2014-01		Phone: Scott Akens re: SWM
7/11/14 DJF 7/11/14 DJF 7/11/14 DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/16/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/25/14 DJF 07/25/14 DJF 07/25/14 DJF 07/30/14 DJF 08/04/14 DJF 08/04/14 DJF 08/05/14 DJF 08/06/14 DJF 08/06/14 DJF 08/06/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF			2013-01		Phone: Kim Lenker re: SWM items constructed
7/11/14 DJF 7/11/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/14/14 DJF 07/15/14 RJA 07/15/14 RJA 07/15/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/25/14 RJA 07/28/14 DJF 08/01/14 DJF 08/01/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF			2014-10		Meeting: design engineer for Land Development Plan
7/14/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/15/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 DJF 07/25/14 DJF 07/28/14 DJF 07/28/14 DJF 08/04/14 DJF 08/04/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF 4641 Westport Drive – MEPS			MS4	Field view drainage channel.
07/14/14 RJA, DJF 07/14/14 RJA, DJF 07/14/14 DJF 07/15/14 RJA 07/15/14 RJA 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/25/14 DJF 07/28/14 DJF 08/01/14 DJF 08/01/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF	₹JA, Walmart DJF		2012-07		Site inspection. Grading
07/14/14 RJA, 07/14/14 DJF 07/14/14 DJF 07/15/14 RJA 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/28/14 DJF 07/28/14 DJF 08/01/14 DJF 08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF	RJA, Windsor PL Parking lot		2013-01		Site final
07/14/14 DJF 07/14/14 DJF 07/15/14 RJA 07/15/14 RJA 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/25/14 DJF 07/30/14 DJF 08/01/14 DJF 08/04/14 DJF 08/05/14 DJF 08/05/14 DJF 08/06/14 DJF 8/11/14 DJF 8/11/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF	RJA, Magnolia Cafe				Site inspection.
07/14/14 DJF 07/15/14 RJA 07/16/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 RJA 07/28/14 DJF 07/28/14 DJF 08/01/14 DJF 08/04/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF	OJF St. Johns Rd. near Cherokee			MS4	Storm system inspection with camera
07/15/14 RJA 07/16/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 DJF 07/28/14 DJF 08/01/14 DJF 08/04/14 DJF 08/05/14 DJF 08/06/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF				MS4	Phone: Scott Miller, reporting water withdrawal from creek by a truck. Advised that is not prohibited, no permit needed.
07/16/14 DJF 07/16/14 DJF 07/25/14 RJA 07/25/14 DJF 07/28/14 DJF 07/30/14 DJF 08/04/14 RJA 8/5/14 DJF 08/06/14 DJF 08/06/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF			2004-07		Basin status
07/16/14 DJF 07/25/14 RJA 07/28/14 DJF 07/28/14 DJF 07/30/14 DJF 08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/06/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF PSATS			MS4	MS4 webinar
07/25/14 RJA 07/28/14 DJF 07/28/14 DJF 07/30/14 DJF 08/01/14 DJF 08/05/14 DJF 08/05/14 DJF 08/05/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF 15 th /State/Hummel			MS4	Phone: Brian Propper, CH Borough re: drainage problem in CH.
07/28/14 DJF 07/28/14 DJF 07/30/14 DJF 08/01/14 DJF 08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/06/14 DJF 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF	RJA 1445 Arcona Rd		2014-01		E and S failure. Per DJF CCCD visited the site for corrections.
07/28/14 DJF 07/30/14 DJF 08/01/14 DJF 08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/06/14 RJA 8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF 200 Belaire Drive			MS4	Phone and field meeting with Rich Benner re: street flooding/MS4 system capacity.
07/30/14 DJF 08/01/14 DJF 08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/06/14 RJA 8/6/14 RJA 8/11/14 DJF 8/11/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF Highpoint		2014-01		Phone: Vince McCollum re: site controls
08/01/14 DJF 08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/06/14 DJF 8/6/14 RJA 8/6/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF			2014-01		Phone: Vince McCollum re: site controls
08/04/14 RJA 8/5/14 DJF 08/05/14 DJF 08/06/14 RJA 8/6/14 RJA 8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF			DP 2006-01		Phone: John Madden re: Drainage Plan requirements
8/5/14 DJF 08/05/14 DJF 08/06/14 DJF 8/6/14 RJA 8/6/14 DJF 8/13/14 DJF 8/13/14 DJF 8/13/14 DJF		20140147			E and S and BMP infiltration trench inspection
08/05/14 DJF 08/06/14 DJF 8/6/14 RJA 8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF 2015 Streets for paving			MS4	Field view of project sites re: drainage improvements needed.
08/06/14 DJF 8/6/14 RJA 8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF Beacon Hill, Phase 3		2005-22		Site inspection.
8/6/14 RJA 8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF				MS4	Phone: Kirk Stoner, CCPD, re: TMDL
8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF	RJA 1445 Arcona Rd		2014-01		Site meeting w/ CH&N Verify clay used at basin floor and in center of berm. Contractor stated CCCD corrections from
8/11/14 DJF 8/12/14 DJF 8/13/14 DJF 8/13/14 DJF					7/25/14 E and S failures are under way. 24 inch silt sock seen at the street.
8/12/14 DJF 8/13/14 DJF 8/13/14 DJF	DJF 3500 Capital City Mall Drive		2014-09		Phone: Tim Diehl re: SWM requirements for Field and Stream LD plan.
8/13/14 DJF 8/13/14 DJF	DJF 3500 Capital City Mall Drive		2014-09		Phone: Tim Diehl re: SWM requirements for Field and Stream LD plan.
8/13/14 DJF	DJF LAT			MS4	like
0202	DJF 4722 Gettysburg Road		2005-01		Tressler/Ex. Park West 4: Site inspection, all site items complete.
106 8/13/14 DJF 2018	DJF 2015 Streets for paving			MS4	Field view project sites re: needed drainage improvements

MS4 PWEA Workshop: SW authorities and partners
E and S check. Fiber sock to be staked @ 10' o.c.? Kirby to confirm.
Phone: Eric Mountz, TPD, re: agreement for SW facility maintenance in PennDOT R/W.
Drianage standing in side yard
Trench drain
Phone: Ken \
E and S status.
MS4 Site meeting
Wetlands protection plan review. Agreement review.
controls
MS4 Phone: Mike
Witnessed B Ave.
controls
Phone: Grea
There is Northern at Deliner Die requirement
under Arcona w/sizing to DJF prior
Mtg w/DJF CCCD/CH&N. CH&N to get DJF redlined as approved by CCCD plan, construct temporary swale to pipe
MS4 Storm sewer system inspection
MS4 Storm sewer
Mtg. W/Kenny seep collar revised design to DJF
MS4 Phone/e-mail with photo: Vince McCollum re: concrete sawing slurry flowing to storm inlet by PennDOT contractor.
MS4 Phone: Chris Konan, PennDOT re: concrete sawing sturry flowing to storm inlet by PennDOT contractor. Chris to follow up and correct.
construction.
Phone: Tim DeWire re: NPDES permit for Compost Pad.

159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133		
10/09/14		10/07/14 REL	10/06/14 RJA	10/06/14 RJA		10/6/14 DJF	10/03/14 RJA	10/1/14 REL	9/30/14	#N/A	9/29/14 RJA	09/29/14 DJF	9/29/14 KJA	9/25/14 RJA	9/25/14 DJF	9/23/14 JME	09/23/14 DJF	09/22/14 JME	09/19/14 DJF	09/19/14 DJF	09/1//14 JIVIE	09/16/14 DJF	09/15/14 F	09/15/14 F	09/12/14 DJF	09/11/14 RJA	Α	
RJA	AEL AEL	但	٦	A S	E E	JUC	ALS	EL S	REL	RJA	۸۲۶	ŊΕ	ACA	S A) JF	ME) F	ME) F	JF	Š T	2	RJA	RJA)JF	₹JA	₩	
Highpoint 1445 Arcona Rd	1446 Mollys Run	3255 Harrison Rd	Compost Site-2750 Yetter Court	Highpoint 1445 Arcona Rd	1446 Mollys Run	1215 Manor Drive	Compost Site-2750 Yetter Court	3259 Harrison Rd	3255 Harrison Rd	Highpoint 1445 Arcona Rd	Highpoint 1445 Arcona Rd	Highpoint 1445 Arcona Rd.	4000 Ashburn Ka.	Highpoint 1445 Arcona Rd	1215 Manor Drive	NA	1852 Sheepford Rd.	NA	Highpoint 1445 Arcona Rd.	Windsor PL Parking lot	NA	LAT	233 Creekwood Dr	LAT storm drains	2500 Lisburn Rd.	910 Century Dr.	С	
20140051 2014-01	20140382	20140346	Ħ		20140382			20140354	20140346				N/A			NA		A			NA						ס	
2014-01			DP 2014-02	2014-01		2007-12	DP 2014-02			2014-01	2014-01	2014-01		2014-01	2007-12	N A		N A	2014-01	2013-01	2						m	
	_	MS4			MS4											MS4	MY.	MS4			Ç Ş	₹ Z			MS4		п	
NOV pending. E-mailed Delaware Concrete – wasning out on the gro	SLD site stabilization & controls in place	SLD site stabilization & controls in place	E and S in place.	E-mailed Kenny to make Delaware use concrete washout.	SLD site stabilization & controls in place	Phone: Corey, Alpha Engineers, re: revisions to EandS Plan.	E and S in place. No RCE but ok per DJF	SLD site stabilization & controls in place	SLD site stabilization & controls in place	Storm drain inlets and under drain locations set.	Site inspection.	Phone: Eric Mountz, TPD, re: agreement for SW facility maintenance in PennDOT R/W.	leaked oil in the roadway.	E and S inplace. Storm grain inlets set.	Phone: Vince McCollum, CCCD, re: revisions to EandS Plan.	web sites (YBWA, WAY, DEP, LAT)	discharge to MS4.	Distributed YBWA MS4 program filer (see entry above) at BOC mtg and announced event during mtg.	maintenance in PennDOT R/W.	Site final inspection w/John Ortenzio	with MS 4 program at LACP: "Taking Care of Stormwater: Creek Friendly Ideas for Homeowners"	SVVIVIVISA WORKSHOP: CAPCOG	Sump pump drainage swale repaired by Sheffer.	Pipe assessment @ Deerfield, Belaire Ave, Slate Hill.	Phone: Carol Piontkowski, DOC, re: MS4 reporting requirements.	Exempt activity. Connecting yd drain to bldg leader/drain pipe system.		
in the gro	1						•																				エ	

10/20/14 JME 2901 Lisbum Rd. 20140051 MA Highpoint 1445 Arcona Rd 20140051 MA Highpoint 1445 Arcona Rd 20140051 MA Highpoint 1445 Arcona Rd. 20140051 MA Highpoint 1445 Arcona Rd. 20140051 MA Highpoint 1445 Arcona Rd. 20140051 MA Highpoint 1445 Arcona Rd. 20140060 MS4 MS4 Phone: Mark Heckman, DEP, re: potential Small Flow Indistrict Sandy re: BMP inspection reporting. 201410 JLF 1852 Sheepford Rd. 20140406 MS4 Sheepford Rd.	701		180	179	178	177	176	175 1			172		171	170 1	169	168	$\neg \uparrow$	167	166 1	165			163	162 1	σ))		
Highpoint 1445 Arcona Rd. 20144051	0,01717	0/31/14	0/31/14	0/31/14	0/30/14	0/30/14	0/29/14	0/29/14	0/29/14	10/28- 29/14		0/28/14	0/28/14	0/28/14	0/28/14		0/23/14	0/21/14	0/21/14		0/20/14	0/20/14	0/20/14	0/20/14 F		· · · · · · · · · · · · · · · · · · ·	10/14/14 REL	10/09/14 JME
rcona Rd 20140051 2014-01	2		밁	JPG	P P	JLG	DJF	REL	DJF	DJF		ME.) F	REL.	單				۸۲۶			F F						
2014-01 NA NA NA NA NA NA NA NA NA N	Tigiponic I To a condition	3599 Gettysburg Rd.	1595 Thompson Lane	4545 Westport Drive	1852 Sheepford Rd.	1504 Woodcreek Dr.	1852 Sheepford Rd.	1448 Mollys Run	Highpoint 1445 Arcona Rd.	LAT		1852 Sheepford Rd.	2500 Lisburn Rd.	1504 Woodcreek Dr.	1448 Mollys Run		NA	2410 Gettysburg Rd.	1730 Liberty Cove		850 Lisburn Rd.	1504 Woodcreek Dr.	2901 Lisburn Rd.	Highpoint 1445 Arcona Rd			1446 Mollys Run	NA 1446 Mollys Run
2006-01 NA NA NA NA NA NA NA NA NA NA NA NA NA								20140406			20140419			20140513	20140406	Ä			20130173	20140288			20140383	20140051		20140382	20140382	
		2006-02	DP 2011-01	2005-25		DP 2006-01			2014-01			Z					AA	DP 2014-05			A	DP 2006-01	N	2014-01				Z
Nestands E and S okay. Monitor RCE as utilitities are installed. Observed lack of RCE at construction entrance along Slate Hill Road. Directed CD staff response. Phone: Ken Vandenburgh re: Drainage Plan requirements Responded to LAPD incident report dated 10-17-14 regarding debris tracked onto Lisburn Road from construction site—apparent problem with RCE. Directed staff response and initiated follow-up with permittee. Final BMP remodel inspection. Phone: Bill Vail, Deacon Industrial, re: outdoor storage expansion, stone, clearing, Drainage Plan requirements. Attended PAWC source water protection meeting with other stakeholders to provide input for their SWP plan update. SLD site stabilization & controls in place Site inspection, BMP controls in place Phone: Carol Piontkowski, DOC, re: MS4 reporting requirements. Forwarded incident report to property owner re: mud & debris tracked onto roadway and no E & S controls in place for renovations at SFD. Requested assistance with compliance. Dirt and Gravel Road Training and certification Field inspection: EandS site controls. SLD site stabilization controls in place Phone: Mike Hickman, DEP, re: potential Small Flow treatment Facility discharge to MS4. Phone: Jeff Kelly, CCPD re: Drainage Plan review Phone: Sandy re: BMP inspection reporting. Phone: Mike Hickman, DEP, re: potential Small Flow treatment Facility discharge to MS4. Phone: Bill Kollas re: BMP inspection reporting. Phone: Bill Kollas re: BMP inspection reporting.					MS4		WS4	MS4		MS4			MS4	MS4	MS4		MS4				NA		N N				MS4	MS4
		Phone: Bill Kollas re: BIVIP Inspection reporting.	Phone: Jon Ruel re: BMP inspection reporting.	Phone: Sandy re: BMP inspection reporting.					Field inspection: EandS site controls.	Dirt and Gravel Road Training and certification		renovations at SED. Requested assistance with compliance.	Phone: Carol Piontkowski, DOC, re: MS4 reporting requirements.	Site inspection, BMP controls in place	SLD site stabilization & controls in place	stakeholders to provide input for their SWP plan update.	Attended PAWC source water protection meeting with other	Phone: Bill Vail, Deacon Industrial, re: outdoor storage expansion, stone, clearing, Drainage Plan requirements.	Final BMP remodel inspection.		Responded to LAPD incident report dated 10-17-14 regarding	Phone: Ken Vandenburgh re: Drainage Plan requirements	Observed lack of RCE at construction entrance along slate Hill Road. Directed CD staff response.	installed.	ı		SLD site stabilization & controls in place	Helped set up and conduct YBVVA meeting at which members and guests received MS4 information during presentation of the program noted in 09/17/14 entry above. SLD site stabilization & controls in place

200		205 1	204 1	203		202		201		200	199	198	197	196	195	194	193	192	191	190	189	188	187	186	185		183		
11/18/14 DJF	11/17/14 REL	11/14/14 DJF	11/13/14 REL	****	11/12/14 REL		11/10/14 REL		11/7/14 JME	11/7/14 REL	11/7/14 DJF	11/6/14 DJF	11/6/14 DJF	11/5/14 DJF	11/5/14 DJF	11/5/14 DJF	11/5/14 REL	11/4/14 RJA	17/4/14 DJF	11/4/14 REL	11/3/14 DJF	11/3/14 DJF	11/3/14 DJF	11/3/14 DJF		11/3/14 RJA	10/31/14 DJF 11/03/14 REL	A B	-
Compost Site-2750 Yetter	3255 Harrison Rd.	1718 Liberty Cove	3259 Harrison Rd		1446 Mollys Run		1448 Mollys Run		850 Lisburn Road	3255 Longview Rd	LAT	1215 Manor Drive	Liberty Point	1215 Manor Drive	Liberty Point	3702 Gettysburg Rd.	3255 Longview Rd	Highpoint 1445 Arcona Rd	3950 Hartzgale Drive	1504 Woodcreek Dr.	2237 Gettysburg Rd.	Compost Site-2750 Yetter Court	Highpoint 1445 Arcona Rd.	1403 Wellgate Ln.		Highpoint 1445 Arcona Rd	Compost Site-2750 Yetter Court 3255 Harrison Rd 2014	C	
	20140346		20140354	20140382		20140406		20140419	-	20140381							20140381			20140513							Court 20140346	D	
DP 2014-02		2005-24							A			2007-12	2005-24	2007-12	2005-24	2011-02		2014-01	17-4002			DP 2014-02	2014-01	DP 2007-01		2014-01	DP 2014-02	Ш	
	MS4		MS4		MS4	***************************************	MS4		Š	MS4	MS4						MS4			MS4	MS4							T	
Field inspection: EandS site controls.	SLD site stabilization controls in place	Phone: Harold Duffy re: BMP inspection reporting	SLD site stabilization controls in place		SLD site stabilization controls in place		SLD site stabilization controls in place	Lisburn Road with thin film all the way to Carlisle Rd.	While at meeting with LATA and TCC, requested that Tim Spangler have the RCF maintained—mud tracked onto	SLD site stabilization controls in place	Harrisburg Sinkhole Summit	Phone; Lowell Gates re: BMP inspection reporting	Phone: Roland Builder office representative re: BMP inspection reporting	Phone; Lowell Gates re: BMP inspection reporting	Phone: Rosalie Roland, Roland Builder, re: BMP inspection reporting	Phone: Joe Giovagnoli, Juice and Java, re: BMP inspection reporting	SLD site stabilization controls in place	Told Kenny to clean out the concrete washout area. 1" wearing inspected.	reporting.	E&S Controls BMP inspection		Field inspection: EandS site controls.	Field inspection: EandS site controls.	Phone: Chris Fedoriw re: BMP inspection reporting.	wash pit behind the job site trailer. That will be their only waring. Told KF the same thing. CH&N will be cited next time. Base paving inspected.	Cautioned a driver from Zeigler Concrete to use the concrete	Field inspection: EandS site controls. SLD site stabilization controls in place	G	

