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	September 23, 2022
	ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT PERMIT YEAR JULY 1, 2021 – JUNE 30, 2022
	BETHLEHEM TOWNSHIP NORTHAMPTON COUNTY, PENNSYLVANIA
	HRG Project No. 008488.0428

# ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

### FOR THE PERIOD JULY 1, 2021 TO JUNE 30, 2022

GENERAL INFORMATION								
Permittee Name:	Bethlehem	Township		NPI	DES Permit No.:	PAI132	214	
Mailing Address:	ailing Address: 4225 Easton Avenue		Effe	ective Date:	May 1,	2019		
City, State, Zip: Bethlehem, PA 18020		Exp	piration Date: April 30, 2024					
MS4 Contact Person:	Richard L.	Kanaskie		Rer	Renewal Due Date: November 30, 2023			
Title:	Assistant P	Public Works Direc	ctor	Mur	unicipality: Bethlehem Township			р
Phone:	610-814-64	107		Οοι	ounty: Northampton			
Email:	rkanaskie@	bethlehemtwp.co	om					
Co-Permittees (if applicat	ble): N/A							
Appendix(ces) that permit	ttee is subjec	t to (select all that	apply):					
	А 🗌 Арре	endix B 🛛 Appel	ndix C	] App	pendix D 🛛 Appe	ndix E	Appendix F	=
		WATER QU	JALITY I	NFO	RMATION			
Are there any discharges	to waters wit	hin the Chesapeal	ke Bay Wa	itersh	ed? Yes	🛛 No		
Identify all surface waters (see instructions).	that receive	stormwater discha	arges from	the p	permittee's MS4 an	d provide	the requeste	d information
Receiving Water N	lame	Ch. 93 Class.	Impaire	d? Cause(s)			TMDL?	WLA?
Unamed Tributary to N Creek	lonocacy	HQ-CWF, MF	Yes		Siltation		No	No
Lehigh Coal and Naviga	Lehigh Coal and Navigation Canal WWF, MF Yes		Yes		Siltation, Suspended Solids, Organic Enrichement/Low D.O.		No	No
Unamed Tributary to Nancy Run CWF, MF No		No		N/A		No	No	
Unamed Tributary to Lehigh Coal and Navigation Canal WWF, MF Yes			Siltation, Suspended Solids, Organic Enrichement/Low D.O.		No	No		
Monocacy Cree	ek	HQ-CWF, MF	Yes	s Siltation		No	No	
Nancy Run		HQ-CWF, MF	Yes		Siltation, Water/Flow Variability		No	No

	GENERAL MINIMUM CONTROL	. MEASURE (MCM) INFO	RMATION			
На	ve you completed all MCM activities required by the permit	for this reporting period?	🛛 Yes 🗌 No			
Lis	t the current entity responsible for implementing each MCM	of your SWMP, along with co	ontact name and phor	ne number.		
МСМ		Entity Responsible	Contact Name	Phone		
#1	Public Education and Outreach on Storm Water Impacts	Bethlehem Township	Richard L. Kanaskie	610-814- 6407		
#2	Public Involvement/Participation	Bethlehem Township	Richard L. Kanaskie	610-814- 6407		
#3	Illicit Discharge Detection and Elimination (IDD&E)	Bethlehem Township	Richard L. Kanaskie	610-814- 6407		
#4 Construction Site Storm Water Runoff Control		Bethlehem Township	Richard L. Kanaskie	610-814- 6407		
#5 Post-Construction Storm Water Management in New Development and Redevelopment		Bethlehem Township	Richard L. Kanaskie	610-814- 6407		
#6 Pollution Prevention / Good Housekeeping		Bethlehem Township	Richard L. Kanaskie	610-814- 6407		
	MCM #1 – PUBLIC EDUCATION AND C	UTREACH ON STORM	WATER IMPACTS	5		
BN	IP #1: Develop, implement and maintain a written Public	c Education and Outreach F	Program.			
1.	For new permittees only, has the written PEOP been deve	eloped and implemented withi	n the first year of perr	nit coverage?		
	🗌 Yes 🔲 No					
2.	Date of latest annual review of PEOP: 2/28/2022	Were updates made?	P ⊠ Yes 🗌 No			
3.	What were the plans and goals for public education and o	utreach for the reporting peric	od?			
	See Attached Appendix A, MCM1					
4.	4. Did the MS4 achieve its goal(s) for the PEOP during the reporting period?					
5.	Identify specific plans and goals for public education and o	outreach for the upcoming yea	ar:			
	See Attached Appendix A, MCM1					
BN	IP #2: Develop and maintain lists of target audience gro	oups present within the area	as served by your M	S4.		
1.	For new permittees only, have the target audience lists coverage?	been developed and implem	ented within the first	year of permit		
	🗌 Yes 🔲 No					
2.	Date of latest annual review of target audience lists: 2/28/	2022 Were update	es made? 🗌 Yes	🖾 No		
BN	IP #3: Annually publish at least one educational item or	n your Stormwater Manager	nent Program.			
1.	For new permittees only, were stormwater educational a the Internet within the first year of permit coverage?	nd informational items produ	ced and published in	print and/or on		

	Yes 🗌 No								
2. Date	e of latest annual review of education	nal ma	aterials:	2/28/	2022		Were updates made?	🗌 Yes	🛛 No
	you have a municipal website? ps://bethlehemtownship.org/)		Yes		No	(URL:			

If Yes, what MS4-related material does it contain? See Attached Appendix A, MCM1

- 4. Describe any other method(s) used during the reporting period to provide information on stormwater to the public: See Attached Appendix A, MCM1
- 5. Identify specific plans for the publication of stormwater materials for the upcoming year: See Attached Appendix A, MCM1

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

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

See Attached Appendix A, MCM1

#### MCM #1 Comments:

IVIC	sm #1 Comments:							
	All items completed under MCM1 are listed in Appendix A. Documentation of each of the activities completed for this MCM are attached to the Appendix as figures.							
	MCM #2 – PUBLIC INVOLVEMENT/PARTICIPATION							
BN	3MP #1: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP)							
1.	For new permittees only, was the PIPP develop	ped and implemented v	vithin one year of pe	ermit coverage?				
	🗌 Yes 🔲 No							
2.	2. Date of latest annual review of PIPP: 2/28/2022 Were updates made? 🛛 Yes 🗌 No							
	BMP #2: Advertise to the public and solicit public input on ordinances, SOPs, Pollutant Reduction Plans (PRPs) (if applicable) and TMDL Plans (if applicable), including modifications thereto, prior to adoption or submission to DEP:							
1.	Was an MS4-related ordinance, SOP, PRP or TMDL Plan developed during the reporting period? 🔲 Yes 🖾 No							
2.	. If Yes, describe how you advertised the draft document(s) and how you provided opportunities for public review, input and feedback:							
3.	If an ordinance, SOP or plan was developed or a	amended during the rep	orting period provid	e the following information:				
0.		<b>.</b>						
	Ordinance / SOP / Plan Name	Date of Public Notice	Date of Public Hearing	Date Enacted or Submitted to DEP				

	IP #3: Regularly solicit public involvement and participation from the target audience groups using available tribution and outreach methods.
1.	At least one public meeting or other MS4 event must be held during the 5-year permit coverage period to solicit participation and feedback from target audience groups. Was this meeting or event held during the reporting period?
	Yes No If Yes, Date of Meeting or Event: February 21, 2022 - Board of Commissioners Public Meeting
2.	Report instances of cooperation and participation in MS4 activities; presentations the permittee made to local watershed and conservation organizations; and similar instances of participation or coordination with organizations in the community.
	See Appendix B, MCM2
3.	Report activities in which members of the public assisted or participated in the meetings and in the implementation of the SWMP, including education activities or efforts such as cleanups, monitoring, storm drain stenciling, or others.
	See Appendix B, MCM2
мс	:M #2 Comments:
	items completed under MCM2 are listed in Appendix B. Documentation of each of the activities completed for this M are attached to the Appendix as figures.
	MCM #3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)
	IP #1: Develop and implement a written program for the detection, elimination, and prevention of illicit discharges o the regulated small MS4.
int	
int	o the regulated small MS4.
int 1.	o the regulated small MS4. For new permittees only, was the written IDD&E program developed within one year of permit coverage?
int 1. 2. BN and	o the regulated small MS4. For new permittees only, was the written IDD&E program developed within one year of permit coverage?
int 1. 2. BN and	o the regulated small MS4.         For new permittees only, was the written IDD&E program developed within one year of permit coverage?         □ Yes       No         Date of latest annual review of IDD&E program: 2/28/2022       Were updates made?       ☑ Yes       No         IP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from
int 1. 2. BN and tho	o the regulated small MS4.         For new permittees only, was the written IDD&E program developed within one year of permit coverage?         □ Yes □ No         Date of latest annual review of IDD&E program: 2/28/2022       Were updates made? ☑ Yes □ No         IP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from one outfalls. Outfalls and observation points shall be numbered on the map(s).
int 1. 2. BN and tho	o the regulated small MS4.         For new permittees only, was the written IDD&E program developed within one year of permit coverage?         □ Yes □ No         Date of latest annual review of IDD&E program: 2/28/2022       Were updates made? ☑ Yes □ No         IP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from one outfalls. Outfalls and observation points shall be numbered on the map(s).         Have you completed a map(s) that includes all components of BMP #2? ☑ Yes □ No
int 1. 2. BN and tho	o the regulated small MS4.         For new permittees only, was the written IDD&E program developed within one year of permit coverage?         Yes       No         Date of latest annual review of IDD&E program: 2/28/2022       Were updates made?       Yes       No         IP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from one outfalls. Outfalls and observation points shall be numbered on the map(s).         Have you completed a map(s) that includes all components of BMP #2?       Yes       No         If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.
int 1. 2. BN and thc 1.	o the regulated small MS4.         For new permittees only, was the written IDD&E program developed within one year of permit coverage?         Yes       No         Date of latest annual review of IDD&E program: 2/28/2022       Were updates made?       Yes       No         IP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from use outfalls. Outfalls and observation points shall be numbered on the map(s).         Have you completed a map(s) that includes all components of BMP #2?       Yes       No         If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.       If No, date by which permittee expects map(s) to be completed:
int. 1. 2. BN and tho 1. 2.	o the regulated small MS4.         For new permittees only, was the written IDD&E program developed within one year of permit coverage?         □ Yes □ No         Date of latest annual review of IDD&E program: 2/28/2022       Were updates made? ☑ Yes □ No         IP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from use outfalls. Outfalls and observation points shall be numbered on the map(s).         Have you completed a map(s) that includes all components of BMP #2? ☑ Yes □ No         If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.         If No, date by which permittee expects map(s) to be completed:         Date of last update or revision to map(s):       April 2018
int. 1. 2. BM and tho 1. 2. 3.	o the regulated small MS4.   For new permittees only, was the written IDD&E program developed within one year of permit coverage?   Yes   Date of latest annual review of IDD&E program: 2/28/2022   Were updates made?   Yes   No      P#2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls d, if applicable, observation points, and the locations and names of all surface waters that receive discharges from see outfalls. Outfalls and observation points shall be numbered on the map(s). Have you completed a map(s) that includes all components of BMP #2? Yes   No   If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.   If No, date by which permittee expects map(s) to be completed:   Date of last update or revision to map(s):   April 2018   Total No. of Outfalls in MS4:   128

per juri cha the	P #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), the mittee shall develop and maintain map(s) that show the entire storm sewer collection system within the permittee's sdiction that are owned or operated by the permittee (including roads, inlets, piping, swales, catch basins, annels, and any other components of the storm sewer collection system), including privately-owned components of collection system where conveyances or BMPs on private property receive stormwater flows from upstream oblicly-owned components.
1.	Have you completed a map(s) that includes all components of BMP #3? 🛛 Yes 🗌 No
	If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.
	If No, date by which permittee expects map(s) to be completed:
2.	If Yes to #1, is the map(s) on the same map(s) as for outfalls and receiving waters? 🛛 Yes 🗌 No
3.	Date of last update or revision to map(s): April 2018
dis any sus as	P #4: Conduct dry weather screenings of MS4 outfalls to evaluate the presence of illicit discharges. If any illicit charges are present, the permittee shall identify the source(s) and take appropriate actions to remove or correct v illicit discharges. The permittee shall also respond to reports received from the public or other agencies of spected or confirmed illicit discharges associated with the storm sewer system, as well as take enforcement action necessary. The permittee shall immediately report to DEP illicit discharges that would endanger users downstream m the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property.
twic obs are	new permittees, all identified outfalls (and if applicable observation points) must be screened during dry weather at least ce within the 5-year period following permit coverage. For existing permittees, all identified outfalls (and if applicable servation points) must be screen during dry weather at least once within the 5-year period following permit coverage and, for as where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls st be screened annually during each year of permit coverage.
1.	How many unique outfalls (and if applicable observation points) were screened during the reporting period? 26,1
2.	Indicate the percentage of all outfalls screened in the past five years. 100%
3.	Indicate the percent of outfalls screened during the reporting period that revealed dry weather flows: 0%
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 MS4 Outfall Field Screening Report form (3800-FM-BCW0521) provided in the permit? ☑ Yes □ No
	If No, attach a copy of your screening report form.
	P #5: Enact a Stormwater Management Ordinance or SOP to implement and enforce a stormwater management ogram that includes prohibition of non-stormwater discharges to the regulated small MS4.
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: 4/2/2007
2.	If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) with respect to authorized non-stormwater discharges?  Yes X No
	If Yes to #2 and the ordinance or SOP has not been submitted to DEP previously, attach the ordinance or SOP.

	ny violations of the ordinance or SOP durin omplete the table below (attach additional sh		🛛 Yes 🗌 No					
Violation Date	Nature of Violation	Responsible Party	Enforcement Taken					
12/1/2021	Release of a Regulated Substance	Speedway 6742	See Appendix C					
	<ol> <li>Did you approve any waiver or variance during the reporting period that allowed an exception to non-stormwater discharge provisions of an ordinance or SOP? ☐ Yes   No</li> </ol>							
If Yes to #4, io	dentify the entity that received the waiver or v	ariance and the type of n	on-stormwater discharge approved.					
	e educational outreach to public employe ad elected officials (i.e., target audiences) a							
1. Was IDD&E-r period? ⊠ Y	elated information distributed to public empl res 🔲 No	oyees, businesses, and	the general public during the reporting					
If Yes, what w	vas distributed? See Appendix C, MCM3							
2. Is there a well ⊠ Yes □ I	-publicized method for employees, businesse	es and the public to repor	t stormwater pollution incidents?					
3. Do you mainta	ain documentation of all responses, action tak	ken, and the time require	d to take action? 🛛 Yes 🔲 No					
MCM #3 Comments:								
	All items completed under MCM3 are listed in Appendix C. Documentation of each of the activities completed for this MCM are attached to the Appendix as figures.							
MCM #4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL								
	PA's statewide program for stormwater asso	ciated with construction	activities to satisfy this MCM?					
	a suppliance for PMP Non 1 2 and 2 any	n this spatian If Na ra	anand to quantions for all PMPs in this					
(If Yes, respond to questions for BMP Nos. 1, 2 and 3 only in this section. If No, respond to questions for all BMPs in this section)								
BMP #1: The permittee may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring an NPDES permit unless the party proposing the earth disturbance has valid NPDES Permit coverage (i.e., not expired) under 25 Pa. Code Chapter 102.								
During the reporting period, did you comply with 25 Pa. Code § 102.43 (relating to withholding building or other permits or approvals until DEP or a county conservation district (CCD) has approved NPDES permit coverage)?								
🛛 Yes 🗌 I	No 🔲 Not Applicable (no building permit ap	oplications received)						

BMP #2: A municipality or county which issues building or other permits shall notify DEP or the applicable CCD within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 Pa. Code § 102.42.
During the reporting period, did you comply with 25 Pa. Code § 102.42 (relating to notifying DEP/CCD within 5 days of receiving an application involving an earth disturbance activity of one acre or more)?
Yes D No D Not Applicable (no building permit applications received)
BMP #3: Enact, implement and enforce an ordinance or SOP to require the implementation and maintenance of E&S control BMPs, including sanctions for non-compliance, as applicable.
1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of E&S control BMPs? 🛛 Yes 🗌 No
If Yes, indicate the date of the ordinance or SOP: 4/2/2007
2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☐ Yes ⊠ No
3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.
BMP #4: Review Erosion and Sediment (E&S) control plans to ensure that such plans adequately consider water quality impacts and meet regulatory requirements.
Specify the number of E&S Plans you reviewed during the reporting period:
BMP #5: Conduct inspections regarding installation and maintenance of E&S control measures during earth disturbance activities. Maintain records of site inspections, including dates and inspection results, in accordance with the record retention requirements in this permit.
Specify the number of E&S inspections you completed during the reporting period:
BMP #6: Conduct enforcement when installation and maintenance of E&S control measures during earth disturbance activities does not comply with permit and/or regulatory requirements.
activities does not comply with permit and/or regulatory requirements.
activities does not comply with permit and/or regulatory requirements. Specify the number of enforcement actions you took during the reporting period for improper E&S: BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to
activities does not comply with permit and/or regulatory requirements. Specify the number of enforcement actions you took during the reporting period for improper E&S: BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators.
activities does not comply with permit and/or regulatory requirements. Specify the number of enforcement actions you took during the reporting period for improper E&S: BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators. Specify the method(s) by which you are educating construction site operators on controlling waste at construction sites: BMP #8: Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and
activities does not comply with permit and/or regulatory requirements. Specify the number of enforcement actions you took during the reporting period for improper E&S: BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators. Specify the method(s) by which you are educating construction site operators on controlling waste at construction sites: BMP #8: 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.
<ul> <li>activities does not comply with permit and/or regulatory requirements.</li> <li>Specify the number of enforcement actions you took during the reporting period for improper E&amp;S:</li> <li>BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators.</li> <li>Specify the method(s) by which you are educating construction site operators on controlling waste at construction sites:</li> <li>BMP #8: 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.</li> <li>1. A tracking system has been established for receipt of public inquiries and complaints.  Yes No</li> </ul>
activities does not comply with permit and/or regulatory requirements.         Specify the number of enforcement actions you took during the reporting period for improper E&S:         BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators.         Specify the method(s) by which you are educating construction site operators on controlling waste at construction sites:         BMP #8: 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.         1. A tracking system has been established for receipt of public inquiries and complaints.  Yes No         2. Specify the number of inquiries and complaints received during the reporting period:

MC	M #5 – POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT
	IP #1: Enact, implement and enforce an ordinance or SOP to require post-construction stormwater management m new development and redevelopment projects, including sanctions for non-compliance.
1.	Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of post-construction stormwater management (PCSM) BMPs? 🛛 Yes 🗌 No
	If Yes, indicate the date of the ordinance or SOP: 4/2/2007
2.	If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☐ Yes ⊠ No
3.	If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.
nev dev	IP #2: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in w development and redevelopment. Measures should also be included to encourage retrofitting LID into existing velopment. Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID actices.
1.	Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that encourages and expands the use of LID in new development and redevelopment? 🛛 Yes 🗌 No
	If Yes, indicate the date of the ordinance or SOP: 4/2/2007
2.	If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)?  Yes X No
3.	If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.
dev	IP #3: Ensure adequate O&M of all post-construction stormwater management BMPs that have been installed at velopment or redevelopment projects that disturb greater than or equal to one acre, including projects less than e acre that are part of a larger common plan of development or sale.
1.	Do you have an inventory of all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003? Xes INO
	If Yes to #1, complete Table 1 on the next page.
2.	Has proper O&M occurred during the reporting period for all PCSM BMPs? 🛛 Yes 🗌 No
3.	If No to #2, explain what action(s) the permittee has taken or plans to take to ensure proper O&M.
	ou are relying on PA's statewide program for stormwater associated with construction activities, you may skip to MCM #6, erwise complete all questions for BMPs #4 - #6 in this section.
the	IP #4: Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff nditions.
1.	Specify the number of PCSM Plans reviewed during the reporting period for projects disturbing greater than or equal to one acre (including projects less than one acre that are part of a larger common plan of development or sale):
2.	Has a tracking system been established and maintained to record qualifying projects and their associated BMPs?
	🗌 Yes 🔲 No

#### PCSM BMP INVENTORY

**Table 1**. To complete the information needed for MCM #5, BMP #3, list all <u>existing structural BMPs</u> that discharge stormwater to the permittee's MS4 that were installed to satisfy PCSM requirements for earth disturbance activities under Chapter 102, and provide the requested information (see instructions).

BMP No.	BMP Name	DA (ac)	Entity Responsible for O&M	Latitude	Longitude	Date Installed	O&M Requirements	NPDES Permit No.
1	See Appendix E, MCM5			0 ""	0			
2				o , "	0			
3				o , "	o , "			
4				o , ,,,	0 3 33			
5				o , ,,,	0 3 33			
6				0	0 3 33			
7				0 3 33	0 1 11			
8				• * "	0			
9				0	0			
10				• • "	• * "			
11				• • "	• * "			
12				• * **	0			
13				0	• * "			
14				• * **	0			
15				• * **	• * "			
16				0	0			

BMP #5: Ensure that controls are installed that shall prevent or minimize water quality impacts. The permittee shall inspect all qualifying development or redevelopment projects 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).
1. During the reporting period have you inspected all qualifying development and redevelopment projects during the construction phase to ensure proper installation of approved structural BMPs?
Yes No Not Applicable (no qualifying projects during reporting period)
2. Has a tracking system been established and maintained to record results of inspections?
🗌 Yes 🔲 No
BMP #6: Develop a written procedure that describes how the permittee shall address all required components of this MCM.
Have you developed a written plan that addresses: 1) minimum requirements for use of structural and/or non-structural BMPs in plans for development and redevelopment; 2) criteria for selecting and standards for sizing stormwater BMPs; and 3) implementation of an inspection program to ensure that BMPs are properly installed? Yes No
MCM #5 Comments:
All items completed under MCM5 are listed in Appendix E. Documentation of each of the activities completed for this MCM are attached to the Appendix as figures.
MCM #6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING
BMP #1: Identify and document all operations that are owned or operated by the permittee and have the potential for generating pollution in stormwater runoff to the MS4. This includes activities conducted by contractors for the permittee.
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? 2/28/2022
3. When was it last updated? September 2020
BMP #2: Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the MS4, as identified under BMP #1. This program shall address stormwater collection or conveyance systems within the regulated MS4.
1. Have you developed a written O&M program for the operations identified in BMP #1? ⊠ Yes □ No
2. Date of last review or update to written O&M program: 2/28/2022
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 operations to the regulated small MS4. All relevant
employees and contractors shall receive training.
<ul> <li>employees and contractors shall receive training.</li> <li>1. Have you developed an employee training program? X Yes No</li> </ul>

3. Training topics covered:

MS4 Public Works Training

4. Name(s) of training presenter(s):

Tyler Erb, Financial Services Specialist (HRG)

5. Names of training attendees:

See Appendix F, MCM 6

#### MCM #6 Comments:

All items completed under MCM6 are listed in Appendix F. Documentation of each of the activities completed for this MCM are attached to the Appendix as figures.

#### POLLUTANT CONTROL MEASURES (PCMs)

Indicate the status of implementing PCMs in Appendices A, B and/or C by completing the table below. Skip this section if PCMs are not applicable.

Task	Date Completed	Attached	Anticipated Completion Date
Storm Sewershed Map(s)	8/30/2022	$\square$	September 30, 2022
Source Inventory	8/30/2022	$\square$	September 30, 2022
Investigation of Suspected Sources	9/12/2022	$\square$	September 30, 2023
Ordinance/SOP for Controlling Animal Wastes	6/12/1989		

#### **PCM Comments:**

Storm Sewershed Mapping, Source Inventory, and Investigations of Suspected Sources are included in this annual report as Appendix G.

#### POLLUTANT REDUCTION PLANS (PRPs) AND TMDL PLANS

1. Complete this section if the development and submission of a PRP and/or TMDL Plan was required as an attachment to the latest NOI or application or was required by the permit, regardless of whether DEP has approved the plan(s).

Type of Plan	Submission Date	DEP Approval Date	Surface Waters Addressed by Plan
Chesapeake Bay PRP (Appendix D)			Chesapeake Bay
Impaired Waters PRP (Appendix E)	5/1/18	4/24/19	Nancy Run, Monocacy Creek, Lehigh River
TMDL Plan (Appendix F)			
Combined Chesapeake Bay / Impaired Waters PRP			Chesapeake Bay,
Combined PRP / TMDL Plan			
Joint Plan (if checked, list the name of the	ne MS4 group or	names of all en	ities participating in the joint plan below)
Joint Plan Participants:			

#### 3800-FM-BCW0491 9/2017 Annual MS4 Status Report

2.	Identify the pollutants of concern and pol	lutant load reduction require	ments under the permit (se	e instructions).						
	Type of Plan	TSS Load Reduction (Ibs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)						
	Chesapeake Bay PRP (Appendix D)									
$\square$	Impaired Waters PRP (Appendix E)	ters PRP (Appendix E) 376,250								
	TMDL Plan (Appendix F)	MDL Plan (Appendix F)								
	Combined Chesapeake Bay / Impaired Waters PRP									
	Combined PRP / TMDL Plan									
3.	Date Final Report Demonstrating Achieve Have any modifications to the plan(s) occ If Yes to #4, was the updated plan(s) sub If Yes to #4, did you comply with the pub If Yes to #4, describe the plan modification	curred since DEP approval? omitted to DEP?	☐ Yes ⊠ No ☐ No							
5.	<ol> <li>Summary of progress achieved during reporting period.</li> <li>The Township has implemented a Stormwater Utility Fee to fund the implementation of BMPs. Additionally, the Township is looking at alternative projects that will promote additional stormwater benefits.</li> </ol>									
6.	<ol> <li>Anticipated activities for next reporting period.</li> <li>Our anticipated PRP activites for the next reporting period will include the design of multiple BMPs for 2022-2023 construction. A revised PRP will be will be submitted to PADEP to reflect these activities.</li> </ol>									
PR	P/TMDL Plan Comments:									

#### NEW BMPs FOR PRP/TMDL PLAN IMPLEMENTATION

**Table 2**. List all <u>new structural BMPs</u> installed and <u>ongoing non-structural BMPs</u> implemented <u>during the reporting period</u> that are being used toward achieving load reductions in the permittee's PRP and/or TMDL Plan (see instructions).

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed or Implemented	Planning Area?	Ch. 102?	Annual Sediment Load Reduction (Ibs/yr)
						• * **	0 3 33				
						0 3 33	O 3 33				
						O 7 77	O 3 33				
						o , "	0				
						• • "	O 3 33				

#### **BMP INVENTORY FOR PRP/TMDL PLAN IMPLEMENTATION**

**Table 3**. List all <u>existing structural BMPs</u> that have been installed in <u>prior reporting periods</u> and are eligible to use toward achieving load reductions in the permittee's PRP and/or TMDL Plan (see instructions).

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed	Annual Sediment Load Reduction (Ibs/yr)	Date of Latest Inspect -ion	Satis- factory?
						0 3 33	0 3 33				
						o , "	0				
						o , "	0				
						o , "	0				
						o , "	0				
						0	0 1 11				

#### CERTIFICATION

For PAG-13 Permittees: I have read the latest PAG-13 General Permit issued by DEP and agree and certify that (1) the permittee continues to be eligible for coverage under the PAG-13 General Permit and (2) the permittee will continue to comply with the conditions of that permit, including any modifications thereto. I understand that if I do not agree to the terms and conditions of the PAG-13 General Permit, I will apply for an individual permit within 90 days of publication of the General Permit. I also acknowledge that any facility construction needed to comply with the General Permit requirements shall be designed, built, operated, and maintained in accordance with operative laws and regulations.

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

Date

Richard L. Kanaskie

Name of Responsible Official

610-814-6407

Telephone No.

$\sim$	$D_{11}$
1/201	th
Signature	
9/22	2073

# APPENDIX A

### MCM#1 – PUBLIC EDUCATION & OUTREACH ON STORMWATER IMPACTS

### **BMP 1 - Develop, implement and maintain a written Public Education and** Outreach Program (PEOP)

Bethlehem Township's Public Education and Outreach Program (PEOP) was developed during previous permit terms and is reviewed/updated annually. The PEOP includes four (4) main steps to ensure that all target audiences have received the appropriate information on stormwater management:

- 1. Inform individuals and households about the steps they can take to reduce stormwater pollution and illicit discharges.
- 2. Inform individuals and groups how to become involved in local stream restoration activities as well as activities that are coordinated by youth service and conservation groups or other citizen groups.
- 3. Tailor the public education program using a mix of locally appropriate strategies to target specific audiences and communities.
- 4. Participate in neighboring municipality or community events.

The written Public Education and Outreach Program is attached as Figure MCM1.A.

The main goal of the PEOP is to reach and educate all of the target audiences within the Township on the importance of stormwater management. The Township achieved the goals of the PEOP during this reporting period. The public received information on stormwater-related issues through various outreach methods. The Figures attached to this Appendix document the conducted outreach efforts.

Throughout the upcoming year, the Township plans to continue distributing educational materials to the different target audiences as well as participate in community events.

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

The target audience of the educational outreach program is listed in the Public Education and Outreach Program (Figure MCM1.A). The target audience of the educational outreach program has remained the same for this permitting cycle as the last – homeowners, businesses, developers, schools, and public works employees.

### BMP 3 – Annually publish at least one educational items on your Stormwater Management Program

### 1. Distribution of Educational Material

Stormwater/MS4-related education information available at the Township municipal building include stormwater-related posters and various pamphlets and handouts (Figure MCM1.B).

### 2. Annual Review of Education Materials

Educational materials are reviewed/updated annually in order to address specific stormwater issues faced by the Township or proactively address seasonal stormwater issues.

### 3. Stormwater Website

The Bethlehem Township website links to both the EPA and PADEP stormwater information websites (MCM1.C). Additional stormwater information is available to Township residents through the NCCD website.

# 4. Other methods used to provide information on Stormwater to the public Methods used during the reporting period to provide information on stormwater to the public have included: resident mailings, public meetings, Township-sponsored festivals and events, and social media outreach (MCM1.D).

**5.** Plans for publication of stormwater materials for the upcoming year The Township will continue to maintain the stormwater links on the municipal website as well as disseminate information through the existing channels.

### > <u>BMP 4: Distribute stormwater educational materials to the target audiences</u>

The Township provides informational bookmarks, brochures, and flyers at the National Night Out event.

### BETHLEHEM TOWNSHIP PUBLIC EDUCATION AND OUTREACH PROGRAM (MCM#1)

#### Background

As part of Minimum Control Measure (MCM) #1 of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, the Township will put into place a Public Education and Outreach Program. This Program allows the Township to reach and educate all of the target audiences within the Township on the importance of stormwater management. The MS4 Coordinator will ensure that the educational information referred to in this plan is distributed appropriately.

Target audiences that the Township wishes to educate on the importance of stormwater management will be identified during this permitting cycle and will include: elected municipal officials, municipal planning and zoning boards, municipal staff, homeowners, business owners, schools, developers, watershed organizations, and construction firms that are located in or work in the Township.

Audience Groups: **Township Elected Officials** Planning Commission Members Township Emergency Management Agency Fire Department Nancy Run Volunteer Fire Company Bethlehem Township Volunteer Fire Company Township Police Department Municipal Staff **Township Residents** Homeowners Renters **Business** Owners Developers (Kay River Hills, Traditions of America, etc.) Engineers Schools Freedom High School Notre Dame (Green Pond) High School Bethlehem Area Vocational-Technical School Moravian Academy Farmersville Elementary School Miller Heights Elementary School Our Lady of Perpetual Help Elementary School Northampton Community College Community Organizations Youth Groups (Boy Scouts, Girl Scouts, Summer Camps, etc.) Construction Companies (Wexcon, Joao & Bradley Construction, etc.) Homeowners Associations (Maple Shade Estates, Penns Farms, Highfield, etc.)

Bethlehem Township, Northampton County, Pennsylvania Page 1 Partnerships to Foster:

Pennsylvania Department of Environmental Protection (PADEP) Department of Conservation and Natural Resources (DCNR) Audubon Pennsylvania Penn State Extension Northampton County Planning Department The Nature Conservancy Northampton County Conservation District Monocacy Creek Watershed Association Green-Cause Trout Unlimited Coalition for the Delaware River Watershed

The following steps have been taken to ensure that all target audiences listed above have received the appropriate information on stormwater management:

- 1) Inform individuals and households about the steps they can take to reduce stormwater pollution and illicit discharges, such as proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including pesticides and fertilizers, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes. Education efforts will be as follows:
  - a) Linking to the PA DEP Stormwater Management website on the Township's Website – The Township will implement and maintain a link to the Stormwater Management website on the Township Website. This link provides quick and easy reference to stormwater information for all concerned citizens and stakeholders within the Township.
  - b) Linking to the USEPA Stormwater Program website on the Township's Website – The Township will implement and maintain a link to the Stormwater Program website on the Township Website. This link provides quick and easy reference to stormwater information for all concerned citizens and stakeholders within the Township.
  - c) Providing a Stormwater Municipal Presentation MS4 Coordinator will present annually on stormwater topics and regulatory programs to municipal officials and the public.
  - 2) Inform individuals and groups how to become involved in local stream restoration activities as well as activities that are coordinated by youth service and conservation groups or other citizen groups. Involvement will be encouraged by:
    - a) Participation in National Night Out/Community Days Staff maintains educational displays and staff to provide public opportunities to learn and ask questions regarding stormwater and MS4.

- b) The Township is a supporter of the Monocacy Creek Watershed Association. The Township will promote their activities at the Township building and on the Township website.
- 3) Tailor the public education program using a mix of locally appropriate strategies to target specific audiences and communities. Educational materials will be distributed according to the following:
  - a) Distribute Educational Materials to Developers The Township will provide the PA DEP fact sheet "Don't Let Stormwater Run Off With Your Time and Money!" to all applicants requesting a building permit.
  - b) Distribute Public Educational Materials to Homeowners The Township will include educational material within the Township Newsletter which reaches every home and business within the municipality.
  - c) Distribute Educational Posters to Businesses and Organizations Each year the township will provide interested businesses and civic organizations with a selected poster from the PADEP MS4 Resource CD.
  - d) Distribute Educational Posters to Schools Each year the Township provides educational posters to all interested school administrators within the Township.
- 4) In the event that there is interest in a special forum to discuss a stormwater topic, the Township will invite neighboring municipalities or attempt to participate in neighboring municipality events.
- 5) In the event of Township Employee trainings or educational meetings, these employees will be contacted through email or over the phone and will receive training in person or via a Zoom meeting.
- 6) Township contractors are contacted through email and are provided with the MS4 FAQs informational sheet which gives an overview of the MS4 Program and outlines the appropriate procedures to follow in the case of illicit discharges.



For more information contact:

or visit www.epa.gov/npdes/stormwater www.epa.gov/nps





A Citizen's Guide to Understanding Stormwater

After the Storm



# The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- · Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- · Debris-plastic bags, six-pack rings, bottles, and cigarette butts-washed into waterbodies can choke, suffocate, or
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.







- disable aquatic life like ducks, fish, turtles, and birds.
  - Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

# What is stormwater runoff?



Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground

Why is stormwater runof a problem?



Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water

# Stormwater Pollution Solutions



Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

#### Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash



Septic systems Leaking and

poorly

septic

into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.



Aariculture

#### Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.



- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids. and batteries at designated drop-off or recycling locations.

#### Pet waste

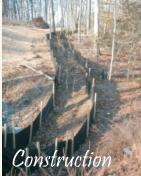
Pet waste can be a major source of bacteria and excess nutrients in local waters

When walking

your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

- Keep livestock away from streambanks and provide them a water source away from waterbodies
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields. Apply fertilizers and pesticides according to label
- instructions to save money and minimize pollution.

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.



Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

# Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

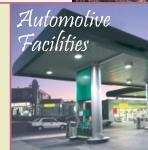
Rain Barrels—You can collect rainwater from rooftops in mosquitoproof containers. The water can be used later on lawn or garden areas.

#### Rain Gardens and Grassy Swales—Specially



rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains

Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.



Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.



systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Dirt, oil, and debris that collect in

 Sweep up litter and debris from sidewalks, driveways and parking lots,

especially around storm drains.

Cover grease storage and dumpsters

and keep them clean to avoid leaks.

Report any chemical spill to the local

They'll know the best way to keep spills from harming the environment.

hazardous waste cleanup team.

and eventually enter local

waterbodies

parking lots and paved areas can be

washed into the storm sewer system

A Guide for Auto Recycler Owners and Operators



# Stormwater Protection Starts With You

The facility operator's attitude toward stormwater management can make all the difference. It's your responsibility to communicate to your employees that stormwater management is a priority. Make sure your employees understand why stormwater management is important, both to your business and to the environment. Start by having them review the enclosed video and fact sheet.

#### Protecting stormwater can benefit your business in several important ways:

- **Professionalism and pride in your business** Both workers and customers appreciate a clean and responsible facility.
- It's the law Not complying with stormwater rules can put your business in jeopardy. Regulators and environmental groups across the country are increasingly targeting auto dismantlers for stormwater violations.

Protect the environment to protect your business

• Environmental protection – We all want clean streams, rivers, lakes, bays, and oceans for our families and for our future. Your business can protect the environment by following some straightforward and commonsense practices.

The following practices describe options that your facility can implement to help address its stormwater issues. Although following all of the practices described below may help improve performance with regard to stormwater management, it does not guarantee that your facility will be in compliance with all applicable stormwater rules. Check with your state regulatory agency or EPA for more information.

#### **The Stormwater Permit**

All vehicle dismantling facilities in the United States (except those in a combined sewer service area or facilities that do not discharge stormwater from their property) are required by the Clean Water Act to obtain a stormwater permit either from the U.S. Environmental Protection Agency or from an appropriate state agency. You must first file a Notice of Intent (NOI) with the appropriate state agency. You must also prepare a Storm Water Pollution Prevention Plan (SWPPP) to describe how you will address your facility's stormwater issues.

The practices below are organized by facility area or activity. Links and contact information to obtain additional information about stormwater and other environmental issues related to auto dismantling are listed at the end of this document.

A Guide for Auto Recycler Owners and Operators

#### What are Best Management Practices (BMPs)?

The term "BMP" is used to describe management practices that many different industries use to address a range of environmental issues. We'll use BMP to describe the practices that you can implement to address your auto dismantling facility's stormwater issues.

#### > Training

**Employee training is critical!** Train appropriate employees on relevant stormwater management procedures, especially during the wet season and prior to rain or snow events. All employees must be trained upon their initial hire and at least once per year thereafter. Be sure to document employee training. Also, place signs around activity areas as reminders to your workers; for example, "No fluids in the drain" or "Sweep up loose absorbent daily." Make up your own signs that make sense for your operation.



#### > Incoming Vehicles

Inspect all incoming vehicles for leaking fluids and unwanted materials as they enter your facility.

Promptly contain leaks with drip pans or absorbent materials.

#### > Fluid Removal

**Establish a procedure for processing vehicles and stick to it.** First, before any vehicle is placed in the yard for long-term storage or crushed, and before fluid-containing parts are dismantled, drain the following fluids from the vehicle in the order that best fits your operation:

- Fuel
- Brake fluid
- Motor oil
- Antifreeze
- Transmission fluid Freon

Draining these fluids before placing the vehicle in the yard reduces 1) the possibility of spills when parts are removed later, and 2) time and cost to your business of cleaning up leaks and spills.

#### > Fluid Draining and Vehicle Dismantling Area

**Ideally, these activities should be conducted in the same area, which should be covered with a roof.** Your fluid draining and vehicle dismantling areas have more potential to contaminate stormwater than any other areas of your facility. Properly covering this area can eliminate contact with rainfall and is a great way to get a big bang for your buck in preventing stormwater pollution. Rain or snow can carry harmful materials like oil or gasoline into the soil and nearby streams, rivers, and lakes. Roofs not only keep out rain and snow, but also make the work area more comfortable for your workers.



A Guide for Auto Recycler Owners and Operators

If you don't currently dismantle fluid-containing parts and drain fluids under cover, you don't necessarily have to put up an entirely new and expensive building. One low-cost roofing option available is the "VersaTube" offered by Tuff Shed. (See http://www.tuffshed.com/versatube.htm or call (800) BUY-TUFF for more information.)

Another option includes building your own temporary cover using low-cost materials. Plans and materials for such temporary roofs can be obtained from vendors like South Bay Canopy (408) 998-8280.

You should also have a concrete pad in the draining and dismantling area, and you should drain all vehicles on this surface. Draining over concrete makes spills and leaks easier to clean up and minimizes the

> chance of environmental harm. Use appropriate fluid removal and handling equipment, such as suction systems, drain racks, and funnels for the containers.

> > Prevent stormwater pollution by minimizing the exposure of dismantling and fluid removal activities to stormwater. In addition to overhead cover, possible options include installing intercept trenches, berming the perimeter of the area, or using channels, swales, or grade breaks to divert the flow of stormwater around these areas.

### > Fluid Storage

Storing fluids properly helps cut down on the amount of contaminants that end up in stormwater. When you remove fluids, transfer them to the proper container. Confine fluid storage to designated areas that are covered

and have adequate secondary containment. Keep drums containing fluids away from storm drains; consider storing fluids near the location where fluids are drained. Maintain good integrity of all storage containers. Do not leave open drain pans that contain fluids around the shop.

You are responsible for ensuring that your fluids are handled by an authorized processor, transporter, and treatment/disposal facility.

#### > Spill Cleanup

Clean up spills promptly and thoroughly. Keep appropriately sized and stocked "spill kits" available in the areas where you conduct the following activities:

- Dismantling and fluid removal
- Fluid storage

- Fueling

- Battery and parts storage
- Equipment maintenance
- For smaller spills, use shop rags and oil dry. Used absorbents should be placed in a designated container for proper disposal.

What should be in your spill kit?

- Absorbent socks or booms
- Absorbent pillows and pads
- Oil dry
- Broom and shovel
- Disposal bags or other containers
- Safety goggles
- Plastic gloves

- Never use vehicle fluids for dust control!
- Don't mix your used oil with solvents, brake cleaner, or antifreeze.

This creates a hazardous waste, which can't be recycled and is very expensive to get rid of.

 Don't pour fluids into your septic system, sanitary sewer, dry well, on the ground, or in the trash.

A Guide for Auto Recycler Owners and Operators

#### > Parts Storage

Store engines, transmissions, and other oily parts (resale, core, or scrap) in a way that avoids exposure to rain or snowfall. This can include:

- 1) Storing parts indoors
- 2) Storing parts under a permanent roof on impervious surface
- 3) Storing parts in weather-proof, leak-proof, covered containers
- 4) Placing parts in vehicle bodies
- **5)** Providing temporary cover (like tarps) for these parts as an interim measure

Lead acid battery components are toxic and corrosive and can contaminate the soil and water if handled improperly. Store batteries



inside a building or outside in covered, non-leaking containers. Separate batteries from other wastes like paper, rags, garbage and flammable or hazardous chemicals. Monitor your battery storage area for leaks or deterioration, and take quick action to address any spills or leaks. Lime can be used to neutralize spilled battery acid. *Never pour battery acid on the ground or into a storm drain!* 

Radiators removed from vehicles should be stored under a roof, tarp, or other cover, and raised up off the ground such that there is no contact with rainfall and surface drainage.

#### > Crushing

**Never crush a vehicle without draining all the fluids and removing gas tanks, tires, and batteries.** Capture and properly dispose of residual fluids released during crushing. You're responsible for ensuring fluids are captured and don't run off your property, even if you use a contractor to crush your vehicles.

#### > Vehicle Storage

If engines or fluid-containing parts remain in the vehicle when it is placed in the yard, place a hood or other cover, such as a well-secured tarp, over the vehicle engine. Use drip pans under stored vehicles with leaks.

Don't place vehicles on the ground where there is a heavy stormwater flow or close to a storm drain.