229	228	227		226	225		224	223	222	221	220	219	218	217	216	215	214	213	212	211	210	807	300		
12/4/14 RJA	12/3/14 REL	12/0/14	12/3/14	12/3/14		12/3/14	12/3/14 DJF	11/26/14 REL	11/25/14 REL	11/25/14 REL	11/25/14 REL	11/24/14 DJF	11/24/14 REL	11/24/14 DJF	11/24/14 DJF	11/24/14 DJF	11/21/14 RJA	11/21/14 DJF	11/21/14	11/21/14	11/20/14	11/20/14 NEC	44/40/4/	11/18/14 REL	Α
RJA	REL		모드	REL		JME	DJF	REL	REL	REL	REL	ΩF	REL	DJF	JLG	DJF	RJA	JLD	DJF	DJF		ם ק - ק	<u>ח</u>	REL	ᢍ
2750 Yetter Court	1431-1431 Keegan Lane	TOT WORKS	1454 Mollys Run	1454 Mollys Run		A	LAT	1448 Mollys Run	1504 Woodcreek Dr.	1454 Mollys Run	3259 Harrison Rd	1706 Wyndham Rd.	1446 Mollys Run	4712 Gettysburg Rd., EPW4	5026 Arthur Ave.	5120 Simpson Ferry Rd UMHC	Cedar Springs Run Park	Moreland Court – vacant lot	Ravenwood Road – vacant lot	2237 Gettysburg Rd.	Way		3350 Harrison Rd	1446 Mollys Run	C
	20140569- 573	20140384		20140384	NA			20140406	20140513	20140384	20140354		20140382								527 aand 733	20140519	20140382		D
20140290						N						DP 2012-02		2005-01	2010-04			2003-06	2003-06						П
	MS4		MS4	MS4		MS:4	MS4	MS4	MS4	MS4	MS4		MS4			MS4				MS4				MS4	71
Final site inspection w/CCCD. Re-check in spring.	SLD site stablization controls in place		ISLD site stabilization controls in place	SLD site stabilization controls in place	property owners to utilize conservation planting and SWM practices.	Attended YBWA meeting. Discussion included several community outreach programs that will encourage and train	CAPCOG MS4 Workshop (Lemoyne)	SLD site stabilization & controls in place	BMP controls in place	SLD site stabilization controls in place	SLD site stabilization controls in place	Phone: Brian Rhykerd, re: BMP inspection reporting	SLD site stabilization controls in place	Phone: Molly Fidler, select Capital, re: BMP inspection reporting	Phone: Tracy Etter, re: BMP inspection reporting	R	Storm Water manhole installed near ped. Bridge.	Phone: Bob Fisher, RJ Fisher Associates, re: SWM issues with development of vacant lot.	Phone: Bob Fisher, RJ Fisher Associates, re: SWM issues with development of vacant lot.	Field inspection: EandS site controls.		Check BMP swale at Shed.	SID site stabilization controls in place	SLD site stabilization controls in place	G
	<u> </u>	1						-t	, *	•			*	· · · · · · · · · · · · · · · · · · ·											

255	254	253	252	251	250	249	248	247	246	245	244	243	242	241	240	239	238	237	236	235	234	233	232	231	230	
01/07/14 REL	01/06/15 DJF	01/05/15 DJF	12/31/14 REL	12/30/14 DJF	12/23/14 REL	12/19/14 REL	12/18/14 DJF	12/18/14 DJF	12/16/14 DJF	12/16/14 REL	12/15/14 DJF	12/15/14 DJF	12/15/14 DJF	12/12/14 DJF	12/15/14	12/12/14 DJF/ RJA	12/11/14 DJF	12/11/14 REL	12/10/14 RJA	12/08/14 DJF	12/8/14 DJF	12/5/14 REL	12/5/14 REL	12/5/14 RJA	12/4/14 RJA	Α
REP	먉	DJF	REL	무	REL	REL	DJF	DJF	JLD	REL	DJF	DJF	DJF	ard	RJA	DJF/ RJA	Jrd	REL	Aľ	DJF	DE	REL	REL	RJA	RJA	В
1454 Mollys Run	2015 Street Paving/Drainage: Slate Hill Rd.; Rosement Ave.; New York Ave.	2410 Gettysburg Rd.	3257 Harrison Rd	2237 Gettysburg Rd.	1504 Woodcreek Dr.	3255 Longview Rd	850 Lisburn Rd: Brooks Edge	Highpoint 1445 Arcona Rd.	4732 Gettysburg Rd	3255 Longview Rd	880 Century Drive	2404 Gettysburg Rd.	5035 Ritter Rd.	Highpoint 1445 Arcona Rd.	4114 Willow Bend	New York Ave./Lebanon Ave.	2410 Massachusetts Ave.	1431-39 Keegan Lane	2239 Gettysburg Rd	2410 Gettysburg Rd.	880 Century Drive	1431-1439 Keegan Lane	1448 Mollys Run	1656 Lowell Ln	2410 Gettysburg Rd.	C
20140384			20140618		20140513	20140381				20140381								20140569-73	20140438							D
		DP 2014-05					2013-07	2014-01	2014-02		2007-09	2015-01	DP 2010-02	2014-01			2010-01			DP 2014-05	2007-09	20140569-573	20140406	20130562	Pending	т
MS4	MS4		MS4	MS4		MS4									MS4	MS4		MS4								П
SLD site stabilization & controls in place	Drainage system improvement design.	Phone: Dave Weihbrecht, Advantage Engineers, re: SWM, Drainage Plan requirements.	SLD site stabilization & controls in place	Field inspection: EandS site controls.	Site inspectin E&S controls in place	SLD site stabilization & controls in place	Field inspection: EandS site controls.	Field inspection: EandS site controls.	Phone: Frank Lentz re: SWM basin criteria	SLD site stabilization & controls in place	Phone: Frank Lentz, K and W Engineers, re: BMP inspection reporting	Meeting with design engineer, K and W	Phone: Bill Hollenbaugh re: BMP inspection reporting	Field inspection: EandS site controls.	Basin status.	Field survey for 2015 drainage improvement project with street paving	Phone: Dillon Shannon re: BMP inspection reporting	SLD site stabilization controls in place	E and S controls.	Phone: Dave Weihbrecht, Advantage Engineers, re: SWM, Drainage Plan requirements.	Phone: Frank Lentz, K and W Engineers, re: BMP inspection reporting	SLD site stabilization controls in place	SLD site stabilization controls in place	Site final grading.	Site inspection. Wood chip berm OK.	G

C	271	7	01/20/15	270	 01/20/15 RFI	269	01/16/15 REL	268	01/16/15	267	01/15/15	266		01/15/15 DJF	265 01/14/15 RJA	01/14/15 264	01/12/15 REL 263	01/12/15 DJF 262	261 01/12/15 DJF	260 01/12/15 DJF	259 01/09/15 DJF	258 01/08/15 DJF	257 01/08/15 DJF	256	01/07/15 REL	A	
D E F 20140384 20140384 2015-01 MS4 MS4 20140384 2015-01 MS4 MS4 20140384 2014-01 MS4 nent 20140544 20140543 20140544 MS4 MS4 MS4 MS4 MS4 MS4 MS4			REL		RFI		REL		P.F.		R P				RJA	ara		DJF	DJF		DJF	JLG			REL	Φ	
E F MS4 MS4 MS4 2015-01 MS4 MS4 2012-01 MS4 MS4 MS4 MS4 MS4 MS4 MS4 MS			1633 Lowell Lane				1633 Lowell Lane	Over, INCW TOTA OVer.	2015 Street Paving/Drainage: Slate Hill Rd.; Rosement		1635 Lowell Lane		Ave.: New York Ave.	2015 Street Paving/Drainage:	Highpoint 1445 Arcona Rd	2700 Yetter Ct.	1454 Mollys Run	1000 Block St. Johns Rd.	LAT	2404 Gettysburg Rd.	LAT	LAT	2500 Lisburn Rd.		1454 Mollys Run	C	
MS4 MS4 MS4 MS4 MS4 F		20140543	•	20140544		20140543				20140544				***************************************			20140384							20140384		D	AND THE PROPERTY OF THE PROPER
															2014-01	2012-01				2015-01						m	
SLD site stabilization & controls in place SLD site stabilization & controls in place Phone: Carol Piontkowski, DOC, re: MS4 reporting requirements. MS4 database/spreadsheet update SVM Design plan review. MS4 database/spreadsheet update Phone: Harry Riley re: potential improvements to storm drainage system. SLD site stabilization & controls in place Phone: Brett McGowan, Vantage Foods, re: BMP inspection reporting requirements Right-of-way inspection. Checked E and S Drainage system improvement design. E&S Controls BMP inspection E&S Controls BMP inspection E&S Controls BMP inspection E&S Controls BMP inspection			MS4		MS4		MS4		MS4		MS4			MS4			MS4	MS4	MS4		MS4	MS4	MS4		MS4	П	
	Concrete clean out Continue to monitor and maintain as		Controls						Drainage system improvement design.		Controls			Drainage system improvement design.	/ inspection.	Phone: Brett McGowan, Vantage Foods, re: BMP inspection reporting requirements	SLD site stabilization & controls in place	Phone: Harry Riley re: potential improvements to storm drainage system.	MS4 database/spreadsheet update	SWM Design plan review.	MS4 database/spreadsheet update	MS4 database/spreadsheet update	Phone: Carol Piontkowski, DOC, re: MS4 reporting requirements.		SLD site stabilization & controls in place	G	CHACLE

	MCM 6 documentation	MS4			LAT	2/2/15 DJF		295
	Drainage improvements design	MS4			2015 Street Paving Project	2/2/15 DJF		294
	Designer re: sketch plan		2015-04		4530 Lena Drive	2/2/15 DJF		293
	rock lined channel to grass lined swale.				State Hill Rd.; Rosement Ave.; New York Ave.		10	292
	Phone: Mike Manning, Slate Hill Rd., re: potential to modify	MS4			2015 Street Paving/Drainage:	/15 DJF	1/30/15	
	E&S Controls BMP inspection	MS4		20140543	1633 Lowell Lane	/14 REL	1/29/14	291
	E&S Controls BMP inspection	MS4		20140544	1635 Lowell Lane	/15 REL) 1/29/15	290
	SLD site stabilization & controls in place	MS4		20140618	3257 Harrison Rd	/15 REL	1/29/15	289
	County meeting re: GIS mapping of stormwater facilities/vector control.	MS4			LAT	/15 DJF	1/29/15	288
	requirements.		2012-03		300 I Simpson Felly Road	700		287
		MS4	3		LAT	/15 DJF		286
	Meeting: Mark Shrift, K and W Engineers, re: SWM for upgrades to stadium area.		Future DP		3601 Simpson Ferry Road	/15 DJF		285
					State Hill Rd.; Rosement Ave.; New York Ave.		+>	284
	Drainage system improvement design.	MS4			2015 Street Paving/Drainage:	/15 DJF	1/26/15	
	Phone: Frank Lentz, K and W Engineers, re: SWM design		2015-01		2404 Gettysburg Rd.	/15 DJF	3 1/23/15	283
	Drainage system improvement design.	MS4			2015 Street Paving/Drainage: Slate Hill Rd.; Rosement Ave.; New York Ave.	/15 DJF	1/23/15	282
	SLD site stabilization & controls in place			20140346	3255 Harrison Rd		1 01/23/15	281
	BMP trench inspected.			20140167	1841 Brookview Dr.	/15 RJA	01/22/15	280
	Phone: Buck Bigler re: BMP reporting requirements.		2005-02		2121 Cedar Run Dr.	/15 DJF	9 01/22/15	279
	SLD site stabilization & controls in place	MS4		20140619	1329 Yarmouth Lane	/15 REL	01/21/15	278
	E&S Controls BMP inspection	MS4		20140543	1633 Lowell Lane	/15 REL	01/20/15	277
	Phone: Mark Shrift, K and W Engineers, re: SWM for upgrades to stadium area.		Future DP		3601 Simpson Ferry Road	/15 DJF	01/20/15	276
	Phone/email: Steve Fulton, ARM re: revised soil amendment design for BMPs.		2014-01		Highpoint 1445 Arcona Rd.	/15 DJF	01/20/15	275
	Field ilivestigation for dialitage system improvement design.	NO.4			Slate Hill Rd.; Rosement Ave.; New York Ave.	200	4	274
	Phone: Adam Davis, K and W Engineers, re: SWM design	707	2015-01		2404 Gettysburg Rd.	/15 DJF		273
-	G	П	m	D	C	В		Π
	Ollege							

l ownship facilities inventory	MS4			ILAI	4ra 91/81/2	333
LD Plan review		2015-01		2404 Gettysburg Rd.	2/19/15 DJF	332
Timber cleared from vacant field. Mulch to be placed at	MS4			4530 Lena Dr.	2/18/15 RJA	331
MS4 database update	MS4			LAT	2/18/15 DJF	330
Drainage improvements design	MS4			2015 Street Paving Project	2/18/15 DJF	329
PaDEP MS4 webinar	MS4			LAT	2/18/15 DJF	328
Inspection forms; mapping updates; program planning	MS4			LAT	2/18/15 DJF	327
				1403-1415 Benton Way		326
SLD site stabilization controls in place	MS4			1400-1410 Saxton Way	2/17/15 REL	325
LD Plan review		2015-01		2404 Gettysburg Rd.	2/17/15 DJF	324
BV Auditorium LD Plan review		2015-02		325 Wesley Drive	2/17/15 DJF	323
SLD site stabilization controls in place	MS4		20140569-73	1431-4139 Keegan Lane	2/13/15 REL	322
SLD site stabilization controls in place	MS4		20150011-14	1423-29 Keegan Lane	2/13/15 REL	321
				1403-1415 Benton Way		320
SLD site stabilization controls in place	MS4			1400-1410 Saxton Way	2/13/15 REL	319
BV Auditorium LD Plan review		2015-02		325 Wesley Drive	2/12/15 DJF	318
SLD site stabilization controls in place	MS4		20150011-14	1423-1429 Keegan Lane	2/12/15 REL	317
System mapping updates; program planning	MS4			LAT	2/12/15 DJF	316
LD Plan review		2015-01		2404 Gettysburg Rd.	2/11/15 DJF	315
System mapping updates	MS4			LAT	2/11/15 DJF	314
SLD site stabilization controls in place	MS4		20140618	3257 Harrison Rd	2/11/15 REL	ω ω
PaDEP MS4 Permit Compliance Workshop	MS4			LAT	2/10/15 DJF	312
LD Plan review		2015-01		2404 Gettysburg Rd.	2/9/15 DJF	311
BV Auditorium LD Plan review		2015-02		325 Wesley Drive	2/9/15 DJF	310
				1403-1415 Benton Way		309
SLD site stabilization controls in place	MS4			1400-1410 Saxton Way	2/9/15 REL	308
SLD site stabilization controls in place	MS4		20140618	3257 Harrison Rd	2/9/15 REL	307
Phone: Rich Chubb re: BMP reporting requirements.				5120 Simpson Ferry Rd	2/6/15 DJF	306
SLD site stabilization controls in place				14003-1415 Benton Way		305
SLD site stabilization controls in place	MS4			1400-1410 Saxton Way	2/5/15 REL	304
SLD site stabilization controls in place	MS4		20140618	3257 Harrison Rd	2/5/15 REL	303
SLD site stabilization controls in place	MS4		20140406	1448 Mollys Run	2/4/15 REL	302
SLD site stabilization controls in place				1400-1410 Saxton Way		301
	MS4			_ 1403 -1415 Benton Way	2/4/15 REL	300
Drainage improvements design, field work	MS4			2015 Street Paving Project	2/4/15 DJF	299
MCM 6 documentation	MS4			LAT	2/3/15 DJF	298
Drainage improvements design	MS4			2015 Street Paving Project	2/3/15 DJF	297
Phone; Iorlando, West Shore Window and Door, re: BMP reporting requirements.		2012-02		5024 Simpson Ferry Rd	2/2/15 DJF	296
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				*			Olicati	
	A	iω	C	D	m	77	G	
334	2/19/15 DJF 02/20/15 REL		1431-1439 Keegan I ane			MS4	Annual MCM6 training materials preparation	
335			ואס ויפכאמוי רמווכ	20140569-73		1	סבט אופ אמטוויצמווטוו כטווויטוא ווי טומכפ	ENGINEERING
336	02/19/15 DJF		2015 Street Paving Project			MS4	Drainage improvements design	
337	02/19/15		4530 Lena Drive		2015-04		Designer re: sketch plan	
338	02/23/15 RJA		1406 Chatham Rd.		Pending		E-mailed PAWC. SWM violation warning pumping dirty water in the street from excavation.	
339	02/23/15 DJF		LAT			MS4	Annual training preparation; PPC update	
340	02/23/15 DJF		LAT			MS4	Jim Fair, Lemoyne Borough, re: joint annual MCM6 training	
341	02/23/15 DJF		2404 Gettysburg Rd.		2015-01		Designer re: SWM requirements	
342	02/24/15 DJF		LAT			MS4	Annual training preparation; program planning	
343	02/24/15 REL		1423-29 Keegan Lane	20150011- 14		MS4	SLD site stabilization controls in place	
344	02/24/15 REL		1431-1439 Keegan Lane	20140569- 573		MS4	SLD site stabilization controls in place	
345	02/25/15 DJF		2404 Gettysburg Rd.		2015-01		LD Plan review	
346	02/26/15 DJF		LAT			MS\$	Center for Watershed Protection MS4 webinar	
347	02/26/15 REL		1431-1439 Keegan Lane	20140569- 573		MS4	SLD site stablization controls in place	
348		L	3255 Longview Rd	20140381		MS4	SLD site stabilization controls in place	
349		<u> </u>	AT			MS4	MS4 GIS mapping	
350	03/06/15 ALL					MS4	MS4 Trainig Meeting	
351	3/9/15 REL		5043 Ravenwood Rd	20150025		MS4		
352	3/11/15 RJA	\perp	50/3 Paverwood Dd	20150025		MS4	Delivered Stop Work. Gave OK to continue setting forms	
354	03/16/15 REL		5043 Ravenwood Rd	20150025		MS4	All site control items in place	
355	03/16/15 REL		1421-1433 Benton Way &	20150009		MS4	SLD site stablization controls in place	
356	01/29/15 jme		1520 Slate Hill Road	NA		MS4	referred resident phone call to DJF about roadside drainage	
357	01/29/15 jme		NA	NA		MS4	Planning for YBWA sponsored MS4 training available to LAT	
358	02/18/15 jme	L	NA	NA NA		MS4	Promotional efforts for YBWA sponsored MS4 training	
359	2/20/15 jme	_	NA	NA		MS4	Promotional efforts for YBWA sponsored MS4 training	
360	02/22/15 jme		NA	NA		MS4	Promotional efforts for YBWA sponsored MS4 training	
367	02/23/15 jme		NA	NA		MS4	Promotional efforts for YBWA sponsored MS4 training	

374 375	373	372	371	370	369	368	367	366	365	364	363	362		
							3/18/15 jme	3/2/15 jme	2/27/15 jme	02/26/15 jme	363 02/25/15 jme	02/24/15 jme	₽	
							jme	jme	jme	jme	jme	jme	Β	
							NA	NA	NA	NA	NA	NA	C	
,							NA	NA	NA	NA	NA	NA	D	
													m	
							MS4	MS4	MS4	MS4	MS4	MS4	П	
							Reviewed public outreach calendar of events with YBWA	Promotional efforts for YBWA sponsored MS4 training	Promotional efforts for YBWA sponsored MS4 training	Promotional efforts for YBWA sponsored MS4 training	Promotional efforts for YBWA sponsored MS4 training	Promotional efforts for YBWA sponsored MS4 training	G	Ç., Ç.,
													I	

Lower Allen Township

2233 Gettysburg Road Camp Hill, Pa. 17011 Complaints Report

From: 04/01/2014

To: **03/31/2015**

Comp#	Date	Туре	Tax Id	Legal Address Ir	nspector	Status
14-50343	4/14/2014	4 Stormwater Mgmt.	13-24-0799-143	131 LIMESTONE DRIVE		
Desc:						Closed
a	illegedly dum	nping wood, railings etc	into creek			
			40.04.0700.440	400 LIMECTONE DOWE		•
14-50346	4/15/2014	4 Stormwater Mgmt.	13-24-0799-142	129 LIMESTONE DRIVE		
Desc:	lumanad bia u	waadan iynala aym alar	as Word trucking fonce			Closed
C	iumpea nis w	vooden jungle gym alor	ng Ward trucking fence			
14-50366	4/30/2014	4 Stormwater Mgmt.	13-24-0795-004	4700 GETTYSBURG ROAD		
Desc:		_		•		Closed
c	concerned ab	oout amount of runoff fr	om parking lot area onto	the roadway		
14-50387	5/1/2014	Stormwater Mgmt.	13-10-0256-011	1445 ARCONA ROAD	, 	
Desc:						Closed
\	work done on	n construction site for jo	bb trailer prior to obtainin	g permit E&S controls not in place	ce	
14-50383	5/9/2014	Stormwater Mgmt.	13-25-0010-260	95 DEERFIELD ROAD		
Desc:		3				Closed
	concerned ab	oout dirt pile(in right re	ar corner of property fro	m 105 Deerfield) blocking natural	drainage and	d :
(creating stagi					
14-50419	5/30/2014	4 Stormwater Mgmt.	13-24-0799-175A	1200 SAINT JOHNS ROAD	•	
Desc:					* *	Closed
;	a white subst	tance flowing into Ceda	r Run from the terminal	s parking lot.		
				• •		
14-50446	6/11/201	4 Stormwater Mgmt.	48-24-0795-072	200 SOMERSET DRIVE		
Desc:						Closed
1	mowing grass	s into the street				
14-50459	6/17/201	4 Stormwater Mgmt.	48-24-0795-045	313 SOMERSET DRIVE		
Desc:	0, 1,7,201	. otomication mgmi	, , , , , , , , , , , , , , , , , , , ,			Closed
	blowing grass	s into street				0.0004
	5 5			· ·		

practices/facilities?

☐ Yes ☐ No

MS4 Annual/Progress Report
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: Four (4)
2. Describe the tracking system in place: Spreadsheet to document site inspections
3. Describe the structural and/or non-structural BMPs that were required for these projects:
Data included in page 15 of this report
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. Attached
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.
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: Adopted 3/8/04, amended 2/14/11
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? $\boxed{\chi}$ Yes $\boxed{}$ No

3. Do you have authority to take enforcement action for failure to properly operate and maintain stormwater

seeded/planted.	_				-	23	
Rain event inspection. Minimal basin storage, basin not yet		2013-01		4732 Gettysburg Rd	4/30/14 D IF	+	T.
bank. Downstream, starting to pond at outlet.	MS4			4713 Gettysburg Rd – Bortek	4/30/14 DJF		<u>ુ</u>
roadway.				Rd	0		2
	MS4			Gettysburg Rd at Audobon	4/30/14 D.IF	十	1
established. Follow up with upstream property owner.	MS4			4641 Westport Drive - MEPS	4/30/14 DJF		20
7 20 0	IVI O			St Johns Rd – Gettysburg Rd to US 15	4/30/14 DJF		19
wall extens	IVI V4			Edgar Lane Channel	4/30/14 DJF		18
Rain event	MS:4			Deerfield Rd at Allendale Way	4/30/14 DJF		17
performing		2008-11		1301 Carlisle Rd – CCHS	4/30/14 DJF		16
Rain event	MS4			Chatham Rd/Elmhurst Rd	4/30/14 DJF		5
Site and Bi			20130363	1525 Slate Hill Rd.	4/29/14 RJA		14
Direction of the DAMP			MS4	property		ω	<u></u>
Reported observations from May 28 to CCCC (IVICCOIIUIII)				Lisburn Rd between Spangler	4/29/14 JME		
			MS4	property		2	12
disturbance from UGI pipeline project				Lisburn Rd between Spangler Mill Rd and west end of SCIC	4/28/14 JME	4/2	I
E and S email sent to I riple Crown			20140069	850 Lisburn Rd.	4/14/14 RJA	\dashv	1
Site inspection. Grading.			20130535	5017 Hart Crossing	04/08/14 RJA	\dashv	3
Inspected grass parking area. Grid reported exposed.				LAT Park	04/03/14 RJA	-	ဖြ
1		2012-07		3400 Hartzdale Dr	04/03/14 RJA	\dashv	_∞
		2013-03		4915 Ritter Rd	04/01/14 RJA	04/0	7
Meeting w/ Hartman and Assoc.			Pending	1302 Slate Hill Rd.	03/04/14 RJA	03/0	0
	Other	SLD or DP #	Permit #	Location	Date Empl ovee		O1
	. 1		Identifier			L	4
				Allen Township	Lower Allen	Г	 သ
		4		/		Stormw	N
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					Allen	Allen	
					Lower	Lo	
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Chapter 184. Stormwater Management

Article VII. Prohibited Acts

§ 184-37. Prohibited discharges and connections.

- A. Any drain or conveyance, whether on the surface or subsurface, which allows any nonstormwater discharge, including, but not limited to, sewage, process wastewater, wash water, ammonia, chlorine, petroleum products (gasoline, fuel oil, etc.) pesticides, pollutants and other hazardous materials to enter the municipality's separate storm sewer system or to enter the waters of the commonwealth is prohibited. Handling and disposal of all materials and wastes shall comply with all federal and state requirements. Structural and nonstructural BMPs, in accordance with Chapters 5 and 6 of the most current version of the SWM Manual, shall be implemented where necessary to preserve the quality of stormwater runoff.
- B. Discharges to the municipality's separate storm sewer system or to waters of the commonwealth which are not composed entirely of stormwater shall be prohibited, except as provided in Subsection C below, and discharges allowed under a state or federal permit.
- C. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of this commonwealth:
 - (1) Discharges from fire-fighting activities, including training.
 - (2) Potable water sources, including dechlorinated waterline and fire hydrant flushing.
 - (3) Irrigation drainage.
 - (4) Air-conditioning condensate.
 - (5) Springs.
 - (6) Water from crawl space or basement sump pumps.
 - (7) Flows from riparian habitats and wetlands.
 - (8) Uncontaminated water from foundations or from footing drains.
 - (9) Lawn watering.
 - (10) Dechlorinated swimming pool discharges.
 - (11) Uncontaminated groundwater.
 - (12) Water from individual residential car washing.
 - (13) Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.

- (14) Routine external building wash down (which does not use detergents or other compounds).
- D. In the event that the municipality or DEP determines that any of the discharges identified in Subsection **C** significantly contribute to pollution of the waters of this commonwealth, the municipality or DEP will notify the responsible person(s) to cease the discharge.
- E. Nothing in this section shall affect a discharger's responsibilities under state or federal law.

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:

N/A

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.
- 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:
- 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).

Agreements w/inspections by owners or his engineer, twp. when

requested by owner Date that inspection program was last reviewed or updated:

3/31/15

- Total number of sites with PCSM BMPs installed as of the date of this report: 102 5.
- Total number of sites inspected during this reporting period:

28

7. Number of sites found to have PCSM BMP deficiencies:

Number of enforcement actions taken during this reporting period:

2014 -2015 Lower Allen Township

Site Inspections Following Rain Events

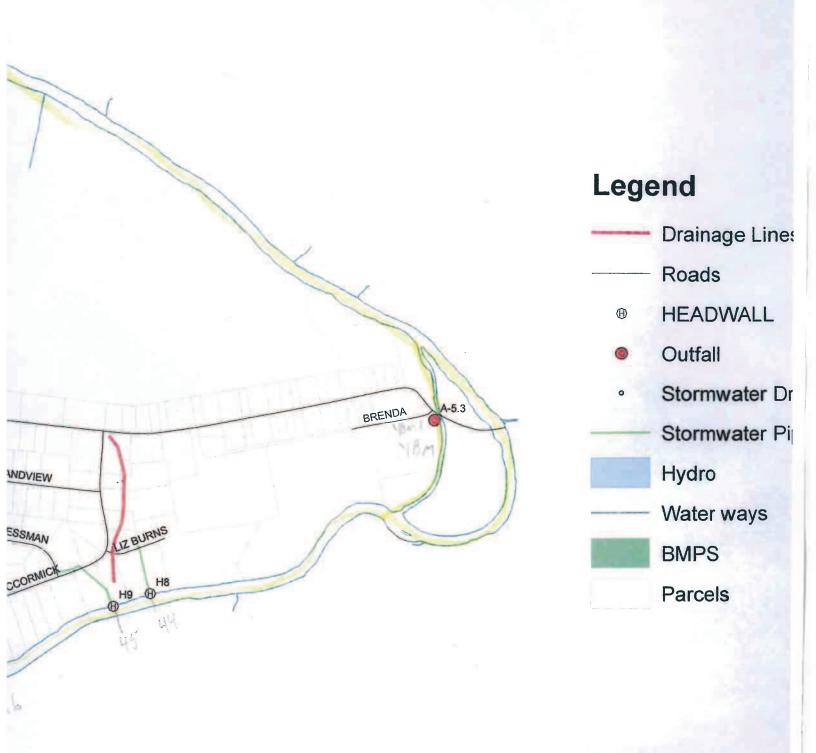
		2410 Common Day	20140618 MS4 F	2237 Gettysburg Rd. MS4	2237 Gettysburg Rd MS4	2237 Gettysburg Rd. MS4	2237 Gettysburg Rd. MS4	2237 Gettysburg Rd. MS4	2237 Gettysburg Rd. MS4	2237 Gettysburg Rd. MS4	2237 Gettysburg Rd. MS4	12/30/14 DJF 2237 Gettysburg Rd. MS4 Ra	2237 Gettysburg Rd. MS4	The state of the s	3257 Harrison Rd 20140618 MS4 F	325 / Harrison Rd 20140618 MS4	2410 Gettysburg Bd	24 10 Gettyshura Rd	the Conyaguing No.
MS4	MS4	MSA			MS4 Rain event inspection	MS4 Rain event inspection	MS4 Rain event inspection	MS4 Rain event inspection	MS4 Rain event inspection	MS4 Rain event inspection	MS4 Rain event inspection	Rain event inspection.	Rain event inspection.				MS4	MS4	DP 2014- MS4 P

2014 -2015 Lower Allen Township

Site Inspections Following Rain Events

12/3/14 REL	1454 Mollys Run	20140384		MS4	Rain event inspection Check roadside drainage.
12/3/14 REL	1431-1431 Keegan	573		MS4	Rain event inspection. Check roadside and crosspipe drain
12/4/14 RJA	2750 Yetter Court		20140290		Rain event inspection. Check roadside and low point drains
12/4/14 RJA	2410 Gettysburg Rd.		Pending		Check roadside
12/5/14 RJA	1656 Lowell Ln		20130562		Rain event inspection. Check roadside and low point/poten
12/5/14 REL	1448 Mollys Run		20140406		Rain event inspection. Check roadside and low point/poten
12/5/14 REL	1431-1439 Keegan		20140569-		Rain event inspection. Check roadside drainage.
12/8/14 DJF	880 Century Drive		2007-09		
12/08/14 DJF	2410 Gettysburg Rd.		DP 2014-		Rain event inspection. Check roadside drainage.
12/10/14 RJA	2239 Gettysburg Rd	20140438			Rain event inspection. Check roadside drainage.
12/11/14 REL	1431-39 Keegan Lane	20140569-73		MS4	
12/11/14 DJF	2410 Massachusetts		2010-01		
12/12/14 DJF/RJA	New York			MS4	Rain event inspection. Check roadside drainage.
12/15/14 RJA	4114 Willow Bend			MS4	Rain event inspection. Check roadside drainage.
12/12/14 DJF	Highpoint 1445		2014-01		Rain event inspection. Check roadside drainage.
12/15/14 DJF	5035 Ritter Rd.		DP 2010-		
12/15/14 DJF	2404 Gettysburg Rd.		2015-01	-	Rain event inspection. Clear, no ponding.
12/15/14 DJF	880 Century Drive		2007-09		Rain event inspection. Discharge from basin properly contr
12/16/14 REL	3255 Longview Rd	20140381			Rain event inspection. Minimal basin storage, basin not ye
12/16/14 DJF	4732 Gettysburg Rd		2014-02		Rain event inspection. Moderate channel flow. New gabion
12/18/14 DJF	Highpoint 1445		2014-01		Rain event inspection. New catch basin working properly
12/18/14 DJF	850 Lisburn Rd:		2013-07		Rain event inspection. Pump not running, not needed.
12/19/14 REL	3255 Longview Rd	20140381		MS4	Rain event inspection. Rain garden with minimal storage
12/23/14 REL	1504 Woodcreek Dr.	20140513			Rain event inspection. Repaired pipe section draining.
12/30/14 DJF	2237 Gettysburg Rd.			MS4	Rain event inspection. Roadside swales filling, no flow on
12/31/14 REL	3257 Harrison Rd	20140618		MS4	Rain event inspection. Second channel cut has been re-
01/05/15 DJF	2410 Gettysburg Rd.		DP 2014-		Rain event inspection. System ok, no excessive flow in str
01/06/15 DJF	2015 Street			MS4	Rain event inspection. Upstream flowing ok, not near top o

BMP_Descr	Year	Plan_Number	Zip	Parcel	City	Street	Number	BMP_Number
Det. Bas		SLD-2001-01	17055	13-09-0545-005A	Mechanicsburg	Wesley Dr.	335	38
		SLD-2006-17	17055	13-09-0545-006	Mechanicsburg	Wilson Lane	5225	1
	2007		17055	13-09-0545-006	Mechanicsburg	Wesley Dr. Suite 20	325	96
Underground Dete	2006	SLD-2005-12	17011	13-09-0547-007	Camp Hill	Lisburn Rd.	2500	49
	2009		17011	13-09-0547-007	Camp Hill	Lisburn Rd.	2500	79
	2005		17011	13-09-0547-007	Camp Hill	Lisburn Rd.	2500	82
Det. Bas		SLD-2001-14	17055	13-09-0545-006	Mechanicsburg	Wilson Ln.	5225	39
Detention B	2003	SLD-2002-04	17055	13-10-0256-004	Mechanicsburg	Westport Dr.	4700	36
Det. Bas		SLD-2001-11	17055	13-10-0256-015C	Mechanicsburg	Ritter Rd.	4925	42
	2007		17055	13-10-0256-015C	Mechanicsburg	Ritter Rd.	4925	89
Det. Bas	200.	SLD-1998-09	17055	13-10-0256-018	Mechanicsburg	Ritter Rd.	5040	48
2 Det. Ba	2003	SLD-2002-05	17055	13-10-0256-024	Mechanicsburg	Westport Drive	4500	37
2 DOI: DO	2000	SLD-2002-03	17055	13-10-0256-030	Mechanicsburg		4510	2
Det. Bas		SLD-1998-04	17055			Westport Drive		
Det. Das	2000	3LD-1990-04		13-10-0256-037	Mechanicsburg	Manor Dr.	1215	47
**************************************	2008		17055	13-10-0256-037	Mechanicsburg	Manor Dr.	1215	85
	2006		17055	13-10-0256-039	Mechanicsburg	Westport Dr.	4545	91
Det. Bas		SLD-1999-03	17055	13-10-0256-041	Mechanicsburg	Lena Dr.	4550	45
2 Swales, 1 Deter		SLD-1999-06	17055	13-10-0256-043	Mechanicsburg	Westport Drive	4751	46
d 1 (2 Det. Basin; 2 WC		SLD-200402	17055	13-10-0256-055	Mechanicsburg	Manor Dr.	4557	29
d 2 (2 Det. Basin; 2 W0	2005 or	SLD-200402	17055	13-10-0256-058	Mechanicsburg	Woods Way	4513	29
d 3 (2 Det. Basin; 2 W0	2005 or	SLD-200402	17055	13-10-0256-066	Mechanicsburg	Woods Way	4518	29
d 4 (2 Det. Basin; 2 W0	2005	SLD-200402	17055	13-10-0256-068	Mechanicsburg	Woods Way	4526	29
	2012		17055	13-10-0256-087	Mechanicsburg	Meridian Way	2960	95
Det. Basin; Bio I	2006	SLD-2004-11	17011	13-10-0258-004	Camp Hill	Slate Hill Rd.	1352	24
Paved Flow Char	2004	SLD-2003-03	17011	13-10-0258-007A	Camp Hill	Yetter Ct.	2715	32
Taved How Offai	2012	310-2003-03	17011	13-10-0258-012	Camp Hill	Yetter Ct.		
	2012						2700	80
Indituation T		DD 0000 05	17011	13-10-0258-015	Camp Hill	Lisburn Rd.	2645	71
Infiltration T	2006	DP-2006-05	17055	13-10-0258-034	Mechanicsburg	Thompson Ln.	1510	8
	2006		17055	13-10-0258-034	Mechanicsburg	Thompson Ln.	1510	93
	2011		17055	13-10-0258-063	Mechanicsburg	Thompson Ln.	1595	67
	2009		17011	13-10-0260-005	Camp Hill	Spanglers Mill Rd.	1425	73
	2011		17070	13-10-0260-010	New Cumberland	Brookview Drive	1841	66
2 Water Quality Inlets/	2006	SLD-2005-25	17055	13-10-0256-039	Mechanicsburg	Westport Drive	4545	10
Cross Pipe to		SLD-2001-18	17055	13-11-0270-042	Mechanicsburg	Lisburn Rd.	3940	44
	2003		17055	13-11-0270-042	Mechanicsburg	Lisburn Rd.	3804	59
	2007		17055	13-11-0270-073	Mechanicsburg	Wellgate Ln.	1403	92
	2011		17055	13-11-0270-098	Mechanicsburg	Liberty Cove	1718	69
	2008		17055	13-11-0270-099	Mechanicsburg	Liberty Cove	1724	86
	2010	TO A COLOR OF THE PARTY OF THE	17055	13-11-0270-101	Mechanicsburg	Liberty Cove	1730	72
Roadside Swells/ 2	2006	SLD-2005-24	17055	13-11-0270-109	Mechanicsburg	Liberty Cove	1705	11
	2009		17055	13-11-0270-097	Mechanicsburg	Liberty Cove	1712	75
2 Detention Basins (2000	SLD-2001-10	17011	13-10-0258-015	Camp Hill	Lisburn Rd.	2645	41
Detention B		SLD-2005-11	17011			State Rd.		
				13-22-0536-057	Camp Hill		1850	17
Det. Bas		SLD-1997-08	17011	13-22-0826-013	Camp Hill	Hummel Ave.	1400	51
5 Pipes to Deten		DP-2003-04	17011	13-23-0545-416	Camp Hill	Carlisle Rd.	1301	33
Det. Bas		SLD-1992-05	17011	13-23-0549-003	Camp Hill	Gettysburg Rd.	2404	52
		SLD-2006-05	17011	13-23-0549-018A	Camp Hill	Gettysburg Rd.	2233	4
	2012		17011	13-23-0549-107	Camp Hill	Massachusetts Ave.	2420	63
*******	2011	N-10-10-10-10-10-10-10-10-10-10-10-10-10-	17011	13-23-0549-109	Camp Hill	Massachusetts Ave.	2414	65
	2011		17011	13-23-0549-242	Camp Hill	Massachusetts Ave.	2410	64
Basin Roo		SLD-2006-04	17011	13-23-0551-028	Camp Hill	Morningside Dr.	3130	5
Infiltratio	2006	SLD-2004-10	17011	13-23-0551-114A	Camp Hill	Hartzdale Dr.	3300	25
	2011		17011	13-23-0551-153	Camp Hill	Santa Maria Ave.	21	68
	2013		17011	13-23-0553-013	Camp Hill	Simpson Ferry Rd.	3601	56
	2012		17011	13-23-0553-026	Camp Hill	Gettysburg Rd.	3702	61
SW Quality Inlet	2006	SLD-2006-02	17011	13-23-0553-060	Camp Hill			
OVV Quanty nact		3LD-2000-02				Gettysburg Rd.	3599	6
	2006		17011	13-23-0553-060	Camp Hill	Gettysburg Rd.	3599	90
	2011		17011	13-23-0553-064	Camp Hill	Zimmerman Dr.	75	70
	2012		17011	13-23-0555-083	Camp Hill	Locust St.	145	62
	2009		17050	13-23-0559-088	Mechanicsburg	Arthur Ave.	5022	74
	2008		17050	13-23-0559-087	Mechanicsburg	Arthur Ave.	5030	87
	2012		17011	13-23-0559-090	Mechanicsburg	Simpson Ferry Rd.	5024	57
2 Detention E		SLD-2001-03	17055	13-24-0793-161	Mechanicsburg	Wesley Dr.	216	40
		SLD-2005-01	17055	13-24-0795-001A	Mechanicsburg	Century Dr.	960	19
***	2005		17055	13-24-0795-003	Mechanicsburg	Gettysburg Rd.	4712	77
Underground Sto	2006	DP-2005-06	17055	13-24-0795-014	Mechanicsburg	Upland St.	758	21
Underground Sto	2006	DP-2005-07	17055	13-24-0795-047	Mechanicsburg	Belmont St.	812	20
		A A SERVICE DE LA CONTRACTOR DE LA CONTR						
Det. Basin; WQ	2005	SLD-2004-05	17055	13-24-0795-165	Mechanicsburg	Century Dr.	910	28
Detention B	2006	DP-2006-04	17055	13-24-0795-170	Mechanicsburg	Woodland St.	950	9
	2006		17055	13-24-0795-170	Mechanicsburg	Woodland St.	950	60
	2008		17055	13-24-0795-174A	Mechanicsburg	Century Dr.	880	88



Mailings to property owners in Lower Allen Township with Stormwater Management BMP's installed on their property 2233 GETTYSBURG ROAD . CAMP HILL, PENNSYLVANIA 17011

October 27, 2014

RE: National Pollutant Discharge Elimination System (NPDES)

Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMPs)

Maintenance and Monitoring Agreement

Operation and Maintenance Inspection Requirements

Dear Property Owner:

This letter is being sent to property owners in Lower Allen Township where Stormwater Management BMPs have been installed on the property. This is a reminder of the inspection and reporting requirements contained within the Stormwater Management Plan and the Maintenance and Monitoring Agreement. A copy of the Agreement for your property is enclosed for reference.