After vehicles are moved, scrape up dirt or gravel that was stained from leaks and drips. Manage the contaminated material in accordance with applicable regulations.

• Never wash spills into storm drains!

• Sweep up absorbent material and properly dispose at least daily.

A Guide for Auto Recycler Owners and Operators

#### > Equipment Maintenance

**Schedule and perform periodic inspections of equipment.** Regular maintenance of equipment such as forklifts reduces risk of breakdown and fluid release. Check for leaks and spills and for malfunctioning, worn, or corroded parts. Equipment maintenance should be done indoors or, where practical, on an impervious surface. If maintenance can't be done under cover, take adequate spill control and/or cleanup measures.

#### > Fueling

**Pave refueling areas with concrete** to prevent contamination of the soil and to enable cleanup. Don't leave vehicles unattended while fueling.

#### > Housekeeping

Sweep and clean paved surfaces daily to reduce sediment and contaminant buildup. Routine housekeeping is important. Catchments, inlets, oil-water separators, oil booms, waddles, tarps, and other pollutant-

collecting materials need to be maintained regularly or they can become ineffective. Clean out drain inlets periodically, especially before the wet season, during the wet season, and after the wet season ends.

#### > Erosion Control

**Tackle TSS!** You may have heard of TSS or total suspended solids – in other words, dirt. Controlling the amount of dirt that runs off your property is important because metals and other harmful pollutants can attach themselves to the dirt particles and end up flowing off the property with stormwater. Eroded soil can also smother aquatic life.



**measures** such as basins, sediment traps, geotextiles, buffer strips, or filter berms in areas without much vegetation where soil erosion is evident.

#### > Non-Stormwater Discharges

#### Wash water from equipment, work areas, or shop floors cannot come into contact or mix with

rainfall or surface drainage, or drain offsite. Vehicle and hand wash water is OK to be discharged to the sanitary sewer where allowed (be sure to check with your local sanitary sewer district). Most states prohibit all non-stormwater discharges from your property, including, but not limited to, discharges of wash water, rinse water and spilled fluids. If you are permitted to use sewers, make sure your drain is connected to the sanitary sewer. If this is not possible in your area, the wash water must be managed on-site. Management options include recycling, re-use, or off-site disposal. If you let the water soak into the ground (infiltration), take appropriate steps to prevent groundwater contamination and infestation by mosquitoes or other pests. For additional information consult your local regulatory agency.



Stormwater Management A Guide for Auto Recycler Owners and Operators

# • Know where your drains go. Plug any floor drains that would let a spill run into septic systems or storm drains.

Automotive fluids and solvents can contaminate drinking water if they end up in drains that discharge to soil.

- Following washing, collect and clean up any accumulated sediments, oil deposits, debris, and paint particles.
- Do not steam clean or pressure wash parts without proper wash water management.
- Do not hose down the shop floor if water will run into a storm drain or off the property.

#### > Stormwater Filter Systems

**Inexpensive filter systems or absorbents can provide an extra level of defense** against stormwater pollution. Examples include: absorbent socks or booms, silt fences, straw bales, rock filters, and inlet filters. Regular maintenance of these products is essential – if they're not maintained, they won't work. Further, these measures are not a substitute for good stormwater management practices.

#### > Inspection

**Inspect your site regularly** to ensure all appropriate BMPs are being implemented. Increase inspections during periods of rainy weather. Based on permit or management needs, maintain a record of visual inspections.

Inspect oil containers, fresh water systems, irrigation lines, fueling areas, and other piping systems for leaks. If evidence of leaks is found, promptly repair or replace damaged parts to prevent polluted runoff and non-stormwater discharges.

#### > Customer Education

**Inform customers who remove parts to do so properly and to appropriately dispose of fluids.** For example, make fluid receptacles readily available, post signs that require the use of drip pans for parts removal, and prohibit waste generating activities like vehicle maintenance in parking lots.

A Guide for Auto Recycler Owners and Operators

#### **Mercury Switches**

Mercury switches are an important issue. Many older vehicles contain mercury, which is highly toxic and can cause learning disabilities and mental retardation in newborn children. When vehicles are crushed and mercury remains inside, it can get onto the ground and into waterways. Also, mercury can be released into the air and water bodies after scrapped vehicles go to the shredder.

#### What to do about mercury

Mercury switches are commonly found under vehicle hoods and trunks and less frequently in automatic braking systems (ABS). These switches can easily be removed to prevent contamination of the environment and human health problems. Information on removing mercury from vehicles is available online at: epa.gov/glnpo/bnsdocs/hgsbook/auto.pdf epa.gov/region5/air/mercury/autoswitch.htm switchout.ca

Some states require mercury switches to be removed before vehicles are crushed. Some auto dismantlers remove the

switches even if they are not required to do so. If you choose to address this important environmental issue and remove mercury switches before your vehicles are crushed, store the switches in a leak-proof, clearly marked, closed container. Also take care to ensure that the switches do not break during handling or storage. A licensed metals recycler that reclaims mercury can dispose of the switches. Contact your state environmental agency for more information.

# You >> CAN << Make a Difference!

Auto recyclers do their part to conserve natural resources by recycling valuable materials. Build on this good work and protect the environment from polluted runoff by implementing the BMPs described in this fact sheet. Make sure that your employees understand that stormwater management is important and are trained to implement your BMPs.

Remember, stormwater protection starts with YOU!

"It's critical for owners to set an example and be actively involved in implementing BMPs." – Brian Werth, Select Auto & Truck Recyclers

A Guide for Auto Recycler Owners and Operators

#### Where to find more information

Check out the following sources for additional information on BMPs for auto recyclers:

#### Manuals

- An Environmental Compliance Workbook for Automotive Recyclers, Florida DEP www.dep.state.fl.us/central/home/ps/asyca/fl\_gyb.pdf
- Environmental Compliance Guide for Motor Vehicle Salvage Yards, OH Small Bus. Assistance Office www.epa.state.oh.us/other/sbao/salvageguide.pdf
- Vehicle Recycling Manual: A Guide for Vehicle Recyclers, Washington State Department of Ecology www.ecy.wa.gov/pubs/97433.pdf
- Automotive Recyclers Guide to a Cleaner Environment, New York DEC www.dec.state.ny.us/website/reg8/press/autorec/autorec0.pdf
- Certified Auto Recycler (CAR) Guidance Manual, Automotive Recyclers Association www.autorecyc.org (Available to members only)

#### **Other Sources**

- The National Compliance Assistance Clearinghouse is your guide to compliance information on the Internet. It provides quick access to compliance tools and contacts from EPA and other compliance assistance providers. The clearinghouse has an entire section devoted to the auto salvage industry. cfpub.epa.gov/clearinghouse
- A list of state and local environmental contacts can be found on the internet at: www.epa.gov/epapages/statelocal/envrolst.htm
- The EPA Small Business Ombudsman can help you understand environmental regulations, or refer you to local contacts. Their toll-free small business hotline provides regulatory and technical assistance information: (800) 368-5888

Vendors Call for catalogs or more information						
Low-Cost Roofs:		Fluid Removal and Sto	rage Equipment:	Spill Kits and Ab	sorbent Materials:	
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South Bay Canopy	(408) 998-8280	Spill Cleanup Direct	(800) 356-0783	New Pig	(800) 468-4647	
Note: Sustainable Conservation and U.S. EPA do not endorse any of these products. This list is not complete: other vendors may provide similar or identical products and services.						

Developed by



# POLLUTION PREVENTION FACT SHEET: CAR WASHING

### Description

This management measure involves educating the general public on the water quality impacts of the outdoor washing of automobiles and how to avoid allowing polluted runoff to enter the storm drain system. Outdoor car washing has the potential to result in high loads of nutrients, metals and hydrocarbons during dry weather conditions in many watersheds, as the detergent-rich water used to wash the grime off our cars flows down the street and into the storm drain. Commercial car wash facilities often recycle their water or are required to treat their wash water discharge prior to release to the sanitary sewer system, so most stormwater impacts from car washing are from residents, businesses and charity car wash fundraisers that discharge polluted wash water to the storm drain system. Two surveys of households who wash their own cars in Washington state found 60% of residents could be classified as "chronic car-washers", i.e., they washed their car at least once a month (Smith, 1996 and Hardwick, 1997). Between 70 and 90% of residents reported that their car wash water drained directly to the street, and presumably, to the nearest stream. It has been estimated that 25% of the population of the United States may be classified as chronic car washers, which translates into about 27 million potential residential car wash polluters (CWP, 1999). For more information see, Understanding Watershed Behavior, Article 126 in The Practice of Watershed Protection

### Applicability

Car washing is a common routine for residents and a popular way for organizations such as scout troops, schools, and sports teams to raise funds. This activity is not limited by geographic region, but its impact on water quality will be greatest in more urban areas with higher concentrations of automobiles. Currently, only a few pollution prevention programs incorporate proper car washing practices as part of an overall message to residents on ways to reduce nonpoint source pollution. Other programs have extended this message to include charity car washes and provide these charity groups with equipment and training to alleviate the problems associated with polluted wash water entering the storm drain system.

#### Implementation

The development of a prevention program to reduce the impact of car wash runoff includes outreach on management practices to reduce discharges to storm drains. Some of these management practices include:

- Using a commercial car wash.
- Washing your car on gravel, grass or other permeable surfaces.
- Blocking off the storm drain during charity car wash events or using a insert to catch wash water.

- Pumping soapy water from car washes into a sanitary sewer drain.
- If pumping into a drain is not feasible, pumping car wash water onto grass or landscaping to provide filtration.
- Using hoses with nozzles that automatically turn off when left unattended.
- Using only biodegradable soaps.

Storm drain stenciling programs emphasize the connection between the storm drain system and runoff and help reinforce that car washing activities can have an affect on local water quality.

In the Pacific Northwest, outreach programs provide materials to charity car wash organizers to prevent car wash water from entering storm drains. These "water friendly"car wash kits are provided free of charge to charity organizers along with training and educational videos on planning an environmentally friendly car wash. Two types of equipment are available for charity organizations to borrow; a catch-basin insert with a sump pump or a vacuum/boom device known as a Bubble Buster (Kitsap County, 1999). Both devices capture wash water runoff, allowing it to be pumped to either a sanitary sewer or a vegetated area for treatment.

For businesses, good housekeeping practices can minimize the risk of contamination from wash water discharges. Table 1 gives some general best management practices that those businesses that have their own vehicle washing facilities can incorporate to control the water quality impacts of wash water discharges.

	Table 1. BMPs for Car Washing Facilities
1.	Have all vehicle washing done in areas designed to collect and hold the wash and rinse water or effluent generated. Recycle, collect or treat wash water effluent prior to discharge to the sanitary sewer system.
2.	Pressure cleaning and steam cleaning should be done off-site to avoid generating runoff with high pollutant concentrations. If done on-site, no pressure cleaning and steam cleaning should be done in areas designated as wellhead protection areas for public water supply.
3.	Map on-site storm drain locations to avoid discharges to the storm drain system.
4.	Immediately contain and treat spills.

## Limitations

The biggest limitation to implementing residential car wash best management practices may be the lack of knowledge regarding the impacts of polluted runoff. Many people do not associate the effects of their vehicle washing activities with local water quality, and may be unaware that the discharges that enter storm drains are not treated at plants before being discharged into local waters.

Surveys indicate that the average citizen does not fully understand the hydrologic connection between their yard, the street, the storm sewer and the streams. For example, a recent Roper survey found that just 22% of Americans know that stormwater runoff is the most common source of pollution of streams, rivers, and oceans (NEETF, 1999).

Most car washing best management practices are inexpensive, and rely more on good housekeeping

practices (where vehicles are washed, planning for the collection of wash water) than on expensive technology. However, the construction of a specialized area for vehicle washing can be expensive for businesses. Also, for facilities that cannot recycle their wash water the cost of pretreating wash water through either structural practices or planning for collection and hauling of contaminated water to sewage treatment plants can represent a cost limitation.

## Effectiveness

The effectiveness of car washing management practices at reducing nonpoint source pollutant loads has yet to be measured accurately. Due to the diffuse nature of nonpoint source pollution, it is often difficult to determine the exact impact of a particular pollution prevention measure at reducing pollutant loading. While not much is known about the water quality of car wash water, it is very clear that car washing is a common watershed behavior. Three recent surveys have asked residents where and how frequently they wash their cars (Table 2).

	Table 2. Summary of Car Washing Surveys
Study	Car Washing Behavior
Smith, 1996 Maryland	60% washed car more than once a month
Pellegrin, 1998 California	73% washed their own cars 73% report that wash water drains to pavement
Hardwick, 1997 Washington	<ul> <li>56% washed their own cars</li> <li>44% used commercial car wash</li> <li>91% report that wash water drains to pavement</li> <li>56% washed car more than once a month</li> <li>50% would shift if given discounts or free commercial car washes</li> </ul>

Residents are typically not aware of the water quality consequences of car washing, and do not understand the chemical content of the soaps and detergents they use. Car washing is a very difficult watershed behavior to change since it is often hard to define a better alternative. However, as with all pollution prevention measures, the reduction of pollutant loads from outdoor car washing activities are bound to have a positive effect on stormwater quality.

## Cost

Staffing and materials represent the largest expenditure for local governments seeking to administer a nonpoint source education program. Car wash outreach programs are relatively inexpensive to staff and often require only a limited outlay for materials (brochures, training videos, etc.), and staff time devoted specifically to car wash education can be less than five percent of an employee's time. For Kitsap County, Washington, the Sound Car Wash program requires roughly ten to fifteen hours a week of staff time over a twenty-five week period from April to September. Cost for materials and equipment replacement is estimated to be between \$1,500 and \$3,000 for the same twenty-five week

period (Kitsap County, 1999). The Clean Bay Car Wash kits program in Tacoma, Washington uses only the catch basin insert option and estimates that its spends no more than \$2,000 per year and less than two weeks of staff time per year to handle requests for its program (City of Tacoma Stormwater Utility, 1999).

The purchase of wash water containment equipment is often a one-time expense and this equipment is often used for a number of years. Two pieces of equipment used in car wash programs developed in the Pacific Northwest provide an example of the potential equipment cost. For the catch basin insert, the approximate cost of installation is \$65. In some cases, locations where charity car washes are frequently held have constructed their own catch basin inserts using plywood. For the Bubble Buster, the cost ranges from \$2,000 to \$2,500.

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A stormwater flows over driveway, lawns, and sidewalks, it picks, and other pollutants. Stormwater can flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged intreated into the waterbodies we use for swimming, fishing, and providing drinking water. Polluter runoff is the nation's greatest threat to clean water.

By practicing healthy household habits, homeowners can keep common pollutants like pesticides, pet waste, grass clippings, and automotive fluids off the ground and out of stormwater. Adopt these healthy household habits and help protect lakes, streams, rivers, wetlands, and coastal waters. Remember to share the habits with your neighbors!

#### Healthy Household Habits for Clean Water

#### Vehicle and Garage

Use a commercial car wash or wash your car on a lawn or other unpaved surface to minimize
the amount of dirty, soapy water flowing into the storm drain and eventually into your local
waterbody.



- Check your car, boat, motorcycle, and other machinery and equipment for leaks and spills. Make repairs as soon as possible. Clean up spilled fluids with an absorbent material like kitty litter or sand, and don't rinse the spills into a nearby storm drain. Remember to properly dispose of the absorbent material.
  - Recycle used oil and other automotive fluids at participating service stations. Don't dump these chemicals down the storm drain or dispose of them in your trash.

#### Lawn and Garden

- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Avoid application if the forecast calls for rain; otherwise, chemicals will be washed into your local stream.
- Select **native** plants and grasses that are drought- and pestresistant. Native plants require less water, fertilizer, and pesticides.
- Sweep up yard debris, rather than hosing down areas. Compost or recycle yard waste when possible.
- Don't overwater your lawn. Water during the cool times of the day, and don't let water run off into the storm drain.
- Cover piles of dirt and mulch being used in landscaping projects to prevent these pollutants from blowing or washing off your yard and into local waterbodies. Vegetate bare spots in your yard to prevent soil erosion.

#### **Home Repair and Improvement**

- Before beginning an outdoor project, locate the nearest storm drains and protect them from debris and other materials.
- Sweep up and properly dispose of construction debris such as concrete and mortar.
- Use hazardous substances like paints, solvents, and cleaners in the smallest amounts possible, and follow the directions on the label. Clean up spills immediately, and dispose of the waste safely. Store substances properly to avoid leaks and spills.
- Purchase and use nontoxic, biodegradable, recycled, and recyclable products whenever possible.
- Clean paint brushes in a sink, not outdoors. Filter and reuse paint thinner when using oil-based paints. Properly dispose of excess paints through a household hazardous waste collection program, or donate unused paint to local organizations.
- Reduce the amount of paved area and increase the amount of vegetated area in your yard. Use native plants in your landscaping to reduce the need for watering during dry periods. Consider directing downspouts away from paved surfaces onto lawns and other measures to increase infiltration and reduce polluted runoff.





 When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

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Drain your swimming pool only when a test kit does not detect chlorine levels.

• Whenever possible, drain your pool or spa into the **sanitary** sewer system.

 Properly store pool and spa chemicals to prevent leaks and spills, prefetably in a covered area to avoid exposure to stormwater.

### Septic System Use and Maintenance

Have your septic system inspected by a professional at least every 3 years, and have the septic tank pumped as necessary (usually every 3 to 5 years).

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Care for the septic system drainfield by **not** driving or parking vehicles on it. Plant only grass over and near the drainfield to avoid damage from roots.

 Flush responsibly. Flushing household chemicals like paint, pesticides, oil, and antifreese can destroy the biological treatment taking place in the system. Other items, such as diapers, paper towels, and cat littler can clog the septic system and potentially damage components.

Storm drains connect to waterbodies!

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or www.epa.gov/nps

For more information, visit www.epa.gov/npdes/stormwater

### Remember: Only rain down the drain!



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A homeowner's guide to healthy habits for clean water

SERA Aparey Protection

○ ● Leave a Message × Leave a Message



If this is a police, fire, or medical emergency dial 911. If this is a police or public safety nonemergency, please call Northampton County Dispatch at 610-759-2200

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### Stormwater

You can download our Appeal Form HERE

Stormwater Utility Fee Overview The Bethlehem Township Board of Commissioners, at its December 20, 2021, public meeting, approved a 2022 budget that includes a new stormwater management program, to be funded by a fee assessed on all township properties.

Annual Reporting & NPDEC Permit

Stormwater Info

Pollutant Reduction Plan

Capital Improvment Plan

Bethlehem Township is mandated by the Pennsylvania Department of Environmental Protection (PADEP) with completing a variety of projects in order to meet our Pollutant Reduction Plan (PRP) requirements for the purpose of improving water quality of local creeks, streams, and waterways. These projects will be implemented throughout the Township to treat stormwater and reduce pollutants before it is discharged to our local waterways.

In addition to meeting regulatory requirements, flood mitigation is a major concern for the Township. The Township has developed a Capital Improvement Plan (CIP) which discusses upcoming projects to help with flooding concerns throughout the Township. To meet this mandate and fund the Stormwater CIP the Township will implement a Storm Water Fee beginning in 2022. The fee will be generated based on a property's Impervious Area and the following three (3) Tiers:

	Impervious Area	Monthly Fee	Annual Fee
Tier 0	<300 sf	\$0	\$0
Tier 1	300-1299 sf	\$2.20	\$26.40
Tier 2	1300-4999 sf	\$8.60	\$103.20
Tier 3	5000+ sf	\$2.79 per 1000 sf IA	Varies

### **Billing Information**

The Stormwater Utility Fee will be billed through the Bethlehem Township Municipal Authority to all properties with over 300 sf of Impervious Area (IA). Billing is anticipated to begin in early 2022 and will be sent annually; however, you may elect to pay this bill quarterly using installment coupons.

### **Credit and Appeals Manual**

As part of the implementation of a Stormwater Utility Fee, the Township has created a Credit and Appeals Manual. If you believe that the Impervious Area you are being billed for is incorrect, you may submit an appeal in accordance with the policies found in the manual. Additionally, if you have a stormwater BMP on your property that you believe meets the criteria in the manual, you can submit a credit application to reduce your bill amount. More information on this can be found in the Credit and Appeal Manual.

Bethlehem Township - Storm Water Information

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### Stormwate

Stormwater Background

Stormwater Info

### Stormwater in Bethlehem Township Stormwater Program Fee Being Developed

Bethlehem Township has established a steering committee to evaluate and consider how the municipality should pay for its stormwater management program costs, including necessary improvements created by unfunded mandates in addition to short- and long-term maintenance needs. For more information please click HERE

Annual Reporting & NPDEC Permit Pebruary, 2022 <u>Stormwater Solutions</u> Pollutant Reduction Plan You can also view the Bethlehem Tow

You can also view the Bethlehem Township Board Presentation on Stormwater.

October 28, 2021 Stormwater Management Program

November 16, 2021 Pollutant Reduction Plan Revisions

Stormwater FAQs

Capital Improvment Plan

#### Bethlehem Township is working to protect our local streams from being impacted by stormwater pollution, and want our residents to know that we take this seriously. In order to raise public awareness, we are adding these informative pages about the NPDES (National Pollutant Discharge Elimination System) Permit which the PA Department of Environmental Protection issued to the Township. The Township is considered an MS4, or "Municipal Separate Storm Sewer System", and must submit annual reports to the DEP that meet certain requirements.

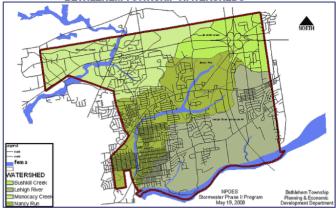
In decades past, it was customary for only polluting industries to have "discharge" permits, however there was a growing realization that even common land uses impact the environment.

For example, such things as driving cars (oil and antifreeze dripping onto roads, brake lining dust and rubber from tires); maintaining lawns (chemicals such as pesticides, herbicides and fertilizers), pet waste, litter, and soil erosion from construction activities also pollute water running into streams.

When it rains, these pollutants are washed over the land and down storms drains (storm drains are the catch basins with a metal grid alongside the roadway, and the underground piping connecting them). The storm drains ultimately converge, thus concentrating pollutant levels. Storm drains are not connected to a treatment system, so no pollutants are removed from the water.

By far the largest percentage of storm water in Bethlehem Township ends up in the Lehigh River, coming from the Monocacy Creek, Nancy Run and Lehigh River sub-basin #5. The Lehigh converges with the Delaware River in Easton. The northeast corner of the Township is in the Bushkill Creek watershed, which drains directly to the Delaware River. To determine which watershed you live in, see the map below:





BETHLEHEM TOWNSHIP WATERSHEDS

You can make a difference and help us keep our local waters clean. As a visitor to this site, you've already taken the first step: getting informed. Step two: adopt a couple of clean water habits, such as:

- · Picking up after your pets and disposing of their waste properly
- Applying fertilizer and pesticides in the proper amounts. Besides costing more, excess fertilizers just run off your lawn and into streams, where they cause nutrient-loading which in turn deprives aquatic
- species of proper oxygen levels
  Maintaining your vehicle properly, and most importantly, not dumping oil or any type of fluid down storm drains\*
- Washing your vehicle on grassed areas so that water with pollutants filter down through the ground and do not run directly into the storm drain system
- Not littering, as litter often washes away along with storm water and can be ingested by fish, birds, or other wildlife

\*Please note that most vehicle repair businesses accept used motor oil. The Township Municipal Building also has a list of vendors that accept motor oil, batteries, AC fluids, and construction waste.

Our stormwater program is federally-mandated and operated though the PA DEP. While this is a "mandated" program, it is beneficial for humans and wildlife because it lessens—and makes us more aware of—our impact on the environment.

In Pennsylvania and nationwide, almost all municipalities the size and population of Bethlehem Township must meet six Minimum Control Measures (MCMs).

- The six MCMs are as follows:
- Public Education and Outreach
   Public Participation and Involvement
- Illicit Discharge Detection and Elimination
   Construction Site Runoff Control
- 5. Post-Construction Stormwater Management in New Development and Redevelopment 6. Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance

Each municipality subject to the regulation must implement a stormwater management program that contains every one of these elements. Each municipality must meet all requirements by the end of their 5-year permit term. The Township is in substantial compliance with the BMP requirements of this program.

If you see problems with the stormwater inlet or piping system, please call Public Works at 610-814-6442.

### FEMA Flood Zone Map

This map will create an overlay of the FEMA Flood Zones. Simply input your Bethlehem Township address below. This map includes Address Search, Printing, Measures, and a sharing feature. The National Flood Hazard Layer is taken directly from FEMA.

Click HERE for the Bethlehem Township FEMA Ordinance Resolution.



Disclaimer: Bethlehem Township created nether the parcel boundaries or the FEMA flood Zone mapping layers. We can not guarantee the accuracy of the mapping due to overlay deviations from multiple data sources, or geographic and digital distortion that can occur. The map is to be used only as a general tool for determining proximity and should you desire an official determination of any potential conflict, contact your property owners insurance provider, or the US Department of home Land Security. One Independence Mall, 6th Floor, 615 Chestnut Street, Philadelphia PA 19106 or visit them online at <u>http://www.fema.gov/</u> for specific details.

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Stormwater Info

Annual Reporting & NPDEC Permit

Pollutant Reduction Plan

Capital Improvment Plan

### Stormwater - Information

### What is stormwater?

Stormwater is drainage runoff from the surface of the land resulting from precipitation or snow and ice melt. Stormwater runoff can carry pollutants and is transported through storm sewers and surface conveyances (e.g., channel, swale ditch) into streams, creeks, and rivers.

### Did you know that Bethlehem Township has...



### Why has the importance and cost of stormwater management increased?

Administration

Police

Planning

Zoning

In the United States, the Environmental Protection Agency (EPA) is charged with regulating stormwater pursuant to the Clean Water Act (CWA). Portions of the stormwater requirements of the federal CWA are administered under the Pennsylvania Department of Environmental Protection (PADEP) Municipal Separate Storm Sewer System (MS4) Program. As part of our 2019 MS4 permit, Bethlehem Township is faced with new unfunded mandates, resulting in the need to spend considerably more money over the five-year permit cycle than ever before to improve water quality and address the requirements set forth by PADEP.

### How do I affect stormwater runoff?

Stormwater management involves managing rainwater that is not absorbed by our lawns and gardens. Impervious surfaces on your property may impact the quantity of stormwater runoff that will be managed by Bethlehem Township. Also, household tasks such as car washing and use of fertilizer can impact stormwater quality. All residents utilize the stormwater system, and everyone should play a role in supporting its maintenance and upkeep.

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**Bethlehem Township** 4225 Easton Avenue Bethlehem, Pa. 18020 Phone: 610-814-6400 Fax: 610-814-6408

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### Stormwater - Minimum Control Measures (MCMs)

The MCMs are requirements that Bethlehem Township need to meet as part of our National and the associated requirements, please see our NPDES Permit.

### MCM 1 - Public Education and Outreach Educating the residents on Stormwater related issues is vital to the success of the MS4

Pollutant Reduction Capital Improvment Plan

Annual Reporting & NPDEC Permit

Stormwater Info

### Program. Since education is so important Bethlehem Township has been tasked by PADEP to provide residents with access to educational materials. Educational Materials are available

### MCM 2 - Public Participation and Involvement

In addition to education, it is important to provide residents with an opportunity to be involved. This can occur in many ways, such as through volunteer events or receiving input on things like the Pollutant Reduction Plan (PRP) or ordinances. Please keep an eye out for volunteer opportunities in the near future.

### MCM 3 - Illicit Discharge Detection and Elimination

It is important that we don't harm our local creeks and streams by allowing pollutants to enter our stormwater systems. A good rule to follow is "only rain in the storm drain." If you see anyone dumping anything into the stormwater system, please contact the Township and notify us of the situation.

### MCM 4 - Construction Site Runoff Control

Similar to protecting our local waterways in MCM3, it is important that excess sediment is not allowed to enter our stormwater system during construction activities. To avoid this, Erosion and Sedimentation (E&S) controls are utilized during construction. If you ever see water that looks like chocolate milk running off a construction site, please notify the Township so we can work on correcting the issues that may be present.

### MCM 5 - Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment

Both New Development and Redevelopment projects are required to install Stormwater Best Management Practices (BMPs) for Post-Construction Stormwater Management of stormwater quantity and quality to help with issues such as flooding and water guality. As part of the requirements from PADEP, Bethlehem Township is required to inspect these BMPs and ensure they are functioning correctly.

MCM 6 - Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance Municipal operations have a potential to negatively impact our local waterways, such as incorrect disposal of hazardous materials. This MCM is the Township's way to ensure that our operations have the lowest possible impact on our waterways and the environment. PADEP has tasked the Township to create Operation and Maintenance plans so that there is a plan in place to handle any unforeseen situations that may arise.

# Stormwater Background

HERE

Pollutant Discharge Elimination System (NPDES) Permit. Below is a brief explanation of each MCM. For additional information on each MCM

https://www.bethlehemtownship.org/stormwater-mcm.html



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### Stormwater H

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### Stormwater - NPDES Permit/Annual Reporting

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Bethlehem Township is a small Municipal Separate Storm Sewer System (MS4) community. As a result of this, we are required to maintain NPDES Permit coverage. This permit requires us to meet the requirements listed for the Minimum Control Measures (MCMs), Pollutant Reduction Plan (PRP), and Pollutant Control Measures (PCM). To ensure we are meeting our requirements, the Township is required to submit an Annual Report summarizing to PADEP the steps we have taken over the year to ensure compliance with the NPDES Permit. Links to the current NPDES Permit and most recent Annual Report are below.

NPDES Permit from DEP

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# Stormwater - NPDES Permit/Annual Reporting

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### Stormwater - Capital Improvement Plan (CIP)

The funds generated from the Stormwater Fee will be dedicated to the stormwater program and will
include addressing flooding and meeting the stormwater requirements mandated by the Pennsylvania
Department of Environmental Protection (PADEP). Design and permitting of various projects are
anticipated to begin in 2022. Construction is anticipated to begin in 2023 for flood mitigation efforts in the
areas of Walnut Street as well as detention basin retrofits in various places. Improvements in the area of
Santee and Easton are also being planned.

Annual Reporting & NPDEC Permit Stormwater Capital Improvement Plan - March 2022

Stormwater Capital Improvement Plan Map

Pollutant Reduction Plan Capital Improvment Plan

Stormwater Background

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Stormwater - Educational Materials

### Links & Downloads

- Bethlehem Township Pre-Application Meeting Request Form
   Bethlehem Township Credit Application Form
   PA Departmant of Environmental Protection
   Northampton County Watershed Program
   US Environmental Protection Agency Stormwater Program

Minimum Control Measures (MCMs) Annual Reporting & NPDEC Permit

Stormwater Background

Stormwater Info

- For more information regarding healthy household habits (lawn and garden/pet care/car washing), please feel free to download these informational brochures.
- Pollutant Reduction Plan
- Capital Improvment Plan
- When It Rains It Drains (pdf file)
  After The Storm (pdf file)
  Auto Recyclers and Owners (pdf file)
  Car Washing (pdf file)

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Stormwater - F
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#### What is MS4?

Stormwater Background

Stormwater Info

Annual Reporting & NPDEC Permit

Pollutant Reduction

Capital Improvment

MS4 stands for Municipal Separate Storm Sewer System. This system is owned and operated by a public body, in our case the Township, and includes inlets, basins, man-made channels, storm drains, and various other stormwater conveyance systems.

Why has the importance and cost of stormwater management increased?

In the United States, the Environmental Protection Agency (EPA) is charged with regulating stormwater pursuant to the Clean Water Act (CWA). Portions of the stormwater requirements of the federal CWA are administered under the Pennsylvania Department of Environmental Protection's (PADEP) Municipal Separate Storm Sewer System (MS4) Program. As part of our 2019 MS4 permit, Bethlehem Township is faced with new unfunded mandates, resulting in the need to spend considerably more money over the five-year permit cycle than ever before to improve water quality.

### What aspects of stormwater must be addressed to meet these new regulations?

Bethlehem Township is required to complete pollutant reduction planning and implement Best Management Practices (BMPs) to reduce pollution loadings entering our local waterways. Over the 2019 permit term (2019-2024) we are required to reduce sediment by 10%, phosphorus by 5% and nitrogen by 3%. In addition, there are six Minimum Control Measures (MCMs) that the Township is mandated to follow, each containing their own set of BMPs. The six MCMs are listed below with examples of their BMPs:

- Public Education and Outreach on Stormwater Impacts: Distribute educational materials in the form of a newsletter, flyer, or a website that includes general stormwater educational information.
- 2. Public Involvement and Participation: Provide opportunities for residents to participate and provide input in the form of public meetings or other events.
- 3. Illicit Discharge Detection and Elimination: Develop and implement a plan for the detection, elimination, and prevention of illicit discharges to the storm sewer system.
- 4. Construction Site Stormwater Runoff Control: Develop, implement, and enforce an erosion and sediment control program for construction activities that disturb one or more acres of land.
- 5. Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment: Develop, implement, and enforce a program to address discharges or post construction stormwater runoff from new development and redevelopment areas. Applicable controls could be the use of structural BMPs such as vegetated swales and detention basins.
- 6. Pollution Prevention and Good Housekeeping: Develop and implement an operations and maintenance (O&M) program that includes training components and plans to reduce polluted runoff from municipal operations.

What are BMPs?

Stormwater management BMPs--or Best Management Practices - are control measures used to improve water quality by reducing contaminants that enter local waterways. BMPs are designed to reduce stormwater volume, peak flows, and nonpoint source pollution through evapotranspiration, infiltration,

detention, and filtration. Examples of BMPs include stream bank stabilization, detention basin retrofits, rain gardens, bio swales, permeable pavement, street sweeping and installation of community rain nardens

### How do I affect stormwater runoff?

Stormwater management involves managing rainwater that is not absorbed by our lawns and gardens. Impervious surface on your property may impact the quantity of stormwater runoff that will be managed by Bethlehem Township, Also, household tasks such as car washing and use of fertilizer can impact stormwater quality. All residents utilize the stormwater system, and everyone should play a role in supporting its maintenance and unkeep

### What is Impervious area?

Impervious area is any surface which prevents infiltration of rainfall into the soil. This includes pavement (asphalt, concrete, etc.), rooftops, decks/patios, pools, sidewalks, and compacted graveled surfaces such as parking areas and driveways.

What is an illicit discharge and how do I report one? The Environmental Protection Agency (EPA) defines illicit discharges as "any discharge to the storm sewer system that is not composed entirely of stormwater." Illicit discharges can be from car wash wastewater, spills from roadway accidents, failed septic systems, and improper disposal of household toxins and detergents. These substances can either enter our waterways through direct connections or indirect connections. It is always good to monitor the stormwater inlets near your property. If you see someone dumping, please call the Bethlehem Township Office at 610-814-6400 or the PA DEP 24-hour hotline at 570-826-2511

### Stormwater Utility Fee Questions

### How did you come up with the cost of the Stormwater Utility Fee?

The Stormwater Utility Fee is the result of discussions between Bethlehem Township and the Stakeholder Advisory Committee (SAC). Importance of stormwater management, level of service and stormwater needs were all considered. In addition, a list of known problems, scheduled stormwater improvements, and future projects necessary to comply with future regulatory requirements were used to project stormwater management expenses over the next 5 to 10 years. These overall stormwater system costs will be divided by the impervious area in the Township to come up with the Stormwater Utility Fee.

### How much is the Stormwater Utility Fee?

All residents with impervious surfaces on their property will pay a fee. The amount will differ depending on how much impervious is on a property. The fee structure is shown HERE.

### Where does the money collected from the Stormwater Utility Fee go?

All stormwater revenue will be placed into a dedicated fund used only for Bethlehem Township's stormwater program, such as the operation, maintenance, and improvement of stormwater infrastructure. The funds will cover costs associated with the following:

- Operation and Maintenance of Stormwater Infrastructure Bethlehem Township will own roughly 95 linear miles of stormwater pipes, 4,500 inlets, over 30 stormwater detention basins, and additional related infrastructure. Enhanced maintenance of these facilities is necessary to reduce flooding, improve public safety and extend the useful life of the asset.
- Regulatory Compliance The Township is required by state and federal regulations to reduce stormwater pollution and improve water quality for local streams
- · Capital Improvement Projects Flood mitigation projects are being planned in the Easton/Santee, Walnut Street, and various other locations throughout the Township. Additionally, improvements are planned for more than a dozen detention basins.

### Does everyone in the Township pay the fee, including non-profits?

The fee will be paid by all property owners who own developed property in the Township, whose property has impervious surfaces (roofs, driveways, sidewalks, walkways, roads, parking lots, etc.). Non-profits will pay because it is a fee and not a property tax. Property taxes are based on the assessed value of the property and the stormwater utility fee is based on how much a property contributes to stormwater runoff. Tax-exempt properties are required to pay for other utility charges including electric, water and sewer and the stormwater utility fee is no different.

#### How is this different from a tax?

All developed properties contribute stormwater runoff and should pay the stormwater fee; however, some properties are exempt from taxes. Unlike taxes, which are used for general services that the Township provides, the revenue from the stormwater fee can only be used for stormwater management and cannot be redirected for other uses.

### Why not just include the stormwater program costs in our property taxes?

The stormwater fee is based on the amount of impervious surface rather than assessed value, so the cost is shifted to the properties that create more stormwater runoff. There is no correlation between assessed values and the amount of impervious surface on a given property. This makes it unfair to base the stormwater fee on the assessed value of the properties. An advantage of a fee-based system is that we can offer credits to property owners who reduce the quantity of stormwater or improve the quality of stormwater leaving their property. Bethlehem Township has developed a credit policy to provide reductions to property owners who make improvements which assist in meeting the Federal/State requirements. We cannot give such a credit on a tax-based system.

### Can I appeal how much I'm being charged?

If you believe you are being charged for in incorrect amount of Impervious Area, you may submit an appeal to have this information be reviewed. The Bethlehem Township Municipal Authority Credit and Appeals Manual provides information on how to submit an appeal. Further information and applications can be found on the Township's website.

#### Is there a way to reduce my fee?

Yes. Bethlehem Township's stormwater utility fee will allow for credits. Credits are a monthly percent reduction in the stormwater utility fee for having and maintaining infrastructure which reduces the quantity of stormwater or improves the quality of stormwater leaving a property. The Bethlehem Township Municipal Authority Credit and Appeals Manual provides further information. The credits include:

- · Low Impact Parcel Credits for properties with less than 10% Impervious (applied
- automatically) Structural BMP - BMPs that result in Rate/Volume Reductions and/or Water Quality improvements
- Educational Credit Support MS4 education, such as at schools or churches
- · Stormwater Partnership Credit Opportunity for cooperation via additional credit opportunities

#### How are impervious surfaces determined?

Aerial photographs of the entire Township were taken. These photos were then geometrically corrected for

### Stormwater - FAQs

the use in Geographic Information Systems (GIS) software. In GIS, the impervious area features were identified and plotted throughout the Township. This information can then be utilized to determine the amount of impervious located on each property.

### There are no storm sewers on or near my property. Why should I pay a fee? All properties produce stormwater runoff that contribute to pollution and flooding downstream. Even if

All properties produce stormwater runoff that contribute to pollution and flooding downstream. Even if your property has never flooded and/or there are no nearby storm sewers, the stormwater that flows off your property must be managed by Bethlehem Township. Stormwater management is a community-wide service that benefits the whole Township, and the program costs need to be distributed to all residents. All property owners benefit from the management of stormwater along public streets which they travel. The fee will also help cover other services provided by the Township, such as stormwater system maintenance and permit compliance. Since there are additional services provided by the Township, property owners who manage the majority of stormwater onsite will still pay a fee to help cover the additional services provided by the Township beyond their property lines.

### How will properties be billed?

A new stormwater bill will be issued annually. You may elect to pay this bill quarterly using installment coupons, or you may pay in full at a discounted rate. These bills will be mailed by Berkheimer and will not be sent directly from the Township.

### How is unoccupied property treated?

If the unoccupied property contains impervious area (vacant residential structures, empty commercial/industrial buildings, driveway, etc.), it will be charged. These properties continue to generate stormwater runoff just the same as an occupied property.

### How is undeveloped property treated?

Undeveloped property is property that has not been altered by improvements such as buildings, parking lots, structures, or the addition of any other impervious areas. Since there are no impervious areas on these properties, undeveloped properties will not be charged a stormwater fee. Similarly, properties with under 300 sf of impervious area will be treated as undeveloped properties.

# Doesn't the Township already have a stormwater system in place? Nothing has changed on my property, so why will I be charged now? Portions of the Township have had a stormwater system in place for many years; however, there are many

Portions of the Township have had a stormwater system in place for many years; however, there are many areas of the Township that do not have the appropriate infrastructure to handle the rainfalls we are seeing today. In recent years, there has also been an increased emphasis on stormwater management. New and revised state and federal regulations require a comprehensive stormwater management program. The stormwater utility fee ensures that Bethlehem Township receives adequate financial support to meet its responsibilities to manage the stormwater system more closely, identify and eliminate illegal discharges, provide public education, and other regulatory requirements. The fee will also be used to cover the cost for increased inspection and maintenance of aging infrastructure, implementation of flood reduction projects and the ability to rehabilitate/replace infrastructure that's reached the end of its useful life.

### Why should I pay for rain falling on my property?

Property owners are not being charged for rain falling on surface. Instead, the charges apply to runoff that's discharged into the stormwater system when it rains. As rain falls on impervious surface, it collects pollutants. The amount of pollutants contained in stormwater can be correlated to the amount of impervious surface on your property. Additionally, proper stormwater management is vital to ensuring flood risk is minimized. Through the implementation of the fee, a dedicated funding source will be in place to help manage stormwater in flood prone areas.

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MCM 1.D

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SUMMER 2022

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Visit us at: bethlehemtownship.org

# **Important Updates**

# FINANCE DEPARTMENT

**Keystone Collections Group** collects your Earned Income Tax – you may choose to file online at **www.KeystoneCollects.com**. Their tax support line may be reached by calling **888.328.0565**.



We receive calls from residents that are concerned about postal delays and receiving timely credit for their payments. Postmark dates are honored for timely credit. Also, we retrieve items placed in the municipal drop box on a daily basis and you will receive same day credit.

# \*\*NEW STORMWATER FEE 2022\*\* (annual fee)

Effective 2022, a new Stormwater Fee will be mailed out to all residents and businesses. The Township is utilizing Berkheimer to process and collect the fees.

- For more information, visit btstormwater.com, email stormwater@bethlehemtwp.com, or call (610)814-6491.
- Make your check or money order payable to: HAB-MISC. no cash payments accepted.

- You may pay using the berk app or online at WWW.HAB-INC.COM by credit card, checking or savings account or via phone at 866-225-8451 (a third-party fee will apply)

# **SEWER PAYMENT OPTIONS**

Pay directly at municipal office, by mail or drop box (in front of municipal office main entrance)

# Online Bill Pay Service for Sewer Bills\*\*\*\*\*\*\*

We have launched new features that allow you to access and manage your Bethlehem Township sewer bills online at your convenience. View and pay bills online, receive email reminders when a payment is due, enroll in Auto-Pay, receive Paperless Billings and even Pay by Text. You will be asked to either register as a new online customer or simply "Pay Now." If using Pay Now you may always register at another time to take advantage of more features as mentioned above.

Links are provided on the www.bethlehemtownship.org site Payment Section. No fee for EFT payments via checking/savings account. There is a flat \$3.95 "convenience fee" for credit/debit card payments. Pay by phone using 1-855-985-1094.

# **SEWER BILLINGS**

*Important Sewer Meter Read Reminder:* Please ensure proper access/clearance for routine sewer meter readings; bushes, flower beds, animals, etc. Not only is the removal of obstructions appreciated it may reduce further costs should additional staff time be required to schedule follow-up reads.

# Sewer Rates - \*\*\*Quarterly Rates \*\*\*

- Current rates \$54.00 1st 6,000 gallons plus \$7.27 for each 1,000 additional gallons
- Current rates are published on <u>www.bethlehemtownship.org</u> Finance Menu/Sewer Billing Section
- Current rates also printed on sewer billing.