A blank copy of an Inspection Report template that can be used to fulfill these requirements is enclosed for your use. Please return the completed form by February 1, 2015 to:

Lower Allen Township Attention: Community Development Department 2233 Gettysburg Road Camp Hill, Pa. 17011

The requirements of this program are mandates from the U.S. Environmental Protection Agency and the Pa. Department of Environmental Protection that the Township is required to enforce.

Any questions regarding the Township's MS4 program can be directed to Daniel J. Flint, P.E., Township Engineer, at dflint@latwp.org or 975-7575 ext. 1101.

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

Property Owner Name(s) Property Owner Name(s)	operty Address		
Tax Parcel ID No. S	abdivision/Land Development/Drainage Plan No. (if known)		
Date of Inspection:			
Inspection of Open Basins:	Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Structural integrity and operation of oustructures and appurtenances		ziepane needed (libi repairs, ii any)	
Stability of embankments and other soil are	as		
Integrity and condition of vegetation			
Collection, storage and release of stormward in accordance with the facility design	ater		
Sediment accumulation			
Safety			
Inspection of Subsurface Storage/Infiltrat	ion Facilities:		
	Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of our structures and related facilities	ilet		
Stability of soil over and adjacent to facility	the		
Collection, storage and release of stormwa in accordance with the facility design	ter		
Sediment accumulation			
Safety			
Submitted by:			
Name (print)	Signature	Date	

13-09-0545-005A	BETHANY DEVELOPMENT	335 WESLEY DRIVE
13-09-0545-006	ASBURY ATLANTIC INC	5225 WILSON LANE
13-09-0545-006	ASBURY ATLANTIC INC	5225 WILSON LANE
13-09-0547-007		2500 LISBURN ROAD
13-09-0547-007	PA INDUSTRIAL SCHOOL	2500 LISBURN ROAD
13-09-0547-007	PA INDUSTRIAL SCHOOL	2500 LISBURN ROAD
13-09-0545-006	ASBURY ATLANTIC INC	5225 WILSON LANE
13-10-0256-004	LOWER ALLEN BUS CNTR LP	4700 WESTPORT DRIVE
13-10-0256-015C	HIGH PROPERTIES, HIGH GEN CORP	RITTER ROAD
13-10-0256-015C	HIGH PROPERTIES, HIGH GEN CORP	RITTER ROAD
13-10-0256-018	5040 RITTER ROAD LLC	5040 RITTER ROAD
13-10-0256-024	MP PENNSYLVANIA BP PORTFOLIO	4500 WESTPORT DRIVE
13-10-0256-030	YELLDAN LIMITED A PENNSYLVANIA	4510 WESTPORT DRIVE
13-10-0256-037	LINLO PROPERTIES III LP	1215 MANOR DRIVE
13-10-0256-037	LINLO PROPERTIES III LP	1215 MANOR DRIVE
13-10-0256-039	VFW POST 7530	4545 WESTPORT DRIVE
13-10-0256-041	4550 LENA DRIVE LP	4550 LENA DRIVE
13-10-0256-043	STORING CREW	4751 WESTPORT DRIVE
13-10-0256-055	CHEREWKA, MICHAEL C	4557 MANOR DRIVE
13-10-0256-058	WALTERS-POFF, DUSTIN	4513 WOODS WAY
13-10-0256-066	MILLER, DAVID E & RACHAEL L	4518 WOODS WAY
13-10-0256-068	PRICE, DEREK D & CHRISTINA M	4526 WOODS WAY
13-10-0256-087	LISBURN DEVCO I LP	LISBURN ROAD
13-10-0258-004	SLATE HL MENNONITE CHURCH ETAL	1352 SLATE HILL ROAD
13-10-0258-007A	LOWER ALLEN TYP DEV AUTHORITY	GETTYBURG ROAD
13-10-0258-012	YETTER COURT ENTERPRISES LLC	2700 YETTER COURT
13-10-0258-015	CHRISTIAN LIFE ASSEMBLY OF GOD	2645 LISBURN ROAD
13-10-0258-034	MILLER, ALISON M	1510 THOMPSON LANE
13-10-0258-034	MILLER, ALISON M	1510 THOMPSON LANE
13-10-0258-063	RUEL, JONATHAN R & JADE Z	1595 THOMPSON LANE
13-10-0260-005	EWING, CHARLES D	1425 SPANGLERS MILL ROAD
13-10-0260-010	PEIFFER, DAVID H	BROOK VIEW DRIVE
13-10-0256-039	VFW POST 7530	4545 WESTPORT DRIVE
13-11-0270-042	LFGC, INCORPORATED	3804 LISBURN ROAD
13-11-0270-042	LFGC, INCORPORATED	3804 LISBURN ROAD
13-11-0270-073	FEDORIW, CHRISTOPHER M	1403 WELLGATE LANE
13-11-0270-098	DUFFEY, HAROLD E II	1718 LIBERTY COVE
13-11-0270-099	WRAY, WILLIAM A JR	1724 LIBERTY COVE
13-11-0270-101	SOURBEER, CHARLES HOYER	1730 LIBERTY COVE
13-11-0270-109	ROLAND, ROSALIE H	LIBERTY COVE
13-11-0270-097	GASSNER, RUDOLF & GERTRUDE V	1712 LIBERTY COVE
13-10-0258-015	CHRISTIAN LIFE ASSEMBLY OF GOD	2645 LISBURN ROAD
13-22-0536-057	GRACE, WILLIAM R	1850 STATE ROAD
13-22-0826-013	GRACE, ELIZABETH A LIVING TRUST	1400 HUMMEL AVENUE
13-23-0545-416	WEST SHORE AREA SCHOOL	1301 CARLISLE ROAD
13-23-0549-003	KEYSTONE OPERATING PARTNERSHIP	2404 GETTYSBURG ROAD
13-23-0549-018A	LOWER ALLEN TOWNSHIP	2233 GETTYSBURG ROAD

13-31-2134-059	GINDER, ERIC S	1712 MAIN STREET
13-31-2136-001A	SHEAFFER, BILLY B	1435 MAIN STREET
13-31-2136-026	BOOHER, STEVEN R & BARBARA A	1504 MAIN STREET
13-31-2136-113	PEIFER, KEITH E & SAUNDRA M	4122 WILLOW BEND ROAD
13-31-2136-113	PEIFER, KEITH E & SAUNDRA M	4122 WILLOW BEND ROAD
13-31-2136-114	BARTLETT, THOMAS R & TIFFANY M	4118 WILLOW BEND ROAD
13-31-2136-132	GEARHART, ANDREW M & ABBEY R	4165 BIRCHWOOD LANE
13-25-0020-052B	PROGRESSIVE CASUALTY INS CO	3950 HARTZDALE DRIVE

Lower Allen Township MS4 2014-2015

Completed Stormwater Maintenance and Monitoring Agreement



STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING AGREEMENT

/	MAINTENANCE AND MONITORING AGREEMENT
×	THIS AGREEMENT, made and entered into this
	WITNESSETH
	WHEREAS, the Owner is the owner of certain real property identified as Number 13-09-0547-009
	, (hereinafter "Property")
	WHEREAS, the Owner is proposing to make improvements to the Property; and
	WULFDEAG

REAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structures, pond areas, access roads, etc. When inspections are conducted, the Municipality shall give the Owner, successors, heirs and assigns, copies of

the inspection report with findings and evaluations. At a minimum, maintenance inspections shall be performed in accordance with the schedule specified in the BMP Operations and Maintenance Plan.

- 4. All reasonable costs for said inspections shall be borne by the Owner, successors, heirs and assigns, and payable to the Municipality.
- 5. The owner shall convey to the Municipality easements and/or rights-of-way to assure access for periodic inspections by the municipality and maintenance, if required.
- 6. In the event the Owner, successors, heirs and assigns, fail to maintain the stormwater management facilities and BMPs in good working condition acceptable to the Municipality, the Municipality shall give proper notice to Owner setting forth the specifics of such failure to maintain, the remediation required, and deadline to complete such action. After failure by the Owner to remedy within the specified time limit, the Municipality may enter upon the Property and take such necessary and prudent action to maintain said stormwater management facilities and BMPs and to charge the costs of the maintenance and/or repairs to the Owner, successors, heirs and assigns. This provision shall not be construed as to allow the Municipality to erect any structure of a permanent nature on the land of the Owner, outside of any easement rights that the Municipality may have. It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.
- 7. The Owner, successors, heirs and assigns, will perform operation, maintenance and inspections in accordance with the BMP Operations and Maintenance Plan for the stormwater management facilities and BMPs including sediment removal as outlined on the approved Drainage Plan.
- 8. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like on account of the Owner's, successors', heirs' or assigns' failure to perform such work, the Owner, successors, heirs and assigns, shall reimburse the Municipality upon demand, within 30 days of receipt of invoice thereof, for all costs incurred by the Municipality hereunder. If not paid within said 30-day period, the Municipality may enter a lien against the property, including any and all properties when the Owner is a Homeowners Association, in the amount of such costs, or may proceed to recover his costs through proceedings in equity or at law as authorized by law.
- 9. The Owner, successors, heirs and assigns, shall indemnify the Municipality and its agents and employees against any and all damages, accidents, casualties, occurrences or claims which might arise or be asserted against the Municipality for the construction, presence, existence or maintenance of the stormwater management facilities and BMPs by the Owner, successors, heirs and assigns.
- 10. In the event a claim is asserted against the Municipality, its agents or employees, the Municipality shall promptly notify the Owner, successors, heirs or assigns, and they shall

defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.

- 11.In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance. or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

COUNTY OF CUMBERLAND , known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed to the within instrument, and

acknowledged that he/she/they executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and public official seal.

COMMONWEALTH OF PENNSYLVANIA

ATTEST: (CORPORATE SEAL)

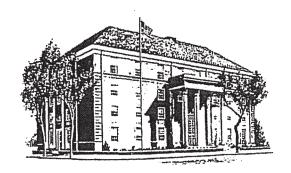
(Vice)President

COMMONWEALTH OF PENNSYLVANIA Staci Lynne Moroton, Noner / Públic Lower Alien Two, Compressed County My Commission Expires Oct. 24, 2016 MÉMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

MUNICIPALITY: L

BOARD OF COMMISSIONERS (Municipal Governing Body)

TAMMY SHEARER RECORDER OF DEEDS CUMBERLAND COUNTY 1 COURTHOUSE SQUARE CARLISLE, PA 17013 717-240-6370



Instrument Number - 201421151 Recorded On 9/18/2014 At 12:43:42 PM

- * Instrument Type AGREEMENT Invoice Number - 168674 User ID - SW
- * Grantor LOWER ALLEN TWP
- * Grantee LOWER ALLEN TWP
- * Customer LOWER ALLEN TWP
- * FEES

STATE WRIT TAX	\$0.50
RECORDING FEES -	\$11.50
RECORDER OF DEEDS	
PARCEL CERTIFICATION	\$15.00
FEES	
COUNTY ARCHIVES FEE	\$2.00
ROD ARCHIVES FEE	\$3.00
TOTAL PAID	\$32.00

*Total Pages - 5

Certification Page

DO NOT DETACH

This page is now part of this legal document.

I Certify this to be recorded in Cumberland County PA



RECORDER OF DEEDS

 Information denoted by an asterisk may change during the verification process and may not be reflected on this page.



2014-2015 MS4

Operation and Maintenance Inspection Reports

MAR 1 1 2015

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) LOWER ALLEN TWP.

Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMP)

	d Maintenance Inspection	Report	
Property Owner Name(s)	Property Address 5225 WILSON LANE		
ASbury ATTANTIC .	:325 Wesley Drive Suite 200 MedifA.		
Tax Parcel ID No. Sub	odivision/Land Developm	ent/Drainage Plan No. (if known)	
13-09-0545-006			
Date of Inspection: //26/14 Inspection of Open Basins:			
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Structural integrity and operation of outle structures and appurtenances	et Y		
Stability of embankments and other soil areas	Y	3	
Integrity and condition of vegetation	Y		
Collection, storage and release of stormwater in accordance with the facility design	r Y		
Sediment accumulation	Y		
Safety	Y .		
nspection of Subsurface Storage/Infiltration	Facilities:		
·	Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of outlet tructures and related facilities	V		
stability of soil over and adjacent to the acility	Y		
Collection, storage and release of stormwater accordance with the facility design	Y		
ediment accumulation	Y		
afety	Y		
ibmitted by:			
DAVE ININ	Sel-	- 11/26/14	
ame (print)	Signature	Date	

FEB 0 6 2015

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

UNITED METHORIST 5	Property Address 5/20 SIMPSON FERRY RD MECH ANNOSBURG PA 17050		
		nent/Drainage Plan No. (if known)	
13-09-0545-002-EX			
Date of Inspection:		÷	
Inspection of Open Basins:	G. d. C. d. Gran		
Structural integrity and operation of outlet structures and appurtenances	Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Stability of embankments and other soil areas	У	,	
Integrity and condition of vegetation	y		
Collection, storage and release of stormwater in accordance with the facility design	· y		
Sediment accumulation	У		
Safety	y		
Inspection of Subsurface Storage/Infiltration	Facilities:		
	Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of outlet structures and related facilities			
Stability of soil over and adjacent to the facility			
Collection, storage and release of stormwater in accordance with the facility design			
Sediment accumulation			
Safety	·		
Submitted by: RICHARD N. CHUBB JR	Buchard M	Chil 2-6-2015	
Name (print)	Signature	Date	

FEB 0 5 2015

<u>Lower Allen Township</u>
National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

Stormwater Management Facilities and Rest Management Practices (PMP)

Operation a		aintenance Inspection	
Property Owner Name(s)		y Address	
Pav.o Pe. ffer	184	1 Brookview	Nd
Tax Parcel ID No.	ubdiv	ision/Land Developm	ent/Drainage Plan No. (if known)
13-10-0500-006			
Date of Inspection:		2015	
	S	atisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of oustructures and appurtenances	ıtlet	У	
Stability of embankments and other soil are	as	y	·
Integrity and condition of vegetation		y	
Collection, storage and release of stormwin accordance with the facility design	ater	y	
Sediment accumulation		WE Y	-NONE -
Safety		Y	
nspection of Subsurface Storage/Infiltrat	ion Fa	cilities:	
	Sa	atisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of our structures and related facilities	tlet	Y	
Stability of soil over and adjacent to facility	the	У	
Collection, storage and release of stormwan accordance with the facility design	ater	У	
Sediment accumulation		У	MONE
Safety			
ubmitted by:		<u> </u>	I.
PAU. D Prifter		79	San 31, 20
ame (print)	Sig	gnature	Date

FEB 0 2 2015

LOWER ALLEN TWP.

Lower Allen Township
National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMP)
Operation and Maintenance Inspection Report

-	Maintenance Inspection	Report
Property Owner Name(s) Property Owner Name(s)	perty Address	
William W. Werzyn Jr. M.	024 Simpson Fer	ry Kd
Tax Parcel ID No. Sub	echanicsburg, P.	A 17050
Suo	division/Land Developm	ent/Drainage Plan No. (if known)
Dec 57 11 7 /1/1-		
Date of Inspection: 2/1/15 Inspection of Open Basins:		·
A constant of the constant of	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outle structures and appurtenances	t y	
Stability of embankments and other soil areas	У	
Integrity and condition of vegetation	y	
Collection, storage and release of stormwater in accordance with the facility design	y	
Sediment accumulation	V	
Safety	y .	
Inspection of Subsurface Storage/Infiltration	Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlet structures and related facilities	У	
Stability of soil over and adjacent to the facility	y	
Collection, storage and release of stormwater in accordance with the facility design	y	
Sediment accumulation	У	
Safety	V	
Submitted by:	~ ~ ~ ~	
Orlando Cleaves	AHIII	2/1/15
Name (print)	Signature	Date

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

JAN 3 0 2015

LOWERALLENTWP.

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report Property Owner Name(s) Property Address Harold E Offey It 17/8 Liberty Cove Mechanicsbury AH 17055 Constance M Diffey Tax Parcel ID No. Subdivision/Land Development/Drainage Plan No. (if known) 13-11-0270-098 Date of Inspection: /2/22/2014
Inspection of Open Basins: Repairs needed (list repairs, if any) Satisfactory (Y/N) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Repairs needed (list repairs) Satisfactory (Y/N) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by: 12/27/2019 Date H & Offit H Duffey F
Name (print)

(77) 504-3072

JAN 2 9 2015

<u>Lower Allen Township</u>
National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

EOWERALLENTWR

Stormwater Management Facilities and Best Management Practices (BMP)
Operation and Maintenance Inspection Report

D	roperty Address	оп кероп
CROSSROADS HOUSING LA		PON NRIVE COMO WILL DO
Tax Parcel ID No.	ubdivision/Land Develor	oment/Drainage Plan No. (if known)
13-23-0549-235	wood visions build bovolog	micho Dramage Tian Ivo. (II known)
Date of Inspection: /- 20 - 15 Inspection of Open Basins:		
Endpote of Open Dasins:	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of ou structures and appurtenances		2-s-pano needed (not repairs, ii airy)
Stability of embankments and other soil area	as V	
Integrity and condition of vegetation	Y	
Collection, storage and release of stormwa	iter	
Sediment accumulation	Y	
Safety	Y	
nspection of Subsurface Storage/Infiltration	on Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of out structures and related facilities	let /	
Stability of soil over and adjacent to the action of the solid sol	he	
Collection, storage and release of stormwat n accordance with the facility design	er	
ediment accumulation	Y	
afety	Y	
ubmitted by:		
BUCK BIGLER - ame (print) MAINTENANCE/ CONSTRUCTA DIRECTOR	Just Zl	
ame (print) MAINTENANCE/ CONSTRUCTA	Signature	Date
Director		

Lower Allen Township

JAN 2 6 2015

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

**COMERALIENTWP.
Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report Property Owner Name(s) Property Address 2410 Massachusetts Ave Dylan J. Shannon Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. 13-23-0549-242 Date of Inspection: 1/9/15
Inspection of Open Basins: Repairs needed (list repairs, if any) Satisfactory (Y/N) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by:

Lower Allen Township

JAN 2 1 2015

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.
Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

Property Owner Name(s)		JII RODOIT
1 Toporty Owner Name(s)	Property Address 3804 LISBURN RD MECHANICS BURG	
LFGC INC	3804 LISBUEN 19	0.4
	MECHANICSBURG	P.4 17055
Tax Parcel ID No.	Subdivision/Land Develops	ment/Drainage Plan No. (if known)
13-11-270-042		Tov(W MIO WII)
Date of Inspection: 1/14	0/15	
Inspection of Open Basins:		
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of or structures and appurtenances		
Stability of embankments and other soil are	eas	
Integrity and condition of vegetation	· /	-
Collection, storage and release of stormw in accordance with the facility design	ater /	
Sediment accumulation	y	
Safety	Y.	
nspection of Subsurface Storage/Infiltrati	ion Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of out structures and related facilities		
Stability of soil over and adjacent to tacility	he	
Collection, storage and release of stormwat a accordance with the facility design	ter N/A	
ediment accumulation	V/A-	
afety	NA	
ibmitted by:	D121.0	
LUKE AVGRUMBING	July Du	nh 1/16/15
ame (print)	Signature	Date

JAN 1 5 2015

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

WER ALLEN TWP.		
Stormwater Management F		
	d Maintenance Inspection	Report
Property Owner Name(s)	operty Address	
	2700 Yetter	- Court.
Vantage Foods PA/AP Tax Parcel ID No. Su	Camp Hill,	PA, 17011
Tax Parcel ID No.	bdivision/Land Developme	ent/Drainage Plan No. (if known)
13-10-0258-012		
Date of Inspection: Januar Inspection of Open Basins:	y 13/2015.	
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of out structures and appurtenances	let (Y)	
Stability of embankments and other soil area	s (Y)	
Integrity and condition of vegetation	(Y)	
Collection, storage and release of stormward in accordance with the facility design	(Y)	
Sediment accumulation	(Y)	
Safety	(Y)	
Inspection of Subsurface Storage/Infiltration	n Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outl structures and related facilities	et (Y)	
Stability of soil over and adjacent to the facility	ne (Y)	
Collection, storage and release of stormwate in accordance with the facility design	er (Y)	
Sediment accumulation	(Y)	
Safety	(Y)	
Submitted by:	\cap	
Brett McGowan	B.W.Y.	Jan. 13/20
Name (print)	Signature	Date

JAN 1 2 2015

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.
Stormwater Management Facilities and Best Management Practices (BMP) Operation and Maintenance Inspection Report Property Owner Name(s) Property Address 2420 Massachusetts Avenue Campitul PA 17011 Michelle Meiser Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. 114/2015 Date of Inspection: Inspection of Open Basins: Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation no Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation no Safety Submitted by: Michelle Meiser Name (print)

JAN 08 2015

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

ALLEN TWP

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report Property Owner Name(s)

Property Address

DEPARTMENT OF CORRECTIONS 2500 LISBURN RD SCI_ CAMP HILL CAMP HILL PA Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. 13-09-0547-007-EX DGS. PROJECTNO. 573-25 Date of Inspection: DECEMBER 31, 2014 Inspection of Open Basins: Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) INTEGRITY AND OPERATION Structural integrity and operation of outlet structures and related facilities MAINTAINED Stability of soil over and adjacent to the EMBANKMENTS AND VEGETATION MAINTAINED facility Collection, storage and release of stormwater OPERATION MAINTAINED ACCURDING TO DESIGN. in accordance with the facility design Sediment accumulation NONE OBJERVED Safety NO ISSUES NOTEN Submitted by: CAROL A. PRONTKOWSKI, P.E. Land. Ronthwish 12/31/14
Name (print)
Date

JAN 08 2015

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Property Owner Name(s)

LOWERALLEN TWO
Stormwater Management Facilities and Best Management Practices (BMP) Operation and Maintenance Inspection Report

Property Address

2500 LISBURN ROAD DEPARTMENT OF CORRECTIONS CAMP HILL, PA 17001 SCI- CAMP HILL Tax Parcel ID No. Subdivision/Land Development/Drainage Plan No. (if known) 13-09-0547-007-EX D.G.S. PROJECTNO. 573-28 Date of Inspection: DECEMBER 31, 2014 Inspection of Open Basins Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) INTEGRITY AND OPERATION Structural integrity and operation of outlet OF STRUCTURES MAINTAINED structures and related facilities Stability of soil over and adjacent to the ENBANKMENTS MAINTAINED facility AND GRASS COVERAGE CONACTE STORMWATER STRUCTURES Collection, storage and release of stormwater OPERATING A CCORDING TO DESIGN - NO STANDWG NATER in accordance with the facility design Sediment accumulation NO OSSERVED SEDIMENT Safety NO ISSUES NOTED Submitted by: CAROL A. PIONTKOWSKI, P.E. Carol a. Pronthowhi 12/31/14
Name (print)

Signature

Date



January 5, 2015

Lower Allen Township
Attention: Community Development Department
2233 Gettysburg Road
Camp Hill, PA 17011

Re:

PA Department of Corrections (DOC) - SCI-Camp Hill NPDES No. PAG133717-MS4 –Stormwater BMPs Operation and Maintenance Inspection Report -2014

To Whom It May Concern:

On behalf of SCI-Camp Hill, the DOC is submitting the Operation and Maintenance Inspection Reports-2014 for the NPDES Municipal Separate Storm Sewer Systems (MS4s) General Permit. Coverage for the General NPDES permit (PAG-13) commenced on August 1, 2013. The inspection reports are for the two underground stormwater management facilities and best management practices (BMPs), according to their Maintenance and Monitoring Agreements.

If you have any questions or need additional information, please contact me at (717) 728-0372.

Sincerely,

Carol A. Piontkowski P.E.

Environmental Engineer Consultant

Bureau of Operations

xc: Laurel Harry , Superintendent, SCI-Camp Hill Howard Gouse, Facility Maintenance Manager 3, SCI-Camp Hill File

Carrl a fronthoushing

Enclosures

JAN 07 2015

Name (print)

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

ALLENTWO Stormwater Management Facilities and Best Management Practices (BMP) Operation and Maintenance Inspection Report

	erty Address	Roport
	500 GETTY'S BURG	
Tax Parcel ID No. Subd	livision/Land Developme	ent/Drainage Plan No. (if known)
13-23-0549-003A DB	266, Pg 4,09	59 ??
Date of Inspection: Inspection of Open Basins:		
inspection of Open Basins.	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outlet structures and appurtenances	/	
Stability of embankments and other soil areas	4	
Integrity and condition of vegetation	Y	
Collection, storage and release of stormwater in accordance with the facility design	Y	·
Sediment accumulation	Ý	
Safety	y	
Inspection of Subsurface Storage/Infiltration	Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlet structures and related facilities		
Stability of soil over and adjacent to the facility		
Collection, storage and release of stormwater in accordance with the facility design		
Sediment accumulation		
Safety		
Submitted by:		
MARTIN RKAPELL	Matin Phasell	1/3/15

Lower Allen Township

JAN 07 2015

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Operation and Maintenance Inspection Report

Property Owner Name(s) Property Address 1403 Wellgate Lane Mechanissony, Pa 17055 Chris Fedoriw Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. Allen Estates 13-11-0270-073 Date of Inspection: _ Inspection of Open Basins Repairs needed (list repairs, if any) Satisfactory (Y/N) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by: Chris Fedoria Signature

Lower Allen Township

5225 WILSON LAND

DEC 3 0 2014

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWPStormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

Property Owner Name(s)	Prope	erty Address		
ASbury ATlantic		325 Wesley Drive Suite 200 Medifa.		
Tax Parcel ID No.	Subdi	ivision/Land Developm	ent/Drainage Plan No. (if known)	
13-09-0545-006				
Date of Inspection:				
Inspection of Open Basins:				
		Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Structural integrity and operation of o structures and appurtenances	outlet	Y		
Stability of embankments and other soil are	eas	Y		
Integrity and condition of vegetation		Y		
Collection, storage and release of stormy in accordance with the facility design	water	Y		
Sediment accumulation		Y		
Safety		Y		
Inspection of Subsurface Storage/Infiltra	ation	Facilities:		
		Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of o structures and related facilities	utlet	V		
Stability of soil over and adjacent to facility	the	Y		
Collection, storage and release of stormwin accordance with the facility design	vater	Y		
Sediment accumulation		ľ		
Safety		Y _		
Submitted by:		Del	- 11/26/14	
Name (print)		Signature	Date	

37907 2

STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING

AGREEMENT

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- -2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire

defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.

- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, If the Owner is not immediately available, without notification or Identification, to inspect and perform necessary maintenance and repairs, If needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

perpetuity. ATTEST: (CORPORATE SEAL) ATTEST: (CORPORATE SEAL) Secretary	MUNICIPALITY: I Mer Allen Township By July 1. The (Vice) President
	(Municipal Governing Body) OWNER
· · · · · · · · · · · · · · · · · · ·	(Individual)
Witness:	Signature of Individual Trading and Doing Business as

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Managemen Operation		ilities and Best Manager Maintenance Inspection	` ,	
Property Owner Name(s)	Property Address			
	9	50 Woodland St,	Mechanicsburg, PA	
Tax Parcel ID No.	Subd	Subdivision/Land Development/Drainage Plan No. (if known)		
13-24-0795-170				
Date of Inspection: 12/3/20 Inspection of Open Basins:	514			
		Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Structural integrity and operation of structures and appurtenances	outlet	1		
Stability of embankments and other soil a	areas	7	·	
Integrity and condition of vegetation		/	·	
Collection, storage and release of storm in accordance with the facility design	nwater	À		
Sediment accumulation		X		
Safety		7.		
Inspection of Subsurface Storage/Infilta	ration	Facilities:		
		Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of structures and related facilities	outlet	7		
Stability of soil over and adjacent to facility	o the	У		
Collection, storage and release of storm in accordance with the facility design	water	y		
Sediment accumulation		×		
Safety		y		
Submitted by:			7	
John OHIAMO		Ach C	12-4-19	
Name (print)	(ignature	Date	

2960 Q1

STANDARD STØRMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP

MAINTENANCE AND MONITORING

ACREEMEN

THIS AGREEMENT, m			24 1	day of July	, 20 06 by
and between Curis-	Topher	-AnpogNA		(hereinafter the	"Owner"); and
Loner Allen T	بخي	, Cumberlan	d County;	Pennsylvania	, (hereinafter
"Municipality");	1		•	•	•

WITNESSETH

WHEREAS, the Owner is the owner of certain real property identified as (address) 950 Woodmal 57. Mecu 74, 7055, Tax Parcel Number 13-24-0795-170, (hereinafter "Property").

WHEREAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire

defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.

- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

ATTEST: (CORPORATE SEAL)	MUNICIPALITY: Lower Allew Town S.
Muluta Mustout Secretary	By Shan 1. In Bel. (Vice)President
	(Municipal Governing Body)
	OWNER (Individual)
	Signature of Individual
Witness:	Trading and Doing Rusiness as

8298 C



STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING AGREEMENT

and between _	ENT, made and entered 950 Woodland Inves	suments, LLC	(hereina	ifter the	7	and
Lower Allen To	wnship, Cumberla	and County, Per	nnsylvania, (h	ereinafter	'Municipali	tv"):
WITNESSETH		;	• , ,		· , •	.,
(address) 950	S, the Owner is the Woodland Street, Med 24-0795-170	chanicsburg, I	certain real PA 17055 fter "Property")	1		as arcel

WHEREAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property; and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structures, pond areas, access roads, etc. When inspections are conducted, the Municipality shall give the Owner, successors, heirs and assigns, copies of

defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.

- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

On this the 10th day of Murch 2014, before me, the undersigned officer, personally appeared Years Much Sr. , known to me (or satisfactorily

proven) to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged that he/she/they executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and public official seal.

Notary Public Molghin

Notarial Seal
Staci Lynne Morgan, Notary Public
Lower Allen Twp., Cumberland County
My Commission Expires Oct. 24, 2016
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

ATTEST: (CORPORATE SEAL)

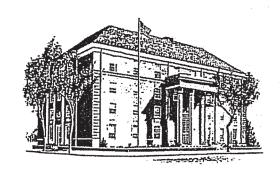
COMMONWEALTH OF PENNSYLVANIA

Rosado Camana

MUNICIPALITY: Lower Allen Township

(Municipal Governing Body)

ROBERT P. ZIEGLER RECORDER OF DEEDS CUMBERLAND COUNTY 1 COURTHOUSE SQUARE CARLISLE, PA 17013 717-240-6370



Instrument Number - 201308298 Recorded On 3/14/2013 At 11:30:10 AM

* Instrument Type - AGREEMENT Invoice Number - 131639

Invoice Number - 131639 User ID - KW
* Grantor - 950 WOODLAND INVESTMENTS LLC

* Grantee - LOWER ALLEN TWP

* Customer - LOWER ALLEN TWP

* FEES

STATE WRIT TAX	\$0.50
RECORDING FEES -	\$11.50
RECORDER OF DEEDS	•
PARCEL CERTIFICATION	\$10.00
FEES	·
COUNTY ARCHIVES FEE	\$2.00
ROD ARCHIVES FEE	\$3.00
TOTAL PAID	\$27.00

* Total Pages - 5

Certification Page

DO NOT DETACH

This page is now part of this legal document.

I Certify this to be recorded in Cumberland County PA



RECORDER OF DEEDS

 Information denoted by an asterisk may change during the verification process and may not be reflected on this page.



Lower Allen Township

DEC 1 5 2014

Submitted by:

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Operation and Maintenance Inspection Report

Property Owner Name(s)	Property Address
	4532 Gettysburg Rd, Mechanicsburs, PA
Tax Parcel ID No.	Subdivision/Land Development/Drainage Plan No. (if known)
13-24-0795-137	

Date of Inspection: 12-2-2014						
Inspection of Open Basins:	Inspection of Open Basins:					
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)				
Structural integrity and operation of outlet structures and appurtenances	7					
Stability of embankments and other soil areas	7					
Integrity and condition of vegetation	7					
Collection, storage and release of stormwater in accordance with the facility design	Y					
Sediment accumulation	Y					
Safety	Y.					

Inspection of Subsurface Storage/Infiltration Facilities:

Satisfactory (Y/N) Repairs needed (list repairs)

Structural integrity and operation of outlet structures and related facilities

Stability of soil over and adjacent to the facility

Collection, storage and release of stormwater in accordance with the facility design

Sediment accumulation

Jul Offen zu		12-4-14	
Name (print)	Signature	Date	

5 29059 E



STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING AGREEMENT

WITNESSETH

WHEREAS, the Owner is the owner of certain real property identified as 4532 Gettysburg Road, Mechanicsburg, Pa., Tax Parcel Number 13-24-0795-137, (hereinafter "Property").

WHEREAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, (Lower Allen Township Act 167), that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structures, pond areas, access roads, etc. When inspections are conducted, the Municipality shall give the Owner, successors, heirs and assigns, copies of

submitted by the Owner and mandated by the Municipality to secure the Municipality's approval of the stormwater facility plan or to any directives which the Municipality and its agents and employees issue to the Owner regarding the maintenance of the Plan and its related stormwater facilities which are not part of the approved Plan, the Owner's compliance with the terms of such directive(s) results in the damages as set forth in the claim.

- 10. In the event a claim is asserted against the Municipality, its agents or employees, the Municipality shall promptly notify the Owner, successors, heirs or assigns, and they shall defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith. The provisions of this Paragraph 10 are subject to exception(s) set forth in Paragraph 9 above.
- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs. The provisions of Paragraphs 9 and 10 above shall not apply in the event a claim is filed and it is determined that the basis for the damages set forth in the claim arose and were the result of the negligence or willful misconduct of the Municipality, its agents or employees in responding to the special or unusual circumstances or situations.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

ATTEST:	(Corporation)
(Assistant) Secretary	(Name of Corporation)
(CORPORATE SEAL)	Ву
	(Vice) President
COMMONWEALTH OF PENNSYLVA COUNTY OF CUMBERLAND	ANIA
proven) to be the person(s) whose na	20_/3, before me, the undersigned officer, zio, known to me (or satisfactorily me(s) is/are subscribed to the within instrument, and ited the same for the purposes therein contained.
IN WITNESS WHEREOF, I hereunto	set my hand and public official seal.
Melinda Wood	
Notaly Fublic	COMMONWEALTH OF PENNSYLVANIA ROTARIAL SEAL MELINDA WOOD NOZITY PUBLIC LOWER ALLEN TWP., CUMBERLAND COUNTY My Commission Expires JSD 19, 2017

DEC 1 5 2014

Name (print)

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWB tormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report Property Owner Name(s) Property Address 4718 Gettys burg Rd Mechanicsburg, PA. Select Capital Comercial Properties Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. 13-24-0795-003 Date of Inspection: 12/2/2014 Inspection of Open Basins: Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater 7 in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Repairs needed (list repairs) Satisfactory (Y/N) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by:

STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING

AGREEMENT

THIS AGREE	MENT, made	and enter	ed into th	is _ 215	day	of July	
20 <i>05</i> , by and	معرف between	ect Capita	1 Commer	cid Proper	ties . (1	hereinafter	the
"Owner"), and	Lower Allen	Township,	Cumberla	nd County;	Pennsylvan	ia. (hereina	after
"Municipality");	1	•			- 3	, (

WITNESSETH

WHEREAS, the Owner is the owner of certain real property identified as (address) of Mechanisburg Read , (hereinafter "Property").

WHEREAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of the Lower Allen Township Act 167 Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper

occurrences or claims which might arise or be asserted against the Municipality for the construction, presence, existence or maintenance of the stormwater management facilities and BMP's by the Owner, successors, heirs and assigns.

- 10. In the event a claim is asserted against the Municipality, its agents or employees, the Municipality shall promptly notify the Owner, successors, heirs or assigns, and they shall defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.
- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

ATTEST: (CORPORATE SEAL)	LOWER ALLEN TOWNSHIP By Soldiel Myresh
Secretary (Magnus	President, Board of Commissioners

County of Cumberland, Pennsylvania

I, <u>Charles E. Snyder, Jr.</u>, a Notary Public in and for the County and State aforesaid, whose commission expires on the <u>JYP</u> day of <u>Crosso</u>, 2005, do hereby certify that <u>Peddrick M. Young and Michelle L. Chestnut</u>, whose name(s) is/are signed to the foregoing Agreement bearing the date of the <u>21st</u> day of <u>July</u>, <u>2005</u>, has acknowledged the same before me in my said County and State.