Payable to "Bethlehem Township" Penalty of 10% applied if paid after due date





# WHEN YOU'RE WASHING YOUR CAR IN THE DRIVEWAY, REMEMBER YOU'RE NOT JUST WASHING YOUR CAR IN THE DRIVEWAY.



All the soap, scum, and oily grit runs along the curb. Then into the storm drain and directly into our lakes, streams and into coastal waters. And that causes pollution which is unhealthy for fish. So how do you avoid this whole mess? Easy. Wash your car on grass or gravel instead of the street. Or better yet, take it to a car wash where the water gets treated and recycled.

If you have questions regarding storm water, please contact your municipality or Pennsylvania Department of Environmental Protection's Regional Office. For general questions, you may also contact DEP's Bureau of Water Management at (717) 772-5661 or visit www.dep.state.pa.us. Thanks to the Washington State Water Consortium for permission to adapt and use this poster

# STORMWATER SOLUTIONS

BETHLEHEM TOWNSHIP MOVES FORWARD WITH ADDRESSING CAPITAL IMPROVEMENT NEEDS

SUMMER, 2022

Bethlehem Township is establishing a course to meet the community's stormwater program needs including mitigation of decades-old flooding and newly imposed water quality permit requirements. As of 2022, the Township will be approaching stormwater as a utility with a dedicated revenue stream and a capital improvement plan to meet needs and requirements.

With the establishment of a stormwater authority and associated stormwater fee and credits, the Township has developed an intentional program for moving forward in addressing stormwater needs, and the financial needs of the program are more equitably distributed amongst property owners.

Bethlehem Township's stormwater management needs include operation and maintenance items, such as replacing pipes and clearing drains, along with larger capital improvements, like the design and construction of new infrastructure that will help to mitigate existing flooding and improve drainage patterns. To manage these larger projects, Bethlehem Township developed a capital improvement plan that identifies and plans for the implementation of infrastructure improvements over the next five years.

The capital improvement plan has been developed based on known priority projects in Bethlehem Township, where sufficient information exists to determine the best solution. The plan provides a priority ranking and a path forward to proceed with engineering, design, financing, and construction of the necessary improvements to address known areas of flooding, such as Easton Avenue and Santee Road. The Township also recognizes that there are some areas where further study is needed to fully understand the stormwater picture and be in a better position to identify appropriate solutions. As Bethlehem Township's stormwater management program matures, the plan will be updated to reflect the Township's active projects, or stormwater solutions.





# REGULAR FLOODING OF EASTON AVE. & SANTEE ROAD RESULTS IN







Several areas of Bethlehem Township flood frequently and pose threats to safety and property. The capital improvements plan identifies solutions to mitigate flooding and lessen the impacts associated with it.

# PRIORITY CAPITAL IMPROVEMENTS

Bethlehem Township's Stormwater Capital Improvements Plan identifies four priority projects that the Township is moving forward with in the near term. The highlighted graphic signifies the project stage is complete or in progress.

# WALNUT STREET DRAINAGE IMPROVEMENTS

Walnut Street Drainage Improvements will mitigate flooding along Walnut Street, Willow Park Road, and Nancy Run, and provide water quality improvements that support the Township's MS4 Permit Requirements.





# POLLUTION REDUCTION BASIN RETROFITS

Basin Retrofits at several existing basins throughout the Township will improve local water quality and meet a portion of the Township's Pollution Reduction Plan (PRP) requirements from PADEP. Retrofitting the basins will allow for greater stormwater retention and for pollutants to be reduced through the infiltration process.





# EASTON/SANTEE FLOOD MITIGATION PROJECT - PHASE 1

Phase 1 of the Easton/Santee Flood Mitigation Project involves improvements to six detention basins and one swale to reduce flooding during smaller storms. In addition to mitigation of flooding, the improvements will meet some of the water quality improvements required by the State. A FEMA grant application has been submitted. FEMA announces grants in the fall, so construction may be possible in 2023. A Township match is required, so financing will need to be obtained.



# EASTON/SANTEE FLOOD MITIGATION PROJECT - PHASE 2

Phase 2 of the Easton/Santee Flood Mitigation Project will improve conveyance of runoff from Clifton Avenue and Santee Road to Nancy Run during larger storms. The planned improvements will be refined based on modeling of the Nancy Run Watershed which will take place in 2022.

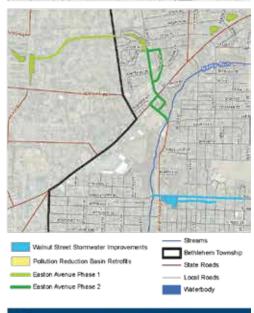


for updates & more infromation visit: https://bethlehemtownship.org/

# PRIORITY CAPITAL IMPROVEMENTS

Additional flood mitigation projects are needed in other areas of the Township not mentioned in this plan. Areas of concern to be considered may include but not be limited to Ohio Street & William Penn Highway, Sculac Drive & Wilson Avenue, Chetwin Terrace neighborhood, Easton Avenue & Farmersville Road by the Blue Grillhouse, and other areas where road closures occurred during Hurricane Ida in 2021. The planned 2022 stormwater modeling will give further guidance regarding needed projects. Future updates to the stormwater capital improvement plan will serve to prioritize the flood mitigation and water quality projects.







# What Is Grasscycling

Grasscycling is the simple practice of leaving grass clippings on the lawn when mowing. Once cut, grass clippings first dehydrate, then decompose, quickly disappearing from view.

### Grasscycling -

Encourages a healthier lawn by returning nutrients to the soil beneath the lawn.

Reduces work because you don't have to bag or rake and dispose of your clippings.

Saves you money because you don't have to pay for disposal of your clippings.

Benefits the environment by naturally recycling the clippings.

Simply put, grasscycling is good for your lawn and can help you reduce waste. Learn how easy it is for you to begin grasscycling.

### **How To Begin**

Proper mowing is required for successful grasscycling. Cut grass when the surface is dry, and keep mower blades sharp. Follow the "1/3 Rule": mow your lawn often enough so that no more than 1/3 of the length of the grass blade is cut in any one mowing. Frequent mowing will produce short clippings that will not cover up the grass surface. You may have to cut the lawn every 7 days when the lawn is growing fast but only every 7 to 14 days when the lawn is growing slowly.

You can grasscycle with most any mower (push, electric or gas). The mower collection bag should be removed to allow clippings to drop on the lawn. However, if your mower does not have a safety flap covering the opening where the bag fits into the chute, it is important that you purchase a retrofit kit from your local retailer.

Most lawnmower manufacturers have developed "mulching" mowers which cut grass blades into small pieces and force them into the soil. These types of mowers are effective in grasscycling and have become very popular. They are sold at many yard and garden equipment retailers, nurseries, and home supply stores.

### **Common Grasscycling Questions**

### Does grasscycling cause thatch?

No! Research has shown that grass roots are the primary cause of thatch, not grass clippings. Thatch is composed primarily of roots, stems, rhizomes, and other plant materials. These plant materials contain large amounts of lignin (fibrous material) and decompose slowly. Grass clippings are approximately 80-85 percent water with only small amounts of lignin, and decompose rapidly.

### Does grasscycling spread lawn disease?

No. Improper watering and fertilizing are the primary cause of disease spread. If an accommodating environment for turfgrass disease is present, infestation will occur whether clippings are collected or not.Will grasscycling make my lawn look bad?

No! If a lawn is properly mowed, watered, and fertilized, grasscycling can actually produce a healthier looking lawn. It is important to cut the lawn frequently to produce small clippings that will decompose quickly. If a lawn is not cut frequently and clippings are left on the lawn, it will produce a "hay-like" look which can be unsightly.

### Are there alternatives to grasscycling?

Yes! Grasscycling does not work in every situation. Prolonged wet weather, mower breakdowns, or infrequent mowing are situations where grass clippings should probably be bagged since a large number of clippings may be generated. But don't throw the clippings away! Add clippings to your compost pile, or use them as mulch around trees, flowerbeds, and shrubs.

### Does grasscycling require special equipment?

Refer to your owner's manual or contact a local lawnmower dealer to learn if you can safely grasscycle. You may need to purchase a retrofit kit, and your mower dealer can assist you with selecting the correct one. Mulching mowers make grasscycling easy by cutting grass blades into small pieces and forcing them into the soil. Electric mulching mowers can also help reduce air pollution.

# STORMWATER UPDATE

A stormwater program fee is expected to be billed in early 2022. The fee will be based on a property's Impervious Area. Residential property would have paid 66% more if the stormwater program costs were covered through property taxes. Bills are anticipated to be distributed by February with three tiers as noted below. Property owners can pay using quarterly coupons or pay annually at a discount.

	Impervious Area	Monthly Fee	Annual Fee
Tier 0	less than 300 sf	\$0	\$0
Tier 1	300 - 1,299 sf	\$2.20	\$26.40
Tier 2	1,300 - 4,999 sf	\$8.60	\$103.20
Tier 3	5,000 + sf	\$2.79 per 1,000 square feet of impervious area	Varies

The funds generated from the fee will be dedicated to the stormwater program and will include addressing flooding and meeting the stormwater requirements mandated by the Pennsylvania Department of Environmental Protection (PADEP). Design and permitting of various projects is anticipated to begin in 2022. Construction is anticipated to begin in 2023 for flood mitigation efforts in the areas of Walnut Street as well as detention basin retrofits in various places. Improvements in the area of Santee and Easton are also being planned.

# INITIAL PROJECTS



**Phase 1 of the Santee/Easton Drainage Improvements Project** involves improvements to five basins and one swale to reduce flooding during smaller storms. In addition to mitigation of flooding, the improvements will meet some of the water quality improvements required by the State. A grant application has been submitted to assist in funding this project. A second phase is being developed to improve conveyance of runoff from larger storms.

2

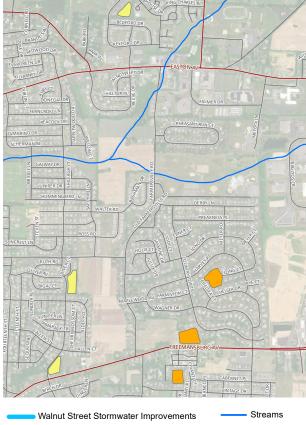
**Phase 1 Basin Retrofits to meet Pollution Reduction Plan** (**PRP**) requirements will improve local water quality and meet a portion of the PRP requirements from PADEP with detention basin work at:

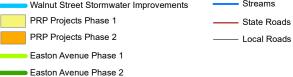
- > <u>Walnut Hills Basin</u>: near the corner of Freemansburg Ave & Washington Street
- Nancy Run Estates Phase 1: near the corner of Alder Road & Washington Street
- > <u>Campbell Estates Basin #1</u>: near the corner of Rexford Drive & Anthony Court
- > <u>Campbell Estates Basin #2</u>: near the corner of Bedford Drive & Rexford Drive

Walnut Street Drainage Improvements is planned to mitigate flooding effecting properties along Walnut Street. The project also meets some of pollution reduction required by PADEP.

The above projects are the first of a multi-year plan to address stormwater within the Township.







For more information visit the Township website: <u>https://bethlehemtownship.org/</u>

# APPENDIX B

# MCM#2 – PUBLIC INVOLVEMENT/PARTICIPATION

# **BMP 1 - Develop, implement and maintain a written Public Involvement and** <u>Participation Program (PIPP)</u>

Bethlehem Township's Public Involvement and Participation Program (PIPP) was developed during previous permit years and is review/updated annually (See Figure MCM2.A). The PIPP includes Public Awareness Meetings held in conjunction with Township Commissioners Meetings at least once per permit term, which will allow the public to ask questions or comment about the Program. The Township held an Awareness Meeting this permit year on February 21, 2022 as part of a Board of Commissioners Public Meeting and intends to hold at least one Awareness Meeting in future permit years. Minutes from the meeting are attached as Figure MCM2.B.

# BMP 2 - Advertise to the public and solicit public input on ordinances, SOPs, Pollutant Reduction Plans (PRPs) (if applicable) and TMDL Plans (if applicable), including modifications thereto, prior to adoption or submission to DEP:

Bethlehem Township has given adequate public notice as well as opportunities for public review, input and feedback prior to the adoption of any ordinance required by the MS4 Permit. No stormwater ordinance updates were proposed during the reporting period.

# **BMP 3: Regularly solicit public involvement and participation from the target** <u>audience groups</u>

The Township provides opportunities for members of the public to participate in PIPP development and implementation. The PRP and annual MS4 reports are available to the public at the municipal office through the Township Manager, upon request. Bethlehem Township has implemented a tracking system to monitor any information/complaints received from the public that pertain to stormwater management.

# BETHLEHEM TOWNSHIP PUBLIC INVOLVEMENT AND PARTICIPATION PLAN (PIPP) (MCM#2)

# Background

As part of Minimum Control Measure (MCM) #2 of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, the Township will put into place a Public Involvement and Participation Plan (BMP#1). This Plan includes various types of possible participation activities and encourages the public's involvement and the solicitation of the public's input.

- A Public Awareness Meeting will be held once a year in conjunction with a Township Board of Supervisors Meeting. This meeting will educate the Supervisors and the public through a presentation detailing the MS4 program, the minimum control measures, and Township initiatives to maintain permit compliance. The dates of the Public Awareness meeting along with the meeting agenda will be advertised on the Township website.
- 2) The Township will provide opportunities for members of the public to participate in program development and implementation by enabling them to:
  - a) Work as citizen volunteers to educate other individuals about the program;
  - b) Assist in program coordination with other pre-existing programs;
  - c) Participate in volunteer monitoring efforts where those opportunities exist; and
  - d) Attend public meetings

Existing watershed groups will be utilized to the greatest extent to meet the Township's goals and obligations.

- 3) The Township will encourage public participation by utilizing a tracking system to monitor any information/complaints received by the public which pertain to stormwater management, illicit discharges, polluted construction runoff, and concerns about the storm sewer system. The tracking system consists of a spreadsheet with the content to be filled in as provided by the public. The content will pertain to the date of the complaint, name and contact of the complainant, location of said complaint, construction project name, incident type, action taken to resolve the incident/complaint, and the municipal employee initiating the followup action.
- 4) Prior to the adoption of any ordinance required by the MS4 Permit, adequate public notice will be given as well as opportunities for public review, input, and feedback.
- 5) The Township will make MS4 Annual reports available to the public at the municipal office through the Township Manager.

# BOARD OF COMMISSIONERS REGULAR PUBLIC MEETING FEBRUARY 21, 2022

MEMBERS PRESENT	John J. Merhottein, President Malissa K. Davis, Vice President Jan Beatty, Commissioner John K. Gallagher, Commissioner Dale A. Sourbeck, Commissioner
OTHERS PRESENT	James L. Broughal, Township Solicitor Doug Bruce, Township Manager Amanda Raudenbush, Planning Director Ron Gawlik, Township Engineer
CALL TO ORDER	President Merhottein called the meeting to order at 7:00 p.m., and led those in attendance in reciting the Pledge of Allegiance.
EXECUTIVE SESSION ANNOUNCEMENT	Solicitor Broughal announced that the Board of Commissioners met in Executive Session on February 9, 2022 from 5:00 p.m. to 7:00 p.m. to discuss personnel issues, on February 16, 2022 at 5:00 p.m. to 7:30 p.m. to discuss personnel issues and finally on February 21, 2022 at 6:30 p.m. for approximately 20 minutes to discuss potential litigation, all pursuant to Section 708a of the Pennsylvania Sunshine Act.
COURTESY OF THE FLOOR	
JOSEPH RING 2033 12 <sup>TH</sup> STREET	Mr. Ring came before the board with concerns about the stormwater fee. Mr. Ring said he didn't feel that an aerial photograph of everyone's property could accurately determine that amount of impervious coverage. He didn't agree that his property was assessed at 3300 square feet and believes it's only 1,000 square feet. Mr. Ring said all the water that comes off his roof goes directly into the ground. He believes his property should be re-evaluated. Commissioner Gallagher said in this area of Pennsylvania, the ground is a clay soil that doesn't absorb water very well though it appears to in a light storm. But in a severe storm, the water will make its way to the street and the to the catch basins. Mr. Bruce said that there is an appeal process on the website.
GREGORY DECARLO 4100 DONEGAL DR.	Mr. DeCarlo said he spoke with Mr. Bruce in detail about the stormwater fee and the impervious coverage. He said he has a swimming pool that collects a lot of water and was amazed to learn that it was considered an impervious surface. Mr. DeCarlo did not agree with Mr. Hulshizer's explanation. Solicitor Broughal informed Mr. DeCarlo that courtesy of the floor gives him the opportunity to make a statement, not interrogate the commissioners.
SMITA PATEL 4212 FARMERSVILLE RD.	Ms. Patel said she is having the same issue with the assessment of impervious coverage. She said her home sits on four acres of land and she doesn't believe she has any runoff that would go on the street. Ms. Patel said she had no knowledge of this stormwater fee.
BARRY ROTH 4323 CHETWIN TERR.	Mr. Roth asked that hard copies of the appeal process be available for those residents that do not have access to the internet or a printer. Mr. Roth also asked when the work on the Housenick Mansion would start. He said he would like the Recreation Commission to be more involved with the project and asked the board for better communication. Ms. Davis said she would like to see the Recreation

	Commission more involved.
PIETRO GNEO 4970 CHELSE DR.	Mr. Gneo said he did not agree with the assessment of impervious coverage on his property. He also believes that he is in the incorrect tier as there is a big difference in fee between Tier 2 and Tier 3.
ED MCDEVITT 4960 CHELSEA DR.	Mr. McDevitt said he doesn't believe the information on the stormwater fee is explained very well. He said he spoke with Mr. Bruce last week who was very helpful in what he was doing but he didn't get a clear answer. He said he tried to get the appeal form from the website but the automated system was not working at the time. Mr. McDevitt was eventually able to print the appeal form and submitted it to the township for processing.
TOM KEEFER 3808 CARTER RD.	Mr. Keefer said that the construction site on Church Road looks awful. They cut down all the trees and it looks a mess.
COMMISSIONER DAVIS	Ms. Davis thanked all those that came to the meeting to share their concerns about the stormwater fee. She also thanked the staff who spent the last week answering phone calls and emails. She did not hear any complaints about staff being rude. Mr. Bruce said he appreciated that and said that almost every person who complained tonight was somebody he spoke with on the phone. He tried answering their questions as completely as he could.
APPROVAL OF MINUTES	Upon motion (Sourbeck-Gallagher), the Board of Commissioners voted unanimously by voice vote to approve the minutes of the February 7, 2022 regular public meeting.
CONDITIONAL USE HEARING	THIRTY22 GARDEN APARTMENTS (3022 EASTON AVENUE), PROPOSED 220-UNIT APARTMENT COMPLEX, SEEKING CONDITIONAL USE OF GARDEN APARTMENTS
	Solicitor Broughal explained that tonight's public hearing is in reference to a Conditional Use application by Windrift Real Estate Associates LLC, for a project that includes 220 apartments in a property located in the Planned Commercial Zoning District and the Streetscape Enhancement District. H said garden apartments are only permitted in those zoning districts by conditional use. He then turned the hearing to the applicant's counsel. Once the testimony was taken, Solicitor Broughal closed the hearing and said the board will decide at their next meeting.
SUBDIVISIONS & LAND DEVELOPMENT	
<b>RESOLUTION R024-22</b>	A RESOLUTION GRANTING CONDITIONAL PRELIMINARY/FINAL LAND DEVELOPMENT PLAN APPROVAL OF LEHIGH VALLEY TRADE CENTER III
	Ms. Raudenbush said Trammell Crow Company acquired a parcel of land at 4733 Hanoverville Road, formerly known as Dutch Springs. They are proposing to subdivide the large tract into three lots. The first lot is entirely in lower Nazareth Township. The second lot is partially in Lower Nazareth Township and partially in Bethlehem Township and would contain a 301,000 square foot warehouse. Only the building is located entirely within Bethlehem Township. Lot three is a 57.1-acre tract that contains the existing quarry, the existing stone building and proposed parking lots to maintain scuba use. This land is zoned General Industrial and the warehousing is a by right use. All the zoning relief was granted

02-21-2022

at the December 29, 2021 hearing.

Mr. Sourbeck asked if any waivers were requested. Ms. Raudenbush said there were a number of waivers and deferrals requested, as outlined in the draft resolution. Ms. Davis said she wanted to make sure that if the user at the quarry should ever have an issue that all ownership and maintenance obligations would revert back to the owner of Lot 1. The Lower Nazareth Township Zoning Hearing Board decision requires a covenant placed on the deed of the Lot 2 that stipulates in the event the owners of Lot 2 cease operation or ownership, Lot 2 would revert back to the owner of Lot 1. Ms. Davis said she wanted to confirm that stipulation as the resolution itself does not mentioned it specifically. Ms. Raudenbush said resolution required a few minor amendments related to number of lots and size of the warehouses.

Upon motion (Gallagher-Sourbeck), the Board of Commissioners voted unanimously by voice vote to approve Resolution R024-22 granting conditional preliminary/final land development plan approval of Lehigh Valley Trade Center III, with minor amendments as suggested by Ms. Raudenbush.

# RESOLUTIONS OF THE<br/>BOARD OFA RESOLUTION APPOINTING A CHIEF OF POLICE TO THE<br/>BETHLEHEM TOWNSHIP POLICE DEPARTMENTCOMMISSINERSCOMMISSINERS

**RESOLUTION R025-22** Mr. Merhottein said this was one of the toughest decisions he's made since sitting on the board. The candidates were both excellent and thanked them. Ms. Davis agreed.

Upon motion (Gallagher-Davis), the Board of Commissioners voted unanimously by voice vote to approve Resolution R020-22 appointing Gregory Gottschall Chief of Police to the Bethlehem Township Police Department.

The board congratulated Captain Gottschall.

### MOTIONS OF THE BOARD OF COMMISSIONERS

**MOTION** 

A MOTION AUTHORIZING THE TOWNSHIP MANAGER TO ADVERTISE AN ORDINANCE ADDING CHAPTER 25, ENVIRONMENTAL ADVISORY COUNCIL; SECTION 26-1, CREATION OF COUNCIL; SECTION 26-2, MEMBERSHIP; SECTION 26-3, APPOINTMENT PROCEDURES; SECTION 26-4, COMPENSATION; SECTION 26-5 PURPOSE; SECTION 26-6, DESIGNATION OF CHAIRPERSON; SECTION 26-7, POWERS; SECTION 26-8, RECORD OF MEETINGS; AND SECTION 26-9, EXPENSES, TO THE CODE OF CODIFIED ORDINANCES TO ESTABLISH PROVISIONS FOR ESTABLISHING AN ENVIRONMENTAL ADVISORY COUNCIL IN THE TOWNSHIP OF BETHLEHEM

Mr. Gallagher said it's been a long time coming and is looking forward to seeing good things come from this. He said the council is solely an advisory board served by volunteers.

Mr. Hillard said he has been a resident of the township for a couple years. He served on the advisory council in the City of Bethlehem and it was a wonderful opportunity. Mr. Hillard said he would be interested in serving on the board. 02-21-2022

BRIAN HILLARD 3901 PEACOCK DR.	Upon motion (Sourbeck-Gallagher), the Board of Commissioners voted unanimously by voice vote to approve a motion authorizing the township manager to advertise an ordinance adding Chapter 25, Environmental Advisory Council; Section 26-1, Creation of Council; Section 26-2, Membership; Section 26-3, Appointment Procedures; Section 26-4, Compensation; Section 26-5 Purpose; Section 26-6, Designation of Chairperson; Section 26-7, Powers; Section 26-8, Record of Meetings; and Section 26-9, Expenses, to the Code of Codified Ordinances to establish provisions for establishing an environmental advisory council in the Township of Bethlehem.
MOTION	A MOTION AUTHORIZING THE ADVERTISEMENT OF THE 2022 COLD IN-PLACE RECYCLING AND OVERLAY PROJECT
	Upon motion (Beatty-Sourbeck), the Board of Commissioners voted unanimously by voice vote to approve a motion authorizing the advertisement of the 2022 Cold In-Place Recycling and Overlay Project.
MOTION	A MOTION AUTHORIZING THE TOWNSHIP MANAGER TO ENTER INTO AN AGREEMENT WITH ENTECH ENGINEERING FOR THE WASTEWATER, COLLECTION, PRETREATMENT AND FATS, OILS AND GREASE (FOG) PROGRAM-RELATED PROFESSIONAL ENGINEERING SERVICES
	Mr. Bruce said the BTMA is hiring an engineer to help train staff to fix and correct and maintain the system in place.
	Upon motion (Sourbeck-Beatty), the Board of Commissioners voted unanimously by voice vote to approve a motion authorizing the township manager to enter into an agreement with Entech Engineering for the Wastewater, Collection, Pretreatment and Fats, Oils and Grease (FOG) Program-related professional engineering services.
APPROVAL OF BILL AGENDA OF FEBRUARY 16, 2022	Upon motion (Gallagher-Sourbeck), the Board of Commissioners unanimously voted by voice vote to approve the Bill Agenda of February 16, 2022.
APPROVAL OF PURCHASE ORDERS	PO 20220218 – ESRI INC. – PPIS – \$30,000.00 PO 20220226 – AMERICAN HIGHWAY PRODUCTS – PPIS – \$9,199.38 PO 20220229 – SERVICE TIRE TRUCK CENTER – PW – \$2,286.40 PO 20220230 – U.S. MUNICIPAL SUPPLY – PW \$4,134.68 PO 20220247 – EVERBRIDGE – PPIS – \$7,161.08 PO 20220248 – REDMAN TRAINING GEAR – BTPD – \$5,589.10 PO 20220251 – TUWAY COMMUNICATIONS – BTPD – \$5,589.10 PO 20220340 – ATLANTIC TACTICAL – BTPD – \$5,190.00 PO 20220341 – STRYKER MEDICAL – BTVFC EMS – \$13,665.80 PO 20220391 – BREAKTHROUGH CONCEPTS – PPIS – \$3,600.00 PO 20220394 – ALBARELL ELECTRIC – PPIS – \$2,109.64 PO 20220395 – POTTER & PARSONS – PPIS – \$11,219.00 PO 20220406 – AXON ENTERPRISES – BTPD – \$3,489.60 PO 20220418 – NEARMAP US – PPIS – \$25,101.00 PO 20220424 – KOCH 33 FORD TOYOTA – CD – \$32,471.00
BARRY ROTH 4323 CHETWIN TERR.	Mr. Roth said he would like to see out-of-service police cars used by other departments.

	Upon motion (Sourbeck-Gallagher), the Board of Commissioners unanimously voted by voice to approve Purchase Orders 20220218, 20220226, 20220229, 20220230, 20220247, 20220248, 20220251, 20220340, 20220341, 20220391, 20220394. 20220395, 20220406. 20220418 and 20220424 as presented.
APPROVAL OF TREASURER'S REPORT OF JANUARY 31, 2022	Upon motion (Sourbeck-Gallagher), the Board of Commissioners unanimously voted by voice vote to approve the Treasurer's Report of January 31, 2022 as presented, subject to audit.
ZONING HEARING BOARD MEETING OF FEBRUARY 23, 2022	Ms. Raudenbush said the only hearing that's taking place on Wednesday is the hearing for 4406 Easton Avenue, the salvage yard. The other three hearings are being moved back to the March meeting.
MONTHLY REPORTS	All monthly reports were accepted.
DISCUSSON ITEMS	
SKETCH PLAN-2251 WILLOW PARK ROAD	Mr. Bruce said the discussion on the sketch plan was pulled from the agenda.
HOUSNIECK PARK TRAILS PROJECT - RECREATION COMMISSION MOTION	Mr. Bruce said he received a memo from the Public Works Director Rich Kanaskie that at their February 14, 2022, meeting the Recreation Commission made a motion to recommend to the Board of Commissioners to authorize moving forward with the construction of the Housenick Park Trails Phase 3 Project utilizing the existing township recreation fund to cover the remaining costs not covered by the awarded grants. Mr. Bruce said the project costs about a half a million dollars and \$400,000 was received in grants. There would need to be approximately \$100,000 used from the recreation fund. Ms. Davis asked how much was in the recreation fund. Mr. Bruce said about \$1.8 million. Mr. Gallagher said Housenick Park is the central park of the township and should be enhanced.
	Upon motion (Davis-Beatty), the Board of Commissioners voted unanimously by voice vote to authorize the township manager to provide the funds from the Park and Recreation Fund to complete Phase 3 of the Housenick Park Trails Project. trails project
UPDATE	Mr. Merhottein informed Mr. Roth that township has been in touch with the property owners concerning the sinkhole on Route 191. Ms. Raudenbush said they were issued a notice of violation months ago and have started working through the process of fixing it.
	Mr. Merhottein informed Mr. Keefer that regarding his concern with the recent Hecktown Road closure that the road remained closed on Thursday night because of the rain but was reopened Friday morning.
ADJOURNMENT	There being no other business, upon motion (Sourbeck-Gallagher), the Board of Commissioners unanimously voted by voice vote to adjourn the meeting at 8:39 p.m. Respectfully submitted,
	Laura G. Zapata

Laura G. Zapata Recording Secretary

# **APPENDIX C**

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

# **BMP 1: Develop and implement a written program for the detection, elimination and prevention of illicit discharges into the regulated small MS4.**

Bethlehem Township developed and implemented an IDD&E Program for the detection, elimination and prevention of illicit discharges during previous permit terms (Figure MCM3.A). Included in the IDD&E Program is a written Sampling Protocol (Figure MCM3.B) which details the steps to be taken if a dry weather flow reveals any color, turbidity, sheen, floating or submerged solids or odors during the outfall inspections described in the IDD&E Program. These procedures and protocols are reviewed and updated annually.

# BMP 2: Develop and maintain a map(s) that show permittee and urbanized area boundaries, the location of al outfalls and, if applicable, observation points, and the locations and names of all surface waters that receive discharges from those outfalls.

All outfalls within the Township were mapped and submitted with the previous annual report. A copy of this map is included for reference as Figure MCM3.C.

# BMP 3: In conjunction with the map created under BMP #2 (either on the same map or on a different map), develop and maintain map(s) that show the entire storm sewer collection system within the permittee's jurisdiction that are owned or operated by the permittee.

The entire storm sewer collection system map was completed and submitted with the previous annual report.

# BMP 4: Conduct dry weather screening on MS4 outfalls to evaluate the presence of illicit discharges.

During this permit term, 26 outfalls were inspected along with 1 observation point. No dry weather flows were observed so no illicit discharges were detected. The outfall inspection forms are attached as Figure MCM 3.E.

# <u>BMP 5: Enact a stormwater management ordinance to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.</u>

The Township has enacted a stand-alone Stormwater Management Ordinance. The Ordinance has provisions that prohibit illicit discharges and was provided with a previous annual report. The Ordinance is currently under review for compliance with the 2022 model requirements.

# BMP 6: Provide educational outreach to the target audiences about the program to detect and eliminate illicit discharges.

# 1. Distribute Educational Materials to the target audiences

IDDE&E-related information was distributed through the channels identified in MCM#1 including information linked to on the municipal website and informational posters/pamphlets at the municipal building.

# 2. Stormwater Reporting and Documentation

The Township has implemented a tracking system to monitor any information/complaints received from the public which pertain to stormwater management and/or illicit discharges. Incidents in which there were illicit discharges or suspected illicit discharges are tracked and kept on file by the Township.

There was one illicit discharge violation during this permit term on December 1, 2021. The violation was a release of a regulated substance by a Speedway gas station. Supporting documentation is attached as Figure MCM3.D.

# BETHLEHEM TOWNSHIP ILLICIT DISCHARGE AND ELIMINATION PLAN (MCM#3)

# Background

Under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, the Township is required to design a stormwater management program to be in compliance with the permit. Under the permit, the Township must satisfy specific minimum control measures (MCMs) relating to illicit discharges to the MS4. The areas covered under the Township's jurisdiction for the purposes of this plan include anything within the Township right-of-way and all Township owned facilities.

# 1) Identification of Priority Areas

In Permit Year 3, the outfalls within the Township will be compiled into four priority areas to be sampled within the four following years. The outfalls will be screened once during the permit term unless an illicit flow was detected or past problems are known, in which case the outfall will be screened annually during the permit term.

# 2) Outfall Screening Procedures

Herbert, Rowland & Grubic Inc. (HRG) staff screen all Township-owned outfalls in order of priority during Permit Years 3 through 5 of the NPDES MS4 Permit. During Permit Year 5, any newly installed outfalls are screened as well as any outfalls which have shown illicit flow or problems during past inspections. Outfalls are screened at least 72 hours after the most recent measureable rain event to observe dry weather conditions. During the screening, staff photograph the outfall and determine if dry weather flow is present. A simple and easy-to-read Outfall Inspection Report has been created by HRG which contains all of the information on the Field Sheet provided in the permit package. This report will provide information on all of the outfalls inspected during the permit year. In addition to the HRG-created report, if dry weather flow is found at any outfall, staff will fill out the Outfall Reconnaissance Inventory/Sample Collection Field Sheet that was provided with the authorized NPDES MS4 Permit package. All of this information is stored at HRG.

If flow is observed during the inspection, it will be traced up through the system to its origin. If the origin of the flow is unknown or is unable to be found, staff will interview residents of the area and Township staff to determine if the discharge is an illicit connection or discharge. If observation of the flow reveals any turbidity, floating or submerged solids, odor, or adverse effects to plant or animal life in proximity to the outfall, samples of the discharge will be collected for field and/or lab testing. Field testing parameters will include: pH, conductivity, chlorine, coliform bacteria, ammonia-nitrogen, nitrate/nitrite, copper, iron, and lead.

Should the testing reveal contaminants, the flow will be considered to be illicit and steps will be taken to eliminate the discharge.

# 3) Eliminating Illicit Discharges

The first step in eliminating illicit discharges focuses on public education, which is covered in MCMs #1 and #2. Through the education of the public, the goal is that more people within the Township will become aware of the hazards that illicit discharges have on the environment around us every day and how one person's actions can impact everyone within the community. Through the Township's Public Involvement and Participation Program, a tracking system will be implemented to encourage public involvement, solicit public input, and encourage the public to contact the Township if they observe any actions or evidence which would indicate illicit discharges into the storm sewer system. Should any actions or evidence of illicit discharges be reported by the public or observed by municipal employees, the Township will contact the DEP for recommendations on how best to proceed.

If during outfall inspections or inlet/outfall cleaning or repair, municipal staff discovers an illicit discharge, the discharge will be followed to its source and the owner of the property or the person responsible for the discharge will be interviewed and educated on how to eliminate the specific discharge. The responsible party will be sent a letter on official Township letterhead which will state the nature of the discharge, state the actions to be performed to eliminate the discharge, provide a deadline for compliance, and establish penalties per the ordinance for noncompliance.

If an observed discharge is difficult to track to its source, dye testing may be performed by the Bethlehem Township Public Works Department. Any camera testing of the storm system will be completed by a certified company contracted through the Township.

Any correspondence and information related to the detection and elimination of illicit discharges will be included within the NPDES MS4 Annual Report, of which a copy will be retained by the Township for use by municipal employees, officials, and the public.

# 4) Non-outfall Illicit Discharges

The Township recognizes that illicit discharges can occur at any location in the MS4 and may not always be identified at the outfall. For those instances (motor vehicle accidents, motor vehicle leaks, construction site discharges, grass in the gutter, excessive pet waste on private property, etc.), Township staff are trained to identify these illicit discharges and ensure that they are eliminated/controlled and documented using the proper form.

If an illicit discharge is known to be or suspected of being greater than 50 gallons, is otherwise uncontrollable or poses a potential immediate hazard to human health and safety, 911 will be called immediately.

# 5) Program Evaluation and Assessment

Each year the Illicit Discharge Detection and Elimination Plan will be evaluated and updated. Newly constructed outfalls will be placed on the MS4 Outfall Map and will be investigated during the next round of outfall inspections. A report will be generated addressing citizen complaints and/or reports of illicit discharges and follow up actions taken for each. Any potential changes in the IDD&E Plan noted during the past permit year will be reviewed and the plan will be updated accordingly.

The plan will be flexible enough to evolve with the ever-changing technologies, program obstacles and complications that may come along. This is why an annual review of the program will be completed.

# BETHLEHEM TOWNSHIP OUTFALL SCREENING AND DRY WEATHER FLOW SAMPLING PROTOCOL

# **Outfall Screening**

If dry weather flow is observed during the inspection, it will be traced up through the MS4 system to its origin. If the origin of the flow is unknown or is unable to be found, Herbert, Rowland, & Grubic Inc. (HRG) and Township staff will interview property owners or residents of the area to determine if the discharge is an illicit connection or discharge. If observation of the flow reveals any turbidity, floating or submerged solids, odor or adverse effects to plant or animal life in proximity to the outfall, samples of the discharge will be collected for field and/or lab testing. Field testing parameters will include: pH, conductivity, chlorine, coliform bacteria, ammonia-nitrogen, nitrate/nitrite, copper, iron and lead. All field test kits will be kept up to date and any expired kits will be replaced prior to outfall screening visits.

Field Sheet originals will be stored at HRG. An electronic copy will be produced from the original and saved in the appropriate Permit Year folder on the HRG network and at the Township office. The completed Field Sheets will be provided to Township residents upon request as well as included in the Annual MS4 Report.

# Dry Weather Flow Water Quality Field Testing Procedures

# <u>YSI DO 200 – Dissolved oxygen and temperature</u>

Press the power button. Allow the unit to warm up and perform the self-diagnostic test. After the temperature displays in the lower right of the display, the unit is ready for operation. Immerse the probe into the sample and allow the temperature and dissolved oxygen measurements to stabilize. Record data on field sheet and turn off unit. Maintenance and calibration of this unit should be performed according to the manufacturer's specifications prior to every use to allow for maximum accuracy.

# <u>Oakton pHTestr 1 - pH</u>

Remove cap from the electrode and press the on/off button to switch Testr on. Dip the electrode 1/2" to 1" into the sample to be tested. Stir once and let reading stabilize. Record the pH. Press on/off to turn off Testr. Calibration for the unit should occur according to the manufacturer's specifications prior to every use to allow for maximum accuracy.

# Oakton ECTestr – Electrical conductivity

Remove electrode cap and press the on/off button to switch the Testr on. Dip the electrode into the sample to be tested, make sure the electrode is fully covered. Wait for reading to stabilize and record reading. Press on/off button to turn testr off. Calibration for the unit should occur according to the manufacturer's specifications prior to every use to allow for maximum accuracy.

### SenSafe Total Chlorine Check

Method A (0-10 PPM): Dip one test strip into water sample for 5 seconds with a constant, gentle back and forth motion. Remove the strip. Wait 30 seconds, and then match with Method A colors on bottle. Complete color matching within 15 seconds. Record the concentration on the Field Sheet.

Method B (0 to 1.0 PPM): Dip one test strip into water sample for 10 seconds with a constant, gentle back and forth motion. Remove the strip. Wait 30 seconds, and then match with Method B colors on bottle. Complete color matching within 15 seconds. Record the concentration on the Field Sheet.

# SenSafe Free Chlorine

Method A (1 to 7 PPM): Dip one test strip into water sample for 10 seconds with a constant, gentle back and forth motion. Remove the test strip and match with Method A colors. Record the concentration on the Field Sheet.

Method B (0 to 1.20 PPM): Dip one test strip into water sample for 30 seconds with a constant, gentle back and forth motion. Remove the test strip and match with Method B colors. Record the concentration on the Field Sheet.

# SenSafe John's Copper Check (Free/Dissolved)

Dip one test strip into water sample for 15 seconds with constant, gentle back and forth motion. Remove test strip and shake once, briskly to remove excess water. Wait 30 seconds, then match to the color chart. Complete color matching within 60 seconds. Record the concentration on the Field Sheet.

### LaMotte Nitrite & Nitrate

Immerse strip in water sample for 2 seconds and then remove with pads face up. Do not shake off excess water. Wait 60 seconds and immediately compare to color chart. Record the concentration on the Field Sheet.

# Watersafe Lead Test

- 1. Open Watersafe foil pouch and take out all contents. The test kit contains one Lead Test Strip, one sample vial and one dropper pipette, as well as a desiccant packet (to be discarded).
- Using the dropper pipette, place water sample in the test vial. To pick up sample, tightly squeeze the bulb at the end of the pipette and place open end into water sample. Release the bulb to obtain sample, then squeeze again to expel sample into vial. Use only one pipette-full of water. Swirl vial gently for several seconds. Place vial on a flat surface.
- 3. Place the Watersafe test strip into test vial with arrows pointing down.
- 4. Wait 10 minutes. Do not disurb strip or vial during this time. Blue lines will appear on strip.
- 5. Take the strip out of the vial and read the results as indicated in the package.
- 6. Record the concentration on the Field Sheet.

# <u>SenSafe Iron Check</u>

Fill vial with water sample to the top line. Dip one test strip into vial (be sure all pads are in contact with the liquid) for 30 seconds with constant, gentle back and forth motion. Remove strip and wait 2 minutes. View through the aperture to match with the closest color on the color chart. Record the concentration on the Field Sheet.

# LaMotte Ammonia-Nitrogen (0.1 – 4.0 ppm)

- 1. Fill test tube to 5mL line with sample water.
- 2. Add one Ammonia #1 Tablet and one Ammonia #2 Tablet. Cap the test tube and mix until tablets disintegrate. Wait 5 minutes.
- 3. Hold test tube flat against the white section of the Ammonia-Nitrogen Color Chart. Match sample color to a color standard. Record as ppm Ammonia-Nitrogen.
- 4. Record the concentration on the Field Sheet.

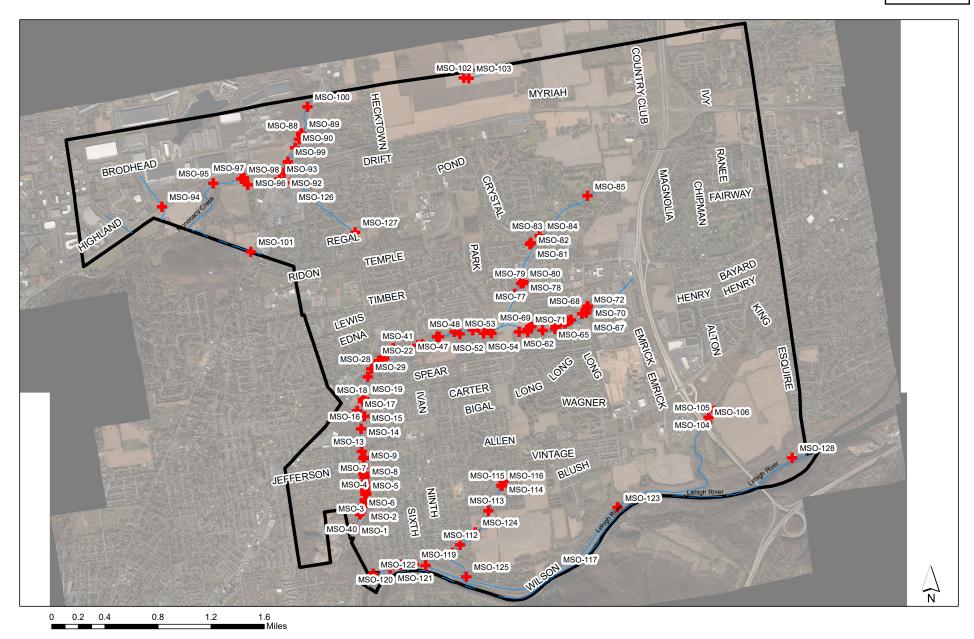
# LaMotte Coliform Bacteria

- 1. Fill the tube to the 10mL line.
- 2. Replace cap on tube.
- 3. Stand the tube upright with tablet flat on bottom of the tube.
- 4. Incubate the tube upright, at room temperature for 48 hours. Store out of direct sunlight.
- 5. Compare the contents of the tube to the Coliform Bacteria Color Chart.
- 6. Record the concentration on the Field Sheet.