GIVEN UNDER MY HAND THIS 24 DAY OF OCTOBER, 2006.

COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL CHARLES E. SNYDER, JR., NOTARY PUBLIC LOWER ALLEN TWP. CUMBERLAND COUNTY MY COMMISSION EXPIRES SEPT. 16, 2007

NOTARY PUBLIC (SEAL)

DEC 1 1 2014

Name (print)

Lower Allen Township

LOWER ALLEN TWP. National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMP) Operation and Maintenance Inspection Report

Operation as	d manifolianeo mapooti	OH ICOPOIC	
0.000	Property Address 880 CENTURY DRIVE, MECHANICS BURG PA.		
	bdivision/Land Development/Drainage Plan No. (if known)		
13-24-0795-17413			
Date of Inspection: $\frac{12}{5}$ / 2019 Inspection of Open Basins:	4		
inspection of Open Basms.	Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Structural integrity and operation of outlestructures and appurtenances	et Y		
Stability of embankments and other soil areas	Y	TWO SMALL AREAS WITHIN BMP THAT HAVE DEVELOPE	
Integrity and condition of vegetation	Y	MINOR RUTTING - RE GRADE TO SUROUNDIN SURFACE	
Collection, storage and release of stormwat in accordance with the facility design	er //	RE-SEED AS NEEDED.	
Sediment accumulation	Y		
Safety	Y.		
inspection of Subsurface Storage/Infiltratio	n Facilities:		
•	Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of outle structures and related facilities	et		
Stability of soil over and adjacent to the facility	е		
Collection, storage and release of stormwate n accordance with the facility design	r ·		
Sediment accumulation			
Safety			
ubmitted by:			
FRANK LENTZ	the fet	12/5/14	



Kurowski & Wilson, LLC 470 Friendship Road, Suite 100 Harrisburg, PA 17111 P: 717-635-2835 F: 717-635-2836

LETTER OF TRANSMITTAL

TO:	Dan	Flint			FROM:	Frank W. Lentz, EIT
Lower Allen Township		PROJECT NAME:	Wendy's			
-	Attn	: Community D			K&W PROJECT#	2031.013
		artment 3 Gettysburg R	oad		- RE:	BMP Inspection Report
		np Hill, Pa. 170			DATE:	December 9, 2014
	Car	<u> </u>				
WE AI	RE SE	ENDING YOU:	☑ Attached ☐ Un	der se	parate cover via	the following items:
COF	DIES	DATE	NO.		DE	SCRIPTION
	lES	12/09/2014		NPDI	ES Inspection Report	
		1				
-						
		1				
These	e Are	Transmitted as C	hecked Below:			
Γσ		approval	☐ Approved as su	ubmitte	d Resubmit	copies for approval
L.		r your use	☐ Approved as no		☐ Submit _	copies for distribution
E T		requested	Returned for co		ns 🗌 Return	corrected prints
L		•	tament .			
	☐ Fo	r review and con	nment			
[] FC	R BIDS DUE _	2	0	☐ PRINTS	RETURNED AFTER LOAN TO US
	ARKS					
Encl	osed us if y	please find ou ou have any qu	Application for thuestions – thanks!	ne E&S	S Control Plan Reviev	w and all necessary documents. Please
			•			1
						he s
CC:	Will	iam B Gruber J	r.		Signed	: 10°C]
J J,						/ /

DEC 1 0 2014

LOWER ALLEN TWP.

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Operation a		Maintenance Inspection	, ,
	Property Address		
	2414 Massachusetts Ave CampHill, PA 17011		
Tax Parcel ID No.	Subdivision/Land Development/Drainage Plan No. (if known)		
13-23-0549-109			
Date of Inspection: 12/1/2014 Inspection of Open Basins:			
Inspection of Open Businos		Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of or structures and appurtenances	utlet	У	
Stability of embankments and other soil are	eas	Y	
Integrity and condition of vegetation		7	
Collection, storage and release of stormwin accordance with the facility design	ater	Y	
Sediment accumulation		Y	
Safety		Y	
Inspection of Subsurface Storage/Infiltration	tion	Facilities:	
		Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of ou structures and related facilities	ıtlet	Y	
Stability of soil over and adjacent to facility	the	Y	
Collection, storage and release of stormwin accordance with the facility design	ater	γ	
Sediment accumulation		Y	
Safety		Y	
Submitted by:		1	
Hassan Ada	7	GHT	12/1/2014
Name (print)	,	Signature /	Date

DEC 1 0 2014

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

Property Owner Name(s) Property Address 1712 LIBERTY CV. MECHANICSBURG, PA Rudolf GASSNER Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. 13-11-0270-097 2014 Date of Inspection: Inspection of Open Basins: Repairs needed (list repairs, if any) Satisfactory (Y/N) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by: 12-9.2014 RUDOLF GASSNER

DEC 0 8 2014

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLENTWR.

Operation and Maintenance Inspection Report				
Property Owner Name(s)	Property Address			
L. Lance Bonsall	5030 Arthur Avenue Mechanicolourg, PA 17055			
Tax Parcel ID No.	Subd	ivision/Land Developme	ent/Drainage Plan No. (if known)	
13-23-0559-084EX				
Date of Inspection: 3 Inspection of Open Basins:	дc	or4		
		Satisfactory (Y/N)	Repairs needed (list repairs, if any)	
Structural integrity and operation of o structures and appurtenances	utlet	Yes		
Stability of embankments and other soil are	eas	4		
Integrity and condition of vegetation		4		
Collection, storage and release of stormwin accordance with the facility design	vater	4		
Sediment accumulation		4		
Safety		9		
Inspection of Subsurface Storage/Infiltra	tion	Facilities:		
		Satisfactory (Y/N)	Repairs needed (list repairs)	
Structural integrity and operation of or structures and related facilities	utlet	Y		
Stability of soil over and adjacent to facility	the	4		
Collection, storage and release of stormwin accordance with the facility design	ater	y		
Sediment accumulation		y		
Safety		Ÿ		
Submitted by:				
Shanna Gleim		Shanno 2 Des	12/3/2014	
Name (print)		Signature	Date	

DEC 0 2 2014

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

Operation and	Maintenance Inspection	Report
Property Owner Name(s) Prope	erty Address	
Brian Rhykerd& Amy Rhykerd F	706 Wyndham R	a Camp Hill, PA 17011
Tax Parcel ID No. Subd	ivision/Land Developm	ent/Drainage Plan No. (if known)
	and the second s	
Date of Inspection:		
Inspection of Open Basins:	Satisfactors (VAN)	Danaira needed (list remains if any)
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outlet structures and appurtenances	Y	
Stability of embankments and other soil areas	Y	
Integrity and condition of vegetation	Y	
Collection, storage and release of stormwater in accordance with the facility design	Y	
Sediment accumulation	Y	
Safety	Y	
Inspection of Subsurface Storage/Infiltration	Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlet structures and related facilities	Y	
Stability of soil over and adjacent to the facility	Y	
Collection, storage and release of stormwater in accordance with the facility design	Y	
Sediment accumulation	Y	
Safety	Y	
Submitted by:	0 0	
Brian Rhylcerd Name (print)	L. Kore	11-30-14
Name (print)	Signature	Date

NOV 2 5 2014

Lower Allen Township
National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

ALLENTWP.

Operation and	Maintenance Inspection	on Report
Property Owner Name(s) Pro	perty Address	CONTRACTOR OF PROPERTY AND AND AND AND AND AND AND AND AND AND
4	921 Gettysb.	ing fl
Tax Parcel ID No. Sub	division/Land Develop	ment/Drainage Plan No. (if known)
13-25-0024-006		
Date of Inspection: 11/22/14 Inspection of Open Basins:		
COPPER DESIRES.	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outle structures and appurtenances	4	
Stability of embankments and other soil areas	7	-
Integrity and condition of vegetation	9	
Collection, storage and release of stormwate in accordance with the facility design	7	
Sediment accumulation	y	
Safety	4	
Inspection of Subsurface Storage/Infiltration	. Facilities	- and a Significant to a 1 - Appropriate to the Arm Principles from Principles and Arm Pr
Design of Galletin Tacc Giol ago I in in a ton	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlestructures and related facilities	4	
Stability of soil over and adjacent to the facility	7	
Collection, storage and release of stormwater in accordance with the facility design	1 4	
Sediment accumulation	9	1
Safety	9	
Submitted by:	And the second s	anning abbotter, value control particular abbotter — e se en region e particularity deligibilità di sibertana subvigibilità e el control particularity e en communi
Bob Christ CE	Brece	J 11/25/14
Name (print)	Signature	Date

Lower Allen Township

NOV 2 5 2014

Name (print)

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWERALLENSTOPP water Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report Property Owner Name(s) Property Address 5026 ARthur Ave Mechanicsburg, PA 17050 Etter Investments LLC Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. 2010-04 SLD 13-23-0559-089 Date of Inspection: Nov. 24, 2014 Inspection of Open Basins: Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by: TRACY D. Etter NOV. 242014

Signature

Please note:

Etter Investments, LLC has a new mailing address. Please update your records accordingly. Thank you.

Old address:

800 Clubhouse Drive Mechanicsburg, PA 17050

NEW address:

4 Notting Hill Estates Lane Enola, PA 17025

CHANGED 11-25-14

Lower Allen Township

MOV 2 5 2014

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMP)

Departion and Maintenance Inspection Report

Property Owner Name(s)

ELIZABETH A. GRACE

Tax Parcel ID No.

13-24-0799-236

Departy Address

3608 HARTZDAKE DRIVE

Subdivision/Land Development/Drainage Plan No. (if known)

510 2010-02

Date of Inspection: Inspection of Open Basins:	PRITY ACCUMANCE MANAGEMENT AND ACCUMANCE AND	
The state of the s	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outlet structures and appurtenances	Y	
Stability of embankments and other soil areas	Y	
Integrity and condition of vegetation	Y	
Collection, storage and release of stormwater in accordance with the facility design	Y	
Sediment accumulation	Y	
Safety	У.	
Inspection of Subsurface Storage/Infiltration	Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlet structures and related facilities	Y	
Stability of soil over and adjacent to the facility	· y	

	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlet structures and related facilities	Y	
Stability of soil over and adjacent to the facility	ÿ	
Collection, storage and release of stormwater in accordance with the facility design	У	
Sediment accumulation	V	
Safety	y	
Submitted by:		/

Whommed by.		11/28/14
Name (print)	Signature	Date

33857 Dep C



STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING

AGREEMENT

THIS AGREEMENT, made and entered into this and between <u>ELIZABETH A GRACE</u> LOWER AUEN TOWNSHIP, Cumberlan	, (hereinafter the "Owner"), and
"Municipality"); WITNESSETH	nd Obunty, Fernisylvania, (hereinaitei

WHEREAS, the Owner is the owner of certain real property identified as (address) 3608 HARTZDALE DRIVE, Tax Parcel Number 13-24-0799-236, (hereinafter "Property").

WHEREAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire

defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.

- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

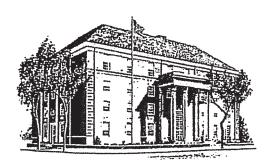
This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

rpetuity.	•
ATTEST: (CORPORATE SEAL)	MUNICIPALITY: Lower Allen Township
Davis Lutis Secretary	By Klan J. (Vige)President
	(Municipal Governing Body)
i	OWNER
. c e \$	(Individual) Signature of Individual

derd a Michaels

Trading and Doing Business as

ROBERT P. ZIEGLER RECORDER OF DEEDS CUMBERLAND COUNTY 1 COURTHOUSE SQUARE CARLISLE, PA 17013 717-240-6370



Instrument Number - 201033857 Recorded On 11/19/2010 At 10:26:37 AM

* Instrument Type - AGREEMENT Invoice Number - 77017 U

User ID - MSW

- * Grantor GRACE, ELIZABETH A
- * Grantee LOWER ALLEN TWP
- * Customer LOWER ALLEN TWP
- * FEES

STATE WRIT TAX	\$0.50
RECORDING FEES -	\$11.50
RECORDER OF DEEDS	
PARCEL CERTIFICATION	\$10.00
FEES	
COUNTY ARCHIVES FEE	\$2.00
ROD ARCHIVES FEE	\$3.00
TOTAL PAID	\$27.00

* Total Pages - 5

Certification Page

DO NOT DETACH

This page is now part of this legal document.

I Certify this to be recorded in Cumberland County PA



* - Information denoted by an asterisk may change during the verification process and may not be reflected on this page.



Lower Allen Township

NOV 2 5 2014

Name (print)

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Operation and Maintenance Inspection Report

Stormwater Management Facilities and Best Management Practices (BMP)

Property Owner Name(s) Property Address 145 Lorust STREET WILLIAM GRACE Subdivision/Land Development/Drainage Plan No. (if known) Tax Parcel ID No. SLO 2012-04 13-23-0555-082 Date of Inspection: Inspection of Open Basins: Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater DiOW. in accordance with the facility design Sediment accumulation Safety Submitted by:

Signature



STANDARD STORMWATER FACILITIES AND BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE AND MONITORING AGREEMENT

THIS AGREEMENT, made and entered into and between 2.1 Company (1) (1)	o this but day of <u>OCHILL</u> , 2011, by
Lower Alles Tourchip, Cumberland	County, Pennsylvania, (hereinafter "Municipality");
WITNESSETH	
WHEREAS, the Owner is the a	owner of certain real property identified as
	_, (hereinafter "Property").

WHEREAS, the Owner is proposing to make improvements to the Property; and

WHEREAS, the Drainage Plan (hereinafter "Plan") for the Property which is expressly made a part hereof, as approved or to be approved by the Municipality, provides for detention, retention, infiltration and/or treatment of stormwater within the confines of the Property; and

WHEREAS, the Municipality and the Owner, successors, heirs and assigns agree that the health, safety, and welfare of the public require that on-site stormwater management facilities and BMPs be constructed and maintained on the Property: and

WHEREAS, the Municipality requires, through the implementation of its Stormwater Management Ordinance, that stormwater management facilities and BMPs as shown on the Plan be constructed and adequately maintained by the Owner, successors, heirs and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- The on-site stormwater management facilities and BMPs shall be constructed by the Owner, successors, heirs and assigns, in accordance with the terms, conditions, details and specifications identified in the Plan.
- 2. The Owner, successors, heirs and assigns, shall maintain the stormwater management facilities and BMPs in good working condition, acceptable to the Municipality so that they are performing their design functions
- 3. The Owner, successors, heirs and assigns, hereby grant permission to the Municipality, its authorized agents and employees, upon presentation of proper identification, to enter upon the Property at reasonable times, and to inspect the stormwater management facilities and BMPs whenever the Municipality deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facilities, berms, outlet structures, pond areas, access roads, etc. When inspections are conducted, the Municipality shall give the Owner, successors, heirs and assigns, copies of

defend, at their own expense, any suit based on such claim. If any judgment or claims against the Municipality, its agents or employees shall be allowed, the Owner, successors, heirs and assigns shall pay all costs and expenses in connection therewith.

- 11. In the event of an emergency or the occurrence of special or unusual circumstances or situations, the Municipality may enter the Property, if the Owner is not immediately available, without notification or identification, to inspect and perform necessary maintenance and repairs, if needed, when the health, safety or welfare of the citizens is at jeopardy. However, the Municipality shall notify the Owner of any inspection, maintenance, or repair undertaken within five days of the activity. The Owner shall reimburse the Municipality for its costs.
- 12. It is agreed between the two entities known as Owner that they shall be bound jointly and severally by the terms, covenants and agreements herein.
- 13. Invalidation of any one of these provisions by judgement or Court Order shall in no wise affect any other provisions that shall remain in full force and effect.

This Agreement shall be recorded at the Recorder of Deeds Office in Cumberland County, Pennsylvania and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Owner, administrators, executors, assigns, heirs and any other successors in interests, in perpetuity.

COMMONWEALTH OF PENNSYLVANIA COUNTY OF CUMBERLAND

CRME Recommended Development Standards

On this the HM day of JINUAN 2017, before me, the undersigned officer, personally appeared HEAWING DULK , known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged that he/she/they executed the same for the purposes therein contained.
IN WITNESS WHEREOF, I hereunto set my hand and public official seal.
Notary Public COMMONWEALTH OF PENNSYLVANIA Notariol Seal Stad Lynne Morgan, Notary Public Lower Allen Twp., Cumberland County
ATTEST: Lower Allen Twp., Cumberland County My Commission Expires Oct. 24, 2016 MEMBER, PENNSYLVAND NECEMBER ALLEN Township
(CORPORATE SEAL)
Secretary (Vice) President By Willy Mile)
Board of Commissionero (Municipal Governing Body)

Last Revised 1-6-11

NOV 2 4 2014

<u>Lower Allen Township</u>
National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLENTWR

Stormwater Management . Operation a		Maintenance Inspection	, ,
Property Owner Name(s)	rope	erty Address 215 Manor E	Prive, Upper Allen echanics burg ment/Drainage Plan No. (if known)
13-10-0256-037			
Date of Inspection: November 5. Inspection of Open Basins:	20	,2014	
		Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of ou structures and appurtenances	ıtlet	Yes	
Stability of embankments and other soil area	as	Yes	
Integrity and condition of vegetation		Yes	
Collection, storage and release of stormwa in accordance with the facility design	ater		
Sediment accumulation		Yes	
Safety		Yes Yes Yes	
Inspection of Subsurface Storage/Infiltrati	on F	Facilities:	
		Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of out structures and related facilities	let	N/A	
Stability of soil over and adjacent to t facility	he	N/A	
Collection, storage and release of stormwat in accordance with the facility design	ter	N/A	
Sediment accumulation			
Safety		N/A N/A	
Submitted by:			

Coulon Cotes 11/21/2014

Date

NOV 2 0 2014

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

		nance Inspecti	on Report
Property Owner Name(s) BILLY B SHEAFFER III	roperty Ad	ldress 143	5 MAIN ST. . PA 17055
KELLY L SHEAFFER Tax Parcel ID No. S	ubdivision		oment/Drainage Plan No. (if known)
13-31-2136-001A			
Date of Inspection:	014		
V Open Amonto	Satisfa	ctory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of oustructures and appurtenances	ıtlet	<u> </u>	
Stability of embankments and other soil are	as	Ý	
Integrity and condition of vegetation)	ſ	
Collection, storage and release of stormwin accordance with the facility design	ater Y		
Sediment accumulation	· Y		
Safety	Y	•	
Inspection of Subsurface Storage/Infiltrat	ion Facilitie	es:	
	Satisfac	ctory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of our structures and related facilities	tlet		
Stability of soil over and adjacent to facility	the Y	-	
Collection, storage and release of stormwa in accordance with the facility design	iter Y		
Sediment accumulation	Y		
Safety	Y		
Submitted by:			
	_	00 10	\sim \sim \sim

BILLY B SHEAFFER III
Name (print)

NOV 1 0 2014

<u>Lower Allen Township</u>
National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

LOWERALLEN TWP.

Stormwater Management Facilities and Best Management Practices (BMP)
Operation and Maintenance Inspection Report

D	Property Address	ion Keport
	Property Address	Mπ.1 1 1 = 1
	1510 Mompson Lr	, Mechanicsburg 17053
Tax Parcel ID No.	ubdivision/Land Develo	pment/Drainage Plan No. (if known)
Date of Inspection:	10-14	
Inspection of Open Basins:		
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of ou structures and appurtenances	ıtlet	
Stability of embankments and other soil are	as	
Integrity and condition of vegetation	1	
Collection, storage and release of stormwain accordance with the facility design	ater	
Sediment accumulation	1	
Safety	1	
nspection of Subsurface Storage/Infiltrati	ion Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of out structures and related facilities	ilet	
Stability of soil over and adjacent to taged	the	
Collection, storage and release of stormwan accordance with the facility design	ter	
Sediment accumulation	Y	
Safety	1	
ubmitted by:	Α	
Alisa Miller	Alison Mi	ller 11-10-14
ame (print)	Signature	Date

NOV 1 0 2014

Lower Allen Township
National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLENTWR.