# Laboratory Testing

If a suspected oily sheen or residue is noticed during the outfall screening, HRG's representative will procure a lab-provided 1 liter bottle of the sample, pack the sample on ice and deliver to Analytical Laboratory Services (ALS, 717-944-1430) in Middletown, PA. Request an Oil and Grease test be performed on the sample and fill out the chain of

Bethlehem Township, Northampton County, Pennsylvania Page 3 custody form as directed by ALS. If other contaminants are suspected, request the appropriate test be performed (fecal coliform, metals, diesel/gasoline range organics, etc.).



			REPORT	ED RELEA	SE	Suspected 🗆 Confirme	ed X	
penr	OF ENGINAMENTAL PROTECTION		INCIDENT INF	ORMATION	FORM	Storage Tanks - C/R Fil	le X	
	or camposition the manual north	En	vironmental Clear	up & Brownfie	lds Program	Land Recycling File		
FACILITY ID #		FACILI	TY NAME					
48-1	32013			Spee	dway 6742			
FACILITY ADDRE				eFACTS Data / DEP Collected / Google Maps				
				Latitude:		40 31'4.58"		
3283 Eas	ton Ave, Bethlehen	n, PA	18020-3448	Longitude:	-	75 20'6.38"		
MUNICIPALITY				COUNTY				
NOTIFIER INFO	Bethlehem Town	nship		DEA		pton County ICATION (Mark all that apply)		
Name	Matth	ew Se	Igrath			Seen)	х	
Company/Title	EMS E	nviron	mental	Smell (Vapors).				
Telephone	1 (484	4) 238-	-6787		dicates Release		X	
		.,			ysis Indicates Rel			
PROPERTY OWN	NER INFORMATION				-			
Name		Realty,	LLC	other (opecity)				
				Underground St	torage Tank		X	
Street Address		perty Ta S. Main	n St.	Aboveground S	torage Tank			
City	Findlay			Capacity:	8,000 gal	Location:		
State	Ohio			Other Source (S	Specify):			
Zip Code	45840			Substance		Estimated		
Contact Name				Released:		Quantity: unknown		
Telephone					soil / grou		$\geq$	
e-mail address				Chapter 245		DEP Tank # Tank 00	л <sup>—</sup>	
	erbally Notified by: DEI	P / Con	sultant / Other	Clean Streams	Law			
Property Ownershi		ipal rec			nbursement Gran	6	5	
Property Ownershi	p commed.		Other	rieating on Ken	induisement Gran		$\sim$	
Description of the	e Extent of the Rele	ase:						
						gasoline). EMS was on site		
					5	alls which was not noted in prior		
						having tank 001 pumped out. I		
-					sheen reported to b	e noted on groundwater in stor	m	
water system). Boor	his deployed and EMS	in proce	ess of containing releas	e.				
Actions Taken or	Planned:							
Dave McGovern - L	PG responed. Spoke to	o Joshu	a Matulevich concernin	g CEI to gain inver	ntory records for re-	conciliation purposes.		
Contact Informat	ion Consultant/Rem	ediato	r/Contractor	Responsible	Party Information	on (Other than Property Ov	vner)	
				Speedway LLC				
				c/o Bryan Witt (b	mwitt@speedway.c	com)		
				500 Speedway D				
DEP Representative N	lame		DEP Representative Sigr	Enon, Ohio 4532	3 Title	Date 12/1/202	21	
DEF Representative N	and a		DEF Representative Sign	intel 6	1.00			
Sus	an E. Thomas		Susan E. The	omas	EPCS	Time		

Northeast Regional Office 2 Public Square | Wilkes-Barre, PA 18701-1915 | 570.826.2511 | Fax 570.820.4907 | www.dep.pa.gov



December 2, 2021

Speedway, LLC. c/o Environmental Representative Attn: Mr. Bryan M. Witt 500 Speedway Drive Enon, Ohio 45323

Via e-mail at: <a href="mailto:bmwitt@speedway.com">bmwitt@speedway.com</a>

Re: ECB-Storage Tanks Program Storage Tank System Releases-December 1, 2021 Speedway 6742 Facility ID #: 48-32013 Incident#(s): 57079 3283 Easton Ave. Bethlehem Township, Northampton County

Dear Mr. Witt :

On December 1, 2021, the Department of Environmental Protection (DEP) received notification of a release of a regulated substance at this facility. The release was confirmed on December 1, 2021. This release is a violation of Section 1310 of the Pennsylvania Storage Tank and Spill Prevention Act. A copy of DEP's notification of a reported release form is enclosed for your reference.

This letter is to advise you that you have certain responsibilities regarding this release under the Corrective Action Process (CAP) regulations found in 25 PA Code Chapter 245, Subchapter D. You should carefully review these regulations to determine the specific requirements applicable to the release at your facility. The CAP regulations and several helpful fact sheets are available on DEP's website at <u>www.dep.pa.gov</u>, keyword "Tank Cleanup". This information can help you address the release quickly and effectively. The CAP Regulations Overview-Fact Sheet and CAP Flowchart are enclosed for your reference.

Upon confirmation of a release, the CAP regulations require that you immediately implement any necessary interim remedial actions as described in Section 245.306 including: removing regulated substances from leaking tank systems; mitigating fire, explosion and safety hazards; preventing further migration of released substances; and identifying and sampling affected or potentially affected water supplies. Appropriate and timely interim remedial actions can resolve environmental impacts caused by the release or limit their severity, thus making site cleanup easier and less expensive.

A site characterization must also be performed upon confirmation of a release in accordance with Section §245.309 of the CAP regulations. Please notify Mr. Benjamin Rice – Geoscientist at (570)830-3028 or by e-mail to <u>benrice@pa.gov</u> within 24 hours after you initiate site characterization activities, pursuant to §245.309(c)(24). A Site Characterization Report (SCR) detailing the findings of the site characterization must be submitted to DEP within 180 days of reporting the release in accordance with §245.310. We recommend that you engage the services of an experienced environmental consulting firm, with a Licensed Professional Geologist on staff, to conduct the site characterization and prepare the SCR. Completion of a comprehensive site characterization and submission of a detailed SCR are

critical in determining whether additional steps are needed to address the release at your facility. The SCR for this release is due on or before June 15, 2022.

The SCR must address all the elements of Section §245.310. Requests for an extension of the deadline for SCR submittal will only be considered in limited cases based on valid technical reasons. Requests for an extension must be made in writing to this office at least 30 days before the SCR due date. Your written request must specify the technical reason(s) for the extension and include a new proposed submission date. No extension of the SCR due date will be permitted without written approval from DEP. A copy of Section §245.310 is enclosed for your reference.

Financial assistance for corrective action may be available from the Underground Storage Tank Indemnification Fund (USTIF). If you have not done so already, you should immediately contact USTIF by calling 717-787-0763 or 800-595-9887 (in PA only) or by email to <u>ra-ustif@pa.gov</u>. Failure to notify USTIF within 60 days after knowledge of a potential claim will result in denial of coverage. You may wish to investigate other potential sources of financial assistance. We recommend that you contact the Pennsylvania Department of Community and Economic Development at 866-466-3972 or visit their website at <u>www.newpa.com</u>.

Please forward all documents, reports, and written requests at the northeast regional office address listed above. If you have any questions concerning the corrective action process or if you wish to have an on-site meeting to discuss corrective action requirements as they relate to your site, then please contact Mr. Benjamin Rice - GIT, who is DEP project officer assigned to manage reported release incidents at your facility, and who can be reached by either the telephone number or email address provided above.

If you have any questions concerning this letter, then please contact me either by telephone at (570) 826-2324 or through e-mail to <u>susathomas@pa.gov</u>.

Sincerely,

Susan E. Thomas

Susan E. Thomas Environmental Program Compliance Specialist Environmental Cleanup & Brownfields Program

Enclosures: NORRs, CAP Overview-Fact Sheet, CAP Flowchart, Chapter 245.310

cc: Bethlehem Township, Northampton County (<u>dbruce@bethlehemtownship.org</u>) M. Selgrath – EMS (<u>mselgrath@emsenv.com</u>)
I. Barton – EMS (<u>ibarton@emsenv.com</u>) Hess Realty, Inc (Hard copy mailed)
B. Lehman – Speedway, LLC (<u>USTCompliance@speedway.com</u>)
S. Frye – USTIF (<u>safrye@pa.gov</u>)
E. Supey – DEP
T. Coar – DEP
B. Rice – DEP
S. Thomas – DEP
J. Van Leuven – DEP

			REPORTED RELEASE		Suspected □ Confirmed X			
penr	OF ENVIRONMENTAL PROTECTION		INCIDENT INF	ORMATION	FORM	Storage Tanks - C/R	File X	
V			vironmental Clear	nup & Brownfie	lds Program	Land Recycling File		
FACILITY ID #		FACILI						
48-3	32013			Spe	edway 6742			
FACILITY ADDRE	SS/LOCATION			Google Earth				
3283 Eas	son Ave, Bethlehen	n, PA 1	18020-3448	Longitude:		40 39 14.98		
MUNICIPALITY				COUNTY		-75 20 6.14		
	Bethlehem Tow	nship			North	hampton		
NOTIFIER INFO	RMATION			REAS	SON FOR NOTIF	FICATION (Mark all that apply	)	
Name	Joshu	a Matu	llevich	Sight (Product/S	Staining Actually	Seen)	x	
Company/Title	DEP / Water	r Quali	ty Specialist	Smell (Vapors).			x	
Telephone	570	-826-5	488					
				Chemical Anala	ysis Indicates Rel	lease		
	NER INFORMATION			Other (Specify)				
Name		Realty		Underground St	torage Tank		x	
Street Address	c/o Property Tax	Dept.	, 539 5. Main St.	Aboveground S	torage Tank			
City		Findlay	/	Capacity:	8,000	Location: Dispenser 1/2	& 3/4	
State		PA						
Zip Code		45840		Substance Released:	Gasoline	Estimated Quantity: <u>Unknown</u>		
Contact Name						d water / surface water		
Telephone							x	
e-mail address						DEP Tank # 001, 002, 8	<u>k 003</u>	
Property Owner Ve	erbally Notified by:	Other		Clean Streams I	Law			
Property Ownershi	ip Confirmed: Mu	nicipal R	ecord	Heating Oil Reir	nbursement Gran	t Eligible: Yes /	No	
Description of the	e Extent of the Rele	ase:						
						the inspection, stained soils		
						and piping were also noted b	elow both	
dispensers. Propert	ty ownerhsip was confi	rmed by	/ the Northampton Cou	nty Tax Assessmer	nt Office Tax Parce	el Viewer online database.		
Actions Taken or	Planned:							
Contact Informat	ion Consultant/Rem	nediato	or/Contractor	Responsible	e Party Informati	on (Other than Property	Owner)	
				Speedway LLC				
					an, Environmental	•		
				1	ive, Enon, OH, 453		2 7074	
DEP Representative N	lame		DEP Representative Sig		iance@speedway.o		ec-21	
Jost	nua Matulevich		Joshua Ma	tulevich	WQS	Time 12:2	5 AM	

Northeast Regional Office 2 Public Square | Wilkes-Barre, PA 18701-1915 | 570.826.2511 | Fax 570.820.4907 | www.dep.pa.gov



December 6, 2021

Speedway, LLC c/o Environmental Supervisor Attn: Ms. Brandie Lehman 500 Speedway Drive Enon, OH 45323-1056

Via e-mail at: <u>USTCompliance@speedway.com</u>

Re: ECB-Storage Tanks Program Storage Tank System Releases-December 2, 2021 Speedway 6742 Facility ID #:48-32013 Incident#(s): 57088 & 57089 3283 Easton Ave. Bethlehem Township, Northampton County

Dear Ms. Lehman:

On December 2, 2021, the Department of Environmental Protection (DEP) received notification of two release of a regulated substance at this facility. The releases were confirmed on December 2, 2021. These releases are a violation of Section 1310 of the Pennsylvania Storage Tank and Spill Prevention Act. A copy of DEP's notification of a reported release form is enclosed for your reference.

This letter is to advise you that you have certain responsibilities regarding the releases under the Corrective Action Process (CAP) regulations found in 25 PA Code Chapter 245, Subchapter D. You should carefully review these regulations to determine the specific requirements applicable to the release at your facility. The CAP regulations and several helpful fact sheets are available on DEP's website at <u>www.dep.pa.gov</u>, keyword "Tank Cleanup". This information can help you address the release quickly and effectively. The CAP Regulations Overview-Fact Sheet and CAP Flowchart are enclosed for your reference.

Upon confirmation of a release, the CAP regulations require that you immediately implement any necessary interim remedial actions as described in Section 245.306 including: removing regulated substances from leaking tank systems; mitigating fire, explosion and safety hazards; preventing further migration of released substances; and identifying and sampling affected or potentially affected water supplies. Appropriate and timely interim remedial actions can resolve environmental impacts caused by the release or limit their severity, thus making site cleanup easier and less expensive.

A site characterization must also be performed upon confirmation of a release in accordance with Section §245.309 of the CAP regulations. Please notify Mr. Benjamin Rice – Geoscientist (GIT) at (570) 830-3028 or by e-mail to <u>benrice@pa.gov</u> within 24 hours after you initiate site characterization activities, pursuant to §245.309(c)(24). A Site Characterization Report (SCR) detailing the findings of the site characterization must be submitted to DEP within 180 days of reporting the release in accordance with §245.310. We recommend that you engage the services of an experienced environmental consulting firm, with a Licensed Professional Geologist on staff, to conduct the site characterization and prepare the SCR. Completion of a comprehensive site characterization and submission of a detailed SCR are critical in determining whether additional steps are needed to address the release at your facility. The SCR for this release is due on or before June 15, 2022.

The SCR must address all the elements of Section §245.310. Requests for an extension of the deadline for SCR submittal will only be considered in limited cases based on valid technical reasons. Requests for an extension must be made in writing to this office at least 30 days before the SCR due date. Your written request must specify the technical reason(s) for the extension and include a new proposed submission date. No extension of the SCR due date will be permitted without written approval from DEP. A copy of Section §245.310 is enclosed for your reference.

Financial assistance for corrective action may be available from the Underground Storage Tank Indemnification Fund (USTIF). If you have not done so already, you should immediately contact USTIF by calling 717-787-0763 or 800-595-9887 (in PA only) or by email to <u>ra-ustif@pa.gov</u>. Failure to notify USTIF within 60 days after knowledge of a potential claim will result in denial of coverage. You may wish to investigate other potential sources of financial assistance. We recommend that you contact the Pennsylvania Department of Community and Economic Development at 866-466-3972 or visit their website at <u>www.newpa.com</u>.

As you may be aware, on December 1, 2021, DEP issued a separate Notice for the confirmed release from Tank 001 on December 1, 2021 at the facility (Incident #57079) which is a separate release from the incidents referenced within this notice. The due date established for Incident #57079 is June 15, 2022.

Please forward all documents, reports, and written requests at the northeast regional office address listed above. If you have any questions concerning the corrective action process or if you wish to have an onsite meeting to discuss corrective action requirements as they relate to your site, then please contact Mr. Benjamin Rice - GIT, who is DEP project officer assigned to manage reported release incidents at your facility, and who can be reached by either the telephone number or e-mail address provided above.

If you have any questions concerning this letter, then please contact me either by telephone at (570) 826-2324 or through e-mail to <u>susathomas@pa.gov</u>.

Sincerely,

Susan E. Thomas

Susan E. Thomas Environmental Program Compliance Specialist Environmental Cleanup & Brownfields Program

Enclosures: NORRs, CAP Overview-Fact Sheet, CAP Flowchart, Chapter 245.310

cc: Bethlehem Township, Lehigh County (dbruce@bethlehemtownship.com)
M. Selgrath – EMS (mselgrath@emsenv.com)
S. Frye – USTIF (safrye@pa.gov)
E. Supey – DEP
T. Coar – DEP
B. Rice – DEP
B. Rice – DEP
J. Van Leuven – DEP
J. Van Leuven – DEP
Storage Tanks, 907, Correspondence

# Z

Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>l132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-025		
Land Uses in Outfall [	Drainage Area (Select All):		Latitude:	<u>40.65772725</u> °	,	
Industrial	Urban Resident	ial	Longitude:	<u>75.32895867</u> °	,	
Commercial	🛛 Suburban Resid	dential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	is Attached? 🛛 Yes	i 🗌 No	
	OL	ITFALL DI	ESCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	RCP CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water	
		Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel		🗌 Trapez	zoid Depth: in			
	Earthen	Parabo	olic Top Width: in			
	🗌 Rip-Rap	Other		Bottom Width:	-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	pection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow R	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	ïes 🗌 No	If Yes, provide a	description below.		
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
	Is there an observed change in the receiving waters as a result of the discharge?					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)	Residual Chlorine ma/l BOD5 ma/l							
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma	ade to determine	e the source(s) of	the illicit discharge.					
Describe corrective action	s taken by the p	permittee in respo	onse to the finding of an illicit	discharge.				
Inspector Comments:								
Outfall has no defined s	hape							
	•							
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern	-		City a	al-				
Responsible Official Nan	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-026			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.65784699</u> °	3 33		
Industrial	Urban Resident	ial	Longitude:	<u>-75.3286918</u> °	3 33		
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No		
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	No		
	OU	TFALL DE	ESCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	🗌 RCP 🗌 CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water		
		Elliptica	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🛛 Open Channel	Concrete	🗌 Trapez	zoid Depth: in				
	Earthen	Parabo	olic Top Width: in				
	🗌 Rip-Rap	Other		Bottom Width:	-		
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.			
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge? If Yes, provide a description below.							
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No		

Were sample(s) collected of the dry weather flow? 🗌 Yes 🗌 No (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	S PARAMETER RESULTS UNITS					
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters at	pove that were a	analyzed by a DE	P-certified laboratory:					
	ILLICIT DISCHARGES							
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 N	No					
If Yes, describe efforts ma Describe corrective actions			the illicit discharge.	discharge.				
Inspector Comments:								
Outfall has no defined sh	nape							
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Centle	1 dem				
Responsible Official Nam	e		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-027			
Land Uses in Outfall	Drainage Area (Select All):		Latitude: <u>40.6579141</u> ° "				
Industrial	Urban Resident	ial	Longitude:	<u>75.3286989</u> °	3 33		
Commercial	🛛 Suburban Resid	dential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No		
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	🗌 No		
	OU	ITFALL DI	SCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	🗌 RCP 🗌 CMP	Circula	r 🗌 Single	Diameter: in	In Water		
		Elliptic	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Вох	Triple				
		Other	Other				
🛛 Open Channel		Trapez	zoid Depth: in				
	Earthen	Parabo	olic Top Width: in				
	🗌 Rip-Rap	Other		Bottom Width:	-		
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	pection?	Yes 🛛 No (Ii	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	4			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather	flow contain color?	′es 🗌 No	If Yes, provide a	description below.			
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
	Is there an observed change in the receiving waters as a result of the discharge?  Yes  No If Yes, provide a description below.						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	P 🗌 Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)								
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	Indicate the parameters above that were analyzed by a DEP-certified laboratory:							
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🔲	No					
If Yes, describe efforts ma			_					
Inspector Comments: Outfall has no defined si			onse to the finding of an illic					
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Cmt,	/ $/$	~e~			
Responsible Official Nam	ne		Signature	/				
717-982-2744			8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-041		
Land Uses in Outfall Drainage Area (Select All):		Latitude:	<u>40.6581642°</u>	, ,, ,,		
Industrial	Urban Resident	ial	Longitude:	<u>-75.325189</u> °	3 33	
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	No No	
	OU	TFALL DE	ESCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
🛛 Closed Pipe	🖾 RCP 🗌 CMP	🛛 Circula	ır 🛛 Single	Diameter: <u>18"</u> in	🔲 In Water	
		Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
Open Channel	Concrete	🗌 Trapez	oid Depth: in			
	Earthen	Parabo	olic Top Width: in			
	🔲 Rip-Rap	Other		Bottom Width:	-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow R	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)								
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow ar	illicit discharge	? 🗌 Yes 🗌 I	No					
Describe corrective action	ns taken by the p	permittee in respo	onse to the finding of an illicit	discharge.				
Inspector Comments:								
	RESF	PONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Cart	le ilu	~			
Responsible Official Nar	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-042			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.658295</u> °	, j,		
Industrial	🗌 Urban Residenti	ial	Longitude:	<u>-75.324486</u> °	, ,, ,,		
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? Xes	🗌 No		
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	🗌 No		
	OU	TFALL DE	SCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	RCP CMP	🛛 Circula	ır 🛛 Single	Diameter: <u>24"</u> in	In Water		
		Elliptica	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
Open Channel		🗌 Trapez	zoid Depth: in				
	Earthen	Parabo	olic Top Width: in				
	🗌 Rip-Rap	Other		Bottom Width:	-		
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow R	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.			
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?  Yes  No If Yes, provide a description below.							
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters a	bove that were a	analyzed by a DE	P-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No				
If Yes, describe efforts ma							
Describe corrective action	is taken by the p	permittee in respo	onse to the finding of an illicit	t discharge.			
	DEOE						
accordance with a syste submitted. Based on my for gathering the informa complete. I am aware th	law that this do m designed to a / inquiry of the p ation, the inform nat there are sig	cument and all a assure that qualif erson or persons ation submitted i nificant penalties	FICIAL CERTIFICATION ttachments were prepared us id personnel properly gath s who manage the system of is, to the best of my knowle for submitting false informa . C.S. § 4904 (relating to unsu	Inder my direction ered and evaluate those persons di dge and belief, tr tion, including the worn falsification).	ed the information rectly responsible ue, accurate, and possibility of fine		
Curt Wilbern	Site Cripping						
Responsible Official Nan	ne		Signature				
717-982-2744			8/29/2022				
Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION					
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>	
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-043	
Land Uses in Outfall Drainage Area (Select All):			Latitude:	<u>40.658158°</u>	3 33
Industrial	Urban Resident	ial	Longitude:	<u>-75.324439</u> °	3 33
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No
			Are Photograph	s Attached? 🛛 Yes	No No
	OU	TFALL DE	ESCRIPTION		
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED
Closed Pipe	RCP CMP	🛛 Circula	ır 🛛 Single	Diameter: <u>36"</u> in	🔲 In Water
		Elliptica	al 🗌 Double		U With Sediment
	Steel Other	🗌 Box	Triple		
		Other	Other		
Open Channel		🗌 Trapez	zoid Depth: in		
	Earthen	Parabo	blic Top Width: in		
	🗌 Rip-Rap	Other	Bottom Width:		-
	Other				
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	4	
DRY WEATHER FLOW EVALUATION					
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.					
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.					
Is there an observed change in the receiving waters as a result of the discharge?  Yes  No If Yes, provide a description below.					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters al	pove that were a	analyzed by a DE	P-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No				
If Yes, describe efforts made to determine the source(s) of the illicit discharge.							
Inspector Comments:							
Outfall pipe has rubber o	Outfall pipe has rubber check valve						
RESPONSIBLE OFFICIAL CERTIFICATION							
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
Curt Wilbern			Carta	iller			
Responsible Official Nam	ie		Signature	-			
717-982-2744			8/29/2022				
Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION					
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>	
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-044	
Land Uses in Outfall	Land Uses in Outfall Drainage Area (Select All):			<u>40.658169</u> °	3 33
Industrial	🗌 Urban Residenti	ial	Longitude:	<u>-75.324396</u> °	3 33
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? Xes	🗌 No
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No
			Are Photograph	s Attached? 🛛 Yes	No No
	OU	TFALL DE	SCRIPTION		
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED
Closed Pipe	RCP CMP	🛛 Circula	ır 🛛 Single	Diameter: <u>36"</u> in	🔲 In Water
		Elliptica	al 🗌 Double		U With Sediment
	Steel Other	🗌 Box	Triple		
		Other	Other		
Open Channel		🗌 Trapez	oid	Depth: in	
	Earthen	Parabo	lic Top Width: in		
	🗌 Rip-Rap	Other	Bottom Width:		-
	Other				
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (l	f No, skip to Certificatio	on Section)
Description of Flow R	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą	
DRY WEATHER FLOW EVALUATION					
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.					
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.					
Is there an observed change in the receiving waters as a result of the discharge?					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters a	bove that were a	analyzed by a DE	EP-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🔲	No				
If Yes, describe efforts made to determine the source(s) of the illicit discharge. Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.							
Inspector Comments:							
Outfall pipe has rubber check valve							
RESPONSIBLE OFFICIAL CERTIFICATION							
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
Curt Wilbern			art	- Lail			
Responsible Official Nan	ne		Signature				
717-982-2744			8/29/2022				
Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-045		
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6590580</u> °	5 55	
Industrial	Urban Resident	ial	Longitude:	<u>-75.3220493</u> °	3 35	
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No	
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	🗌 No	
	OU	TFALL DE	SCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	🗌 RCP 🗌 CMP	Circula	r 🗌 Single	Diameter: in	🔲 In Water	
		Elliptica	al 🗌 Double		With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel	Concrete	🛛 Trapez	zoid Depth: <u>12</u> in			
	Earthen	Parabo	blic	Top Width: 20 feet in		
	🛛 Rip-Rap	Other	Bottom Width: 15 feet		<u>et</u>	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	٩		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.						
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🔲 I	No				
Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.							
Inspector Comments:							
RESPONSIBLE OFFICIAL CERTIFICATION							
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
Curt Wilbern			- Uni I				
Responsible Official Nan	Responsible Official Name Signature						
717-982-2744			8/29/2022				
Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-046		
Land Uses in Outfall	Land Uses in Outfall Drainage Area (Select All):			<u>40.6590747</u> °	, ,, ,,	
Industrial	Urban Resident	ial	Longitude:	<u>-75.3223672</u> °	3 39	
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	No No	
	OU	TFALL DE	ESCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	🗌 RCP 🗌 CMP	Circula	r 🗌 Single	Diameter: in	🔲 In Water	
		Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel		🗌 Trapez	oid	d Depth: in		
	Earthen	Parabo	olic Top Width: in			
	🔲 Rip-Rap	Other	Bottom Width:		-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	۹		
DRY WEATHER FLOW EVALUATION						
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.						
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
Is there an observed change in the receiving waters as a result of the discharge?						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters al	bove that were a	analyzed by a DE	P-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No				
If Yes, describe efforts made to determine the source(s) of the illicit discharge.							
Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.							
Inspector Comments:							
Outfall has no defined shape							
RESPONSIBLE OFFICIAL CERTIFICATION							
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
Curt Wilbern			Lut	hill			
Responsible Official Nam	ne		Signature				
717-982-2744			8/29/2022				
Telephone No.			Date				



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>l132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-086		
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6816397</u> °	3 33	
Industrial	🗌 Urban Residenti	ial	Longitude:	<u>-75.3410042</u> °	3 33	
Commercial	🗌 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
🛛 Open Space	Other: Railroad	tracks	Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	is Attached? 🛛 Yes	No No	
	OU	TFALL DI	SCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	RCP CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water	
		Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel		Trapezoid		Depth: in		
	Earthen	Parabo	blic Top Width: in			
	🗌 Rip-Rap	🛛 Other		Bottom Width:		
	Other					
Dry Weather Flow Present at Outfall During Inspection?  Yes X No (If No, skip to Certification Section)						
Description of Flow Rate:  Trickle  Moderate  Significant  N/A						
DRY WEATHER FLOW EVALUATION						
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.						
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.						
	Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits?  Yes No If Yes, provide a description below.					

FIELD / LABORATORY ANALYSIS           PARAMETER         RESULTS         UNITS         PARAMETER         RESULTS         UNITS           Flow Rate         GPM         Fecal Coliform         No./100 nr           pH         S.U.         COD         mg/L           Total Residual Chlorine         mg/L         BOD5         mg/L           Conductivity         µmhos/cm         TSS         mg/L           Ammonia-Nitrogen         mg/L         TDS         mg/L           Other:         Oil and Grease         mg/L         Other:           Indicate the parameters above that were analyzed by a DEP-certified laboratory:         Indicate the parameters above that were analyzed by a DEP-certified laboratory:           Indicate the grameters above that were analyzed by a DEP-certified laboratory:         Indicate the grameters above that were analyzed by a DEP-certified laboratory:           Indicate the grameters above that were analyzed by a DEP-certified laboratory:         Indicate the grameters above that were analyzed by a DEP-certified laboratory:           Describe efforts made to determine the source(s) of the illicit discharge.         Inspector Comments:           Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relive even an outfall.           RESPONSIBLE OFFICIAL CERTIFICATION         I certify under penalty of law that this document and all attachments were prepared under my direction	Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
Flow Rate       GPM       Fecal Coliform       No./100 m         pH       S.U.       COD       mg/L         Total Residual Chlorine (TRC)       mg/L       BOD5       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:        Oil and Grease       mg/L         Other:        Other:          Indicate the parameters above that were analyzed by a DEP-certified laboratory:	FIELD / LABORATORY ANALYSIS							
pH       S.U.       COD       mg/L         Total Residual Chlorine (TRC)       mg/L       BOD5       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:	PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Total Residual Chlorine (TRC)       mg/L       BOD5       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:	Flow Rate		GPM	Fecal Coliform		No./100 mL		
(TRC)       Img/L       BODs       Img/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:	рН		S.U.	COD		mg/L		
Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:			mg/L	BOD5		mg/L		
Other:	Conductivity		µmhos/cm	TSS		mg/L		
Other:       Other:       Other:       Indicate the parameters above that were analyzed by a DEP-certified laboratory:         Indicate the parameters above that were analyzed by a DEP-certified laboratory:         ILLICIT DISCHARGES         Is the dry weather flow an illicit discharge? Yes No         If Yes No         If Yes, describe efforts made to determine the source(s) of the illicit discharge.         Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.         Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.         Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall.         RESPONSIBLE OFFICIAL CERTIFICATION         I certify under penalty of law that this document and all attachments were prepared under my direction or supervisid accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informa submitted. Based on my inquiry of the person or persons who manage the system or those persons directly respons for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalities for submitting false information, including the possibility of	Ammonia-Nitrogen		mg/L	TDS		mg/L		
Indicate the parameters above that were analyzed by a DEP-certified laboratory:  ILLICIT DISCHARGES Is the dry weather flow an illicit discharge? Yes No If Yes, describe efforts made to determine the source(s) of the illicit discharge.  Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.  Inspector Comments:  Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall.  RESPONSIBLE OFFICIAL CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervisio accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	Other:			Oil and Grease		mg/L		
ILLICIT DISCHARGES         Is the dry weather flow an illicit discharge?       Yes       No         If Yes, describe efforts made to determine the source(s) of the illicit discharge.       If Yes, describe efforts made to determine the source(s) of the illicit discharge.         Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.         Inspector Comments:         Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall.         I certify under penalty of law that this document and all attachments were prepared under my direction or supervisid accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informat submitted. Based on my inquiry of the person or persons who manage the system or those persons directly respons for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	Other:			Other:				
Is the dry weather flow an illicit discharge? Yes No If Yes, describe efforts made to determine the source(s) of the illicit discharge. Describe corrective actions taken by the permittee in response to the finding of an illicit discharge. Inspector Comments: Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall. <b>RESPONSIBLE OFFICIAL CERTIFICATION</b> I certify under penalty of law that this document and all attachments were prepared under my direction or supervisio accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informas submitted. Based on my inquiry of the person or persons who manage the system or those persons directly response for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	Indicate the parameters abo	ove that were a	analyzed by a DE	P-certified laboratory:				
If Yes, describe efforts made to determine the source(s) of the illicit discharge. Describe corrective actions taken by the permittee in response to the finding of an illicit discharge. Inspector Comments: Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall.  RESPONSIBLE OFFICIAL CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervisid accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informa submitted. Based on my inquiry of the person or persons who manage the system or those persons directly respons for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of			ILLICIT D	ISCHARGES				
Describe corrective actions taken by the permittee in response to the finding of an illicit discharge. Inspector Comments: Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall.  I certify under penalty of law that this document and all attachments were prepared under my direction or supervisid accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informa submitted. Based on my inquiry of the person or persons who manage the system or those persons directly respons for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	Is the dry weather flow an il	llicit discharge	? 🗌 Yes 🗌 N	No				
Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall. RESPONSIBLE OFFICIAL CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervision accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informat submitted. Based on my inquiry of the person or persons who manage the system or those persons directly response for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of								
<b>RESPONSIBLE OFFICIAL CERTIFICATION</b> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informat submitted. Based on my inquiry of the person or persons who manage the system or those persons directly response for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	Inspector Comments:							
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informat submitted. Based on my inquiry of the person or persons who manage the system or those persons directly response for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	Outfall is just concentrated sheet flow from railroad and wooded hillside. Not relly even an outfall.							
accordance with a system designed to assure that qualified personnel properly gathered and evaluated the informat submitted. Based on my inquiry of the person or persons who manage the system or those persons directly respons for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, complete. I am aware that there are significant penalties for submitting false information, including the possibility of	RESPONSIBLE OFFICIAL CERTIFICATION							
Curt Wilbern	Curt Wilbern			~~~ C	wh	J		
Responsible Official Name Signature	Responsible Official Name	Э		Signature				
717-982-2744 8/29/2022								
Telephone No.     Date	Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-087		
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.681489° -' -"</u>		
Industrial	Urban Resident	ial	Longitude:	<u>-75.341091° -'</u>	33	
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No	
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	No No	
	OU	TFALL DE	ESCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
🛛 Closed Pipe	CMP CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water	
		Elliptica	al 🗌 Double		U With Sediment	
	🗌 Steel 🛛 Other	🛛 Вох	Triple			
		Other	Other			
Open Channel	Concrete	🗌 Trapez	oid	Depth: in		
	Earthen	Parabo	Dlic Top Width: in			
	🗌 Rip-Rap	Other		Bottom Width:	-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
	Is there an observed change in the receiving waters as a result of the discharge?					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	' 🗌 Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma Describe corrective action			the illicit discharge.	discharge.				
Inspector Comments: Outfall is from a 12"x12"	arato on a bri	dao						
	grate on a bri	uge						
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern Responsible Official Nam	20		Signature	-	<u> </u>			
717-982-2744			8/29/2022					
Telephone No.			 Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-088		
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.681454° -</u> -		
Industrial	Urban Resident	ial	Longitude:	<u>-75.3409402</u> ° <u>-</u>	-	
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No	
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🗌 Yes	🖾 No	
			Are Photograph	s Attached?	🛛 No	
	OU	TFALL DE	SCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	🗌 RCP 🗌 CMP	Circula	r 🗌 Single	Diameter: in	In Water	
		Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel	Concrete	🗌 Trapez	zoid Depth: in			
	Earthen	Parabo	Dlic Top Width: in			
	🔲 Rip-Rap	Other		Bottom Width:	-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
Is there an observed change in the receiving waters as a result of the discharge?						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma	ade to determine	e the source(s) of	the illicit discharge.					
Describe corrective action	is taken by the p	permittee in respo	onse to the finding of an illic	it discharge.				
Inspector Comments:								
	RESF	ONSIBLE OF	FICIAL CERTIFICATI	ON				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Cart C	lill				
Responsible Official Nan	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER



Pennsylvania Department of environmental PROTECTION

BACKGROUND INFORMATION								
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>				
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-089				
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6816397</u> °	3 35			
Industrial	🗌 Urban Residenti	ial	Longitude:	<u>-75.3410042</u> °	3 35			
Commercial	🗌 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No			
🛛 Open Space	Other: Park par	king lot	Date of Previou	s Precipitation: 6	/16/22			
			Amount of Prev	ious Precipitation: 1	. <b>22</b> in			
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No			
			Are Photograph	s Attached? 🛛 Yes	🗌 No			
	OU	TFALL DE	ESCRIPTION					
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED			
Closed Pipe	🗌 RCP 🗌 CMP	Circula	ır 🗌 Single	Diameter: in	In Water			
		Elliptica	al 🗌 Double		With Sediment			
	Steel Other	🗌 Вох	🗌 Triple					
		Other	Other					
🛛 Open Channel	Concrete	Trapez	zoid Depth: <u>12</u> in					
	Earthen	Parabo	olic Top Width: <u>36</u> in					
	🔲 Rip-Rap	Other		Bottom Width: 12in				
	Other							
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)			
Description of Flow R	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	٩				
	DRY WE	ATHER FL	OW EVALUA	TION				
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.				
Does the dry weather	Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?								
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	Yes 🗌 No			

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow ar	n illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma			onse to the finding of an illicit	discharge.				
Inspector Comments:								
	RESF	PONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			ant h	/illen				
Responsible Official Nar	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION							
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No .:	MSO-090			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6801248</u> °	3 33		
Industrial	Urban Resident	ial	Longitude:	<u>-75.3419713</u> °	3 33		
Commercial	Suburban Resid	dential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No		
Open Space	Other: Roads		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	🗌 No		
	OL	ITFALL DI	ESCRIPTION				
ТҮРЕ	MATERIAL	S	SHAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	🗌 RCP 🗌 CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water		
	PVC HDPE	Elliptic	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🛛 Open Channel	Concrete	Trapez	coid Depth: <u>12</u> in				
	Earthen	Parabo	Dlic Top Width: <u>24</u> in				
	🛛 Rip-Rap	Other	Bottom Width: 12"				
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	pection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	٩			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather	flow contain color?	′es 🗌 No	If Yes, provide a	description below.			
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?  Yes  No If Yes, provide a description below.							
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	' 🗌 Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters a	bove that were	analyzed by a DE	EP-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an If Yes, describe efforts ma Describe corrective action Inspector Comments:	ade to determine	e the source(s) of	f the illicit discharge.				
			FICIAL CERTIFICATI		· · · ·		
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
Curt Wilbern			mt h	).			
Responsible Official Nan	ne		Signature				
717-982-2744			8/29/2022				
Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-091			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.678033</u> °	, <u>,</u> ,,		
Industrial	Urban Resident	ial	Longitude:	<u>75.3428923</u> °	3 39		
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No		
Open Space	Other: Roads		Date of Previous	s Precipitation: 6/	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	🗌 No		
	OU	TFALL DE	SCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	RCP CMP	Circula	ır 🛛 Single	Diameter: <u>30</u> in	In Water		
		Elliptic	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🗌 Open Channel		🗌 Trapez	coid Depth: in				
	Earthen	Parabo	olic Top Width: in				
	🗌 Rip-Rap	Other	Bottom Width:		-		
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	pection?	Yes 🛛 No (If	No, skip to Certificatio	on Section)		
Description of Flow R	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N/A	Ą			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.			
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed o If Yes, provide a desc	change in the receiving wa ription below.	ters as a res	ult of the discharg	ge? 🗌 Yes 🗌 No			
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma			onse to the finding of an illicit	discharge.				
Inspector Comments:								
Last section of RCP fell	off							
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Cent a	Libbe				
Responsible Official Nam	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



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Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER

BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>l132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-092		
Land Uses in Outfall E	Drainage Area (Select All):		Latitude:	<u>40.6774302</u> °	3 33	
Industrial	Urban Resident	ial	Longitude:	<u>-75.3436619</u> °	3 33	
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	No No	
	OU	TFALL DI	ESCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	🗌 RCP 🛛 CMP	🛛 Circula	ır 🗌 Single	Diameter: <u>24</u> in	🔲 In Water	
		Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	🗌 Triple			
		Other	Other			
Open Channel	Concrete	🛛 Trapez	oid	Depth: in		
	Earthen	Parabo	olic Top Width: in			
	🛛 Rip-Rap	Other	Bottom Width:		-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.						
Is there an observed change in the receiving waters as a result of the discharge?						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, she	en or substances	that result in deposits?	P 🗌 Yes 🗌 No	

	Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS			
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters ab	ove that were a	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an i If Yes, describe efforts mad Describe corrective actions Inspector Comments: Outfall is behind a wall at	taken by the p	e the source(s) of	the illicit discharge.					
			FICIAL CERTIFICATIC					
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Responsible Official Name 717-982-2744	~		Signature 8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION							
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-093			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6767629</u> °	, ,, ,,		
Industrial	Urban Residenti	ial	Longitude:	- <u>75.344366</u> °	3 33		
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No		
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	No No		
	OU	TFALL DE	SCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	□ RCP □ CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water		
		Elliptica	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🛛 Open Channel	Concrete	🛛 Trapez	oid	Depth: <u><b>50</b></u> in			
	Earthen	Parabo	blic Top Width: <u><b>30 feet</b></u> in				
	🛛 Rip-Rap	Other	Bottom Width: <u>20 feet</u>				
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (l	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.							
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?							
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)									
FIELD / LABORATORY ANALYSIS									
PARAMETER	RESULTS	UNITS	PARAMETER	PARAMETER RESULTS UNITS					
Flow Rate		GPM	Fecal Coliform		No./100 mL				
рН		S.U.	COD		mg/L				
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L				
Conductivity		µmhos/cm	TSS		mg/L				
Ammonia-Nitrogen		mg/L	TDS		mg/L				
Other:			Oil and Grease		mg/L				
Other:			Other:						
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:						
		ILLICIT D	ISCHARGES						
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No						
If Yes, describe efforts ma			the illicit discharge.	discharge.					
Inspector Comments:									
Outfall is a wide open ch	annel beside t	he carwash							
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N					
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).									
Curt Wilbern				- uhr					
Responsible Official Nam	16		Signature						
717-982-2744			8/29/2022						
Telephone No.			Date						



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION							
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-094			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6740592</u> °	3 33		
Industrial	🗌 Urban Residenti	ial	Longitude:	- <u>75.3612865</u> °	, ,, ,,		
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? Xes	🗌 No		
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	is Attached? 🛛 Yes	No No		
	OU	TFALL DE	SCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	□ RCP □ CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water		
		Elliptica	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🛛 Open Channel		🗌 Trapez	oid	Depth: <u>12</u> in			
	Earthen	🛛 Parabo	Dlic Top Width: <u>24</u> in				
	🛛 Rip-Rap	Other	Bottom Width: <u>12"</u>				
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (l	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.							
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?							
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)									
FIELD / LABORATORY ANALYSIS									
PARAMETER	RESULTS	UNITS	PARAMETER	PARAMETER RESULTS UNITS					
Flow Rate		GPM	Fecal Coliform		No./100 mL				
рН		S.U.	COD		mg/L				
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L				
Conductivity		µmhos/cm	TSS		mg/L				
Ammonia-Nitrogen		mg/L	TDS		mg/L				
Other:			Oil and Grease		mg/L				
Other:			Other:						
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:						
		ILLICIT D	ISCHARGES						
Is the dry weather flow ar	n illicit discharge	? 🗌 Yes 🗌 I	No						
If Yes, describe efforts ma			onse to the finding of an illici	t discharge.					
Inspector Comments:									
	RESF	PONSIBLE OF	FICIAL CERTIFICATIO	N					
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).									
Curt Wilbern			met a	Unt					
Responsible Official Nar	ne		Signature						
717-982-2744			8/29/2022						
Telephone No.			Date						



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION							
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-095			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.67649062</u> °_	3 33		
Industrial	Urban Resident	ial	Longitude:	<u>-75.3538283</u> °	3 33		
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No		
🛛 Open Space	🛛 Other: Warehou	ises	Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	No		
	OU	TFALL DE	ESCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	🗌 RCP 🗌 CMP	Circula	ir 🗌 Single	Diameter: in	🔲 In Water		
		Elliptica	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🛛 Open Channel	Concrete	🛛 Trapez	zoid Depth: in				
	Earthen	Parabo	Dlic Top Width: in				
	🗌 Rip-Rap	Other	Bottom Width:				
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow R	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.							
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.							
	Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? See No If Yes, provide a description below.						

Were sample(s) collected of the dry weather flow? 🗌 Yes 🗌 No (If Yes, No. Samples:)							
FIELD / LABORATORY ANALYSIS							
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Flow Rate		GPM	Fecal Coliform		No./100 mL		
рН		S.U.	COD		mg/L		
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L		
Conductivity		µmhos/cm	TSS		mg/L		
Ammonia-Nitrogen		mg/L	TDS		mg/L		
Other:			Oil and Grease		mg/L		
Other:			Other:				
Indicate the parameters at	pove that were a	analyzed by a DE	P-certified laboratory:				
		ILLICIT D	ISCHARGES				
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 N	No				
If Yes, describe efforts ma			the illicit discharge.	discharge			
				aloonargo.			
Inspector Comments:							
Outfall is not accessable flow chanel leading to it			warehouse. There was no parking lot).	flow observed in	ו the concrete		
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
Curt Wilbern			Cut C	rel	<u> </u>		
Responsible Official Nam	ie		Signature				
717-982-2744			8/29/2022				
Telephone No.			Date				



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION							
Permittee Name:	Bethlehem Township		NPDES Permit No.: PAI132214				
Date of Inspection:	6/20/2022		Outfall ID No .:	MSO-096			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6762202</u> °	3 33		
Industrial	Urban Resident	ial	Longitude:	<u>-75.3489006</u> °	3 39		
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No		
🛛 Open Space	🛛 Other: Rail Roa	d tracks	Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	No No		
	OU	TFALL DI	ESCRIPTION				
ТҮРЕ	MATERIAL	S	НАРЕ	DIMENSIONS	SUBMERGED		
Closed Pipe	RCP CMP	Circula	r 🗌 Single	Diameter: in	🔲 In Water		
		Elliptic	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Вох	🗌 Triple				
		Other	Other				
🛛 Open Channel	Concrete     Trapezoid     Depth:in						
	Earthen	Parabo	olic Top Width: in				
	🗌 Rip-Rap	⊠ Other		Bottom Width:	-		
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	4			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.							
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.							
Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits?  Yes No If Yes, provide a description below.							

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER RESULTS UNITS					
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma			onse to the finding of an illicit	discharge.				
Inspector Comments:								
Outfall has no defined s	hape							
	RESF	PONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Cut)	lile	$\sim$			
Responsible Official Nan	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

BACKGROUND INFORMATION								
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>				
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-097				
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.6769842</u> °	3 33			
Industrial	Urban Resident	ial	Longitude:	<u>-75.3494124</u> °	3 33			
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No			
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22			
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in			
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No			
			Are Photograph	s Attached? 🛛 Yes	No			
	OU	TFALL DE	ESCRIPTION					
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED			
Closed Pipe	🗌 RCP 🗌 CMP	Circula	ir 🗌 Single	Diameter: in	🔲 In Water			
		Elliptica	al 🗌 Double		U With Sediment			
	Steel Other	🗌 Box	Triple					
		Other	Other					
🛛 Open Channel	Concrete	Trapez	zoid Depth: in					
	Earthen	Parabo	Dlic Top Width: in					
	🛛 Rip-Rap	Other	Bottom Width:					
	Other							
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)			
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	Ą				
	DRY WE	ATHER FL	OW EVALUA	TION				
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.								
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.								
Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.								
		Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits?  Yes No If Yes, provide a description below.						

accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Curt Wilbern         Responsible Official Name       Signature         717-982-2744       8/29/2022	Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)							
Flow Rate       GPM       Fecal Coliform       No./100 mL         pH       S.U.       COD       mg/L         Total Residual Chlorine (TRC)       mg/L       BOD5       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:        Oil and Grease       mg/L         Other:        Other:          Indicate the parameters above that were analyzed by a DEP-certified laboratory:       mg/L       mg/L         ILLICIT DISCHARGES         Is the dry weather flow an illicit discharge?       Yes       No         If Yes, describe efforts made to determine the source(s) of the illicit discharge.       Inspector Comments:         Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.         Inspector Comments:       Cutfall has no defined shape       Signature         Signature         Indering the information, the information submitted is, to the best of my knowledge and besibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Cutf Wilbern       Signature       Signature         Responsible Official Name       Signature <tr< td=""><td colspan="8">FIELD / LABORATORY ANALYSIS</td></tr<>	FIELD / LABORATORY ANALYSIS							
pH       S.U.       COD       mg/L         Total Residual Chlorine (TRC)       mg/L       BOD5       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:	PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS		
Total Residual Chlorine (TRC)       mg/L       BOD5       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:	Flow Rate		GPM	Fecal Coliform		No./100 mL		
(TRC)       mg/L       BODS       mg/L         Conductivity       µmhos/cm       TSS       mg/L         Ammonia-Nitrogen       mg/L       DI       mg/L         Other:	рН		S.U.	COD		mg/L		
Ammonia-Nitrogen       mg/L       TDS       mg/L         Other:			mg/L	BOD5		mg/L		
Other:	Conductivity		µmhos/cm	TSS		mg/L		
Other:	Ammonia-Nitrogen		mg/L	TDS		mg/L		
Indicate the parameters above that were analyzed by a DEP-certified laboratory:  ILLICIT DISCHARGES  Is the dry weather flow an illicit discharge? Yes No If Yes, describe efforts made to determine the source(s) of the illicit discharge.  Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.  Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.  Inspector Comments:  Outfall has no defined shape  RESPONSIBLE OFFICIAL CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person veho manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).  Curt Wilbern Responsible Official Name 717-982-2744 8/29/2022	Other:			Oil and Grease		mg/L		
ILLICIT DISCHARGES         Is the dry weather flow an illicit discharge?       Yes       No         If Yes, describe efforts made to determine the source(s) of the illicit discharge.       If Yes, describe efforts made to determine the source(s) of the illicit discharge.         Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.       Inspector Comments:         Outfall has no defined shape       RESPONSIBLE OFFICIAL CERTIFICATION         I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Signature         Responsible Official Name       Signature         717-982-2744       8/29/2022	Other:			Other:				
Is the dry weather flow an illicit discharge? Yes No If Yes, describe efforts made to determine the source(s) of the illicit discharge. Describe corrective actions taken by the permittee in response to the finding of an illicit discharge. Describe corrective actions taken by the permittee in response to the finding of an illicit discharge. Inspector Comments: Outfall has no defined shape  RESPONSIBLE OFFICIAL CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are as significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification). Curt Wilbern Responsible Official Name 717-982-2744 8/29/2022	Indicate the parameters al	bove that were a	analyzed by a DE	P-certified laboratory:				
If Yes, describe efforts made to determine the source(s) of the illicit discharge.          Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.         Inspector Comments:         Outfall has no defined shape         I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Signature         Responsible Official Name       Signature         717-982-2744       8/29/2022			ILLICIT D	ISCHARGES				
Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.         Inspector Comments:         Outfall has no defined shape         I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Curt Wilbern         Responsible Official Name       Signature         717-982-2744       8/29/2022	Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No				
Outfall has no defined shape         RESPONSIBLE OFFICIAL CERTIFICATION         I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Curt Wilbern         Responsible Official Name       Signature         717-982-2744       8/29/2022	Describe corrective action	s taken by the p	permittee in respo	onse to the finding of an illicit	discharge.			
RESPONSIBLE OFFICIAL CERTIFICATION         I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Curt Wilbern         Responsible Official Name       Signature         717-982-2744       8/29/2022	Inspector Comments:							
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Curt Wilbern         Responsible Official Name       Signature         717-982-2744       8/29/2022	Outfall has no defined s	hape						
accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).         Curt Wilbern       Curt Wilbern         Responsible Official Name       Signature         717-982-2744       8/29/2022		RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N	·		
Responsible Official NameSignature717-982-27448/29/2022	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).							
717-982-2744 8/29/2022	Curt Wilbern			Cint a	vill			
	Responsible Official Nam	ne		Signature				
Talanhana Na Data	717-982-2744			8/29/2022				
	Telephone No.			Date				



### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-098			
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.67687102°</u>	, ,, ,,		
Industrial	Urban Resident	ial	Longitude:	- <u>75.3498034</u> °	3 33		
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No		
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	No No		
	OU	TFALL DE	SCRIPTION				
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED		
Closed Pipe	RCP CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water		
		Elliptica	al 🗌 Double		U With Sediment		
	Steel Other	🗌 Box	Triple				
		Other	Other				
🛛 Open Channel		🗌 Trapez	oid	Depth: in			
	Earthen	Parabo	Dlic Top Width: in				
	🛛 Rip-Rap	Other	Bottom Width:				
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	4			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather flow contain color?  Yes No If Yes, provide a description below.							
Does the dry weather flow contain an odor?  Yes No If Yes, provide a description below.							
Is there an observed change in the receiving waters as a result of the discharge?							
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
FIELD / LABORATORY ANALYSIS								
PARAMETER	RESULTS	UNITS	PARAMETER RESULTS UNITS					
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters at	pove that were	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma			_					
Describe corrective action	s taken by the p	permittee in respo	onse to the finding of an illicit	discharge.				
Inspector Comments:								
Outfall has no defined sl	nape							
	RESF	PONSIBLE OF	FICIAL CERTIFICATIO	N				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			ant h	Jill				
Responsible Official Nam	ie		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACK	GROUND	INFORMATIC	N		
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-099		
Land Uses in Outfall	Drainage Area (Select All):		Latitude: <u>40.6785860</u> ° <u>-'</u> <u>-</u> "			
Industrial	Urban Resident	ial	Longitude:	<u>-75.343077° -'</u> -	33	
Commercial	Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
🛛 Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	No No	
	OU	TFALL DE	SCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	RCP CMP	Circula	ır 🗌 Single	Diameter: in	🔲 In Water	
		Elliptica	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel		🛛 Trapez	oid	Depth: in		
	Earthen	Parabo	olic	Top Width: in		
	🛛 Rip-Rap	Other		Bottom Width:	-	
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	٩		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather	flow contain an odor?	Yes 🗌 N	lo If Yes, provide	e a description below.		
Is there an observed o If Yes, provide a desc	change in the receiving wa ription below.	ters as a res	ult of the discharg	ge? 🗌 Yes 🗌 No		
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	? 🗌 Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)						
	FII	ELD / LABOR	ATORY ANALYSIS			
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS	
Flow Rate		GPM	Fecal Coliform		No./100 mL	
рН		S.U.	COD		mg/L	
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L	
Conductivity		µmhos/cm	TSS		mg/L	
Ammonia-Nitrogen		mg/L	TDS		mg/L	
Other:			Oil and Grease		mg/L	
Other:			Other:			
Indicate the parameters at	pove that were	analyzed by a DE	P-certified laboratory:			
		ILLICIT D	ISCHARGES			
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 N	No			
If Yes, describe efforts ma Describe corrective action			the illicit discharge.	discharge.		
Inspector Comments: Its 5 feet away from outfa	all MSO-087 (s	trom drain on br	idge) . Its not exactly an O	utfall		
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N		
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).						
Curt Wilbern			Lint l	lille	$\sim$	
Responsible Official Nam	ie		Signature			
717-982-2744			8/29/2022			
Telephone No.			Date			



# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACK	GROUND	INFORMATIC	N		
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-100		
Land Uses in Outfall	Drainage Area (Select All):		Latitude: <u>40.6845678</u> °"			
Industrial	🗌 Urban Residenti	al	Longitude:	<u>−75.340058</u> °	, <u>,</u>	
Commercial	🛛 Suburban Resid	ential	Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No	
🛛 Open Space	pen Space 🗌 Other:		Date of Previou	s Precipitation: 6	/16/22	
		Amount of Previous Precipitation: <b>1.22</b> in				
Inspector Name(s): Curt Wilbern			Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	🗌 No	
	OU	TFALL DE	SCRIPTION			
ТҮРЕ	MATERIAL	S	HAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	🗌 RCP 🗌 CMP	Circula	r 🗌 Single	Diameter: in	In Water	
		Elliptica	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel	Concrete	🗌 Trapez	oid	Depth: in		
	🛛 Earthen	Parabo	olic	Top Width: in		
	🗌 Rip-Rap	Other		Bottom Width:		
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (If	No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 Si	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUA	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather	flow contain an odor?	Yes 🗌 N	o If Yes, provide	e a description below.		
	Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)						
	FI	ELD / LABOR	ATORY ANALYSIS			
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS	
Flow Rate		GPM	Fecal Coliform		No./100 mL	
рН		S.U.	COD		mg/L	
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L	
Conductivity		µmhos/cm	TSS		mg/L	
Ammonia-Nitrogen		mg/L	TDS		mg/L	
Other:			Oil and Grease		mg/L	
Other:			Other:			
Indicate the parameters al	bove that were	analyzed by a DE	P-certified laboratory:			
		ILLICIT D	ISCHARGES			
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 N	No			
If Yes, describe efforts ma			the illicit discharge.	discharge.		
Inspector Comments:						
Outfall is an area where	flow from upst	ream culvert pip	be flows thru the woods to	the creek		
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N		
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).						
Curt Wilbern			Cut /	Vill	~	
Responsible Official Nam	16		Signature			
717-982-2744			8/29/2022			
Telephone No.			Date			



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION					
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PAI132214		
Date of Inspection:	6/20/2022		Outfall ID No.:	MSO-101		
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.66887875</u> °_	3 33	
Industrial	🗌 Urban Residenti	ial	Longitude:	<u>-75.348705</u> °	3 33	
Commercial	🛛 Suburban Resid	lential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No	
🛛 Open Space	Other:		Date of Previous	s Precipitation: 6/	/16/22	
			Amount of Prev	ious Precipitation: 1	.22 in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	🗌 No	
	OU	TFALL DE	SCRIPTION			
TYPE	MATERIAL	S	SHAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	□ RCP □ CMP	Circula	ır 🗌 Single	Diameter: in	In Water	
	PVC HDPE	Elliptic	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Box	Triple			
		Other	Other			
🛛 Open Channel		Trapez	coid	Depth: <u>24</u> in		
	Earthen	🛛 Parabo	lic Top Width: <u>48</u> in			
	🛛 Rip-Rap	Other		Bottom Width: <u>12</u>		
	Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (If	No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N/A	Ą		
	DRY WEA	ATHER FL	OW EVALUAT	ION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather	flow contain an odor?	Yes 🗌 N	lo If Yes, provide	a description below.		
	Is there an observed change in the receiving waters as a result of the discharge?					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	' 🗌 Yes 🗌 No	

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)						
	FIE	ELD / LABOR	ATORY ANALYSIS			
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS	
Flow Rate		GPM	Fecal Coliform		No./100 mL	
рН		S.U.	COD		mg/L	
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L	
Conductivity		µmhos/cm	TSS		mg/L	
Ammonia-Nitrogen		mg/L	TDS		mg/L	
Other:			Oil and Grease		mg/L	
Other:			Other:			
Indicate the parameters at	pove that were a	analyzed by a DE	P-certified laboratory:			
		ILLICIT D	ISCHARGES			
Is the dry weather flow an	illicit discharge'	? 🗌 Yes 🗌 N	No			
If Yes, describe efforts ma			the illicit discharge.	discharge.		
Inspector Comments: Outfall is a rip rap chann	ol					
Outrain is a rip rap chann	ei					
	RESP	ONSIBLE OF	FICIAL CERTIFICATIO	N	·	
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).						
Curt Wilbern			Cert L	Vill		
Responsible Official Nam	e		Signature			
717-982-2744			8/29/2022			
Telephone No.			Date			



#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF CLEAN WATER



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION					
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PAI132214		
Date of Inspection:	6/20/2022		Outfall ID No .:	MSO-127		
Land Uses in Outfall	Drainage Area (Select All):		Latitude:	<u>40.670714</u> °	3 33	
Industrial	🗌 Urban Residenti	al	Longitude:	<u>-75.333700</u> °	3 33	
Commercial	🛛 Suburban Resid	ential	Dry Weather Ins	spection? 🛛 🖂 Yes	🗌 No	
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22	
			Amount of Prev	ious Precipitation: 1	.22 in	
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No	
			Are Photograph	s Attached? 🛛 Yes	🗌 No	
	OU	TFALL DE	SCRIPTION			
TYPE	MATERIAL	S	SHAPE	DIMENSIONS	SUBMERGED	
Closed Pipe	RCP CMP	Circula	ar 🗌 Single	Diameter: in	In Water	
		Elliptica	al 🗌 Double		U With Sediment	
	Steel Other	🗌 Вох	🗌 Triple			
		Other	Other			
Open Channel	Concrete	🛛 Trapez	zoid	Depth: in		
	Earthen	Parabo	olic	Top Width: in		
	🗌 Rip-Rap	Other		Bottom Width:		
	⊠ Other					
Dry Weather Flow Pre	esent at Outfall During Insp	ection?	Yes 🛛 No (If	No, skip to Certificatio	on Section)	
Description of Flow Ra	ate: 🗌 Trickle 🗌 Mode	erate 🗌 S	ignificant 🗌 N//	4		
	DRY WE	ATHER FL	OW EVALUAT	TION		
Does the dry weather	flow contain color?	es 🗌 No	If Yes, provide a	description below.		
Does the dry weather	flow contain an odor?	Yes 🗌 N	lo If Yes, provide	e a description below.		
	Is there an observed change in the receiving waters as a result of the discharge?  Yes No If Yes, provide a description below.					
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	, scum, shee	en or substances	that result in deposits?	' 🗌 Yes 🗌 No	

Nere sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)								
	FII	ELD / LABOR	ATORY ANALYSIS					
PARAMETER	RESULTS	UNITS	PARAMETER	METER RESULTS UNITS				
Flow Rate		GPM	Fecal Coliform		No./100 mL			
рН		S.U.	COD		mg/L			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L			
Conductivity		µmhos/cm	TSS		mg/L			
Ammonia-Nitrogen		mg/L	TDS		mg/L			
Other:			Oil and Grease		mg/L			
Other:			Other:					
Indicate the parameters a	bove that were a	analyzed by a DE	P-certified laboratory:					
		ILLICIT D	ISCHARGES					
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No					
If Yes, describe efforts ma Describe corrective action			the illicit discharge.	it discharge.				
Inspector Comments:								
Outfall is concentrated f	low from a dea	d end street tha	t discharges to a field. No	o pipe or channel				
	RESF	ONSIBLE OF	FICIAL CERTIFICATI	ON				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).								
Curt Wilbern			Lent U	N				
Responsible Official Nam	ne		Signature					
717-982-2744			8/29/2022					
Telephone No.			Date					



# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF CLEAN WATER**



Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

	BACKGROUND INFORMATION						
Permittee Name:	Bethlehem Township		NPDES Permit	No.: PA <b>I132214</b>			
Date of Inspection:	6/20/2022		Outfall ID No.: OBS MC-MH-106				
Land Uses in Outfall	Drainage Area (Select All):		Latitude: <u>40.671714</u> °"				
Industrial	Urban Resident	ial	Longitude:	<u>-75.36623</u> °	3 33		
Commercial	Suburban Residential		Dry Weather Ins	spection? 🛛 🛛 Yes	🗌 No		
Open Space	Other:		Date of Previou	s Precipitation: 6	/16/22		
			Amount of Prev	ious Precipitation: 1	<b>.22</b> in		
Inspector Name(s): C	urt Wilbern		Were Photograp	ohs Taken? 🛛 Yes	🗌 No		
			Are Photograph	s Attached? 🛛 Yes	🗌 No		
	OUTFALL DESCRIPTION						
ТҮРЕ	MATERIAL	S	НАРЕ	DIMENSIONS	SUBMERGED		
Closed Pipe	RCP CMP	Circula	ır 🗌 Single	Diameter: in	In Water		
		Elliptic	al 🗌 Double		U With Sediment		
	🗌 Steel 🛛 Other	🗌 Box	Triple				
		Other	Other				
Open Channel		🗌 Trapez	coid	Depth: in			
	Earthen	Parabo	lic Top Width: in				
	🗌 Rip-Rap	Other		Bottom Width:	-		
	Other						
Dry Weather Flow Pre	esent at Outfall During Insp	pection?	Yes 🛛 No (li	f No, skip to Certificatio	on Section)		
Description of Flow R	ate: 🗌 Trickle 🗌 Mod	erate 🗌 S	ignificant 🗌 N//	4			
	DRY WE	ATHER FL	OW EVALUA	TION			
Does the dry weather	flow contain color? 🗌 Y	′es 🗌 No	If Yes, provide a	description below.			
Does the dry weather	flow contain an odor?	Yes 🗌 N	lo If Yes, provide	e a description below.			
	Is there an observed change in the receiving waters as a result of the discharge?  Yes  No If Yes, provide a description below.						
Does the dry weather If Yes, provide a desc	flow contain floating solids ription below.	s, scum, shee	en or substances	that result in deposits?	Yes 🗌 No		

Were sample(s) collected of the dry weather flow?  Yes No. (If Yes, No. Samples:)						
	FII	ELD / LABOR	ATORY ANALYSIS			
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS	
Flow Rate		GPM	Fecal Coliform		No./100 mL	
рН		S.U.	COD		mg/L	
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L	
Conductivity		µmhos/cm	TSS		mg/L	
Ammonia-Nitrogen		mg/L	TDS		mg/L	
Other:			Oil and Grease		mg/L	
Other:			Other:			
Indicate the parameters at	pove that were a	analyzed by a DE	P-certified laboratory:			
		ILLICIT D	ISCHARGES			
Is the dry weather flow an	illicit discharge	? 🗌 Yes 🗌 I	No			
If Yes, describe efforts may			onse to the finding of an illicit	discharge.		
Inspector Comments:						
Could not open manhole boxes	on Twp Line I	Rd. so documen	ted no flow into manhole f	rom the two upst	tream inlet	
	RESF	ONSIBLE OF	FICIAL CERTIFICATIO	N		
accordance with a system submitted. Based on my for gathering the informa complete. I am aware the	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).					
Curt Wilbern			Cut le	lillon	_	
Responsible Official Nam	е		Signature			
717-982-2744			8/29/2022			
Telephone No.			Date			



# APPENDIX D

#### MCM#4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Bethlehem Township is relying on PA's statewide program for stormwater association with construction activities for the requirements of MCM4.

#### <u>BMP 1 – Building Permits for earth disturbing activities requiring an NPDES</u> <u>permit</u>

The Township withholds approval of building permits until documentation of NPDES permit has been provided.

BMP 2 – Notification of DEP or DCCD within 5 days of receipt of application for earth moving activities

Bethlehem notifies the DEP or NCCD within 5 days of receipt of application for earth moving activities.

#### **BMP 3 - E&S Control plan review and Inspections**

The Township has enacted a Stormwater Management Ordinance that requires the implementation and maintenance of E&S control BMPs. A copy of this ordinance was submitted with the previous annual report. The Ordinance is currently under review for compliance with the 2022 model requirements.

### BETHLEHEM TOWNSHIP CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM (MCM#4)

#### Background

Under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, the Township is required to develop, implement and enforce a program to reduce pollutants in any stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre. Projects that are less than one acre but part of a larger common plan of development or sale will also be included in the written stormwater management program. Under the permit, the Township must satisfy specific minimum control measures (MCMs) relating to construction site runoff discharging to the MS4.

#### 1) Stormwater Management Ordinance

The Construction Site Stormwater Runoff Control Program relies mainly on the standalone Stormwater Management Ordinance which the Township adopted in 1991. As stated in the Ordinance, the Township must issue written approval of a Stormwater Management Plan and Report prior to the commencement of any regulated activities. The Plan and Report will be reviewed by the Township and/or the Township Engineer for consistency with the Ordinance prior to the issuance of the approval. The Plan and Report must demonstrate that adequate capacity will be provided to meet the volume and rate control requirements as described in the Ordinance.

The Ordinance includes provisions to protect natural systems and processes and maintain, as much as possible, the natural hydrologic regime. These provisions include drainage easements where watercourses traverse a development site, minimizing disturbance to floodplains, wetlands, natural slopes, existing vegetation and woodlands; creation, maintenance or extension of riparian buffers, and the incorporation of natural site elements (wetlands, stream corridors, mature forests) as design elements.

The Ordinance also requires the applicant to implement appropriate erosion and sediment control Best Management Practices (BMPs) for all regulated earth disturbance activities. These BMPs must meet the requirements of the Ordinance, Title 25 of the Pennsylvania Code, the Clean Streams Law, conform to the State Water Quality Requirements, meet all requirements under the Stormwater Management Act, and meet any more stringent requirements as determined by the Township.

To ensure compliance, the Ordinance includes provisions for inspections, enforcement and, if necessary, penalties for violations. The Pennsylvania Department of Environmental Protection (PADEP) or its designees will normally ensure compliance with any permits issued, including those for stormwater management. In addition, the Township, its municipal assignee, and the County Conservation District have the right to inspect all phases of construction, including the installation of temporary or permanent BMPs. Anyone found to be in non-compliance will be issued a written notification from the Township, via certified mail. Failure to comply within the specified time shall subject the offender to penalties. Per section 515.3 of the Pennsylvania Municipalities Planning Code, penalties may include a fine of not more than \$500, plus court costs, for each violation. Each day that the violation continues shall be a separate offense and penalties are cumulative.

Each Permit Year, Herbert, Rowland & Grubic (HRG) staff reviews the current stormwater management ordinance in order to confirm compliance with the NPDES MS4 Permit. Upon the review and suggested revisions from HRG, the Township will strategize on a revision to the Ordinance that will improve water quality runoff of new development and redevelopment projects as well as continue to maintain predevelopment runoff conditions.

#### 2) Construction Waste

All construction site operators are required to control waste, such as, discarded building materials, concrete truck washout, chemicals, litter and sanitary waste associated with the permitted construction. The construction site operator must dispose of any construction waste in a way that it will not cause adverse impacts to water quality. Proper waste disposal is reviewed during the onsite construction inspections by the Township, Township Engineer, and/or the County Conservation District.

#### 3) Public Involvement and Participation

In association with MCM #2 of the NPDES MS4 Permit, the Township has set up a tracking system to monitor any public information/complaints received which pertain to stormwater management, illicit discharge, construction runoff and concerns about the storm sewer system. The system records the date of the complaint, name and contact of the complainant, location of the suspected illicit discharge, the type of incident, action taken or recommended to resolve the incident, and the name of the municipal employee or representative that followed up on the incident resolution.

# APPENDIX E

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

<u>BMP 1 – Enact, implement and enforce an ordinance or SOP to require postconstruction stormwater management from new development and redevelopment projects, including sanctions for non-compliance.</u>

The Bethlehem Township Stormwater Ordinance requires PCSM BMPs for new development and redevelopment projects. A copy of this ordinance was submitted with the previous annual report. The Ordinance is currently under review for compliance with the 2022 model requirements. Building permits and subdivision/land development approval is coordinated with approval of the post-construction stormwater management controls. The Township Engineer reviews all PCSM BMPs and provides comments. All comments must be satisfied before issuance of subdivision land development approval and stormwater permit approval.

**BMP 2 - Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new and redevelopment.** 

The Township Stormwater Management Ordinance is consistent with and encourages LID practices. The Ordinance is currently under review for compliance with the 2022 model requirements.

### > <u>BMP 3 – Ensure adequate O&M of all PCSM BMPs.</u>

The Township has an Operation and Maintenance procedure in place that requires the applicant of a land development plan to specify who will own, operate, and maintain post-construction BMPs and place this information on the recorded plans. All applicants must also sign and record and Operations and Maintenance Agreement with the plan that includes PCSM BMPs. All PCSM BMPs can be found on all approved and recorded subdivision and land development plans on file in the municipal office. During the previous permit term, an inventory of all previously installed PCSM BMPs was developed and is updated as new BMPs are constructed (Figure MCM5.B). All BMPs for which the Township is responsible for O&M have been inspected this reporting period. BMP inspection forms are attached as Figure MCM 5.C.

#### BETHLEHEM TOWNSHIP POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND RE-DEVELOPMENT PLAN (MCM#5)

#### Background

Under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, the Township is required to develop, implement, and enforce a stormwater management program to meet the requirements of the permit and ensure that controls are in place to prevent or minimize water quality impacts. Under the permit, the Township must satisfy specific minimum control measures (MCMs) relating to stormwater runoff from new development and redevelopment that disturb greater than or equal to one acre that discharge to the MS4. Projects that are less than one acre but part of a larger common plan of development or sale will also be included in the written stormwater management program. The areas covered under the Township's jurisdiction for the purposes of this plan include any new development or redevelopment within the Township.

#### 1) Development and Implementation of BMP Strategies

The Township will develop a list of suitable BMPs that are appropriate for the municipality. The list will be generated through a locally-based watershed planning process with the encouragement of participation from interested citizens within the Township. The suitable BMPs will incorporate non-structural and structural BMPs in order to minimize water quality impacts and maintain pre-development runoff conditions.

Non-structural BMPs will include preventative actions that involve management and source controls such as policies and ordinances. These policies and ordinances will provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands or riparian areas, maintain and/or increase open space, provide buffers along sensitive water bodies, minimize impervious surfaces, minimize disturbance of soils and vegetation, and educational programs for developers and the public about project designs that minimize water quality impacts.

Structural BMPs will include but not be limited to storage practices such as wet ponds and extended-detention outlet structures, filtration practices such as grassed swales and sand filters, and infiltration practices such as infiltration basins and trenches.

#### 2) Stormwater Management Ordinance

Each permit year, Township staff or Herbert, Rowland & Grubic (HRG) staff will review the current stormwater management ordinance, which was adopted in 1991. The Ordinance that is currently in place is being utilized as the design guidelines for new development and redevelopment within the Township. Upon the review and suggested revisions from HRG, the Township will strategize on a revision to the Ordinance that will improve water quality runoff of new development and redevelopment projects as well as continue to maintain pre-development runoff conditions and comply with the PADEP 2022 Model Ordinance and Northampton County Act 167 Stormwater Management Plan. Through this review process, the Township will ensure that the revisions of the new ordinance will comply with the MS4 requirements.

#### 3) Long Term Operation and Maintenance of BMPs

The pre-construction review process of BMPs proposed in a design for a new development or redevelopment project is completed by HRG in order to ensure that the design meets the provisions set forth in the current stormwater management ordinance and complies with the requirements of other agencies. Township staff, HRG and/or the County Conservation District conduct a preconstruction meeting that highlights stormwater runoff and erosion control practices prior to all new construction projects commencing within the Township. Township staff, HRG and/or the County Conservation District document the inspection of the installation of all stormwater related construction per the design of BMPs during the construction process and generate reports which are focused towards stormwater management and the MS4 program. Operation and maintenance of BMPs are controlled by a standard note on the approved plans per the Township stormwater management ordinance. The installation and construction of BMPs is inspected during the construction process as well as at the completion of construction and failure to construct BMPs as designed may result in the withholdings of monies set by an improvement guarantee that is executed between the Township and the developer prior to the commencement of construction. Additionally, as part of the SWM Ordinance, developers are to provide a SWM As-Built Plan prior to the release of financial security. The Township will implement and maintain a catalogue of permitted and constructed BMPs and will record follow-up actions taken regarding maintenance of the BMPs.

#### 4) Annual Review of New Stormwater Management Technologies

New technologies related to stormwater management are constantly improving BMP practices. Due to the constant change and improvement of BMPs, HRG and

the Township will review new technologies on an annual basis and update the list of suitable BMPs generated during the locally based watershed planning process. The updated list of new technologies will be compiled with the encouragement of citizen participation.

## MCM 5.B

Id B	BMP Name	ВМР Туре	Size (ac)	DA (ac)	Entity Responsible for O&M	Lattitude	Longitude	Installed	O&M Requirements	NPDES Permit No.
B1		Dry Detention Basin		2.5		40.656834	-75.275481			
B2		Dry Detention Basin		51.2	Township	40.656004	-75.27318			
B3		Dry Detention Basin		-	Township	40.656701	-75.272348			
B4		Dry Detention Basin		5.1		40.658098	-75.271639			
B5		Dry Detention Basin		414.4	Township	40.658361	-75.278907			
B6		Dry Detention Basin		17.8		40.661825	-75.285736			
B7		Dry Detention Basin		2.9		40.663835	-75.2874			
B8		Dry Detention Basin		3.4		40.638681	-75.32242			
B9		Wet Detention Basin		32.6		40.655117	-75.292257			
B10		Dry Detention Basin		43.3		40.654199	-75.286665			
B11		Dry Detention Basin		-		40.653741	-75.287269			
B12		Dry Detention Basin		24.5	Township	40.658626	-75.32445			
B13		Dry Detention Basin		76.6	Township	40.657716	-75.324127			
B14		Dry Detention Basin		2.5	Township	40.661169	-75.300344			
B15		Wet Detention Basin		35.3		40.663519	-75.293688			
B16		Wet Detention Basin		111.0	Township	40.662448	-75.299621			
B17		Dry Detention Basin		7.2	School District	40.664571	-75.300487			
B18		Dry Detention Basin		13.7	Township	40.661668	-75.301518			
B19		Dry Detention Basin		6.2		40.664783	-75.304095			
B20		Dry Detention Basin		11.4		40.663615	-75.304682			
B21		Dry Detention Basin		9.1	Township	40.660379	-75.301884			
B22		Dry Detention Basin		0.7		40.666335	-75.308372			
B23		Wet Detention Basin		3.5	Township	40.664419	-75.30832			
B24		Dry Detention Basin		66.8	Township	40.669484	-75.313605			
B25		Dry Detention Basin		50.8	Township	40.672914	-75.309528			
B26		Dry Detention Basin		4.2		40.670793	-75.307566			
B27		Dry Detention Basin		27.2		40.668842	-75.311155			
B28		Dry Detention Basin		2.4		40.66962	-75.309574			
B29		Underground Dry Detention Basin		1.8		40.679569	-75.358335			1
B30		Dry Detention Basin		14.6	Township	40.656693	-75.305136			
B31		Dry Detention Basin		8.9	Township	40.65827	-75.303933			
B32		Dry Detention Basin		8.1	Township	40.657839	-75.307939			
B33		Dry Detention Basin		12.6	Township	40.659039	-75.310591			
B34		Dry Detention Basin		17.8	Township	40.658697	-75.314369			1
B35		Dry Detention Basin		14.9	Township	40.659047	-75.319145			

B36	Dry Detention Basin	1.1	Township	40.656607	-75.32925		
B30 B37	Dry Detention Basin	5.5	Township	40.652583	-75.321313		
B38	Dry Detention Basin	29.0	Township	40.652383	-75.31423		_
B39	Dry Detention Basin	54.8	Township	40.651749	-75.31423		-
B39 B40		8.9	Township	40.631749	-75.314752		_
B40 B41	Dry Detention Basin	16.3	· · ·		-75.31915		_
	Dry Detention Basin		Township Township	40.649621			
B42	Dry Detention Basin			40.648088	-75.322151		
B43	Dry Detention Basin		School District	40.647915	-75.32493		_
B44	Dry Detention Basin	10.2		40.645471	-75.310454		_
B45	Dry Detention Basin	98.4	· · ·	40.646382	-75.314993		
B46	Dry Detention Basin	46.5	Township	40.646922	-75.305012		_
B47	Dry Detention Basin	35.6		40.648815	-75.300475		
B48	Underground Dry Detention Basin	-		40.648572	-75.2996		
B49	Dry Detention Basin	53.4		40.644515	-75.300049		
B50	Dry Detention Basin	0.9		40.647604	-75.305842		
B51	Dry Detention Basin	36.4		40.653913	-75.306232		
B52	Dry Detention Basin	82.9	Township	40.653395	-75.303049		
B53	Underground Infiltraton basin	0.8		40.647688	-75.307585		
B54	Dry Detention Basin	77.6		40.649345	-75.304605		
B55	Dry Detention Basin	20.0		40.65296	-75.289191		
B56	Dry Detention Basin	1.5		40.658496	-75.329198		
B57	Dry Detention Basin	58.5	Township	40.659731	-75.321742		
B58	Dry Detention Basin	35.6	Township	40.660287	-75.316227		
B59	Dry Detention Basin	2.1		40.661164	-75.27554		
B60	Dry Detention Basin	1.3		40.664218	-75.306944		
B61	Underground Dry Detention Basin	1.2		40.665741	-75.308323		
B62	Dry Detention Basin	27.2		40.650831	-75.332354		
B63	Dry Detention Basin	2.1		40.646732	-75.334824		
B64	Dry Detention Basin	0.1		40.650772	-75.335463		
B65	Dry Detention Basin	4.3		40.651151	-75.33697		
B66	Extended Dry Detention Basin	22.3		40.668907	-75.275444		
B67	Dry Detention Basin	7.8		40.676817	-75.308609		
B68	Extended Dry Detention Basin	33.3	Moravian Academy	40.681342	-75.317213		
B69	Dry Detention Basin	4.8	NCC	40.676211	-75.328268		
B70	Dry Detention Basin	2.4	NCC	40.674823	-75.327876		
B71	Infiltration Basin	1.7	NCC	40.675038	-75.327054		
B72	Dry Detention Basin	5.0	NCC	40.675776	-75.323588		
B73	Dry Detention Basin	27.3	Country Meadows	40.675451	-75.322371		
B74	Dry Detention Basin	8.6		40.675343	-75.31913		

B75	Dry Detention Basin	2.1	NCC	40.674682	-75.323685		
B76	Dry Detention Basin		NCC	40.67387	-75.322705		
B77	Dry Detention Basin			40.672578	-75.325675		
B78	Infiltration Basin	0.6		40.670514	-75.320738		
B79	Infiltration Basin	1.8	NCC	40.670105	-75.321895		
B80	Dry Detention Basin	14.5	NCC	40.670413	-75.32393		
B81	Extended Dry Detention Basin	1.5		40.663176	-75.323867		
B82	Dry Detention Basin	120.1	Towsnhip	40.661605	-75.32789		
B83	Dry Detention Basin	5.8		40.660434	-75.329439		
B84	Dry Detention Basin	0.9		40.655053	-75.33488		
B85	Dry Detention Basin	3.8		40.65435	-75.335953		
B86	Underground Extended Dry Detention	2.7		40.653814	-75.336731		
B87	Dry Detention Basin	0.8		40.657064	-75.336657		
B88	Dry Detention Basin	14.3		40.659853	-75.338555		
B89	Dry Detention Basin	18.5	Township	40.667522	-75.332391		
B90	Dry Detention Basin	8.6		40.667258	-75.333421		
B91	Dry Detention Basin	13.5		40.666657	-75.339133		
B92	Wet Detention Basin	0.6	Township	40.675702	-75.340553		
B93	Dry Detention Basin	16.7		40.67171	-75.330212		
B94	Dry Detention Basin	0.9		40.674118	-75.330492		
B95	Dry Detention Basin	14.6		40.683268	-75.337055		
B96	Dry Detention Basin	21.6		40.682193	-75.331965		
B97	Dry Detention Basin	1.0		40.679838	-75.336427		
B98	Dry Detention Basin	0.9		40.677379	-75.34004		
B99	Dry Detention Basin	34.8		40.675668	-75.343757		
B100	Dry Detention Basin	1.6		40.673808	-75.345138		
B101	Dry Detention Basin	1.5		40.673119	-75.345398		
B102	Dry Detention Basin	21.5		40.67009	-75.345955		
B103	Infiltraton basin	3.6	Township	40.673263	-75.351669		
B104	Dry Detention Basin	64.1		40.676844	-75.356211		
B105	Underground Extended Dry Detention	3.9		40.677764	-75.349526		
B106	Dry Detention Basin	5.7		40.678976	-75.349322		
B107	Dry Detention Basin	6.1		40.682053	-75.343813		
B108	Dry Detention Basin	2.2		40.681884	-75.345334		
B109	Dry Detention Basin	0.8		40.682626	-75.345415		
B110	Dry Detention Basin	1.0		40.681699	-75.348848		
B111	Dry Detention Basin	30.8		40.680168	-75.353549	 	
B112	Dry Detention Basin	-		40.680029	-75.355464		



## **BMP INSPECTION REPORT**

Latitude/Longitude:	40.688396 / -75.282579	Inspection Date:	06-17-2022
Responsible Party:	Bethlehem Township	Weather:	Sunny, Dry, 85F
Phone:	610-814-6400	Site Address:	4258 Crosswinds Drive, Easton, PA 18054
Mailing Address:	225 Easton Ave., Bethlehem PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	James Powell	Phone Number:	484-460-7050

Field Inspection - BMP:				
BMP Implmentation Name: BC-SWB-11903				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: Yes			
Action(s) Required:				
Deficiency Description: <u>sediment accumulation</u> Follow up Period: <u>N/A</u> - Corrective Action: remove sediments from concrete channel	<u> </u>			
Deficiency Description:Exposed basin linerFollow up Period:N/A- Corrective Action:Cover with topsoil and establish vegetation				
- Corrective Action: Cover with topsoil and establish vegetation dditional Comments:				
Violation Issued? No				

#### Enforcements

Certification

Inspector's Name: James Powell /Curt Wilbern

Date: 2022-06-17

Curt Wilbern Signature:

MCM 5.C

# **BMP Photos**

### BMP Implementation Name: <u>BC-SWB-11903</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. Access is restricted with perimeter fencing.



#### BMP Implementation Name: <u>BC-SWB-11903</u>

BMP: SW-2 Detention Basin Comments:



#### BMP Implementation Name: <u>BC-SWB-11903</u>

BMP: SW-2 Detention Basin Comments:



#### Deficiency Name: sediment accumulation

From BMP: BC-SWB-11903 Corrective Action: remove sediments from concrete channel Date Identified: 06-17-2022 Comments:



#### Deficiency Name: Exposed basin liner

From BMP: BC-SWB-11903 Corrective Action: Cover with topsoil and establish vegetation Date Identified: 06-17-2022 Comments:





# **BMP INSPECTION REPORT**

Latitude/Longitude:	40.688044 / -75.282521	Inspection Date:	06-17-2022
Responsible Party:	Bethlehem Township	Weather:	Sunny, Dry, 85F
Phone:	610-814-6400	Site Address:	4254 Crosswinds Drive, Easton, PA 18054
Mailing Address:	4225 Easton Ave., Bethlehem PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	James Powell	Phone Number:	484-460-7050

Type of BMP (Management Practice):       SW-7 Vegetated/Bioretention Swale       Follow up requested:       No         Action(s) Required:       None       None       None       None		
Type of BMP (Management Practice):       SW-7 Vegetated/Bioretention Swale       Follow up requested:       No         Action(s) Required:       None       None       Additional Comments:       None	Field Inspection - BMP:	
Action(s) Required: None Additional Comments:	BMP Implmentation Name: BC-SWB-11910	
Additional Comments:	Type of BMP (Management Practice):         SW-7 Vegetated/Bioretention Swale         Follow	up requested: No
	Action(s) Required: None	
Vegetated swale, not a SW basin.	Additional Comments:	
	Vegetated swale, not a SW basin.	
Violation Issued? No	Violation Issued? No	

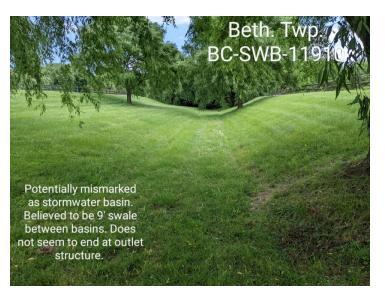
# Enforcements

Certification	
Inspector's Name: James Powell / Curt Wilbern	
Date: 2022-06-17	
Signature: Curt Wilbern	

### **BMP Photos**

### BMP Implementation Name: <u>BC-SWB-11910</u>

BMP: SW-7 Vegetated/Bioretention Swale Comments:



#### BMP Implementation Name: <u>BC-SWB-11910</u>

**BMP:** SW-7 Vegetated/Bioretention Swale **Comments:** 



#### BMP Implementation Name: <u>BC-SWB-11910</u>

**BMP:** SW-7 Vegetated/Bioretention Swale **Comments:** 





# **BMP INSPECTION REPORT**

Follow up requested: Yes

Latitude/Longitude:	40.687717 / -75.282542	Inspection Date:	06-17-2022	
Responsible Party:	Bethlehem Township	Weather:	Sunny, Dry, 85F	
Phone:	610-814-6400	Site Address:	4252 Crosswinds Drive, Easton, PA 18054	
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Township	
Parcel Number:		County:	Northampton County	
		-		
Inspector:	James Powell	Phone Number:	484-460-7050	
Field Inspection - BMP:				

#### BMP Implmentation Name: BC-SWB-11915

Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>

Action(s) Required:

- Deficiency Description: Erosion Follow up Period: N/A - Corrective Action: repair and protect with riprap or other erosion control product
- Deficiency Description: Exposed basin liner Follow up Period: - Corrective Action: cover with topsoil and

Additional Comments:

Violation Issued? No

#### Enforcements

Certification

Inspector's Name: James Powell/Curt Wilbern

Date: 2022-06-17

Curt Wilbern Signature:

# **BMP Photos**

### BMP Implementation Name: <u>BC-SWB-11915</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. Access restricted by perimeter fence.