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

Property Owner Name(s)	Property Address	
WA Wray JT	1724 Liberty CV. Subdivision/Land Development	1
Kay G. WRAY	Mech	, PA (7055
Tax Parcel ID No.	Subdivision/Land Developme	ent/Drainage Plan No. (if known)
13-11-0270-099	Liberty Point	
Date of Inspection: 10/30/14		
Inspection of Open Basins:		
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of or structures and appurtenances	utlet	
Stability of embankments and other soil are	eas /	
Integrity and condition of vegetation	Y	
Collection, storage and release of stormw in accordance with the facility design	rater	
Sediment accumulation		
Safety	V	
Inspection of Subsurface Storage/Infiltrat	ion Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of ou structures and related facilities	itlet	
Stability of soil over and adjacent to facility	the 4	
Collection, storage and release of stormwa in accordance with the facility design	ater	
Sediment accumulation	40	
Safety	U	
Submitted by: /	1 1	
NA Wray dr	18km	10/30/14
Name (print)	Signature	Date

NOV 0 6 2014

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

Stormwater Management Facilities and Best Management Practices (BMP) Operation and Maintenance Inspection Report Property Owner Name(s)
VEW POST 7530 Property Address 4545 WESTPORT DRIVE Tax Parcel ID No. Subdivision/Land Development/Drainage Plan No. (if known) 11-4-14 Date of Inspection: Inspection of Open Basins: Satisfactory (Y/N) Repairs needed (list repairs, if any) Structural integrity and operation of outlet structures and appurtenances Stability of embankments and other soil areas Integrity and condition of vegetation Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Inspection of Subsurface Storage/Infiltration Facilities: Satisfactory (Y/N) Repairs needed (list repairs) Structural integrity and operation of outlet structures and related facilities Stability of soil over and adjacent to the facility Collection, storage and release of stormwater in accordance with the facility design Sediment accumulation Safety Submitted by:

ROBERT D. KEEFER SR. Release Det. Date Date

NOV 0 5 2014

Lower Allen Township

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LOWER ALLEN TWP.

Name (print)

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and	Maintenance Inspection	Report
Property Owner Name(s) I Chathan 4 Jude Rue 15	erty Address	Mechanicsbury, PA
action man 4 acce in we! 15	47 MOMPSON CONC	17055
Tax Parcel ID No. Subo	livision/Land Developme	ent/Drainage Plan No. (if known)
13-10-0258-063		
Date of Inspection: 11-3-14		
Inspection of Open Basins:		
	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outlet structures and appurtenances	4	
Stability of embankments and other soil areas	4	
Integrity and condition of vegetation	4	
Collection, storage and release of stormwater in accordance with the facility design	y	
Sediment accumulation	4	
Safety	4.	
Inspection of Subsurface Storage/Infiltration	Facilities:	
•	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outlet structures and related facilities	y	
Stability of soil over and adjacent to the facility	y	
Collection, storage and release of stormwater in accordance with the facility design	ij	
Sediment accumulation	4	·
Safety	5	
Submitted by:		
1 9 71 1	2 9 H. V	- 1./
Sonathin Truel	mul mul	11-3-14

Signature

Date

NOV 0 4 2014

Lower Allen Township

_UWERALLEN TWR

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

Stormwater Management Facilities and Best Management Practices (BMP)

Operation and Maintenance Inspection Report

Property Owner Name(s)	coperty Address	1
Joe Giovagnosi	3702 GeTTY	sburg Roal CAMPHILL PA
		ment/Drainage Plan No. (if known)
13-23-0553-026		
Date of Inspection: 11-4-14)	
Inspection of Open Basins:	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of ou structures and appurtenances		Repairs needed (fist repairs, if any)
Stability of embankments and other soil area		
Integrity and condition of vegetation	y'65	
Collection, storage and release of stormwa in accordance with the facility design	ter y s	
Sediment accumulation	100	
Safety	Y. 5	
Inspection of Subsurface Storage/Infiltration	on Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of out structures and related facilities	let 1/6 3	
Stability of soil over and adjacent to the facility	he / 3	
Collection, storage and release of stormwat in accordance with the facility design	er) (=	
Sediment accumulation	1,3	
Safety	1/15	
Submitted by: $\int_{\mathcal{O}} \mathcal{C} \left(\mathcal{L}_{\mathcal{O}} (\mathcal{A}_{\mathcal{O}} \mathcal{A}_{\mathcal{O}})^{-1} \right)$	()/12	11-4-14
Name (print)	Signature	Date

Lower Allen Township

1107 0 3 2014

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit

LUMENALLENTWR.

Stormwater Management Facilities and Best Management Practices (BMP)

Operation an	d Maintenance Inspection	on Report
Property Owner Name(s)	perty Address	
SHEKER FAMILY L.P. 7	5 ZIMMERMAN	Dr., CAMP HILL, PA 1701
Tax Parcel ID No.	odivision/Land Develop	ment/Drainage Plan No. (if known)
Date of Inspection: 10/31/	2014	
Inspection of Open Basins:	Satisfactory (Y/N)	Repairs needed (list repairs, if any)
Structural integrity and operation of outlestructures and appurtenances		Repairs needed (list repairs, if any)
Stability of embankments and other soil areas		
Integrity and condition of vegetation	The state of the s	
Collection, storage and release of stormwat in accordance with the facility design	er	
Sediment accumulation		
Safety		
Inspection of Subsurface Storage/Infiltratio	n Facilities:	
	Satisfactory (Y/N)	Repairs needed (list repairs)
Structural integrity and operation of outle structures and related facilities	et Y	
Stability of soil over and adjacent to the facility	e Y	
Collection, storage and release of stormwater in accordance with the facility design	er Y	
Sediment accumulation	W	
Safety	4	
Submitted by:		

Signature

Date

Name (print)

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.

٠, .	The enert enam metade maintaining a basic my enterly of various marriagal operations and rasmites.
1.	Have you identified all facilities and activities owned and operated by the permitee that have the potential to generate stormwater runoff into the MS4? ☐ Yes ☐ No
2.	When was the inventory last reviewed? 3/31/15
3.	When was it last updated? 3/9/15
4.	How many new facilities and/or activities were added to this inventory during this reporting period? One

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.

	erage.	'IIL
۱.	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:

LOWER ALLEN TOWNSHIP INVENTORY OF FACILITIES AND ACTIVITIES WITH POTENTIAL TO GENERATE STORMWATER RUNOFF

	Name	Location	Description	Acr es	Facilities	Uses/ Activities	Township Operations	Potential Pollutants
juman A.	Beacon Hill	1525 Capitol View Drive	Neighborhood park	3.4	Play structure; Pavilion	Recreation	Maintenance	Trash
2	Radar Site	1612 Lowell Lane	Passive park	8.1	Open space; parking area	Passive recreation	Maintenance	Trash; vehicle drippings
သ	Beacon Hill Land	Beacon Hill Blvd. At Poplar Avenue	Open field, wooded floodplain	9.7	Open space	Passive recreation	Maintenance	Trash
4	Creekwood	150 Creekwood Drive	Neighborhood park	5.6	Picnic tables; trail	Passive recreation; hiking; fishing; parking area	Maintenance	Trash; vehicle drippings
5	Allendale	221 Deerfield Road	Neighborhood park	1.2	Pavilion; swing set; play structure; merry-go-round, basketball court	Recreation	Maintenance	Trash
6	Highland Park Playground	1301 Chatham Neighborhood Road park	Neighborhood park	2.0	Pavilion; picnic tables; tennis court; basketball court; shuffleboard court; play structure; swing set	Recreation	Maintenance	Trash

	Name	Location	Description	Acr	Facilities	Uses/ Activ	Uses/ Activities	ivities Operations	
7	Highland Estates Playground	1914 Letchworth Drive	Neighborhood park	0.5	Pavilion; picnic tables; play structure; swing set	ay	ay Recreation		Recreation
∞	Peters Field	3811 Gettysburg Road	Neighborhood park; regional athletic fields	3.0	Baseball fields; tennis court; basketball court; swing set; slide; pavilion; concession stand; restroom; parking lot	.	urt; Recreation; et; youth sports n lot	.	; Recreation; youth sports
9	Vernon C. Wass Park	301 Wesley Drive	Regional park	10.0	10.0 Pavilion; restrooms; play structure; swing set; sand box; picnic tables; softball fields; volleyball court; lighted basketball and tennis courts; walking path; parking lot		Recreation; box; youth sports ds; rts;		Recreation; youth sports
10	Sheepford Crossing.	16 Argali Lane	Neighborhood park	5	Pavilion; picnic tables; basketball court; swing set; play structure		Recreation et;		Recreation
journali Journali	Yellow Breeches Park	2050 Sheepford Road	Passive recreation	14.0	Hiking trail; picnic tables; creek access; water trail; community gardens		s; Recreation; gardening; fishing	Recreation; Maintenance gardening; fishing	Recreation; gardening; fishing

	15		+	1	13		12		***************************************	
	Sheepford Crossing		Basin	Moraland	Windsor Park Triangle	(LACP)	Lower Allen Community		Name	
Lisburn Road	Sheepford Road at		Oxford Drive	5 A O O D 1 1 -	5200 Block Oxford Drive		Road	4075 Lishurn	Location	
	Stormwater detention basin		detention basin	Q'	Neighborhood passive recreation		regional sports activities	Regional park:	Description	
	0.5			>	1.0		0	110	Acr es	
	Basin with outlet structure		Basin with outlet structure		None	nature trail; fishing pond; soccer fields; softball fields; golf driving range; community "barn" building; parking lots; dog park	Fort, swing sets; volleyball courts; basketball courts; tennis courts; camp sites; boat ramp;		Facilities	
	None		None		Recreation	at "barn" and pavilions	team athletic functions; group rentals	Doroction	Uses/ Activities	
	Maintenance		Maintenance	The state of the s	Maintenance		community events	Maria	Township Operations	***************************************
vehicle drippings; other material in street runoff	Trash;	other material in street runoff	Trash; vehicle drippings;		Trash	Þ.	vehicle drippings; pet waste	-	Potential Pollutants	
rock filter at outlet structure	SWM basin;	structure	SWM basin; rock filter at outlet		None		basin; grass- lined swale	2		BMPs

19	18	17	16	
				Z
LA Fire Station 2	Leaf Composting Facility	Public Works Shop	Sheepford Crossing Basin 2	Name
800 Rupp Avenue	2750 Yetter Court	1400 St. Johns Road	Ewe Road	Location
Fire station	Leaf composting facility	Public Works Department Facility	Stormwater detention basin	Description
0.7	4.9	16.2	1.0	Acr es
Building, parking lot	Asphalt pad	Office, storage and maintenance building; storage sheds; asphalt pads; parking area; stormwater basins	Basin with outlet structure	Facilities
Office; vehicle and equipment storage	Composting leaves collected from throughout the Township	Vehicle storage and maintenance; material storage; yard waste processing and storage	None	Uses/ Activities
Maintenance	Composting leaves collected from throughout the Township	Building and site maintenance, vehicle storage and maintenance; material storage; yard waste processing and storage	Maintenance	Township Operations
Trash; vehicle drippings	Trash; vehicle drippings; nutrients from leaf compost	Trash; vehicle drippings; road salt; vehicle maintenan ce materials and fluids	Trash; vehicle drippings; other material in street runoff	Potential Pollutants
None	SWM basin	SWM basins; oil/water separator; salt settling basins	SWM basin; rock filter at outlet structure	BMPs

	23 S S	22	21	20 S	
	Cedar Spring Run Park	Municipal Services Center	Former Township Building	Spring Lake Colony Lots	Name
	2239 Gettysburg Road	2233 Gettysburg Road	1993 Hummel Avenue	Between Orchard Road and Shetter Lane	Location
	Play area; walking path; restrooms; pedestrian bridge	Township office	Former Township office	Vacant wooded lots	Description
	2.5	6.7	1.0	1.6	Acr
	Restroom; parking area; walking path; seating area	Office; vehicle storage; parking lots	Office building; parking lot; stormwater pond and pump	None	Facilities
	Recreation	Office; police, fire and EMS operations	Rented space	None	Uses/ Activities
- Indicate the second s	Maintenance	Office building; parking lot; building and site maintenance	Building and site maintenance	None	Township Operations
	Trash; vehicle drippings	Trash, vehicle drippings	Trash; vehicle drippings	None	Potential Pollutants
	Rain gardens; porous concrete parking area; riparian buffer	Rain gardens; porous asphalt parking lot; infiltration trench	SWM basin	None	ВМРѕ

Lower Allen Township Stormwater Management Plan Pollution Prevention/Good Housekeeping Operations and Maintenance Program March 2014-March 2015

Stormwater inlets cleaned:

Lower Allen Township:	None		
PennDot: 106			
Total: 106			4-10-10-10-10-10-10-10-10-10-10-10-10-10-
Loads: Debris Collected:			
Loads:3			
Pounds per load: 4100			
Total pounds: 12,300			
Total tons: 6.15			
Days to complete project: 3			
Street Sweeping:			
Loads:		113	
Pounds Per Load	_	8340	
Total Pounds:	_	942,420	
Total Tonnage	_	421.17	
Curb miles of street cleaned ann	nually by street sweeping operations:	625	
Loads of sweepings collected an	nually by street sweeping operations:	_113	
Loads of leaves removed from st	reets annually by leaf recycling opera	ations: 271	



LOWER ALLEN TOWNSHIP

1400 ST. JOHNS ROAD * CAMP HILL, PENNSYLVANIA 17011-8033

PUBLIC WORKS DEPARTMENT 2014 YEAR END REPORT

The Public Works Department has come full circle, completing another year of service to the Lower Allen Township residents. We pride ourselves in the work we do and strive to serve the Township residents in the most cost efficient and convenient ways possible under all circumstances. We wish everyone a very happy, healthy and prosperous New Year!

Crews spent the beginning of December wrapping up leaf collection which was completed the week of the 8th. Many residents were able to track the daily progress of leaf collection on the Township's website, which was updated daily. Residents who do not participate in computer technology, were able to call in as needed to find out information on when crews would be in their neighborhoods. The 8 week leaf collection was for the most part, a smooth process. The street sweeper was sent out after the collection to clean up the road debris. Street sweeping will resume in the Spring as needed.

Snow fall came on December 11th. Crews were called out during the early morning hours, to treat the roads. 4 inches of wet snow accumulated during that storm. 54 tons of salt was used on Lower Allen roads, during December. Salt use for the season has been minimal, compared to the 477 tons expended last year at this time.

There were 103 loads of brush and 79 loads of bulk items brought in by residents, for the month. Three bulk dumpsters were ordered and filled for December. Christmas tree pickup is scheduled for January 5th – January 16th. Residents are welcome to drop off their brush or Christmas tree's after January 16th, at Public Works, Monday through Friday between the hours of 7:00am – 2:30pm. The curbside brush pickup, by Penn Waste Services, will be resumed in April 2015.

The following is a listing of the Township recycling totals and revenue generated through the Public Works facility and Parks fields and facility rentals.

Recycling 2014

Christmas trees collected: January 2014	970 Trees (64 cubic yards) (16 tons)		
Brush dropped off at The Public Works Facility	3231 loads		
Bulk items dropped off at The Public Works Facility – Dumpsters filled.	1409 loads (57 dumpsters filled for 2014)		
Brush/Wood chips (ground at facility)	7360 cubic yards (1,840 tons)		
Leaf compost (made at facility)	1955 cubic yards (1319.63 tons)		
Leaf Collection LAT: Fall 2014	1,104.70 tons (5523.5 cubic yards)		
Street sweeping of Lower Allen Roads 2014	20.7 tons of collected debris (103.5 Cubic yards)		
Wood chip/Leaf compost deliveries	\$7,200.00		
Leaf compost self loaded by residents	\$521.00		
Recycling Revenue:	\$7,721.00		
Yard waste permits issued to contractors:	6 permits + \$3,900.00		
Total:	\$11,621.00		

Snow Report 2014

2014 Weather related events:	30 call outs and follow ups
Salt used in 2014:	1243 tons
Salt brine used in 2014:	3672 gallons

Facilities Rental for 2014

Barn Facility LACP:	Pavilions LACP:			
Lower Floor: (27) resident (6) non-resident	Tot Lot Pavilion: (2) Resident (1) Non-res			
Upper Floor: (20) resident (9) non-resident	Keystone Pavilion: (2) Resident (0) Non-res			
Both Floors: (17) resident (11) non-resident	Upper Pavilion: (18) Resident (14) Non-res			
	Lower Pavilion: (33) Resident (22) Non-res			
Campsites LACP:(5) Resident (11) non-resident	Fernlawn Pavilion: (13) Resident (7) Non-res			
Barn rental revenue:	\$21,302.00			
Pavilion revenue:	\$8,460.00			
Campsite revenue:	\$290.00			
Total of revenue collected for facilities rentals:	\$30,052.00			

Additional jobs completed during the month of December:

- Maintenance to the LACP picnic tables
- Organized cold storage building at PW
- Cleaned up mowing equipment for the winter
- Repaired 4 bleachers from Wass Park
- Stone put down at the school bus turnaround on Sheepford Road
- Stone put down at the turn around at the end of Orchard Road
- Sign work (4 PA-One calls)
- MSC building maintenance
- Park play equipment maintenance
- · Cleaned leaf pickers for the season

Meetings:

Safety Committee Meeting – (Bob Nailor)

Department Head Meeting (2) – (Bob Nailor)

APWA Seminar – (Bob Nailor, Jim Chianos, Bryan Harshbarger)

PW Monthly Department Meeting – (All PW employees)

Respectfully submitted,

Bob Nailor Public Works Coordinator 3. Date of last review or update to O&M program: March 06, 2015

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:
- 3. Date of last review or update to training program: March 06, 2015
- 4. Identify the date(s) of employee training, the names of attendees, the topics covered, and the training presenters:

List of attendees and training information attached

LOWER ALLEN TOWNSHIP PUBLIC WORKS, FLEET MANAGEMENT and COMMUNITY DEVELOPMENT DEPARTMENTS

TRAINING PROGRAMS

NPDES Phase 2 MS4 Permit Good Housekeeping/Pollution Prevention Training NPDES PAG-3 Permit Preparedness, Prevention and Contingency (PPC) Plan Training March 6, 2015 1:00 PM

NPDES Phase 2 MS4 Permit Good Housekeeping/Pollution Prevention Training

- 1. Background information on MS4 Program
 - 1. Six Minimum Control Measures
 - 1. Public Education and Outreach
 - 2. Public Participation/Involvement
 - 3. Illicit Discharge Detection and Elimination
 - 4. Construction Site Runoff Control
 - 5. Post-Construction Runoff Control
 - 6. Pollution Prevention/Good Housekeeping
- 2. Status of MS4 Permits
- 3. Center for Watershed Protection, Manual 9, Municipal Pollution Prevention/Good Housekeeping Practices
 - 1. Training Focus from previous years:
 - 1. 2011 MO-1:

Hotspot Facility Management

2. 2012 MO-3:

Street Repair and Maintenance

2. 2012 MO-3: 3. 2013 MO-4:

Street Sweeping

- 4. 2014 MO-5:
- Storm Drain Maintenance
- 5. 2015 Training Focus: Municipal Operation Profile Sheet MO-7: Park and Landscape Maintenance
- 6. Identify existing municipal operations
- 7. Collect information about each operation
- 8. Complete the Municipal Operations Analysis (MOA)
- 9. Focus Pollution Prevention/Good Housekeeping (PP/GH) Efforts
- 10. Investigate Municipal Operations and Select PP/GH Practices
- 11. Implement PP/GH Practices
- 12. Evaluate Progress in Implementation
- 4. Construction Site Operations
 - 1. Concrete Washout Procedures

NPDES PAG-3 Permit Preparedness, Prevention and Contingency (PPC) Plan Training

1. Spill Leak Prevention and Response

- 1. Pre-Release Planning Potential sources for accidental spills, leaks or leaching are described as follows:
 - 1. Vehicle fueling facility. All fuel is stored in permitted underground tanks. Vehicles are fueled at a covered facility. This facility is in an area that drains to the stormwater detention basin. Any spill in this area would flow into the basin.
 - 2. Waste oil. Waste oil is stored in an underground waste oil tank adjacent to the maintenance building, until it is recycled in the waste oil furnace inside the building.

that may be needed in the event of an incident at the facility.