#### BMP Implementation Name: <u>BC-SWB-11915</u>

BMP: SW-2 Detention Basin Comments: Outlet structure in good condition



#### Deficiency Name: Erosion

From BMP: BC-SWB-11915 Corrective Action: repair and protect with riprap or other erosion control product Date Identified: 02-06-172022 Comments:



#### Deficiency Name: Exposed basin liner

From BMP: BC-SWB-11915 Corrective Action: cover with topsoil and Date Identified: 08-29-2022 Comments:



### Deficiency Name: Exposed basin liner

From BMP: BC-SWB-11915 Corrective Action: cover with topsoil and Date Identified: 08-29-2022 Comments:





# **BMP INSPECTION REPORT**

Latitude/Longitude:	40.677544 / -75.277187	Inspection Date:	06-17-2022
Responsible Party:	Bethlehem Township	Weather:	Sunny, Dry, 85F
Phone:	610-814-6400	Site Address:	3725 Carrington Circle, Easton, PA 18054
Mailing Address:	4225 Easton Ave., Bethlehem PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	James Powell/Curt Wilbern	Phone Number:	484-460-7050

Field Inspection - BMP:					
BMP Implmentation Name: BC-SWB-11916					
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>		Follow up requested: Yes			
Action(s) Required:					
Deficiency Description:Sediment accumulation in flow channel- Corrective Action:Remove sediments	Follow up Period:	<u>N/A</u>			
Additional Comments:					
Violation Issued? No					

# Enforcements

Certification	
Inspector's Name: James Powell/ Curt Wilbern	
Date: 2022-06-17	
Signature: Curt Wilbern	

# **BMP Photos**

### BMP Implementation Name: BC-SWB-11916

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. Access is restricted by perimeter fence.



#### BMP Implementation Name: <u>BC-SWB-11916</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet structure #1 in good condition



#### BMP Implementation Name: <u>BC-SWB-11916</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet structure #2 in good condition



#### Deficiency Name: <u>Sediment accumulation in</u> <u>flow channel</u>

From BMP: BC-SWB-11916 Corrective Action: Remove sediments Date Identified: 06-17-2022 Comments: Sediments



#### Deficiency Name: <u>Sediment accumulation in</u> <u>flow channel</u>

From BMP: BC-SWB-11916 Corrective Action: Remove sediments Date Identified: 06-17-2022 Comments: Sediments

# Deficiency Name: <u>Sediment accumulation in</u> flow channel

From BMP: BC-SWB-11916 Corrective Action: Remove sediments Date Identified: 06-17-2022 Comments: Sediments and debris clogging outlet structure and primary orifice





## Deficiency Name: <u>Sediment accumulation in</u> <u>flow channel</u>

From BMP: BC-SWB-11916 Corrective Action: Remove sediments Date Identified: 06-17-2022 Comments: Sediment in concrete channel





Latitude/Longitude:	40.656743 / -75.305422	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Pt Sunny, 70F, dry
Phone:	(610)814-6400	Site Address:	5018 Preakness Place, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		- County:	Northampton
		_	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

# Field Inspection - BMP: BMP Implmentation Name: LR-SWB-11883 Type of BMP (Management Practice): SW-2 Detention Basin Follow up requested: No Action(s) Required: None Additional Comments: Basin appears in good condition. Access is controlled by fencing and a locked gate. Violation Issued? No

## Enforcements

Certification		
Inspector's Name: Curt Wilbern		
Date: 2022-06-13		
Signature: Curt Wilbern		

# BMP Implementation Name: <u>LR-SWB-11883</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin



# BMP Implementation Name: <u>LR-SWB-11883</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure



## BMP Implementation Name: <u>LR-SWB-11883</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure steel orifice plate



## BMP Implementation Name: <u>LR-SWB-11883</u>

BMP: SW-2 Detention Basin

**Comments:** Basin inlet pipe and precast outlet structure whose exact function is unknown since there is already a primary outlet structure



## BMP Implementation Name: <u>LR-SWB-11883</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 in good condition



## BMP Implementation Name: <u>LR-SWB-11883</u>

**BMP:** SW-2 Detention Basin **Comments:** Emergency spillway in good condition.





Latitude/Longitude:	40.649546 / -75.319429	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Sunny, Dry, 70F
Phone:	(610)-814-6400	Site Address:	2211 14th street, Bethlehem, PA 18020
Mailing Address:	2211 14th street, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:				
BMP Implmentation Name: LR-SWB-11884				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No			
Action(s) Required: None				
Additional Comments:				
Violation Issued? No				
Enforcements				

Certification		
Inspector's Name: Curt Wilbern		
Date: 2022-05-18		
Signature: Curt Wilbern		

# BMP Implementation Name: LR-SWB-11884

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin.



# BMP Implementation Name: <u>LR-SWB-11884</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe and CMP outlet structure appear in good condition.



## BMP Implementation Name: <u>LR-SWB-11884</u>

**BMP:** SW-2 Detention Basin **Comments:** Minor erosion at pipe inlet without winged endwall. Area should be revegetated.



## BMP Implementation Name: <u>LR-SWB-11884</u>

#### BMP: SW-2 Detention Basin

**Comments:** Emergency spillway onto 15th Street appears OK. Access is controlled by perimeter fence and locked gates at 14 th St. and 15th St.



## BMP Implementation Name: <u>LR-SWB-11884</u>

BMP: SW-2 Detention Basin

**Comments:** A depression 1 ' in diameter and 1' deep near the center of the basin should be filled in and monitored.



## BMP Implementation Name: LR-SWB-11884

**BMP:** SW-2 Detention Basin **Comments:** Outlet orifice is clear.





Latitude/Longitude:	40.653617 / -75.302612	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Pt. Sunny, 70F, dry
Phone:	(610) 814-6400	Site Address:	Long Court cul-de-sac, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp.
Parcel Number:		County:	Northampton
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:			
BMP Implmentation Name: LR-SWB-11885			
Type of BMP (Management Practice):         SW-2 Detention Basin         Follow up requested:         No			
Action(s) Required: None			
Additional Comments:			
Basin is in overall good condition. basin is surrounded by fencing and access is controlled with a locked gate. No defined emergency spillway was observed			

Violation Issued? No

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Signature:

Curt Wilbern

# BMP Implementation Name: LR-SWB-11885

#### BMP: SW-2 Detention Basin

**Comments:** Overall view of basin from Long Cour cul de sac access gate. rip rap low flow channels visible in this photo get treated with glyphosate herbicide to control vegetation.



# BMP Implementation Name: <u>LR-SWB-11885</u>

BMP: SW-2 Detention Basin Comments: Outlet structure in good condition



#### BMP Implementation Name: LR-SWB-11885

BMP: SW-2 Detention Basin

**Comments:** rip rap low flow channels visible in this photo get treated with glyphosate herbicide to control vegetation.



# BMP Implementation Name: <u>LR-SWB-11885</u>

**BMP:** SW-2 Detention Basin **Comments:** Minor erosion occurring in low flow rip rap channel. Geotextile exposed.



# BMP Implementation Name: <u>LR-SWB-11885</u>

**BMP:** SW-2 Detention Basin **Comments:** Minor scour at inlet pipe wndwall exposing geotextile under rip rap



## BMP Implementation Name: <u>LR-SWB-11885</u>

**BMP:** SW-2 Detention Basin **Comments:** Minor accumulation of sediment at inlet pipe's endwall



# BMP Implementation Name: <u>LR-SWB-11885</u>

**BMP:** SW-2 Detention Basin **Comments:** Minor scour of rip rap at inlet endwall.





Latitude/Longitude:	40.646925 / -75.304856	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Township	Weather:	Sunny, Dry , 70F
Phone:	(610)814-6400	Site Address:	1901 Vintage Drive, Bethlehem, PA 18020
Mailing Address:	1901 Vintage Drive, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:				
BMP Implmentation Name: LR-SWB-11896				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No			
Action(s) Required: None				
Additional Comments:				
Violation Issued? No				

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Curt Wilbern Signature:

# BMP Implementation Name: <u>LR-SWB-11896</u>

#### BMP: SW-2 Detention Basin

**Comments:** General view of basin looking north from entrance gate on Vintage Drive. Access is controlled by perimeter fence. Rock flow channels are in good condition.



# BMP Implementation Name: <u>LR-SWB-11896</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structures in good condition.



#### BMP Implementation Name: LR-SWB-11896

**BMP:** SW-2 Detention Basin **Comments:** Emergency Spillway in good condition



# BMP Implementation Name: <u>LR-SWB-11896</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe in good condition



## BMP Implementation Name: <u>LR-SWB-11896</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 in good condition but could use more riprap at endwall to dissipate energy



#### BMP Implementation Name: LR-SWB-11896

BMP: SW-2 Detention Basin

**Comments:** Inlet pipe #2 in good condition but riprap should be put back in front of endwall to dissipate energy. Minor sediment accumulation.



# BMP Implementation Name: <u>LR-SWB-11896</u>

**BMP:** SW-2 Detention Basin **Comments:** Appears to be a sinkhole repair located between inlets #2 & #3 that should be monitored frequently.





Latitude/Longitude:	40.646141 / -75.315155	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Township	Weather:	sunny, Dry, 70F
Phone:	(610)814-6400	Site Address:	Freemansburg Avenue, Bethlehem, PA 18020 & Washington St.
Mailing Address:	Freemansburg Avenue, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:				
BMP Implmentation Name: LR-SWB-11897				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No			
Action(s) Required: None				
Additional Comments:				
Violation Issued? No				

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Curt Wilbern Signature:

# BMP Implementation Name: <u>LR-SWB-11897</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. Access is restricted by a perimeter fence.



# BMP Implementation Name: <u>LR-SWB-11897</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition.



#### BMP Implementation Name: <u>LR-SWB-11897</u>

#### BMP: SW-2 Detention Basin

**Comments:** Inlet pipes and concrete flow channel. An eroded area was filled with concrete. This area should be monitored for further erosion.



# BMP Implementation Name: <u>LR-SWB-11897</u>

#### BMP: SW-2 Detention Basin

**Comments:** Vegetated areas of sediment deposition in the concrete flow channel do not appear to be washing out of the basin but they should be removed.



# BMP Implementation Name: <u>LR-SWB-11897</u>

#### BMP: SW-2 Detention Basin

**Comments:** There is an area that appears to have been repaired recently. If this was a sinkhole repair, it should be monitored frequently.





Latitude/Longitude:	40.656665 / -75.27266	Inspection Date:	05-18-2022
<b>Responsible Party:</b>	Bethlehem Twp.	Weather:	Sunny, Dry, 70F
Phone:	(610) 814-6400	Site Address:	Esquire Drive, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Dauphin County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:	
BMP Implmentation Name: LR-SWB-11919	
Type of BMP (Management Practice):         SW-2 Detention Basin         I	Follow up requested: No
Action(s) Required: None	
Additional Comments:	
Violation Issued? No	

Enforcements

Aditional Notes:

No emergency spillway was observed and there is no flow controlling outlet structure so this may be intended to function as an extension of basin LR-SWB11936

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Signature:

Curt Wilbern

# BMP Implementation Name: <u>LR-SWB-11919</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin and concrete flow channel. Access is restricted by a fence and locked gate.



## BMP Implementation Name: <u>LR-SWB-11919</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe in good condition



#### BMP Implementation Name: <u>LR-SWB-11919</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet pipes in good condition.





Latitude/Longitude:	40.658139 / -75.278978	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Sunny, Dry, 75F
Phone:	(610) - 814-6400	Site Address:	Freemansburg Ave, Bethlehem, PA 18020 Access @ Ohio Street & Penacook Dr.
Mailing Address:	Freemansburg Ave, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744
	Field Inspe	ection - BMP:	
BMP Implmentation I	Name: LR-SWB-11921		
Type of BMP (Manage	ement Practice): <u>SW-2 Detention Basin</u>		Follow up requested: Yes
Action(s) Required:			
<b>Deficiency Description:</b> <u>Erosion</u> <b>Follow up Period:</b> <u>N/A</u> <b>- Corrective Action:</b> Replace eroded dirt at toe of emergency spillway and reinforce with an erosion control matting product and ample vegetation			
Deficiency Description:         erosion at inlet pipe on easternmost end of basin         Follow up Period:         N/A           - Corrective Action:         Repair eroded areas and reinforce with an erosion control matting properly placed large riprap to dissipate flow energy and reestablish vigorous turf growth         Follow up Period:         N/A			
	on: <u>Sediments</u> Follow up Period: <u>N</u> n: Remove accumulated sediments	<u>I/A</u>	
	on: <u>Sinkholes</u> Follow up Period: <u>Na</u> on: Fill depressions and monitor frequen		
Additional Comments	S:		
Violation Issued? N	0		

## Enforcements

# **Aditional Notes:**

Access is controlled by a fence surrounding the basin however the gate at the east end of the basin hear the inlet pipe does not have a lock.

# Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Signature: Curt Wilbern

# BMP Implementation Name: <u>LR-SWB-11921</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin.



## BMP Implementation Name: <u>LR-SWB-11921</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure discharge endwall appears in good condition



#### BMP Implementation Name: <u>LR-SWB-11921</u>

#### BMP: SW-2 Detention Basin

**Comments:** Flow regulating V notched weir structure and trash rack appear in good condition. Some small floatable debris and sticks in riprap but nothing causing a problem.



# Deficiency Name: Erosion

From BMP: LR-SWB-11921 Corrective Action: Replace eroded dirt at toe of emergency spillway and reinforce with an erosion control matting product and ample vegetation Date Identified: 05-18-2022 Comments:



## Deficiency Name: <u>erosion at inlet pipe on</u> <u>easternmost end of basin</u>

#### From BMP: LR-SWB-11921

**Corrective Action:** Repair eroded areas and reinforce with an erosion control matting properly placed large riprap to dissipate flow energy and reestablish vigorous turf growth **Date Identified:** 05-18-2022

**Comments:** Severely eroded basin embankment at east end of detention basin.



## Deficiency Name: Sediments

From BMP: LR-SWB-11921 Corrective Action: Remove accumulated sediments Date Identified: 05-18-2022 Comments: Sediment accumulating at inlet pipes



# **Deficiency Name:** Sediments

From BMP: LR-SWB-11921 Corrective Action: Remove accumulated sediments Date Identified: 05-18-2022 Comments: Sediments accumulating at inlet pipes



# Deficiency Name: Sediments

From BMP: LR-SWB-11921 Corrective Action: Remove accumulated sediments Date Identified: 05-18-2022 Comments: Sediments accumulating at several inlet pipes



# **Deficiency Name: Sinkholes**

From BMP: LR-SWB-11921 Corrective Action: Fill depressions and monitor frequently. Date Identified: 08-28-2022 Comments: Depressions that may be sinkholes in area in front of the outlet structure.



# **Additional Photos**

Comments: No lock on gate at east end of basin.





Latitude/Longitude:	40.663545 / -75.288526	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Sunny, Dry, 70F
Phone:	(610) 814-6400	Site Address:	Hope Rd., Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:	
BMP Implmentation Name: LR-SWB-11930	
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No
Action(s) Required: None	
Additional Comments:	
Violation Issued? No	

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Signature:

Curt Willern

# BMP Implementation Name: LR-SWB-11930

BMP: SW-2 Detention Basin

**Comments:** Overall view of basin. Basin is in good condition. Access is controlled by a fence. Rock emergency spillway is in good condition.



# BMP Implementation Name: <u>LR-SWB-11930</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition.



#### BMP Implementation Name: LR-SWB-11930

#### BMP: SW-2 Detention Basin

**Comments:** Inlet pipe accumulating leaves, sediments and some cattails are starting to grow. Not causing a problem yet but they should be removed if it gets worse.





Latitude/Longitude:	40.659866 / -75.287947	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp	Weather:	Sunny, Dry, 70F
Phone:	(610) 814-6400	Site Address:	Hope Rd., Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:	
BMP Implmentation Name: LR-SWB-11932	
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No
Action(s) Required: None	
Additional Comments:	
Violation Issued? No	

## Enforcements

#### Aditional Notes:

There is a small tree in the basin that should be removed before it gets too big to easily remove.

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Curt Wilbern

Signature:

# BMP Implementation Name: <u>LR-SWB-11932</u>

#### BMP: SW-2 Detention Basin

**Comments:** Overall View of basin. Basin is in good condition structurally but the basin is full of cattails which may cause problems with the amount of biomass they produce.



# BMP Implementation Name: <u>LR-SWB-11932</u>

**BMP:** SW-2 Detention Basin **Comments:** Rock emergency spillway is in good condition.



#### BMP Implementation Name: <u>LR-SWB-11932</u>

#### BMP: SW-2 Detention Basin

**Comments:** Outlet structure is clear and in good condition but the cattails may start to cause problems with blocking the outlet. This should be monitored.



# BMP Implementation Name: <u>LR-SWB-11932</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet in good condition but the cattails may start to cause an inflow restriction and therefore should be monitored/ removed if necessary.





Latitude/Longitude:	40.656185 / -75.273272	Inspection Date:	05-18-2022
<b>Responsible Party:</b>	Bethlehem Twp.	Weather:	Sunny, Dry, 70F
Phone:	(610) 814-6400	Site Address:	Esquire Drive, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:			
BMP Implmentation Name: LR-SWB-11936			
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: Yes		
Action(s) Required:			
Deficiency Description: <u>Accumulated sediments</u> Follow up Period: <u>N/A</u> - Corrective Action: remove sediments that have accumulated on the concrete ch	annel		
Additional Comments:			
Violation Issued? No			

#### Enforcements

## **Aditional Notes:**

Trash rack is missing on one of the inlet pipes but there is a trash rack on the upstream end of this pipe in basin LR-SWB-11919

Certification

Inspector's Name: Curt Wilbern

**Date:** 2022-05-18

Curt Wilbern Signature:

# BMP Implementation Name: <u>LR-SWB-11936</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition with sediments and vegetation in concrete channel



## BMP Implementation Name: <u>LR-SWB-11936</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. Access is controlled by a perimeter fence and a locked gate.



# **Deficiency Name:** <u>Accumulated sediments</u>

From BMP: LR-SWB-11936 Corrective Action: remove sediments that have accumulated on the concrete channel Date Identified: 05-18-2022 Comments: Accumulated sediment near outlet. Vegetation appears to be keeping most of it in place.



# Deficiency Name: <u>Accumulated sediments</u>

From BMP: LR-SWB-11936 Corrective Action: remove sediments that have accumulated on the concrete channel Date Identified: 05-18-2022 Comments: Inlet with accumulated sediment in riprap apron



# Deficiency Name: <u>Accumulated sediments</u>

From BMP: LR-SWB-11936 Corrective Action: remove sediments that have accumulated on the concrete channel Date Identified: 05-18-2022 Comments: Inlet with accumulated sediment



# **Additional Photos**

Comments: Missing trash rack





Latitude/Longitude:	40.660188 / -75.322136	Inspection Date:	05-18-2022
<b>Responsible Party:</b>	Bethlehem Twp.	Weather:	Sunny, Dry, 65F
Phone:	(610) 814-6400	Site Address:	Scherman Blvd., Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave, Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		County:	Northampton
		_	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

# Field Inspection - BMP: BMP Implmentation Name: NR-SWB-11822 Type of BMP (Management Practice): SW-2 Detention Basin Follow up requested: No Action(s) Required: None None Additional Comments: Overall basin appears in good condition, secure with locked chain-link fence. Twp maintenance crew mowing at time of inspection Violation Issued? No No

# Enforcements

Certification			
Inspector's Name: Curt Wilbern			
Date: 2022-06-13			
Signature: Curt Wilbern			

## BMP Implementation Name: <u>NR-SWB-11822</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition



## BMP Implementation Name: <u>NR-SWB-11822</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure outfall pipe in good condition



### BMP Implementation Name: <u>NR-SWB-11822</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe 1



## BMP Implementation Name: <u>NR-SWB-11822</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe 1 broken pipe



#### BMP Implementation Name: <u>NR-SWB-11822</u>

**BMP:** SW-2 Detention Basin **Comments:** inlet pipe #1 repair patch appears to be effective.



#### BMP Implementation Name: NR-SWB-11822

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe#2



#### BMP Implementation Name: NR-SWB-11822

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #3 - good condition



### BMP Implementation Name: <u>NR-SWB-11822</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #4 , minor accumulation of sediment but in good condition



### BMP Implementation Name: NR-SWB-11822

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin NR-SWB-11822





Latitude/Longitude:	40.658706 / -75.314441	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Township	Weather:	Pt. Sunny, 70F, dry
Phone:	(610) 814-6400	Site Address:	4112 Sapphire Lane, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave, Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		- County:	Northampton County
		_	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

#### **Field Inspection - BMP:** BMP Implmentation Name: NR-SWB-11823 Type of BMP (Management Practice): SW-2 Detention Basin Follow up requested: No Action(s) Required: None Additional Comments: white board in photos should say NR-SWB-11823 not NR-SWB-11832, basin in overall good condition. access controlled by chain link fence and locked gate.

Violation Issued? No

Enforcements

Certification Inspector's Name: Curt Wilbern Date: 2022-06-13 Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11823

**BMP:** SW-2 Detention Basin **Comments:** White board should read NR-SWB-11823, overall view of basin



### BMP Implementation Name: <u>NR-SWB-11823</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition with grate on top.



#### BMP Implementation Name: NR-SWB-11823

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe with minor sediment accumulated in rip rap





Latitude/Longitude:	40.657911 / -75.307519	Inspection Date:	05-18-2022
<b>Responsible Party:</b>	Bethlehem Twp.	Weather:	Pt. Sunny, 70F, dry
Phone:	(610) 8146400	Site Address:	5029 Derby Lane, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:			
BMP Implmentation Name: NR-SWB-11825			
Type of BMP (Management Practice):         SW-2 Detention Basin         Follow up requested:         No			
Action(s) Required: None			
Additional Comments:			
Basin in overall good condition. Access controlled by locked gate and fence surrounding basin.			
Violation Issued? No			

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Curt Wilbern Signature:

## BMP Implementation Name: <u>NR-SWB-11825</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin.



## BMP Implementation Name: <u>NR-SWB-11825</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition



#### BMP Implementation Name: <u>NR-SWB-11825</u>

**BMP:** SW-2 Detention Basin **Comments:** Emergency spillway in good condition



## BMP Implementation Name: <u>NR-SWB-11825</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #1 in good condition, trash rack appears to have been removed



#### BMP Implementation Name: <u>NR-SWB-11825</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 with minor accumulation of leaves on trash rack





Latitude/Longitude:	40.66046 / -75.301706	Inspection Date:	06-17-2022	
Responsible Party:	Bethlehem Twp.	Weather:	Sunny, 80F, Dry	
Phone:	(610) 814-6400	Site Address:	2900 Farmersville Rd, Bethlehem, PA 18020	
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Township	
Parcel Number:		County:	Northampton County	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744	
	•	ection - BMP:		
BMP Implmentation Name:         NR-SWB-11826           Type of BMP (Management Practice):         SW-2 Detention Basin         Follow up requested:         Yes				
Action(s) Required:				
Deficiency Description: sediment accumulation Follow up Period: N/A - Corrective Action: remove sediments				
Deficiency Description:         Settlement/ hole around grate in middle of basin         Follow up Period:         N/A           - Corrective Action:         Identify what is causing hole and repair         Follow up Period:         N/A				
Deficiency Description: Scour/ Erosion at inlet pipe Follow up Period: N/A - Corrective Action: Install riprap to dissipate energy of inflowing water				
Additional Comments	S:			
Beside the Communi	ty Center Pool			

Violation Issued? No

#### Enforcements

Certification		
Inspector's Name: Curt Wilbern & James Powell		
Date: 2022-06-17		
Signature: Curt Wilbern		

## BMP Implementation Name: NR-SWB-11826

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin surrounded by fence for access control



## BMP Implementation Name: <u>NR-SWB-11826</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition



#### BMP Implementation Name: <u>NR-SWB-11826</u>

BMP: SW-2 Detention Basin Comments: Inside precast outlet box



#### BMP Implementation Name: <u>NR-SWB-11826</u>

**BMP:** SW-2 Detention Basin **Comments:** Emergency spillway clear



## Deficiency Name: sediment accumulation

From BMP: NR-SWB-11826 Corrective Action: remove sediments Date Identified: 06-17-2022 Comments: Sediments in concrete channel



#### Deficiency Name: <u>Settlement/ hole around grate</u> in middle of basin

From BMP: NR-SWB-11826 Corrective Action: Identify what is causing hole and repair Date Identified: 06-17-2022 Comments: Settlement and hole at inlet top in middle of basin



## Deficiency Name: <u>Scour/ Erosion at inlet pipe</u>

From BMP: NR-SWB-11826 Corrective Action: Install riprap to dissipate energy of inflowing water

**Date Identified:** 06-17-2022 **Comments:** Scour and erosion at influent pipe from community center pool due to no riprap





Latitude/Longitude:	40.661663 / -75.301603	Inspection Date:	06-17-2022
<b>Responsible Party:</b>	Bethlehem Twp	Weather:	Sunny, Dry 85F
Phone:	(610) 814-6400	Site Address:	Meyers Lane, Bethlehem, PA 18020 by park parking lot
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twnship
Parcel Number:		- County:	Northampton County
		_	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744
		-	

Field Inspection - BMP:			
BMP Implmentation Name: NR-SWB-11826A			
Type of BMP (Management Practice):         SW-2 Detention Basin         Follow up requested:         Yes			
Action(s) Required:			
<b>Deficiency Description:</b> <u>Sediments/Erosion</u> <b>Follow up Period:</b> <u>N/A</u> - <b>Corrective Action:</b> Remove sediments & stabilize eroding areas with vegetation or other means.			
Additional Comments:			
Violation Issued? No			

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-17

Signature:

Curt Wilbern

## BMP Implementation Name: NR-SWB-11826A

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. No fencing.



## Deficiency Name: Sediments/Erosion

From BMP: NR-SWB-11826A Corrective Action: Remove sediments & stabilize eroding areas with vegetation or other means. Date Identified: 06-07-2022 Comments: Sediments at inlet pipe



### Deficiency Name: Sediments/Erosion

From BMP: NR-SWB-11826A Corrective Action: Remove sediments & stabilize eroding areas with vegetation or other means. Date Identified: 06-07-2022 Comments: Erosion of embankment around endwall of outlet pipe





Latitude/Longitude:	40.658589 / -75.324453	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Pt Sunny, 65F, dry
Phone:	(610) 814-6400	Site Address:	10th St., Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:			
BMP Implmentation Name: NR-SWB-11833			
Type of BMP (Management Practice):         SW-2 Detention Basin         Follow up requested:         No			
Action(s) Required: None			
Additional Comments:			
Basin in good condition, access controlled by split rail and wire fencing and locked gate			
Violation Issued? No			

### Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11833

BMP: SW-2 Detention Basin Comments: overall view of basin looking east



## BMP Implementation Name: <u>NR-SWB-11833</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition, not sure if design calls for a grate on top - it does not have one.



#### BMP Implementation Name: <u>NR-SWB-11833</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #1 at east end of basin in good condition, minor scour of rip rap



## BMP Implementation Name: <u>NR-SWB-11833</u>

BMP: SW-2 Detention Basin

**Comments:** Inlet pipe #2 in NW corner of basin in good condition. Appears to have had a trash rack on endwall at one time., minor scour of rip rap



## BMP Implementation Name: <u>NR-SWB-11833</u>

**BMP:** SW-2 Detention Basin **Comments:** Emergency spillway into Nancy Run in good condition





Latitude/Longitude:	40.652592 / -75.321343	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp	Weather:	Sunny, Dry, 70F
Phone:	(610) 814-6400	Site Address:	3915 Carter Rd, Bethlehem, PA 18020
Mailing Address:	3915 Carter Rd, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:				
BMP Implmentation Name: NR-SWB-11839				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested:	Yes		
Action(s) Required:				
<b>Deficiency Description:</b> <u>erosion from resident's downspout extention pipe discharging at top of embankment.</u> <b>Follow up Period:</b> N/A				
- Corrective Action: install riprap, erosion matting or disconnect downspout extension				
Additional Comments:				
Violation Issued? No				

#### Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Signature: Curt W

Curt Wilbern

## BMP Implementation Name: NR-SWB-11839

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin. Access is controlled by a perimeter fence with locked gate.



## BMP Implementation Name: <u>NR-SWB-11839</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure is in good condition.



### BMP Implementation Name: <u>NR-SWB-11839</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe is in good condition.



## Deficiency Name: <u>erosion from resident's</u> <u>downspout extention pipe discharging at top of</u> <u>embankment.</u>

From BMP: NR-SWB-11839 Corrective Action: install riprap, erosion matting or disconnect downspout extension Date Identified: 05-15-2022 Comments: erosion caused by downspout extension pipe





Latitude/Longitude:	40.659035 / -75.319063	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Pt. Sunny, 65F, dry
Phone:	(610) 814-6400	Site Address:	4000 Galway Dr., Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		County:	NorthamptonCounty
		_	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

 Field Inspection - BMP:

 BMP Implmentation Name: NR-SWB-11843

 Type of BMP (Management Practice):
 Follow up requested: No

 Action(s) Required: None
 Follow up requested: No

 Additional Comments:
 Basin in overall good condition

 Violation Issued? No
 No

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11843

BMP:

**Comments:** Overall view of basin, access controlled by chain link fence and locked gate.



## BMP Implementation Name: <u>NR-SWB-11843</u>

BMP: Comments: Outlet structure and rip rap in good condition



## BMP Implementation Name: <u>NR-SWB-11843</u>

#### BMP:

**Comments:** Inlet pipe #1 in good condition, white chalky substance in rip rap, possibly paint as there is a white line painted on the road at the upstream inlet



# BMP Implementation Name: <u>NR-SWB-11843</u>

BMP: Comments: Inlet pipe #2 in good condition





Follow up requested: No

Latitude/Longitude:	40.664441 / -75.308207	Inspection Date:	06-17-2022
Responsible Party:	Bethlehem Twp.	Weather:	sunny, dry, 80F
Phone:	(610) 814-6400	Site Address:	Falmer Dr., Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave, Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp
Parcel Number:		County:	Northampton
Inspector:	Curt Wilbern/James Powell	Phone Number:	717-982-2744

Field Inspection - BMP:

## BMP Implmentation Name: NR-SWB-11844

Type of BMP (Management Practice): <u>SE-2 Sediment Basin</u>

Action(s) Required: None

#### Additional Comments:

This is a wet pond with a liner. No visible outfall. Water reportedly is pumped out by the Township. Pond collects runoff from compost facility.

Violation Issued? No

## Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-17

Signature:

Curt Wilbern

## BMP Implementation Name: NR-SWB-11844

**BMP:** SE-2 Sediment Basin **Comments:** Overall view of sediment pond/basin. Access is controlled by a perimeter fence.





Latitude/Longitude:	40.649646 / -75.322385	Inspection Date:	05-18-2022
Responsible Party:	Bethlehem Twp.	Weather:	Sunny, Dry, 70F
Phone:	(610) 814-6400	Site Address:	2303 Hannahs Lane, Bethlehem, PA 18020
Mailing Address:	2303 Hannahs Lane, Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:	
BMP Implmentation Name: NR-SWB-11845	
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No
Action(s) Required: None	
Additional Comments:	
Violation Issued? No	

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11845

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #1 in good condition



### BMP Implementation Name: <u>NR-SWB-11845</u>

BMP: SW-2 Detention Basin

**Comments:** Overall view of basin. CMP outlet standpipe is in good condition. Access is controlled by perimeter fence and locked gate.



### BMP Implementation Name: <u>NR-SWB-11845</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 in good condition.





Latitude/Longitude:	40.663531 / -75.293778	Inspection Date:	06-17-2022
<b>Responsible Party:</b>	Bethlehem Twp.	Weather:	Sunny, Dry, 85F
Phone:	(610)-814-6400	Site Address:	Emrick Blvd, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Township
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern & James Powell	Phone Number:	717-982-2744

Field Inspection - BMP:	
BMP Implmentation Name: NR-SWB-11849	
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No
Action(s) Required: None	·
Additional Comments:	
Wet pond with aeration system	
Violation Issued? No	

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-17

Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11849

**BMP:** SW-2 Detention Basin **Comments:** Overall view of pond. Surrounding thick vegetation hindered a thorough inspection of primary outlet structure. Perimeter of pond is not fenced.



### BMP Implementation Name: <u>NR-SWB-11849</u>

BMP: SW-2 Detention Basin Comments: Pond aeration system



#### BMP Implementation Name: NR-SWB-11849

**BMP:** SW-2 Detention Basin **Comments:** Rock emergency spillway appears in good condition





Latitude/Longitude:	40.658247 / -75.303957	Inspection Date:	05-18-2022
<b>Responsible Party:</b>	Bethlehem Twp.	Weather:	Pt. Sunny, 70F, dry
Phone:	(610) 814-6400	Site Address:	5005 Derby Lane, Bethlehem, PA 18020
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp.
Parcel Number:		County:	Northampton County
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP:		
BMP Implmentation Name: NR-SWB-11851		
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No	
Action(s) Required: None		
Additional Comments:		
Basin is in overall good condition. Access is controlled by fencing and locked gate.		
Violation Issued? No		

### Enforcements

## Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11851

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin.



### BMP Implementation Name: <u>NR-SWB-11851</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition with grate on top



## BMP Implementation Name: <u>NR-SWB-11851</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #1 in good condition



## BMP Implementation Name: <u>NR-SWB-11851</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 in good condition with minor leaves on trash rack.



#### BMP Implementation Name: <u>NR-SWB-11851</u>

**BMP:** SW-2 Detention Basin **Comments:** Emergency spillway in good condition





Latitude/Longitude:	40.65767 / -75.324279	Inspection Date:	05-18-2022
Responsible Party:	unk	Weather:	Pt Sunny, Dry 60F
Phone:		Site Address:	Trythall Street, Bethlehem, PA 18020
Mailing Address:	Trythall Street, Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp.
Parcel Number:		County:	Northampton
Inspector:	Curt Wilbern	Phone Number:	717-982-2744

Field Inspection - BMP: BMP Implmentation Name: NR-SWB-11855		
Action(s) Required:		
<b>Deficiency Description:</b> <u>Outlet structure altered</u> <b>Follow up Period:</b> <u>1-Month</u> - <b>Corrective Action:</b> Reinstall CMP flow regulating structure that has become deta	ached	
Deficiency Description: <u>Erosion around endwall</u> Follow up Period: <u>3-Months</u> - Corrective Action: Identify cause of erosion, make necessary repairs, repair ero	oded areas	
Deficiency Description:Accumulated sediment in Rip RapFollow up Period: 3 Corrective Action:Remove accumulated sediments from riprap apron	Months	
<b>Deficiency Description:</b> <u>Scour/ erosion</u> <b>Follow up Period:</b> <u>3-Months</u> - <b>Corrective Action:</b> Regrade scoured area and install riprap apron to dissipate en	ergy of inflowing water	

#### Additional Comments:

Unsure of basin owner, possibly still serving as an E&S basin as there is new home construction in the immediate area. Basin is not secured by any fencing.

Violation Issued? No

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Curt Wilbern Signature:

## BMP Implementation Name: NR-SWB-11855

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin looking north



### BMP Implementation Name: <u>NR-SWB-11855</u>

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin looking west.



## BMP Implementation Name: <u>NR-SWB-11855</u>

**BMP:** SW-2 Detention Basin **Comments:** Emergency spillway into Nancy Run in good condition



## **BMP Implementation Name: NR-SWB-11855**

**BMP:** SW-2 Detention Basin **Comments:** Two outfall pipes with rubber check valves into Nancy Run appear in good condition.



#### BMP Implementation Name: <u>NR-SWB-11855</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #3 at the east end of basin in good condition.



### Deficiency Name: Outlet structure altered

From BMP: NR-SWB-11855 Corrective Action: Reinstall CMP flow regulating structure that has become detached Date Identified: 05-18-2022 Comments: CMP shield with orifice holes needs reinstalled on the westernmost outlet structure.



## Deficiency Name: Erosion around endwall

From BMP: NR-SWB-11855 Corrective Action: Identify cause of erosion, make necessary repairs, repair eroded areas Date Identified: 05-18-2022 Comments: Erosion around endwall of inlet pipe #2 on the south side of the basin



#### Deficiency Name: <u>Accumulated sediment in Rip</u> <u>Rap</u>

From BMP: NR-SWB-11855 Corrective Action: Remove accumulated sediments from riprap apron

Date Identified: 05-18-2022

 $\label{eq:comments: Sediment in rip rap at inlet pipe \ensuremath{\#2}\xspace$  on south side of basin



### Deficiency Name: Scour/ erosion

From BMP: NR-SWB-11855 Corrective Action: Regrade scoured area and install riprap apron to dissipate energy of inflowing water Date Identified: 05-18-2022 Comments: Scour at inlet pipe #1 at SW corner of basin.





## **BMP INSPECTION REPORT**

Latitude/Longitude:	40.648202 / -75.322062	Inspection Date:	05-18-2022	
Responsible Party: Bethlehem Township		Weather:	Sunny, Dry, 70F	
Phone:	(610) 814-6400	Site Address:	2183 Hannas Lane, Bethlehem, PA 18020	
Mailing Address:	2183 Hannas Lane, Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp.	
Parcel Number:		County:	Northampton County	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744	

Field Inspection - BMP:				
BMP Implmentation Name: NR-SWB-11861				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No			
Action(s) Required: None				
Additional Comments:				
Violation Issued? No				

### Enforcements

### **Aditional Notes:**

Adjoining property owner at 2185 Hannas Lane wants the Township to replace the chain link fence surrounding the basin with a nicer one.

## Certification

Inspector's Name: Curt Wilbern

Date: 2022-05-18

Curt Wilbern Signature:

## **BMP Photos**

### BMP Implementation Name: NR-SWB-11861

**BMP:** SW-2 Detention Basin **Comments:** Outlet Structure in good condition.



### BMP Implementation Name: <u>NR-SWB-11861</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe#1 has accumulated sediment that should be removed



#### BMP Implementation Name: <u>NR-SWB-11861</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 in good condition.





## **BMP INSPECTION REPORT**

Latitude/Longitude:	ude: 40.662333 / -75.300352 Inspection Date		06-17-2022	
Responsible Party:	Bethlehem Twp.	ehem Twp. Weather:		
Phone:	(610) 814-6400	Site Address:	Meyers Ln., Bethlehem, PA 18020	
Mailing Address:	4225 Easton Ave., Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp	
Parcel Number:		County:	Northampton	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744	

Field Inspection - BMP:				
BMP Implmentation Name: NR-SWB-11874				
Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>	Follow up requested: No			
Action(s) Required: None				
Additional Comments:				
Wet pond				
Violation Issued? No				

Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-17

Signature:

## **BMP** Photos

### BMP Implementation Name: NR-SWB-11874

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure



### BMP Implementation Name: <u>NR-SWB-11874</u>

BMP: SW-2 Detention Basin Comments: wetland at outfall



### BMP Implementation Name: <u>NR-SWB-11874</u>

BMP: SW-2 Detention Basin Comments: overall view of basin



### BMP Implementation Name: <u>NR-SWB-11874</u>

BMP: SW-2 Detention Basin Comments:



### BMP Implementation Name: <u>NR-SWB-11874</u>

**BMP:** SW-2 Detention Basin **Comments:** inlet pipe



### BMP Implementation Name: <u>NR-SWB-11874</u>

BMP: SW-2 Detention Basin Comments:



## BMP Implementation Name: <u>NR-SWB-11874</u>

**BMP:** SW-2 Detention Basin **Comments:** erosion





## **BMP INSPECTION REPORT**

Follow up requested: No

Latitude/Longitude:	40.660294 / -75.316386	Inspection Date:	05-18-2022	
Responsible Party:	Bethlehem Twp.	Weather:	Pt sunny, 70F, dry	
Phone:	(610) 814-6400	Site Address:	Scherman Blvd, Bethlehem, PA 18020	
Mailing Address:	4225 Easton Ave, Bethlehem, PA 18020	Site Municipality:	Bethlehem Twp	
Parcel Number:		County:	Northampton County	
Inspector:	Curt Wilbern	Phone Number:	717-982-2744	

#### Field Inspection - BMP:

BMP Implmentation Name: NR-SWB-11876

Type of BMP (Management Practice): <u>SW-2 Detention Basin</u>

Action(s) Required: None

Additional Comments:

Basin appears in good condition, inlet grate was partially off- inspector re installed. Access is controlled by chain link fence with locked gate. Twp was mowing basin at time of inspection.

Violation Issued? No

### Enforcements

Certification

Inspector's Name: Curt Wilbern

Date: 2022-06-13

Signature:

Curt Wilbern

## **BMP Photos**

### BMP Implementation Name: NR-SWB-11876

**BMP:** SW-2 Detention Basin **Comments:** Overall view of basin



### BMP Implementation Name: <u>NR-SWB-11876</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet structure in good condition



### BMP Implementation Name: <u>NR-SWB-11876</u>

**BMP:** SW-2 Detention Basin **Comments:** Outlet pipe in good condition



### BMP Implementation Name: <u>NR-SWB-11876</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #1 with minor scour and standing water.



### BMP Implementation Name: <u>NR-SWB-11876</u>

**BMP:** SW-2 Detention Basin **Comments:** Inlet pipe #2 with minor sediment accumulation



# APPENDIX F

### MCM#6 – POLLUTION PREVENTION AND 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.

The Township has developed and implemented a Pollution Prevention and Good Housekeeping Program (Figure MCM6.A) that complies with the requirements of this MCM. All of the municipal facilities and activities that have the potential for generating stormwater runoff are identified and documented in the Township Operations & Maintenance Manual. This list is reviewed annually and updated as needed.

### BMP 2: Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the regulated small MS4s.

Bethlehem Township has implemented a Pollution Prevention and Good Housekeeping for Municipal Operations Plan (O&M Manual) that includes provisions for record keeping of new construction and land disturbances, fleet and building maintenance, and storm sewer system construction, inspection, and maintenance. This O&M Manual is keep on file in the Public Works department office and is available for reference by any municipal employee. The O&M Manual is reviewed annually and updated as necessary. A copy of the O&M Manual is included with this annual report (Figure MCM6.B). In addition to the O&M Manual, there is a spill report form for possible incidents and/or inspections. In addition, each year, the Township conducts street sweeping, grass cutting of all open space that includes detention ponds (Figure MCM6.D), and detention basin inspections (Figure MCM6.E).

#### BMP 3: Develop, implement and maintain an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from municipal operations to the MS4.

The Township has implemented a training program to address various stormwater and illicit discharge topics. Training documentation is included as Figure MCM6.C.

### BETHLEHEM TOWNSHIP POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS PLAN (MCM#6)

#### Background

Under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, the Township is required to develop, implement, and enforce a stormwater management program to meet the requirements of the permit and ensure that controls are in place to prevent or minimize water quality impacts. Under the permit, the Township must satisfy specific minimum control measures (MCMs) relating to stormwater runoff from municipal operations and record keeping of municipal equipment maintenance. The Township will develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The program will also include employee training, fleet and building maintenance, new construction and land disturbances, and stormwater inspection and system maintenance.

### 1) Operations

An Operations & Maintenance Manual has been developed for the public works department to identify operations conducted by the group and describe the preferred method of conducting those operations. The manual focuses on methods that prevent pollution discharges, especially to the MS4 and surface waters. It identifies illicit discharge detection and elimination procedures for public works staff, who are expected to identify routine illicit discharges during catch basin inspection and cleaning, and includes emergency contact information.

### 2) Employee Training

Employee Training will take place annually and will focus on best management practices (BMPs) associated with vehicle fueling, washing and maintenance, stormwater BMP inspection and maintenance, controls for reducing or eliminating the discharge of pollutants from municipal roadways and properties, and procedures for the proper disposal of waste removed from the storm sewer system. A municipal employee MS4 training spreadsheet will be implemented and maintained and included in the annual reports. The spreadsheet will incorporate the date of training, municipal employee attending the training, description of the training, and the qualified trainer responsible for the training presentation. The training program will be mandatory for all Township employees and will be hosted in-house by utilizing an electronic PowerPoint presentation during the interactive workshop.

#### 3) New Construction and Land Disturbances

New construction and land disturbances with approved land development and stormwater management plans will be tracked internally and will be inspected for water quality compliance by Township staff, HRG, and/or the County Conservation District. Inspections will be conducted during construction activities and will be reported. Reports will list all newly installed BMPs, dates of installation, and the functionality of the BMP.

#### 4) Fleet and Building Maintenance

Fleet and building maintenance will be recorded and tracked by a spreadsheet. The spreadsheet will note the maintenance date, type of maintenance performed, and the party conducting the maintenance. The spreadsheet will also track fleet washing of each individual piece of equipment utilized and owned by the Township. Equipment and vehicles owned and operated by the Township will be inspected annually for potential flaws and leaks and will be documented if found along with the means taken to fix the flaw or leak. All maintenance spreadsheets will be included in the annual reports.

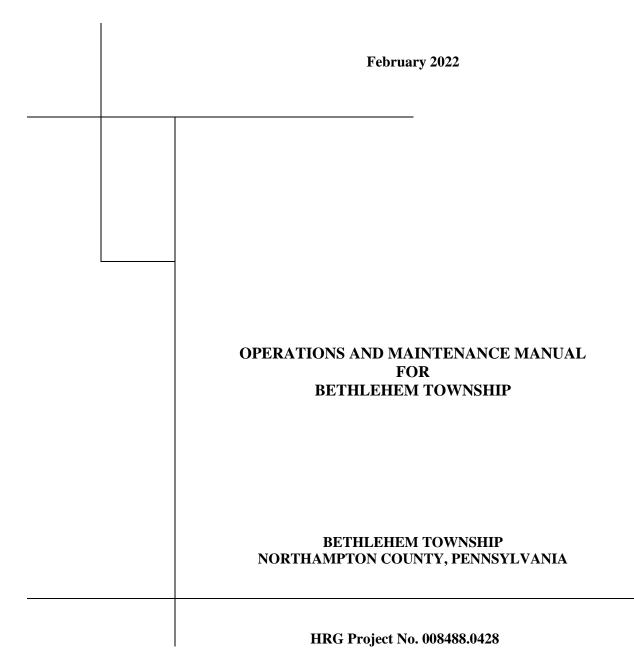
### 5) Storm Sewer System Inspection and Maintenance

The storm sewer system will be inspected following storm events yielding more than one inch of rain per hour. Inlets are also inspected yearly for maintenance or necessary cleaning and upon the receipt of any public complaints. If any inlets/outfalls are found in need of maintenance or cleaning, the maintenance or cleaning is performed as soon as possible. The Township also institutes street sweeping from April to September in an attempt to keep roadway litter and antiskid grit from entering the storm sewer system.

MCM 6.B



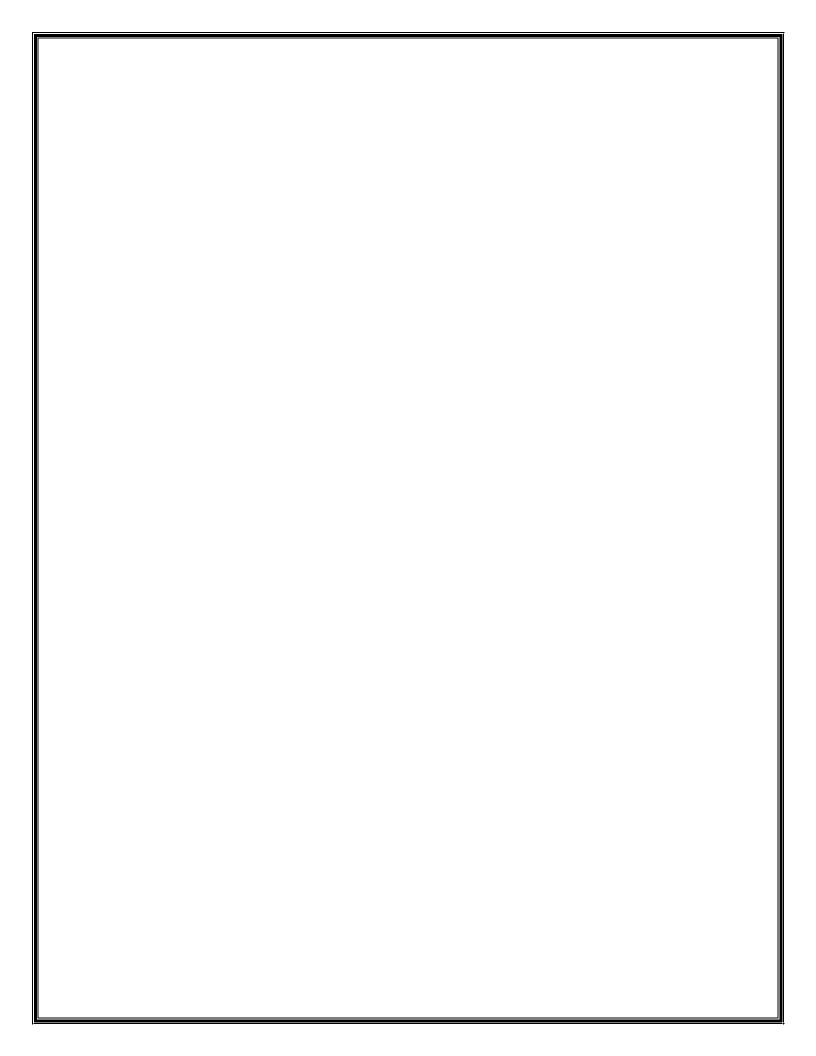
369 East Park Drive Harrisburg, PA 17111 (717) 564-1121 www.hrg-inc.com



#### OPERATIONS AND MAINTENANCE MANUAL FOR BETHLEHEM TOWNSHIP, NORTHAMPTON COUNTY, PENNSYLVANIA

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#### **1.0 Inventory of Bethlehem Township Facilities and Activities**

**Purpose:** To provide a comprehensive list with the name and location of all urbanized areas, storm sewer outfalls, and municipally-owned facilities within Bethlehem Township; to provide a listing of the operations and maintenance responsibilities associated with each Township facility and activity.

The facilities owned by Bethlehem Township and the associated operations and maintenance responsibilities are listed in the table below. A map depicting the location all the municipally-owned facilities and properties is included as Exhibit 1 (Section 7.0).

Bethlehem Township Facilities and Activities				
Facility/Activity	Storm Sewer System Impact	Discharges To	Located in Urbanized Area (Yes or No)	O&M Responsibilities
Municipal Building	Parking lot, rooftop drainage	Nancy Run	Yes	Cleaning, snow removal, landscaping
Public Works Garage	Paved driveway, rooftop drainage, oil water separator, inlets	Nancy Run	Yes	Vehicle and equipment fueling/maintenance; management of used liquids (oils, solvents, coolants, vehicle wash water); periodic inspection of inlets
5th Street Municipal Complex	Paved driveway, rooftop drainage, oil water separator, inlets	Nancy Run	Yes	Vehicle and equipment fueling/maintenance; management of used liquids (oils, solvents, coolants, vehicle wash water); periodic inspection of inlets
Streets	Inlets, catch basins	Various	Yes	Periodic snow removal/sweeping, inlet/catch basin cleaning, paving, clean gutters
Municipal Park	Parking lot, pool, athletic fields, tennis courts, basketball courts, pavilion	Nancy Run	Yes	Landscaping, pest control
Comer Park	Parking lot, playground, pavilion	Nancy Run	Yes	Landscaping, pest control
14th Street Park	Parking lot, tennis courts, basketball courts, roller hockey court, pavilion	Lehigh River	Yes	Landscaping, pest control
Chetwyn Terrace Park	Parking lot, playground, pavilion	Lehigh River	Yes	Landscaping, pest control

Birchwood Park	Parking lot, playground, pavilion	Lehigh River	Yes	Landscaping, pest control
Housenick Park	Parking lot, trails, homestead, pavilion	Monocacy Creek	Yes	Landscaping, pest control
Palmer-Bethlehem Twp Bikeway	Trail, Storm Sewer System Impact	Lehigh River	Yes	Landscaping, pest control
D&L Trail -Lehigh Canal	Trail, Storm Sewer System Impact	Lehigh River	No	Landscaping, pest control
Emerald Hills Greenway	Storm Sewer System Impact	Nancy Run	Yes	Landscaping, pest control
Highland Park Greenway	Storm Sewer System Impact	Nancy Run	Yes	Landscaping, pest control
Vineyards Walking Path	Trail, Storm Sewer System Impact	Lehigh River	Yes	Landscaping, pest control
Hope Road Ponds (PennDOT)	Storm Sewer System Impact	Lehigh River	Yes	General overview of agricultural practices, landscaping, pest control
Carter Road Triangle	Storm Sewer System Impact	Nancy Run	Yes	Landscaping, pest control
3rd & Walnut	Storm Sewer System Impact	Nancy Run	Yes	Landscaping, pest control
Hope Rd & Sturbridge	Storm Sewer System Impact	Lehigh River	Yes	Landscaping, pest control

### 2.0 Pollution Prevention for Fleet Maintenance and Public Works Storage Areas

**Purpose:** To protect stormwater quality through practicing proper vehicle and equipment washing techniques, handling equipment, materials, and wastes in manner that minimizes potential pollutant runoff, and maintaining overall good housekeeping practices to ensure a clean and organized facility.

#### A. Vehicle and Equipment Maintenance

The practices listed below are adhered to in order to prevent pollutant runoff related to the storage and maintenance of vehicles and equipment. The procedures outlined below are applicable to both inside and outside material handling activities conducted at the public works facility as materials spilled inside are frequently tracked outside by vehicle and foot traffic.

- Any required vehicle/equipment maintenance including fluid changes (oil, antifreeze, etc.) is performed inside the public works facility. If vehicle/equipment maintenance is unable to be performed indoors, drip pans or other containment devices are used to prevent spills.
- If during inspection any safety, mechanical, and/or loss of fluids issues are discovered, the vehicle or piece of equipment is taken out of service until repaired.

The following truck and equipment inspections are conducted **daily**:

- Each non-CDL truck that will be used for the day is checked for oil level, leaks, tires and operating lighting and brakes.
- > CDL-rated trucks are checked with the more extensive CDL requirements.
- All equipment is checked for oil level, leaks, tires and operating lighting and brakes on the day it will be used.
- All Parks equipment is checked on the day of use for fluid levels, leaks, tires and a general scan of the entire machine.

The following maintenance tasks are performed at the end of the season:

- Parks equipment is dismantled during the off season to perform a complete check and clean up. Items that are beginning to wear are replaced and painted as needed.
- Large equipment is checked and serviced during off season and cleaned on days of inclement weather. Minor repair issues are also addressed at this time.

#### **B.** Vehicle and Equipment Storage

- Vehicles and equipment are stored inside whenever possible. In the event that indoor vehicle storage is no longer possible for all vehicles, vehicles/equipment are to be stored on paved areas and monitored for spills, leaks, etc.
- Vehicles and equipment are never parked over storm drains or catch basins.
- Any vehicle or piece of equipment that is observed to be leaking is moved indoors or under cover as soon as possible. If it cannot be moved indoors immediately, the leaking fluids are drained and a tag is placed on the steering wheel to alert drivers of the leak (see Basic Spill Response Plan).

#### C. Vehicle and Equipment Washing Areas

- Equipment is cleaned prior to being placed in storage.
  - > Only nontoxic or low toxicity cleaning materials are used.

- When using steam cleaning, pressure washing or an aqueous washer is used instead of solvents.
- If power washing with detergents, only detergents which are phosphate-free and biodegradable are used.
- ➢ Gasoline is never used as a cleaner or solvent.
- > Spent cleaners are never disposed of down floor drains.
- All vehicle/equipment washing is performed inside. If a vehicle or piece of equipment is unable to be washed inside, temporary controls are installed around the outdoor wash area to control and contain wastewater.
- Sidewalks and pavement areas are not hosed down; these areas are swept or vacuumed when cleaned.
- Shop floors are swept and mopped for cleaning. All drainage originating in the shop area runs through an oil/water separator before being discharged into the sanitary sewer system.
- All washing equipment is well maintained and inspected regularly. Extra care is taken in inspecting hoses, wands, and nozzles to ensure they deliver the proper rate of water and shutoff automatically when not in use.

#### D. Used Liquid Storage and Disposal

- Used liquids (oils, solvents, coolants) and related wastes are stored in designated containers (drums) inside the public works facility. If indoor storage is not possible, chemicals are stored on paved areas with permanent coverings.
  - > Chemicals and hazardous materials are not stored in high-traffic areas.
  - > All used liquid containers are stored on containment skids.
  - Chemical and flammable storage cabinets and waste storage areas are inspected regularly for leaks/spills.
  - > Absorbent material is used to clean up drips/leaks.
  - Any fluids collected during maintenance activities are transferred from drip pans to the appropriate waste containers.
  - > Oil filters are drained before disposal or recycling.
- When designated waste containers/drums are full, they are swapped out with empty containers by the mechanics bay chemical and flammable storage cabinets at the public works facility.
- Used oil is collected and disposed of offsite by a third party, contracted by the Township.
- Oily rags are disposed of in the dumpster along with other municipal waste.

#### E. Outdoor Storage

- All containers and recycling bins are clearly labeled to identify the material inside and reduce the amount of garbage disposed.
- Dissimilar wastes are not mixed in the same containers.
- All dumpsters are conveniently located and easily observable.
  - > Dumpsters are kept away from surface water and storm sewer inlets.
  - > Liquids and liquid-containing waste are not disposed of in dumpsters.
  - Waste containers/dumpsters are not washed out outside. Dumpsters are returned to the owner for cleaning at the owner's facility.
- Bulk materials are stored under cover (indoors when whenever possible) in clearly labeled containers.
  - > Materials are kept in their original shipping containers whenever possible.
  - Containers/materials are stored where they are protected from vehicle traffic; either away from traffic or protected by crash posts.
  - All bulk materials are dispensed, handled, and transferred carefully to avoid drips, spills or accidents.
  - Containers are not left open for any longer than it takes to add or remove material. Each container is closed and secured after use.
- When bulk materials are stored outside, they are stored in areas with berms or curbs to prevent stormwater runoff.
- If leakage from a material storage area is observed, the area is enclosed. Enclosing the area consists of storing the waste receptacles under a roof and curbing the area to trap the leakage.

### F. Salt Storage

- All solid salt and deicing materials are stored inside the covered salt storage area at the public works facility.
  - If cover is not available, sand/salt stockpiles and deicing materials are stored on flat, impervious sites that are easily protected from overland runoff and at least 100 feet from streams and flood plains and covered with a tarp to minimize runoff.
- Drainage paths and structures are scraped clean of all salt and deicing materials after trucks are loaded and dispatched.

#### G. General Pollution Prevention/Good Housekeeping

- The public works facility has two (2) catch basins which are cleaned annually using hand tools, backhoe and street sweeper.
- All equipment which contains potential contaminants is kept covered to prevent contact with precipitation.
- Signs and labels are posted in known problem areas and in areas containing hazardous materials.
- Safeguards (safety posts, barriers, fences, etc.) are installed around areas that pose a risk to the health and safety of personnel or the environment.
- Outdoor work areas and waste container storage areas are not hosed down. These areas are swept, vacuumed or mopped as needed.
- When conducting activities where sediment in present,
  - Sediment controls (silt fence, filter socks, etc.) are installed to prevent sedimentladen runoff from leaving the site.
  - Exposed soil areas are stabilized with erosion control measures such as vegetation or erosion control mats to prevent soil from eroding during rain events.

#### H. Basic Spill Response Plan

Spill kits with absorbent materials are located at the public works facility. All public works personnel involved with the management, handling, and storage of oil and other hazardous substances receive site-specific, on the job training regarding proper spill prevention and response.

The Basic Spill Response Plan listed below applies to spills that occur at both Township-owned properties or in the field. When a spill occurs the following steps are taken:

- 1. If possible, shut off the source of the spill immediately.
- 2. Use Oil Dri to contain spills that are relatively small in nature and where the spill chemical and its hazardous properties have been properly identified and assessed.
- 3. Use appropriate personal protective equipment depending on the spill material.
- 4. Cover/block any drains/catch basins in the spill area to prevent material from entering into the stormwater system.
- If possible, pour enough Oil Dri on the spill to cover spill completely. Collect the Oil Dri and dispose of in the proper container (see the Used Liquids Storage/Disposal Procedure).
- 6. If the spill is large (50 gal. or greater) or otherwise uncontrollable, or poses a potential immediate hazard to human health and safety, call 911.

#### **3.0 Structural Stormwater Controls**

**Purpose:** To inspect and properly maintain structural stormwater management devices (BMPs) in a manner which protects the safety of surrounding residents and ensures that the BMPs will continue to function as designed and meet the treatment standards of the NPDES permit.

#### A. Detention Pond Maintenance

Bethlehem Township is responsible for 38 detention ponds. The location of these BMPs are shown on Exhibit 1 (see Section 7.0). In order for the BMPs to function as designed, ongoing maintenance is required.

The following maintenance tasks are conducted **continuously**:

- Only the areas required for appropriate access are maintained (i.e. mowed).
  - Mowing is conducted with a mulching mower and therefore grass clippings are not collected.
  - > Mower blades are set on higher setting to avoid scalping.
  - Lawn mowers or other heavy equipment are not used immediately after or during a rain event when the ground is soft.
- Emergency spillways are always maintained.
- No equipment is serviced in the basin area, near storm drains, or near other stormwater conveyance features. All cleaning/maintenance is conducted at the public works facility.
- Only enough fertilizer is applied on banks to sufficiently maintain plant vigor.
  - Other landscaping chemicals are not used in the basin area or other areas where residue could wash into the basin.
- The Public Works Director is notified if personnel notice any hazardous conditions or materials found during maintenance activities.
  - Public works personnel are not to attempt to clean up any unidentified or hazardous materials without contacting the Public Works Director.
  - All damage/compromise to side slopes, banks, inlet pipes, channels, and outlet structures is reported to the Public Works Director.
- Invasive plants are removed as they appear. A list of common invasive species in included for reference as Exhibit 5.

### The following maintenance tasks are completed monthly:

- Debris/trash is removed from the basin and surrounding area and disposed of in the dumpster located behind the public works facility.
- Clippings/trimming from plants/trees are collected and disposed of properly by the Township.
- Pests are controlled.
  - Standing water can create breeding grounds for mosquitos and other insects. Prompt removal of floating debris will help to minimize stagnant areas.

Animal burrows such as muskrats can deteriorate the structural integrity of an embankment. Any animal burrows are filled in immediately upon discovery.

#### The following maintenance tasks are completed **Monthly** (and After Storms >2 inches):

• All screens, trash racks, and/or pipes are inspected for damage and any accumulated debris is removed.

#### The following maintenance tasks are to be completed **annually**:

• The depth of sediment in the forebay and deep pool is measured in the same spot. The amount of sediment is recorded and tracked to determine when the pond will require dredging. Silt is removed when approximately 30% of the pond capacity is filled.

### 4.0 Control of Soils and Contaminants from Township-Owned Paved Surfaces

**Purpose:** To maintain Township-owned roads and paved surfaces in such a way as to protect local waterways by reducing the amount of sediment, debris, and other pollutants entering the storm sewer system.

#### A. Parking Lot and Street Cleaning

Bethlehem Township conducts street sweeping on public streets and municipal parking lots within the Township to reduce the amount of sediment, debris and organic matter entering the catch basins, which in turn reduces the frequency with which they will need to be cleaned.

- Street Sweeping is conducted by the Township public works department.
- Street sweeping is conducted between April and September.
- Bethlehem Township has intentionally taken steps to reduce the need for street sweeping
  - The Township reduced the grit applied during winter months to reduce the need for spring clean-up by street sweeping.
  - The use of a mulching mower for maintenance of Township-owned properties reduces the amount of grass clipping that need to be cleaned from the streets.
- Street sweeping is conducted on all Township streets starting at the upstream end of the stormsewer system and progressing downward. Street sweeping is focused on specific areas in the Township at one time to ensure a thorough removal of debris.
- All street sweepers are well maintained and operated according to the manufacturer's recommended procedures to get optimal debris removal. This includes adjusting sweeper speed, brush alignment, rotation rate and sweeping pattern.
- Debris is not allowed to accumulate, debris is disposed of on a regular basis.
- Non-vegetative debris (i.e. grit) from sweeper hoppers is collected and taken to a temporary storage area with containment at the Public Works Facility. All collected debris is sent to a landfill.
- Street sweepings or empty sweeper hoppers are not stored, even temporarily, near storm drains or surface water bodies or where wind or rain could scatter the debris.

### **B.** Parking Lot and Street Maintenance

- Nearby (within 25 feet) storm drain inlets are protected from maintenance work (e.g. preparing the surface for asphalt cap, chip sealing, concrete breaking or saw cutting) by place covers, sand bags, filter fabric, or plastic around or over inlets to protect them from entry of wastes, dusts, overspray, or slurry.
- Paving operations using concrete, asphalt, or other sealers are only conducted in dry weather situations to prevent contamination of runoff.

#### C. Salt/De-icing and Snow Storage

Bethlehem Township conducts salt/de-icing of Township streets and municipal parking lots as needed during winter months. The following actions are taken to minimize the amount of salt and debris entering catch basins:

- Salt spillage is minimized when loading salt, sand, or deicer, by not exceeding the capacity of the equipment being used (i.e. front end loader, truck bed).
- Spread patterns are controlled to concentrate material where it is most effective. For example a 4-8 foot strip of de-icing material is often spread down the center line of less traveled roads.
- Salt spreaders are routinely calibrated according to manufacturer's instructions to maximize the effectiveness of the device. At a minimum, calibration is conducted before winter operations begin and after any maintenance is performed on the spreader/truck.
- Personnel is trained to know when to plow and reapply salt in order to allow for the maximum melting by salt before plowing.
- When using sand, coarse, clean "washed" sand, which is free of fine particles and dust and easier to clean in the spring, is used.
- Snow is removed manually and deicer is hand-applied (sparingly) on driveways and sidewalks.
- Only designated areas are used for snow storage.
  - Debris is cleared from snow storage areas each year prior to and following snow storage use.
  - Snow storage areas are located away from streams and storm drains
  - Sensitive ecosystems are identified prior to identifying snow disposal areas and permanent signage is installed in these areas to inform personnel to avoid snow disposal and salt application in sensitive ecosystems.
- Accumulated salt and sand is cleaned by street sweeping at the end of the season.
  - The Township has reduced the amount of grit used on roadways as a preventative measure to reduce the amount of street sweeping required at the end of the season.

#### 5.0 Illicit Discharge Detection and Elimination Program

**Purpose:** To develop a program for addressing illicit discharges within the Township through specific protocols for the reporting, field screening, and tracking of suspected illicit discharges. To detail procedures used to maintain and inspect catch basins, and provide guidance on identifying illicit discharges from construction site runoff.

#### A. Illicit Discharge Reporting

For an illicit discharge reported via resident call to the Township Office:

- 1. Direct the call to the Township Manager.
- 2. If the Township Manager is not available, direct the call to the Assistant Public Works Director.
- 3. If the Assistant Public Works Director is also not available, direct the call to the Herbert, Rowland & Grubic, Inc. (HRG).
- 4. If the spill is large or otherwise uncontrollable, or poses an immediate danger to life, the environment, or property; ask for the caller's location and tell them to hang up and dial 911.

For an illicit discharge discovered by municipal staff:

- 1. Fill out the top portion of the Bethlehem Township MS4 Concern Form.
- 2. Give the form to HRG.
- 3. HRG has a maximum of 2 (two) weeks to respond. Response will include:
  - i. Field visit;
  - ii. Photo documentation of spill;
  - iii. Water testing, if required; and
  - iv. Field report.

### Illicit Discharge Follow-up Actions:

- 1. If the existence on an illicit discharge is unable to be determined, HRG will conduct periodic checks of the site.
- 2. If illicit discharge is grey water, contact the SEO.
- 3. After conducting a field investigation, HRG will determine:
  - i. How to address the problem,
  - ii. Responsible parties, and
  - iii. If the discharge is a public works or codes issue.
- 4. If the illicit discharge is determined to be a codes issue, appropriate Township Officials will issue a notice of violation within 3 (three) weeks of call.
  - iv. The Township Official will determine the appropriate time frame on resident resolution within the enforcement ordinance and confirm with resident that the time frame is achievable.
  - v. Resident will be notified via a yellow notice on door, and both certified and noncertified letters.

#### **B.** Private Property Access

The municipality's right to access private property is granted through the Bethlehem Township Stormwater Management Ordinance Section 34.E.3, as amended:

"The Township Engineer and Code Enforcement staff shall have the right to enter private property to inspect storm drainage facilities. Reasonable effort should be made to contact the property owner prior to any such inspection."

When investigating a suspected illicit discharge located on private property, follow the procedure listed below:

- 1. Always go with two or more people.
- 2. Knock on the property owner's door to ask for permission prior to entering the property.
- 3. Explain to the property owner who you are and why you are there.
- 4. If the resident **denies access** to the property, leave the property and assess if suspicions are important enough to obtain a warrant. Suspicions include sewage, chemicals, or gas that can be seen or smelled.
- 5. If the resident **allows access** to the property, quickly obtain the required information and photos as needed.

#### C. Catch Basin and Inlet Structure Cleaning and Inspection

Catch basins and inlets throughout the Township are cleaned by public works personnel on an as needed basis to prevent clogging and sedimentation. Individual basins may be cleaned more frequently as warranted. Observations about the condition and water quality of the catch basin are documented on the **Catch Basin and Inlet Inspection Form** (included in Section 7.0).

General system inspections are conducted after storm events yielding more than one inch of rain per hour, based upon those areas that are known to have flooding issues or system clogging issues.

The following general protocols are adhered to when cleaning and inspecting catch basins/inlet structures:

- 1. Work upstream to downstream.
- 2. Clean sediment and trash off grate.
- 3. Visually inspect the outside of the grate.
- 4. Visually inspect the inside of the catch basin to determine cleaning needs.
- 5. Inspect catch basin for structural integrity.
- 6. During regular catch basin cleaning, all basins are cleaned regardless of the amount of sediment/debris accumulation. Even basins with minimal accumulation will be cleaned.

- 7. Determine the most appropriate equipment and method for cleaning each catch basin. Methods to remove accumulated sediments include: manual removal using a shovel or bucket loader, or using a high-pressure washer to clean material out of catch basin while capturing the slurry with a vacuum.
- 8. Fluids collected during catch basin cleaning must be handled and disposed of by a third party.
- 9. If contamination or illicit discharge is suspected, notify the appropriate Department (See Addressing Illicit Discharge Procedure).
- 10. Report additional maintenance or repair needs to the Public Works Department.

#### D. Stream Walks

The municipality's right to access private property is granted through the Bethlehem Township Stormwater Management Ordinance Section 34.E.3, as amended:

"The Township Engineer and Code Enforcement staff shall have the right to enter private property to inspect storm drainage facilities. Reasonable effort should be made to contact the property owner prior to any such inspection."

When accessing someone's property with an illicit discharge suspicion, follow the procedure listed below:

- 1. Send out a NOITE (Notice of Intent to Enter) to all property owners that could be affected
- 2. Always go with two or more people
- 3. Bring a copy of the NOITE and keep it on your person
- 4. Stay in the stream
- 5. If you are approached by a resident, show them the NOITE and explain who you are and why you are there. If the resident has an issue with your presence on their property, explain that you will be on your way, and leave the property.

#### E. Construction Site Runoff Awareness

Construction sites commonly contain potential pollutants, such as sediment, trash, construction debris, and hazardous materials. In order to protect local waterways from these pollutants, construction sites should implement control measures/BMPs to reduce soil erosion, reduce sediment loss, and manage on-site wastes. Indications that pollutants are leaving a construction site include stormwater discharges that are turbid, discolored, or have oil sheens. When any of these indicators are present, the disturbed areas of the construction site, BMPs, and erosion control measures is to be inspected.

#### **Erosion Control Measures**

Controls that help reduce soil erosion and retain soil in place include vegetation, mulching, erosion control blankets, and check dams. These types of control measures should be installed both upstream of the site to limit stormwater flow across disturbed areas, and within the site to provide protective covering of disturbed areas on which construction is not actively taking place.

When observing erosion control measures, check for the following:

- Uniform growth in vegetated areas.
- Newly-seeded areas are protected until vegetation is established.
- Mulch is applied evenly and uniformly, especially in high-traffic areas.
- Bare sports are reseed/mulched to maintain uniform thickness.
- Washout areas are not present around control measures.
- Erosion control blankets are securely anchored and not lose or damaged.
- Check dams are installed properly with no evidence of erosion around edges.
- Accumulated debris and silt is not built up around check dams.

#### Sediment Loss Control Measures

Controls that reduce sediment loss are temporary structures that capture sediment through settlement or filtration before it leaves the construction site. These control measures include silt fence, organic filter socks, inlet protection, and stabilized construction entrances.

When observing sediment loss control measures, check for the following:

- Control measures are properly installed and secured to the ground. For silt fences the lower edge of the fabric must be securely embedded at least 6 inches into the soil.
- Control measures are free from holes or tears and show no evidence of breaching.
- Accumulated sediment is removed before it reaches half the height of the silt fence or filter sock.
- Inlet filters are free from damage and soil accumulation.
- Inlet filters protect, but do not block, the entire inlet opening.
- Construction entrance is free from soil accumulation with no evidence of soil tracking off site.

#### Waste Management Control Measures

Large volumes of debris and trash (packing, pallets, wood waste, personal trash, scrap material) is often present on construction sites. Sufficient and appropriate waste storage should be located throughout the site and emptied regularly. Waste management measures should be implemented to prevent stormwater contamination from on-site hazardous materials.

When observing on-site waste management controls, check for the following:

- All hazardous material containers are clearly labeled.
- Hazardous materials are stored within appropriate enclosures, with secondary containment precautions.
- Storage areas area free from evidence of leaks and spills.
- Portable toilets are placed behind BMPs, away from the street or drainage ways, should a spill or leak occur.

#### 6.0 Managing Vegetative Properties

**Purpose**: To protect stormwater quality by minimizing or preventing the discharge of pesticides, herbicides, and fertilizers through the proper storage, handling and application of these chemicals in accordance with the manufacturer's specifications and all applicable state and federal regulations.

#### A. Pesticide, Herbicide, and Fertilizer Storage

During normal maintenance of Township-owned facilities and properties, occasional use of pesticides, herbicides, and fertilizers is warranted. These chemicals are stored in accordance with the manufacturer's specifications and all applicable federal and state regulations. Additionally, the following procedures are adhered to when storing of pesticides, herbicides, and fertilizers:

- Pesticides, herbicides and fertilizers are stored off the ground in the chemical and flammable storage cabinets located at the public works facility.
- Pesticides, herbicides or fertilizers are never stored near storm drains or waterbodies.
- Safety Data Sheets (SDS) for each chemical are kept by the chemical and flammable storage cabinets.
- All chemicals are kept in clearly labelled containers.
- The chemical and flammable storage cabinets are regularly inspected for leaks and spills.
- The expiration dates of all chemicals are checked once a year and all expired products are disposed of in accordance with the manufacturer's specifications.
- Ordering of chemicals is limited to only the amount needed in order to prevent surplus or expired chemicals.
- Chemicals are ordered just prior to usage to reduce storage time.

#### B. Pesticide, Herbicide, and Fertilizer Handling and Application

Pesticides and herbicides are used only as needed. The least toxic product or method available to do the job is used, and biodegradable products are used when possible. Pesticides, herbicides, and fertilizers are used in accordance with the manufacturer's specifications and all applicable federal and state regulations. Additionally, the following procedures are adhered to when handling, mixing, and applying pesticides, herbicides, and fertilizers:

- The Township has staff with Pesticide Applicator Certification through the Department of Agriculture for use of chemicals regulated by the USEPA as restricted use pesticides (RUPs).
- Proper personal protection equipment (PPE) is used when handling and applying chemicals.
- All employees handling, mixing, and applying pesticides, herbicides, and fertilizers are trained on the use of SDS and are required to read the SDS for each product they use.
- When preparing chemicals, only the amount of pesticide, herbicide, or fertilizer required for immediate use is mixed.
- Chemicals are mixed only in designated areas and away from storm drains or water bodies.
- Application equipment is calibrated before use to ensure proper amount of product is applied.
- Only pesticide application equipment with emergency shut-off switches are used.

- Problem areas are spot treated with pesticides rather than treating larger areas.
- Caution is used when using a chemical product near a waterway or storm drain.
- Only fertilizers with no phosphorus content are used.
- Fertilizer is applied once during the early or late summer depending on how dry the ground is and if plants are actively growing. Products are not applied when the ground in frozen.
- Any spills or leaks are promptly cleaned up using dry absorbent.

The following maintenance tasks are completed **annually in the fall (for the first 5-7 growing seasons)**:

• Annual buffer inspection – vegetation is inspected for disease or pest problems. Areas that may need to be replaced are tagged.

The following maintenance tasks are completed **annually in the spring**, (for the first 7 growing seasons):

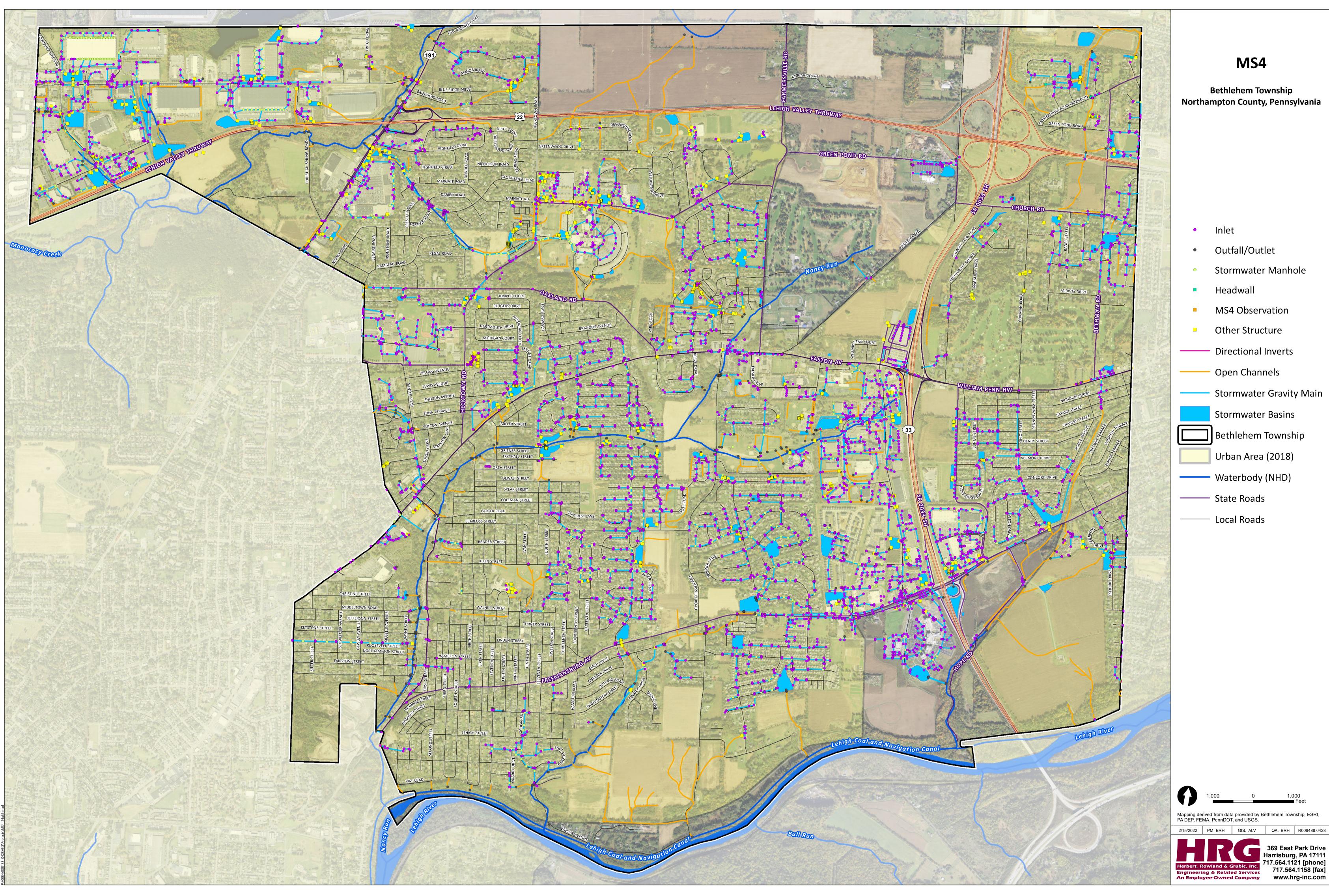
• Any dead or dying trees, shrubs, and ground cover are replaced or replanted. Vegetated areas needing replacement are noted with a flag in the fall for replacement during the following spring.

The following maintenance tasks are completed **annually in the spring and fall**:

• Trash and debris are cleaned up in the early spring after the snow melts and in the late fall.

#### EXHIBITS

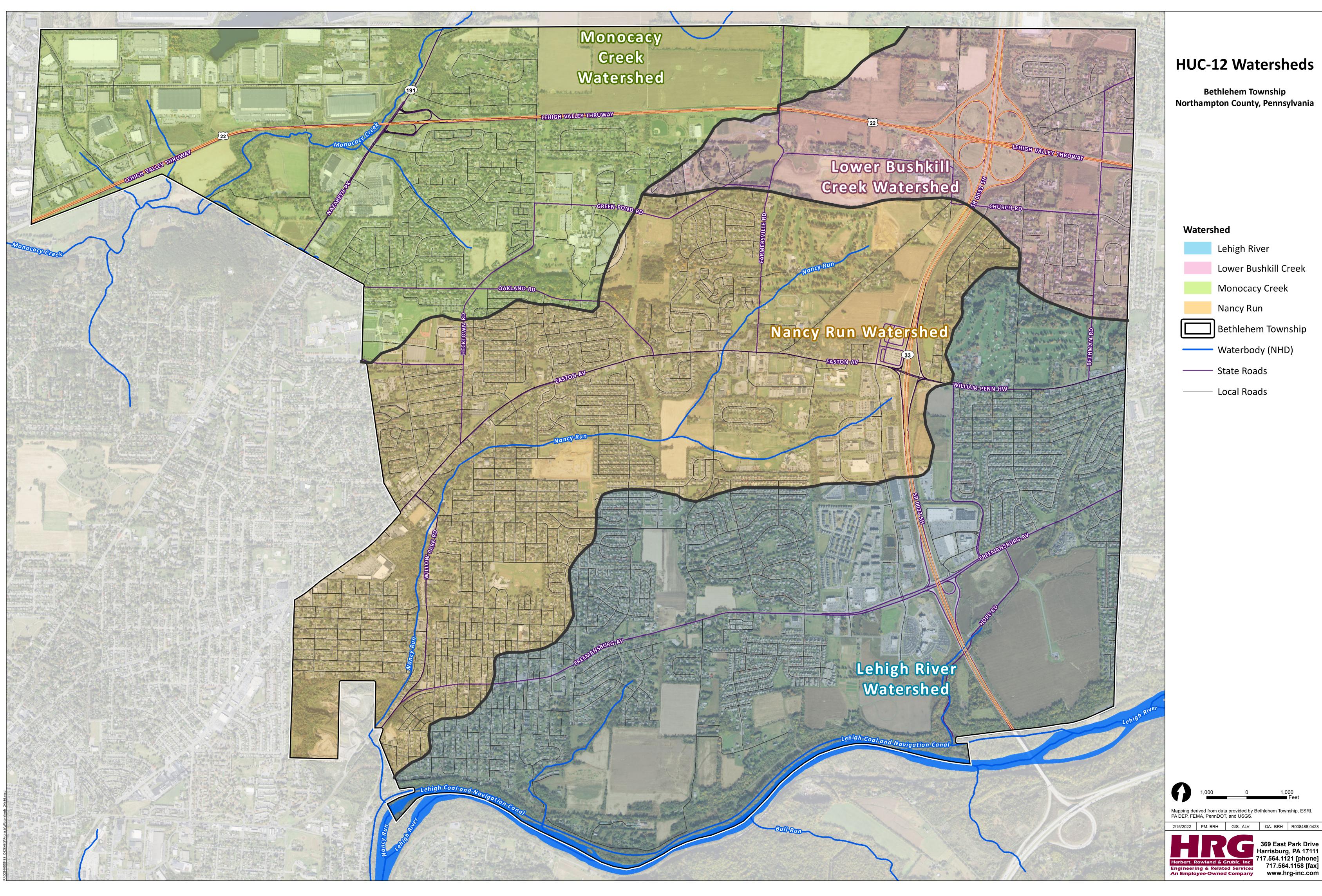
Exhibit 1 – NPDES MS4 Map



- Stormwater Gravity Main

369 East Park Drive Harrisburg, PA 17111 717.564.1121 [phone] 717.564.1158 [fax] www.hrg-inc.com

Exhibit 2 – Watershed Map



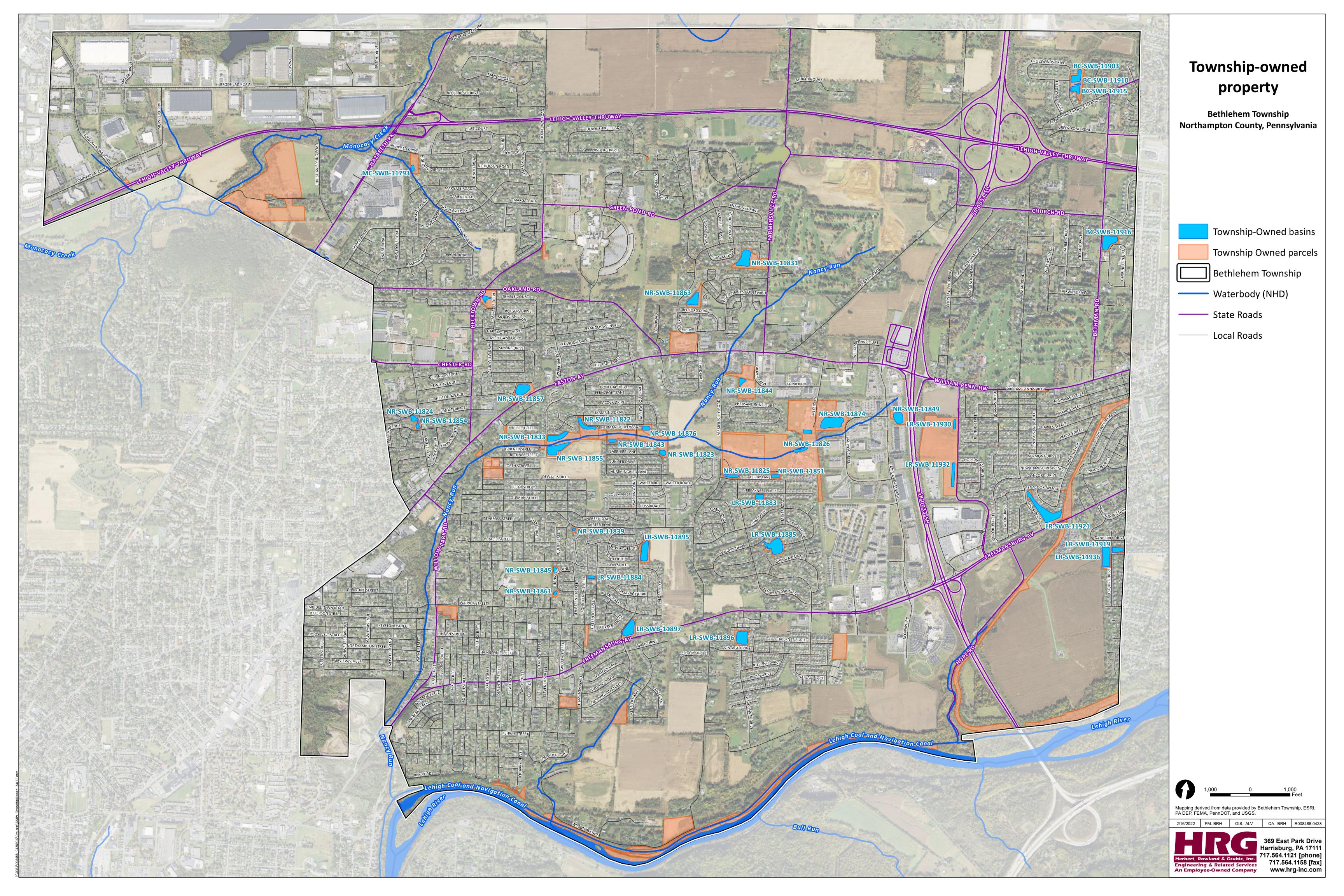
# HUC-12 Watersheds

# Northampton County, Pennsylvania

Mapping derived from data provided by Bethlehem Township, ESRI, PA DEP, FEMA, PennDOT, and USGS.