2. Communications and Alarm Systems

1. Employees maintain contact through the use of mobile and portable two-way radios. Notification of an emergency can be made to all employees using these radios.

3. Evacuation Plan

1. Emergency exit plans are posted throughout the maintenance building in accordance with the International Fire Code.

4. Emergency Equipment Available for Response

- 1. Portable fire extinguishers are located throughout the maintenance building, in accordance with the International Fire Code.
- 2. Additional response equipment is available from the Public Safety Department, upon notification that such services are required.

Step 2: Collect Information About Each Operation

Once you have determined that your community does conduct park and landscape maintenance, the next step in the process is to collect some basic information about how those activities. Basic information to collect about the park and landscape maintenance activities conducted in your community includes:

- Narrative description of park and landscape maintenance activities
- Locations of park and landscape maintenance activities
 - o Name
 - Street address
 - Watershed and subwatershed address
 - o Geospatial coordinates (e.g. latitude, longitude)
 - o Parcel size
- Map showing locations of park and landscape maintenance activities
- Operation manager name
- Operation manager contact information

This information should be added to the simple database or binder that contains the information about all of the municipal operations conducted in your community.

As you collect some basic information about the park and landscape maintenance activities conducted within your community, you should begin communicating with the individuals who oversee or manage those activities. This is an ideal time to inform these individuals about the community's pollution prevention/good housekeeping efforts and the purpose of the community's municipal pollution prevention/good housekeeping program. It is also a good time to educate them about the influence that park and landscape maintenance can have on water quality and how pollution prevention/good housekeeping practices can be used to reduce the amount of stormwater pollution that these activities create.

Step 3: Complete the Municipal Operations Analysis (MOA)

The next step in the process is to use the basic information that you have collected about the park and landscape maintenance activities conducted in your community to complete Section 7 of the MOA. This section of the MOA asks a series of questions about the nature, scope and distribution of the park and landscape maintenance activities conducted within your community. In some cases, you will be able to answer all of the questions using only the information that you have already collected about these activities. In most cases, however, answering the questions will require additional input from the individuals who manage or oversee each of the operations as well as site visits to the locations or areas where the activities are being conducted.

Once you have answered all of the questions presented within Section 7 of the MOA, you should calculate your score to determine how well your community is currently managing its park and landscape maintenance activities. When you have completed the entire MOA, you should also compare the score that you received in Section 7 with the scores you received in each of the other sections of the analysis. This will help you focus your pollution prevention/good

Table 2: Example Discussion Questions

systems?

- How are landscaping debris and grass clippings disposed of on the properties that you maintain?
- Does the list consider performance on erosion and sediment control and stormwater management?
- What additional resources would you need to improve the community's existing park and landscape maintenance program?
- Do you provide regular stormwater pollution prevention training to employees who are involved with park and landscape maintenance activities?

Begin your follow-up investigation by interviewing the community's urban forester, if one exists. Working in conjunction with the community's urban forester and other community forestry staff will be key to improving the way that park and landscape maintenance activities are conducted within your community.

When collecting addition information about the park and landscape maintenance activities conducted in your community, you should strive to identify the specific activities that are conducted, how frequently these activities are carried out and the pollution prevention/good housekeeping practices that may already be in place to control the stormwater pollution that they create. In particular, you should evaluate:

- Fertilizer application timing and rates
- Pesticide/herbicide application timing and rates
- Irrigation practices
- Turf management practices
- Native landscaping/tree planting efforts

Step 5.2: Conduct Field Investigations

The next step in the process is to investigate each publicly owned property greater than one acre in size to identify subwatershed restoration and pollution prevention/good housekeeping opportunities. These investigations can be completed using the Pervious Area Assessment (PAA) and Hotspot Site Investigation (HSI) and Unified Stream Assessment (USA).

The PAA evaluates the feasibility of conducting reforestation or other revegetation efforts on large pervious areas. The PAA can be used to identify and prioritize reforestation projects at golf courses, parks and schools that will provide significant water quality and water quantity benefits and will help address subwatershed restoration goals and objectives. Manual 11 contains additional information about conducting the PAA.

The HSI can be used to systematically evaluate six categories of pollution-generating activities that commonly contribute to stormwater quality problems:

- Outdoor Materials Handling
- Physical Plant Maintenance
- Stormwater Infrastructure

- Turf/Landscape Management
- Vehicle Operations
- Waste Management

Table 3: Pollution	Prevention/Good Housekeeping Practices Commonly Used to Improve Park and Landscape Maintenance Operations
Activity	Pollution Prevention/Good Housekeeping Practices
	herbicides Consider a low or no pesticide approach to maintaining landscaped areas
	 Never apply fertilizers or pesticides within five feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a stream or water body Consider a low or no fertilizer approach to maintain turf
Fertilizer Application	 Apply only when rain is not expected Perform a soil test to determine actual fertilization needs and application
	rate Calibrate fertilizer spreaders to avoid excessive application
	 Employ shutoff devices to prevent irrigation after precipitation or if a pressure drop occurs due to broken sprinkler heads or lines Design irrigation systems specific to each landscaped area's water requirements
Irrigation	 Select native plant species whenever possible and group together plants with similar water requirements in order to reduce excess irrigation Use soaker hoses not sprinklers and irrigate in the morning or evening to conserve water
Employee Training	 Train employees on the use and appropriate application of pesticides, herbicides and fertilizers Ensure that designated no mow areas are well advertised Educate staff on the benefits of trees and native and naturalized species

Step 5.4: Develop Implementation Plan

The next step in the process is to develop a brief implementation plan. The implementation plan should summarize the results of assessment and field investigations, the specific pollution-generating activities associated with each publicly-owned property and the pollution prevention/good housekeeping practices that will be used to address each of these activities. Implementation plans should also include a schedule that describes some implementation milestones for the prescribed pollution prevention/good housekeeping practices. The contents of each implementation plan should be developed in cooperation with the individuals responsible for managing or overseeing each of the park and landscape maintenance activities.

A key element of each implementation plan is an estimate of the budget required to implement the recommended pollution prevention/good housekeeping practices. Although providing detailed cost information about all of the pollution prevention/good housekeeping practices that can be used to address the specific pollution-generating activities associated with municipal park and landscape maintenance activities is beyond the scope of this manual, there are some useful resources that can be used to gather this information, including Manual 8 and U.S. EPA's National Menu of Stormwater Management Best Management Practices, which is available online at: http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm.

Step 6: Implement Pollution Prevention/Good Housekeeping Practices

Once your existing park and landscaping activities have been investigated and assessed, the next step in the process is implementing the prescribed pollution prevention/good housekeeping practices. Although it may be tempting to hand the responsibility for implementation over to the

Timeframe	
regularly after that	Priority •
End of Year 1 and each year after that	•
is as the top of the prioritized mul	nicipal
	End of Year 1 and each

The methods used to evaluate success in meeting these measurable performance goals and implementation milestones can be as simple as semi-annual or annual inspections used to identify the pollution prevention/good housekeeping practices that have been put in place and the improvements that still need to be made.

Scoping the Required Level of Effort

The level of effort required to improve the way that municipal park and landscape maintenance activities are conducted varies greatly from one community to the next. It depends on the type of landscape and maintenance activities that are conducted within the community, the frequency and scope of those activities and on the number and type of pollution prevention/good housekeeping practices that are needed to improve those activities. Basic guidance on scoping the level of effort required to improve local park and landscape maintenance operations is provided in Table 5. Communities can use this information to scope the level of effort required to improve their own park and landscape maintenance activities.

Table 5: Scoping the Level of Effort Required to Improve Municipal Landscape Maintenance Operations ¹	Park and
Step	Staff Hours
Step 1: Identify Existing Municipal Operations	4-8 ¹
Step 2: Collect Information About Park and Landscape Maintenance Activities	4-8
Step 3: Complete Section 7 of the Municipal Operations Analysis (MOA)	10-20
Step 4: Focus Pollution Prevention/Good Housekeeping Efforts	4-8 ¹
Step 5: Investigate Municipal Operations and Select Pollution Prevention/Good Housekeeping Practices	120-240
Step 5.1: Collect Additional Information About Park and Landscape Maintenance Activities	20-40
Step 5.2: Conduct Field Investigations (two staff per team)	
USA	8/stream mile
PAA	1/site
HSI	2/site
Post-Processing	40-60
Step 5.3: Prescribe Pollution Prevention/Good Housekeeping Practices	20-40
Step 5.4: Develop Implementation Plan	20-40
Step 6: Implement Pollution Prevention/Good Housekeeping Practices	Varies ²
Step 7: Evaluate Progress in Implementation	20-40/evaluation ¹

Golf Course Superintendents Association of America (GCSAA). Environmental principles for golf courses in the United States http://www.gcsaa.org/resources/facts/principles.asp

Seattle Parks and Recreation. Best Management Practices (BMPs) for Landscape Maintenance Operations http://www.seattle.gov/parks/projects/bmp.htm

Spitzer Announces Agreements with Retailers to Remove Illegal Pesticides from Shelves http://www.oag.state.ny.us/press/2002/aug/aug20a 02.html

Three Rivers Park District http://www.threeriversparkdistrict.org/

Best Management Practices

Follow these BMPs to control pollutant discharges. The objectives are: 1) to keep pollutants from contacting rain, and 2) to keep pollutants from being dumped or poured into the storm drains. The goal is "only rain in the storm drain."

How to properly dispose of concrete wastes:

- \$ Use a squeegy or similar tool to remove all excess concrete from the chute.
- \$ Place all excess concrete in a form, holder, box, or a designated washout area where it may be removed once it is hardened. You may need to make a number of smaller piles because solid concrete is very heavy. All concrete finishing tools and pumping hoses should also be cleaned in the washout area.
- \$ Use the minimum amount of water to wash down the chute, finishing tools, and any other equipment.
- \$ Remove the concrete sediment from the street, gutters, and area surrounding the washout area before it hardens.
- \$ Dispose of concrete wash water properly. Two examples are described below.

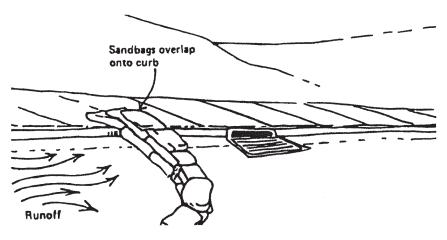
Disposing of Washwater

<u>Preferred Practice</u>: Contain all washwater on soil, preferably in a bowl shaped area to prevent the wash water from flowing from the washout area.

Alternate Practice:

- 1. Find the storm drain immediately down stream from the designated washout area. Block the storm drain and dam an area to collect the washwater. One effective control method is to use sandbags. To properly install, first wet down the sand bags, then compact them tightly to one another and to the curb so that no silty water can flow through.
- 2. Allow particles to settle and allow the water to evaporate.
- 3. Remove any remaining concrete sediment.
- 4. Discard the concrete particles to the trash or landfill.

Remember, it is illegal to dispose of concrete or washwater in the storm drain. Also, do not dispose of concrete in the sanitary sewer.



^{*}Hazardous Materials must comply with hazardous materials storage and disposal requirements.



Stormwater Best Management Practice

Concrete Washout



Minimum Measure

Construction Site Stormwater Runoff Control

Subcategory

Good Housekeeping/Materials Management

Description of Concrete Washout at Construction Sites

Concrete and its ingredients

Concrete is a mixture of cement, water, and aggregate material. Portland cement is made by heating a mixture of limestone and clay containing oxides of calcium, aluminum, silicon and other metals in a kiln and then pulverizing the resulting clinker. The fine aggregate particles are usually sand. Coarse aggregate is generally gravel or crushed stone. When cement is mixed with water, a chemical reaction called hydration occurs, which produces glue that binds the aggregates together to make concrete.

Concrete washout

After concrete is poured at a construction site, the chutes of ready mixed concrete trucks and hoppers of concrete pump trucks must be washed out to remove the remaining concrete before it hardens. Equipment such as wheelbarrows and hand tools also need to be washed down. At the end of each work day, the drums of concrete trucks must be washed out. This is customarily done at the ready mixed batch plants, which are usually off-site facilities, however large or rural construction projects may have on-site batch plants. Cementitious (having the properties of cement) washwater and solids also come from using such construction materials as mortar, plaster, stucco, and grout.

Environmental and Human Health Impacts

Concrete washout water (or washwater) is a slurry containing toxic metals. It's also caustic and corrosive, having a pH near 12. In comparison, Drano liquid drain cleaner has a pH of 13.5. Caustic washwater can harm fish gills and eyes and interfere with reproduction. The safe pH ranges for aquatic life habitats are 6.5 – 9 for freshwater and 6.5 – 8.5 for saltwater.

Construction workers should handle wet concrete and washout water with care because it may cause skin irritation and eye damage. If the washwater is dumped on the ground (Fig. 1), it can run off the construction site to adjoining roads and enter roadside storm drains, which discharge to surface waters such as rivers, lakes, or estuaries. The red arrow in Figure 2 points to a ready mixed truck chute that's being washed out into a roll-off bin, which isn't watertight. Leaking washwater, shown in the foreground, will likely follow similar

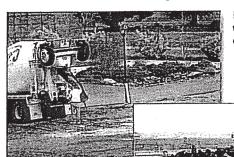


Figure 1. Chute washwater being dumped on the ground

Figure 2. Chute washwater leaking from a roll-off bin being used as a washout container

paths to nearby surface waters. Rainfall may cause concrete washout containers that are uncovered to overflow and also transport the washwater to surface waters. Rainwater polluted with concrete washwater can percolate down through the soil and alter the soil chemistry, inhibit plant growth, and contaminate the groundwater. Its high pH can increase the toxicity of other substances in the surface waters and soils. Figures 1 and 2 illustrate the need for better washout management practices.

Best Management Practice Objectives

The best management practice objectives for concrete washout are to (a) collect and retain all the concrete washout water and solids in leak proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters or into the ground water, and (b) recycle 100 percent of the collected concrete washout water and solids. Another

LOWER ALLEN TOWNSHIP PUBLIC WORKS DEPARTMENT

FLEET MANAGEMENT DEPARTMENT COMMUNITY DEVELOPMENT DEPARTMENT

ATTENDANCE

NPDES PAG-3 Permit

Preparedness, Prevention and Contingency (PPC) Plan Training March 6, 2015 1:00 PM

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LOWER ALLEN TOWNSHIP

ATTENDANCE NPDES MS4 Permit - Annual Training March 6, 2015 1:00 PM

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STORMWATER INSPECTOR

FOLLOWING CATEGORIES

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PERMIT COMPLIANCE CONSTRUCTION MUNICIPAL INDUSTRIAL



ILLICIT DISCHARGE POLLUTION PREVENTION MUNICIPAL INSPECTIONS INDUSTRIAL CONSTRUCTION COMMUNICIAL

ゴエニS CERTIFICATE AND 1.2 CEUS(12 TRAINING HOURS) AWARDED 0

RAYMOND J. ALLEN

STORMWATER INSPECTOR COURSE BY THE NATIONAL STORMWATER CENTER. IN RECOGNITION OF HAVING COMPLETED ALL REQUIREMENTS OF THE CERTIFIED CERTIFICATION IS EFFECTIVE FOR A PERIOD OF FIVE YEARS. **H H I S**

MICHELE LOMAX, DIRECTOR OF OPERATIONS

5614

CERTIFICATE NUMBER

APRIL 23, 2014

DATE

THE NATIONAL STORMWATER CENTER A NONPROFIT FOUNDATION WWW.NPDES.COM

The Practicing Institute of Engineering, Inc.

This is to certify that: Raymond Allen

water quality systems. This course shall also include the newest regulations and specifications from the governing state of the presentation. land development professionals in the proper design, specification and use of storm sewers, subsurface stormwater management systems and workshop program is offered by Advanced Orainage Systems, Inc. to instruct Licensed Professional Engineers, Landscape Architects and has successfully completed the Retention-Detention and Water Quality Professional training in Best Management Practices (BMP's) is provided for the purpose of designing storm sewers, stormwater detention/retention systems and water quality systems. This training

This certificate was issued the 13h day of November 2013

1 Professional Development Hours*



Steven P. Johnson

Steven P. Johnson ADS Engineered Product Manager

*To confirm the acceptance of the PDH, please consult with your state. ADS feels that this seminar maintains, improves or expands the skills and knowledge of a licensee's professional practice. In addition, the seminar held on this date included updates to current PENN DOT specs that cover 100 year pipe; AASHTO M330 specs that cover polypropylene pipe; recent acts passed by the Commonwealth Pennsylvania that include the Stormwater Funding Act and the Municipal Stormwater Authority Act.

The participants were also introduced to the latest sand filter methods of water quality manage. Additional time was spent learning the benefits of AASHTO LRFD testing of pipe and chamber products.

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BMP INVENTORY

List all <u>new</u> structural BMPs installed and ongoing non-structural BMPs implemented in the urbanized area <u>during the reporting period</u> 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).

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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.

LOWER ALLEN TOWNSHIP HAS:

- 1. FOLLOWED AND ENFORCED THE ACT 167 STOLMWATER MANAGEMENT ORDINANCE REQUIREMENTS.
- 2. CONTINUED TO COMPLETE THE REQUIREMENTS OF THE MS4 PERMIT.
- 3. DEVELOPED AND SUBMITTED A CHESAPEAKE BAY POLIUTION REDUCTION PLANT TO PADEP.
- 4 FOLLOWED THE CBBRA THAT WAS SUBMITTED TO PADER.

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

BURING THE NEXT REPORTING EYELE LOWER ALLEN TOWNSHIP WILL:

- 1. UMBORTAKE REQUIRED ACTIVITIES IN THE MS4 PERMIT.
- 2. UNDERTAKE REGULED ACTIVITIES IN THE COPPER.
- 3. DEVELOP OPERATION AND MAINTENANCE PLANS FOR TOWNSHIP FACILITIES THAT HAVE THE POTENTIAL TO GENERATE SPRINGTER POLIUTION.
- 4. CONTINUE TO IMPROVE 615 MAPPING OF THE MS 4.

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

LOWER ALLEN TOWNSHIP HAS A MEMORANDUM OF UNDERSTANDING WITH THE CUMBERLAND COUNTY CONSTRUCT (CCCO) WHEREBY CCCO PROVIDES SERVICES TO ASSIST WITH PERMIT OBLICATIONS.

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