369 East Park Drive Harrisburg, PA 17111 717.564.1121 [phone] 717.564.1158 [fax] www.hrg-inc.com

Exhibit 3 – Township-Owned Property Map



#### Exhibit 4 – Common Tree Species, Not To Be Removed

# Red Maple (Acer rubrum)



Habitat: Eastern North America

Climate: -40°F minimum, wide tolerance to climate

Growth and Yield: Lives less than 150 years. Average height is 60 to 90 ft.

# River Birch (Betula nigra)



Habitat: Southeastern quarter of the United States Climate: Hot and humid, wide tolerance to climate Growth and Yield: Average height is 50 to 80 ft.

# Black Walnut (Juglans nigra)



Habitat: Eastern United States

Climate: Optimum range is 55°F

Growth and Yield: Average height is 40 to 50 ft.

# Silver Maple (Acer saccharinum)



Habitat: Range of silver maple extends from New Brunswick, central Maine, and southern Quebec, west in southeastern Ontario and northern Michigan to southwestern Ontario; south in Minnesota to southeastern South Dakota, eastern Nebraska, Kansas, and Oklahoma; and east in Arkansas, Louisiana, Mississippi, and Alabama to northwestern Florida and central Georgia

Climate: Normal annual total precipitation 32 to 60 in.

Growth and Yield: Average height is 90 to 120 ft.

# American Beech (Fagus grandifolia)



Habitat: Eastern United States

Climate: Optimum range is 40 to  $70^{\circ}$ F. can exist under temperature extremes lower than -44°F

Growth and Yield: Average height is 50 to 80 ft.

## White Ash (Fraxinus Americana)



Habitat: Eastern United States

Climate: 7 to 81°F

Growth and Yield: Average height is 70 to 90 ft.

# Green Ash (Fraxinus pennsylvanica)



Habitat: Green ash extends from Cape Breton Island and Nova Scotia west to southeastern Alberta; south through central Montana, northeastern Wyoming, to southeastern Texas; and east to northwestern Florida and Georgia.

Climate: 0 to  $80^{\circ}$ F

Growth and Yield: Average height is 50 to 60 ft.

# American Holly (Ilex opaca)



Habitat: From the maritime forests of Massachusetts, holly is scattered along the coast to Delaware. It grows inland into several Pennsylvania counties and abundantly southward throughout the coastal plain, Piedmont, and Appalachian system. The range extends south to mid-peninsula Florida, west to eastern Texas and southeastern Missouri

Climate: Humid

Growth and Yield: Average height is 40 to 100 ft.

# Tuliptree (Liriodendron tulipifera)



Habitat: Eastern United States

Climate: Variety of climatic conditions

Growth and Yield: Average height is 100 to 150 ft.

# Blackgum (Nyssa sylcatica)



Habitat: Southwestern Maine to New York, to extreme southern Ontario, central Michigan, Illinois, and central Missouri, and south to eastern Oklahoma, eastern Texas, and southern Florida. It is local in central and southern Mexico. Optimum development is made on lower slopes and terraces in the Southeastern United States.

Climate: Variety of climatic conditions

Growth and Yield: Average height 120 ft.

# Pitch Pine (Pinus rigida)



Habitat: Grows over a wide geographical range-from central Maine to New York and extreme southeastern Ontario, south to Virginia and southern Ohio, and in the mountains to eastern Tennessee, northern Georgia, and western South Carolina. Because it grows mostly on the poorer soils, its distribution is spotty.

Climate: Humid

Growth and Yield: Maximum age of 200 years. Maximum height of 100 ft.

# Eastern Cottonwood (Populus deltoids)



Habitat: Grows along streams and on bottom lands from southern Quebec westward into North Dakota and southwestern Manitoba, south to central Texas, and east to northwestern Florida and Georgia

Climate: -45 to 115°F

Growth and Yield: 175 to 190 ft.

White Oak (Quercus alba)



Habitat: Eastern United States Climate: Variety of climatic conditions Growth and Yield: 80 to 100 ft.

# Swamp White Oak (Quercus bicolor)



Habitat: Grows from southwestern Maine west to New York, southern Quebec, and southern Ontario, to central Michigan, northern Wisconsin, and southeastern Minnesota; south to Iowa and Missouri; east to Kentucky, Tennessee, Virginia, and New Jersey. It is scattered in North Carolina and northeastern Kansas

Climate: -30 to 105°F

Growth and Yield: 60 to 75 ft.

# Willow Oak (Quercus phellos)



Habitat: Coastal Plain

Climate: 50 to 70°F

Growth and Yield: 80 to 120 ft.

# Red Oak (Quercus rubra)



Habitat: extending northeast to Nova Scotia. It grows from Cape Breton Island, Nova Scotia, Prince Edward Island, New Brunswick, and the Gaspé Peninsula of Quebec, to Ontario, in Canada; from Minnesota South to eastern Nebraska and Oklahoma; east to Arkansas, southern Alabama, Georgia, and North Carolina

Climate:  $40 \text{ to } 60^{\circ}\text{F}$ 

Growth and Yield: 65 to 98 ft.

# Sweetgum (Liquidambar styraciflua)



Habitat: Connecticut southward throughout the East to central Florida and eastern Texas

Climate:  $40 \text{ to } 60^{\circ}\text{F}$ 

Growth and Yield: 100 ft.

# Shag-bark Hickory (Carya ovata)



Habitat: Eastern United States

Climate: Humid

Growth and Yield: 30 to 65 ft.

# Bald Cypress (Taxodium distichum)



Habitat: lower Atlantic Coastal Plain from southern Delaware to southern Florida and thence along the lower Gulf Coast Plain to southeastern Texas.

Climate: Humid, sub-humid, dry

Growth and Yield: 119 ft.

# American Basswood (Tilia Americana)



Habitat: Eastern United States Climate: -18 to 80°F Growth and Yield: 75 to 130 ft.

# Common Hackberry (Celtis occidentalis)



Habitat: Eastern United States Climate: wide climate variations

Growth and Yield: 30 to 50 ft.

#### Exhibit 5 – Common Invasive Plants, <u>To Be Removed Immediately</u>

#### Common Reed



**Plant:** Tall perennial rhizomatous grass; hollow stems; occasional multiple branches; grows 3 – 16 feet in height

Habitat: Brackish and freshwater marches, wet and riparian areas

**Leaf:** Narrow with stiff, sharp points; smooth edges; grows alternatively on top half of stem

Flower: Purple-brown plumes fading to tan

# Garlic Mustard



**Plant:** Cool season biennial herb; First year plant is a low evergreen rosette; Second year plants grow 2-3<sup>1</sup>/<sub>2</sub> feet tall and develops single or multiple branched stalks

Habitat: Shady to partly shady areas, Prefers moist soil

**Leaf:** Heart or triangular shape with sharply-toothed edge; Measures 1-3 inches long and wide; Arranged alternately on stalk; Gives off garlic odor when crushed

Flower: small, white with four petals, clustered at the top of stalks

# Japanese Knotweed



**Plant:** Upright, bushy perennial; Grows to ten feet; Forms dense thickets, dies back at first frost leaving bamboo-like debris

Habitat: In sun or shade near water, low-lying or waste areas; old railroad beds

**Leaf:** Broad ovals to triangular with smooth edge; Grows in alternate arrangement; 4-6 inches long by 3-4 inches wide

Flower: small shiny, triangular

# Japanese Stilt Grass



# Lesser Celandine



**Plant:** Upright annual grass; Resembles small bamboo plant; Mature plants can grow to 2-3 feet; Plant sprawls along ground

**Habitat:** Low moist areas of sun to deep shade; Spreads rapidly through disturbed or overbrowsed areas

**Leaf:** Narrow with stiff, sharp points; smooth edges; grows alternatively on top half of stem

Flower: Pale green spikes at tip of the plant

**Plant:** Small flowering perennial herb; 4-12 inches tall; Emerges in mid to late winter forming a low-growing loose rosette

Habitat: Moist forested floodplains

**Leaf:** Shiny with smooth, sometimes wavy edges; Dark-green and heart to kidney shaped; Arranged alternately along the stem

Flower: Yellow with 8-12 petals

## Purple Loosestrife



**Plant:** Tall upright herbaceous perennial; has a square or 6-sided woody stem usually covered by downy hair; Grows from 3-10 feet high

Habitat: Varied wetland areas, ditches, stream edges, marshes; Prefers wet soil but can grow in dry upland areas

**Leaf:** Whorled and opposite with a smooth edge; Lance shaped and stalkless; Heart-shaped leaves at the plant's base

**Flower:** Showy purple spikes; Individual flowers have five to seven petals

# Thistle - Canada & Bull Reed Canary



**Plant:** Erect branching stems topped by flowers; mature plants stand 1.5-5 feet tall

Habitat: Pastures, rangeland and disturbed non-forested areas

**Leaf:** Alternate spiny, oblong to lance-shaped leaves with toothed edges

**Flower:** Disk shaped flowers -1 inch in diameter; Flower head surrounded by spiny bracts in Bull thistle, spineless bracts in Canada thistle; Pink to purple in Canada thistle; Reddish pink to purple in Bull thistle

#### English Ivy



**Plant:** Evergreen woody vine; Climbs and acts as a ground cover; Vines develop root-like structures enabling them to adhere to trees and walls; Vines can reach 12 inches in diameter

Habitat: Woodlands, forest edges and fields; Full sun to full shade

**Leaf:** Varies in shape; Shiny, dark green with smooth edge; Arranged alternately on vine. Measures up to 4 inches

Flower: Small, green-white; Umbrella-shaped clusters

#### Mile-a-Minute



**Plant:** Trailing annual vine; delicate stem contains sharp, downward pointing barbs; Grows rapidly forming dense mats blanketing other vegetation

**Habitat:** Sun to part shade; moist well-drained soils; Disturbed areas such as wood edges, wetlands and stream banks.

**Leaf:** Alternate, light green (occasionally reddish); Triangular to heart-shaped, smooth edges; Barbs on underside; Measures 1<sup>1</sup>/<sub>4</sub> to 3 inches at base

Flower: Small, white and inconspicuous

# Exotic Bush Honeysuckles



#### <u>Japanese Barberry</u>

**Plant:** Woody deciduous shrubs; Multi-stemmed, oppositely branched; Grows from 6-15 feet in height

Habitat: Sun to part shade; Forest edges and disturbed areas

**Leaf:** Elliptical or lance shaped with a smooth edge; 1-2<sup>1</sup>/<sub>2</sub> inches long; Opposite leaf arrangement

**Flower:** Small, fragrant, tubular; Grows in pairs along stem at leaf junction; Blooms in May; Creamy white, pink or crimson in color



**Plant:** Small, dense deciduous shrub; Grows 2-8 feet in height; Grey/brown bark with grooved brown branches; Thorns at the leaf nodes; Bright yellow wood when bark is scratched

Habitat: Full sun to shade including forest, open woodlands, wetlands and meadows

**Leaf:** Small (1/2 to 1 <sup>1</sup>/<sub>2</sub> inches long); Bright green and oval to spatulashaped; Smooth edge; Arranged alternately on the stem

**Flower:** Appears in mid-April to May; Clusters of small pale yellow flowers along stem

#### Tree of Heaven



**Plant:** Grows over 80 feet tall; Single trunk with rounded crown; Plant gives off strong distinct odor when cut, similar to peanut butter; Bark is thin, light gray to brown; Large, heart-shaped leaf scars

Habitat: Thrives in disturbed soil, poor soil; Roadside, forest and field edges

**Leaf:** Compound, 11-25 opposite leaflets; Smooth with glandular teeth near base; between 1-4 feet in length; Arranged alternately on branch

Flower: Yellow-green, grows at ends of branches; Appears in June

#### Exhibit 6 - MS4 FAQs

#### 1. What does MS4 stand for?

MS4 is an acronym for Municipal Separate Storm Sewer System.

#### 2. Who is your MS4 operator?

The permitted MS4 area is operated by Bethlehem Township. The Primary Contact for the Bethlehem Township MS4 is: Doug Bruce, Township Manager

#### 3. What is an illicit discharge?

Federal regulations define an illicit discharge as, "any discharge to an MS4 that is not composed entirely of stormwater". There are however some exceptions: discharges from NPDES-permitted industrial sources and discharge from fire-fighting activities. Examples of illicit discharges: sanitary wastewater, effluent from septic tanks, car wash wastewaters, improper oil disposal, radiator flushing disposal, laundry wastewaters, grass clippings, trash, spills from roadway accidents and improper disposal of auto and household toxics.

#### 4. Who do you call to report a spill?

Spills are reported through contacting the following numbers (based on the location and severity of the spill):

a. The DEP Northeast regional office: 570-826-251. If it is an emergency situation, call the DEP emergency phone number: 1-800-541-2050 or the EPA National Response Center: 1-800-424-8802. Please send a copy of all documentation associated with spills to HRG for inclusion in the Annual MS4 Report.

#### 5. Where are spill clean-up materials located?

Spill kit clean up materials are kept in the public works facility.

#### 6. What do you do in case of a leak or spill?

#### Step 1: Stop the leak/spill

The leak or spill should be stopped if this can be done safely. Turn off nozzles or valves from the leaking container. For fuel spills, initiate emergency shut-off immediately.

#### Step 2: Contain and recover the spill

If the spill or leak cannot be stopped, catch the flowing liquid using a bucket, pail, shovel, or another available tool. Absorbent materials like kitty litter, sand, straw, sawdust, wood chips, oil-dry, and sorbent pads can be used to soak up petroleum products or other harmful fluids. Sorbents do not make petroleum nonflammable.

"Solidifiers" are powders or liquids that react with petroleum to turn it into a rubbery substance, immobilizing and lowering the vapor levels. Solidifying absorbents are safe for use on spills, however, their effectiveness depends on how the material is applied and used. Booms and oil socks can be used to prevent spills from flowing into unwanted drains or other sensitive areas.

#### Step 3: Collect the contaminated sorbent

Brooms and pans can be used to sweep up the sorbent material and put it into buckets, garbage cans, barrels, or on top of plastic sheeting. Remember to control ignition sources in the vicinity of the containment area.

#### Step 4: Secure the waste

The waste should be housed in a leak proof container until it can be disposed of properly.

#### 7. What is the difference between an inlet and a catch basin?

An inlet is a structure that collects stormwater and discharges it to the storm sewer system. A catch basin is an inlet where heavier sediment, small objects and debris settle and has a sumped collection area immediately below the outlet.

- 8. How often does street sweeping occur and where does the waste from the sweeping go? Sweeping occurs April through September and waste is taken to the landfill.
- **9.** When is the last time your municipal inlets were cleaned? An up-to-date database of all MS4 Operations & Maintenance activities is cataloged within the Township GIS System.

#### **10.** Where does your vehicle wash area waste water go? Into an oil/water separator, which is cleaned out once a year.

11. When was your last training? Subject? Trainer?

Refer to Exhibit 5 for a list of trainings.

**12. Where is your outfall map? How many outfalls are in your storm sewer system?** An outfall map is located in the public works garage. There are 169 outfalls in the system.

#### 13. How do you determine if a dry weather discharge is illicit?

If field screening reveals a dry weather flow at an outfall, it may not always be an illicit discharge, it may be spring fed groundwater entering the system or a piped stream channel. Visually inspect the dry weather flow for color, turbidity, sheen, floating or submerged solids; for adverse effects on plants or animals in proximity to the outfall and for odor. If there is any odor or the visual inspection shows any indication that the discharge may contain pollutants, then samples shall be collected for field and/or lab testing of selected chemical and biological parameters as part of the process to determine if the dry weather flow is illicit. Common parameters include pH, conductivity, E. coli bacteria, fecal coliform bacteria, metals, suspended solids, dissolved solids, oils, ammonia, surfactants, chlorine and fluoride.

#### 14. Where is your Stormwater Management Ordinance?

A copy of the Stormwater Management Ordinance is located in the municipal office as well as the public works garage.

#### 15. Where are your Annual Reports kept?

A copy of the Annual Report is kept in the municipal office.

#### 16. Where is the Operations and Maintenance Plan for Municipal Facilities?

A copy of the written plan is located in the public works facility, where it is available for anyone to review.

## APPENDIX A

FORMS

#### APPENDIX B

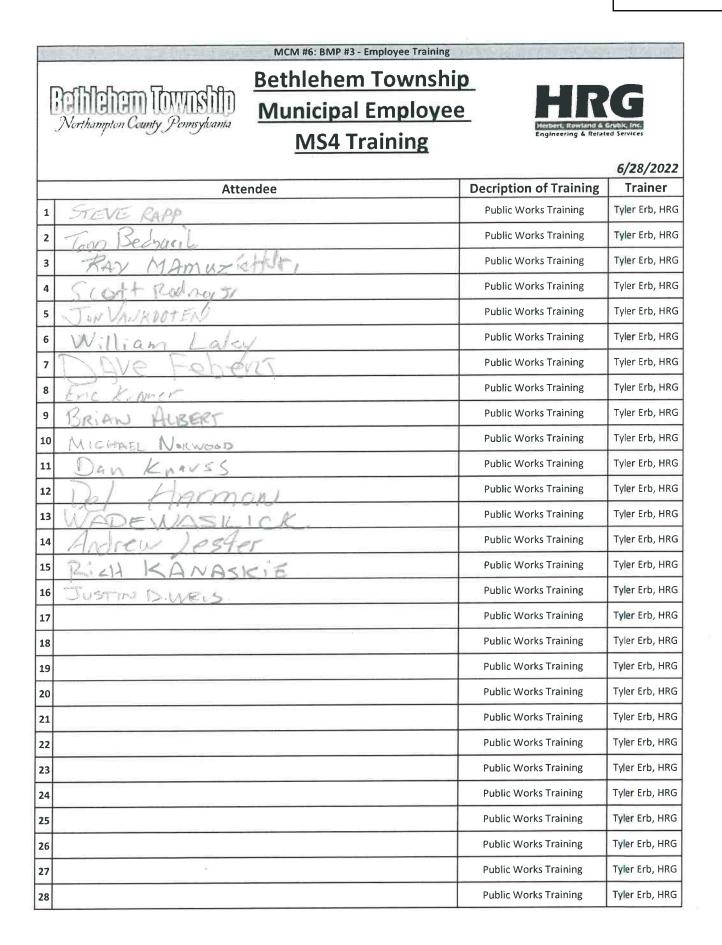
#### CONTACT LIST

Emergency Contact List for Spill Response	
Phone Number	Name of Contact
610 814 6407	Richard Kanaskie
610-814-6407	
- (717) 602-6456	Tyler Erb
610-814-6442	Richard Grube
570-826-2511	Michael Bedrin
1-800-541-2050	
1-800-424-8802	US Coast Guard
D	0IAL 911
610 694-0062	Station Number
610-814-6465	Cpt. Gregory Gottschall
717 558-6900	Dispatch
-	
610-814-6407	Richard Kanaskie
717 564-1121	Tyler Erb
	610-814-6407 (717) 602-6456 610-814-6403 610-814-6442 570-826-2511 1-800-541-2050 1-800-424-8802 D 610 694-0062 610-814-6465 717 558-6900 610-814-6407

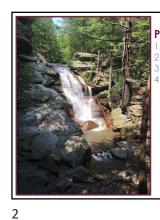
Common Spill/Illicit Discharge

Rare - Large quantity unable to be handled locally

**EMERGENCY** - Immediate danger to health, property, environment

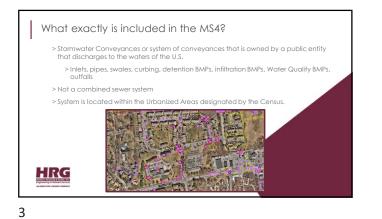






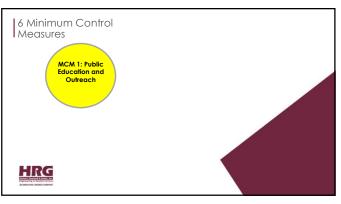
#### Presentation Topics:

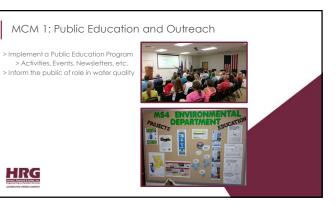
- Stormwater Overview MS4 Permit and Program Requirements Regulatory Inspections/Compliance Good Housekeeping Practices

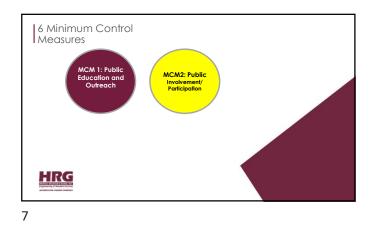




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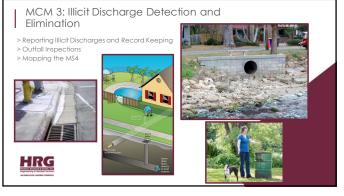






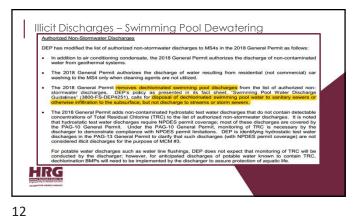


6 Minimum Control Measures MCM 1: Public Bducation and Outreach Outreach Chrystement/ Participation Chrystement/ Participation









#### MS4 Infrastructure Inspections

#### >Catch Basins

>Inspected once per permit term; problem areas should be inspected annually >Documentation of inspections; will help prioritizing future maintenance > Utilize mapping

#### >Outfalls

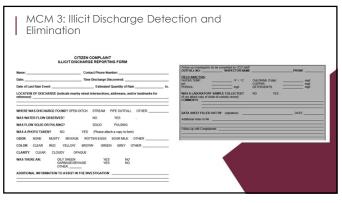
- > Must be inspected once per permit term; problem areas should be inspected annually
- > Documentation of inspection; including photos
- > Dry weather flows will require sampling
   > All potential Illicit Discharges need to be investigated



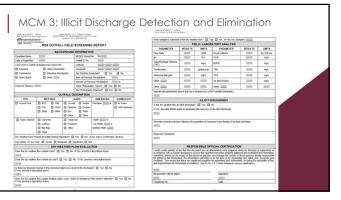
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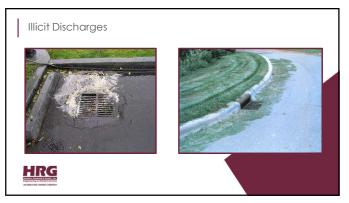
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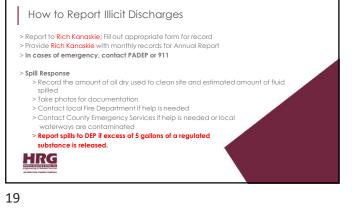


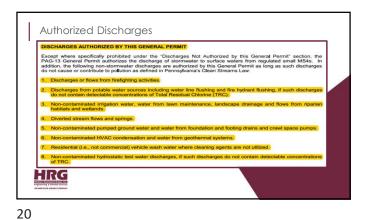
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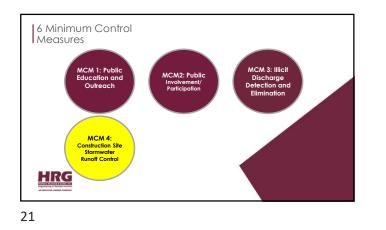




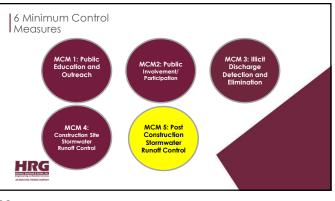
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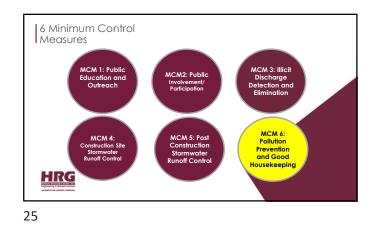




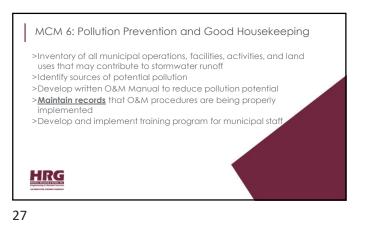




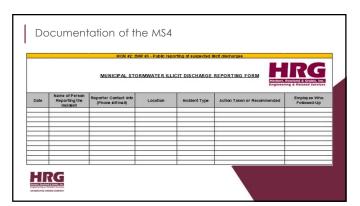


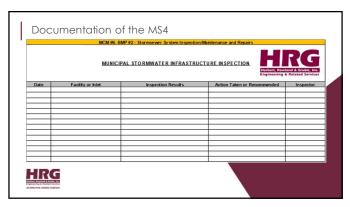


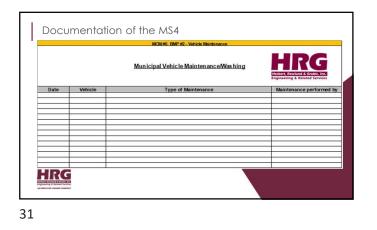




























April 11, 2022

FACILITY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials
1. Municipal Park										28. Rolling Greens									
2. Municipal Park - Northside complex				X				$\times$	$\left  \right\rangle$	29. Oakland/Hecktown							-		
3. Municipal Park - Meyer Lane				X				X	$\lambda$	30. Shop Rite (Gloucester)									
4. Comer Park								, , , , , , , , , , , , , , , , , , , ,	)	31. Santee									
5. 14th Street Park									-	32. Long Court									
6. Chetwyn Terrace	MA		~						~	33. Kings Crossing Pond									
7. Birchwood Park	in		1				Strates e		Same	34. Scherman Boulevard I									
8. Rail Trail/Bike Path										35. Scherman Boulevard II	[								
9. Towpath/Canal Trail										36. Galway Drive I									
10. 5th Street Municipal Complex Lawns	V					- 10000	The Party		r sydjalad	37. Galway Drive II									
11. Nancy Run Creek										38. Highland Park I									
12. Ohio Street Lots										39. Highland Park II									
13. Freemansburg Avenue - lots behind houses					1.0				a and a	40. Highland Park III	1.1.1								
14. Emerald Hills Greenway										41. LVIP VI - Baglyos				X				$\top X$	$\sum$
15. Highland Park Greenway						-				42. LVIP VI - Emrick Blvd	d.			$\overline{\mathbf{x}}$				X	X
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17. Falmer Drive Garage										44. 14th Street	p		~					$\sim$	and and a second
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19. Campbell Est. (Rexford Dr.)										46. Hannah's Lane II									
20.Southhampton Est. (off Bethman)										47. Washington/Freemansb	urg								
21. Vineyard Ph.4 (behind Schweps)										48. Washington & Oliver									
22. New Orchard 1 (East of Esquire)										49. Rutland Road Swale	p		1				d'hringit.	$\mathbf{V}$	and the second
23. New Orchard 2(west of Esquin	re)									50. Housenick Park									
24. Vineyards walking path										51. 3rd & Walnut					_				<u> </u>
25. Hope Road ponds Pa DO	Т									52. Hope Rd. & Sturbridge	e								
26. Willow Park at creek										53. Carter Road pond									
27. Lakeview Estates 1 & 2										54. Nancy Run Estates									

MCM 6.D

WEEK OF:

#### **BETHLEHEM TOWNSHIP EMPLOYEE ASSIGNMENT** WEEK OF:

COF: April 18, 2022

FACILITY	MON.	TUES.	WED.	THUR.	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials
1. Municipal Park										28. Rolling Greens									
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3. Municipal Park - Meyer																			
Lane										30. Shop Rite (Gloucester)					+				<sup>1</sup>
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5. 14th Street Park										32. Long Court									
6. Chetwyn Terrace					1	1	1	TV	V	33. Kings Crossing Pond									
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11. Nancy Run Creek										38. Highland Park I					1				
12. Ohio Street Lots									1	39, Highland Park II		+		+				1	
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14. Emerald Hills Greenway						-	1	1		41. LVIP VI - Baglyos									
15. Highland Park Greenway										42. LVIP VI - Emrick Blv	d.								
16. Municipal Building Lawn										43. Carter Road triangle									
17. Falmer Drive Garage										44. 14th Street									
18. Campbell Est. (Anthony Ct)										45. Hannah's Lane I									
19. Campbell Est. (Rexford Dr.)										46. Hannah's Lane II									
20.Southhampton Est. (off Bethman)										47. Washington/Freemansb	ourg								
21. Vineyard Ph.4 (behind Schweps)	1							-		48. Washington & Oliver									
22. New Orchard 1 (East of Esquire)										49. Rutland Road Swale									
23. New Orchard 2(west of Esquire	:)									50. Housenick Park									
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25. Hope Road ponds Pa DOT	 Г									52. Hope Rd. & Sturbridg	e								
26. Willow Park at creek										53. Carter Road pond									
27. Lakeview Estates 1 & 2					V		V	V	V	54. Nancy Run Estates					V	-	V	V	

#### BETHLEHEM TOWNSHIP EMPLOYEE ASSIGNMENT WEEK OF: April 25, 2022

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									29. Oakland/Hecktown									
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1. Municipal Park				$\checkmark$					2	28. Rolling Greens									
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Northside complex										29. Oakland/Hecktown									
3. Municipal Park - Meyer																			1/
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6. Chetwyn Terrace				$\checkmark$				1 ×		33. Kings Crossing Pond						-			
7. Birchwood Park				V					1	34. Scherman Boulevard I		~						~	i
8. Rail Trail/Bike Path										35. Scherman Boulevard I	r								
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10. 5th Street Municipal				$\checkmark$						37. Galway Drive II		1							
Complex Lawns 11. Nancy Run Creek																			
12. Ohio Street Lots										38. Highland Park I									
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lots behind houses										40. Highland Park III									
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15. Highland Park Greenway										42. LVIP VI - Emrick Blv	d.								
16. Municipal Building Lawn				-						43. Carter Road triangle					1		1		
17. Falmer Drive Garage										44. 14th Street									
18. Campbell Est. (Anthony Ct)										45. Hannah's Lane I									
19. Campbell Est. (Rexford Dr.)										46. Hannah's Lane II									+
20.Southhampton Est. (off Bethman)							1			47. Washington/Freemansb	urg				1	e			$\overline{1}$
21. Vineyard Ph.4 (behind Schweps)										48. Washington & Oliver									<u> </u>
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23. New Orchard 2(west of Esquir	e)						-			50. Housenick Park		1		1				1	1
24. Vineyards walking path		V				1				51. 3rd & Walnut			1					1	1
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27. Lakeview Estates 1 & 2										54. Nancy Run Estates		+	1				1	Tr-	1-

May 2, 2022

### BETHLEHEM TOWNSHIP EMPLOYEE ASSIGNMENT WEEK OF:

FACILITY	MON.	TUES.	WED.	THUR.	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR.	FRI.	EQUIP,	TASK	DONE	Initials
1. Municipal Park										28. Rolling Greens									
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7. Birchwood Park										34. Scherman Boulevard I				1					
8. Rail Trail/Bike Path			i serene					÷		35. Scherman Boulevard I	I			1		V	V		
9. Towpath/Canal Trail										36. Galway Drive I				V			1	Ŵ	
10. 5th Street Municipal Complex Lawns										37. Galway Drive II				2	-		-1	FV	1
11. Nancy Run Creek										38. Highland Park I									
12. Ohio Street Lots										39. Highland Park II							- /	17	
13. Freemansburg Avenue -		1./			t							<i>'</i>	<u> </u>				. /		
lots behind houses 14. Emerald Hills Greenway										40. Highland Park III						1			
15. Highland Park Greenway										41. LVIP VI - Baglyos						1	- surger to the second	t and the second	
16. Municipal Building Lawn										42. LVIP VI - Emrick Blv	d. 								+
17. Falmer Drive Garage	1/							2		43. Carter Road triangle									+
18. Campbell Est. (Anthony Ct)			-/				2			44. 14th Street									
19. Campbell Est. (Rexford										45. Hannah's Lane I		ł					·	+	
Dr.) 20.Southhampton Est. (off									$+ \checkmark$	46. Hannah's Lane II									
Bethman)           21. Vineyard Ph.4 (behind		$\downarrow V$								47. Washington/Freemansb	urg	ļ							
Schweps)			V				~			48. Washington & Oliver		ļ							
22. New Orchard 1 (East of Esquire)							L		Z	49. Rutland Road Swale									
23. New Orchard 2(west of Esquin	re)							F L		50. Housenick Park						12	2		
24. Vineyards walking path			ļ							51. 3rd & Walnut	V								
25. Hope Road ponds Pa DO	Т			$\checkmark$						52. Hope Rd. & Sturbridg	e	$\sim$				$\checkmark$		$\checkmark$	$\langle \rangle$
26. Willow Park at creek	ļ	ļ	<u> </u>			ļ,				53. Carter Road pond				1					
27. Lakeview Estates 1 & 2		LV							11	54. Nancy Run Estates						1	1 1	TV	

K OF: May 9, 2022

#### BETHLEHEM TOWNSHIP EMPLOYEE ASSIGNMENT WEEK OF:

F: May 16, 2022

FACILITY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials
1. Municipal Park	1/									28. Rolling Greens									
2. Municipal Park - Northside complex			1				$\checkmark$	$\checkmark$		29. Oakland/Hecktown									
3. Municipal Park - Meyer Lane							$\checkmark$			30. Shop Rite (Gloucester)					./		$\checkmark$		
4. Comer Park			, v						-	31. Santee								$\square$	$\square$
5. 14th Street Park										32. Long Court									
6. Chetwyn Terrace										33. Kings Crossing Pond									
7. Birchwood Park			V							34. Scherman Boulevard I									
8. Rail Trail/Bike Path										35. Scherman Boulevard II	(	1	<b>*</b>			1		- 1	
9. Towpath/Canal Trail										36. Galway Drive I									
10. 5th Street Municipal Complex Lawns										37. Galway Drive II						1		4	4
11. Nancy Run Creek										38. Highland Park I								1	
12. Ohio Street Lots	~								V	39. Highland Park II								1	
13. Freemansburg Avenue - lots behind houses										40. Highland Park III									
14. Emerald Hills Greenway							<b> </b>		1	41. LVIP VI - Baglyos			,				$\square$		$\overline{\checkmark}$
15. Highland Park Greenway										42. LVIP VI - Emrick Blve	d.							1	1
16. Municipal Building Lawn	· /	1								43. Carter Road triangle					-			1	1
17. Falmer Drive Garage										44. 14th Street									
18. Campbell Est. (Anthony Ct)										45. Hannah's Lane I									
19. Campbell Est. (Rexford Dr.)										46. Hannah's Lane II									
20.Southhampton Est. (off Bethman)										47. Washington/Freemansb	urg								
21. Vineyard Ph.4 (behind Schweps)							L	i		48. Washington & Oliver		1							
22. New Orchard 1 (East of Esquire)										49. Rutland Road Swale									
23. New Orchard 2(west of Esquir	e)							~		50. Housenick Park									
24. Vineyards walking path							1-		1	51. 3rd & Walnut									
25. Hope Road ponds Pa DO	Т									52. Hope Rd. & Sturbridge	e								
26. Willow Park at creek										53. Carter Road pond								I,	
27. Lakeview Estates 1 & 2			<u> </u>							54. Nancy Run Estates		1-1-	1				TV		

27. Lakeview Estates 1 & 2

FACILITY	MON.	TUES.	WED.	THUR.	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR.	FRI.	EQUIP,	TASK	DONE	Initials
1. Municipal Park						Cut a Trim	L	- L		28. Rolling Greens					1				
2. Municipal Park -			$\overline{}$				/	./				-		7		/	/		
Northside complex							V			29. Oakland/Hecktown				$\sim$			$\sim$		
3. Municipal Park - Meyer				1/					/										
Lane 4. Comer Park					*******				ļ	30. Shop Rite (Gloucester)									
4. Comer Park										31. Santee									
5. 14th Street Park										32. Long Court									
6. Chetwyn Terrace				$\checkmark$					V	33. Kings Crossing Pond									
7. Birchwood Park					$\checkmark$		V	V	V	34. Scherman Boulevard I									
8. Rail Trail/Bike Path									<u> </u>	35. Scherman Boulevard II									
9. Towpath/Canal Trail						1				36. Galway Drive I									
10. 5th Street Municipal		1							1										
Complex Lawns										37. Galway Drive II									
11. Nancy Run Creek										38. Highland Park I									
12. Ohio Street Lots				V				V.		39. Highland Park II									
13. Freemansburg Avenue -									-		-			1		· · · · ·			
lots behind houses										40. Highland Park III				$\checkmark$					
14. Emerald Hills Greenway										41. LVIP VI - Baglyos							1	V	V
15. Highland Park Greenway										42. LVIP VI - Emrick Blvc	1.			V					V
16. Municipal Building Lawn		1				$\checkmark$				43. Carter Road triangle									
17. Falmer Drive Garage				~			L	C	Ċ,	44. 14th Street									
18. Campbell Est. (Anthony Ct	)							1		45. Hannah's Lane I									-
19. Campbell Est. (Rexford Dr.)	-				$\checkmark$		1			46. Hannah's Lane II									
20.Southhampton Est. (off Bethman)		1			~					47. Washington/Freemansb	1					V			V
21. Vineyard Ph.4 (behind Schweps)										48. Washington & Oliver	T							V	
22. New Orchard 1 (East of Esquire)										49. Rutland Road Swale								-	
23. New Orchard 2(west of Esqui	re)									50. Housenick Park							1	Not 10000 Trimme	
24. Vineyards walking path										51. 3rd & Walnut	1						1 V		V
25. Hope Road ponds Pa DO	T									52. Hope Rd. & Sturbridge									
26. Willow Park at creek										53. Carter Road pond		1					-	1	
			l					+		+				<u>μν</u>		+			

54. Nancy Run Estates

May 23, 2022

WEEK OF: May 30, 2022

	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials
1. Municipal Park										28. Rolling Greens									
2. Municipal Park -																			
Northside complex										29. Oakland/Hecktown							E		
3. Municipal Park - Meyer																			
Lane 4. Comer Park										30. Shop Rite (Gloucester)					ļ				
										31. Santee									
5. 14th Street Park										32. Long Court									
6. Chetwyn Terrace					V				$\square$	33. Kings Crossing Pond								1	
7. Birchwood Park					~				17	34. Scherman Boulevard I									
8. Rail Trail/Bike Path										35. Scherman Boulevard II			1	+					
9. Towpath/Canal Trail			1							36. Galway Drive I									
10. 5th Street Municipal				1						50. Galway Drive I								+	<u> </u>
Complex Lawns										37. Galway Drive II									
11. Nancy Run Creek										38. Highland Park I				•					
12. Ohio Street Lots				<u> </u>						39. Highland Park II									
13. Freemansburg Avenue -			····			1				· · · · · · · · · · · · · · · · · · ·	-			· · · ·					
lots behind houses										40. Highland Park III									
14. Emerald Hills Greenway										41. LVIP VI - Baglyos									
15. Highland Park Greenway										42. LVIP VI - Emrick Blvd	1								1
16. Municipal Building Lawn					1			1		43. Carter Road triangle									
17. Falmer Drive Garage					1					44. 14th Street					1			+	
18. Campbell Est. (Anthony Ct)												·····						-	
19. Campbell Est. (Rexford				-						45. Hannah's Lane I	ļ			<u> </u>					
Dr.)										46. Hannah's Lane II									
20.Southhampton Est. (off Bethman)			1							47. Washington/Freemansbu	urg								
21. Vineyard Ph.4 (behind Schweps)										48. Washington & Oliver	Ĭ						1		
22. New Orchard 1 (East of Esquire)										49. Rutland Road Swale									
23. New Orchard 2(west of Esquire	:)									50. Housenick Park									1
24. Vineyards walking path										51. 3rd & Walnut									
25. Hope Road ponds Pa DOT	Γ	V	1/2	7			i.e.	1 2		52. Hope Rd. & Sturbridge									
26. Willow Park at creek	-									53. Carter Road pond	1				+	+			+
27. Lakeview Estates 1 & 2				100					+	^	<u> </u>	1					1		
27. Lakeview Estates 1 & 2										54. Nancy Run Estates		$  \cdot \rangle$	1	1	1				1 (

#### BETHLEHEM TOWNSHIP EMPLOYEE ASSIGNMENT WEEK OF: June 6, 2022 9th st. - - -1919 FACILITY MON. TUES. WED. THUR.FRI. EOUIP. TASK DONE MON. TUES. WED. THUR, FRI. Initials FACILTY EQUIP. TASK DONE Initials 1. Municipal Park V L 11 L C 28. Rolling Greens 2. Municipal Park -1 1 1 Northside complex 29. Oakland/Hecktown Ъ 1 L 3. Municipal Park - Meyer 1 1 $\checkmark$ V 30. Shop Rite (Gloucester) Lane $\overline{\checkmark}$ 4. Comer Park $\checkmark$ 1 L 31. Santee 5. 14th Street Park 1 C 1 32. Long Court 6. Chetwyn Terrace $\checkmark$ 1 1 C $\checkmark$ 1 1/ 1/ 33. Kings Crossing Pond 7. Birchwood Park $\overline{\mathcal{V}}$ $\checkmark$ 1 L 1/ 1 34. Scherman Boulevard I 8. Rail Trail/Bike Path V V L 2 1 35. Scherman Boulevard II 9. Towpath/Canal Trail ~ 1/ 6 $\mathcal{U}$ 36. Galway Drive I 10. 5th Street Municipal $\checkmark$ L ト Complex Lawns 37. Galway Drive II N 11. Nancy Run Creek $\sim$ 1-6 38. Highland Park I $\dot{\iota}$ 12. Ohio Street Lots L $\mathcal{V}$ V 1 V $\smile$ 39. Highland Park II v 13. Freemansburg Avenue -1/ 1/ ~ V $\sim$ 1 \_ V lots behind houses 40. Highland Park III 14. Emerald Hills Greenway 1\_ V 1 Ĺ 1 V V 41. LVIP VI - Baglyos レ 15. Highland Park Greenway 42. LVIP VI - Emrick Blvd. 16. Municipal Building Lawn $\checkmark$ $\checkmark$ $\checkmark$ $\checkmark$ $\checkmark$ L ٢\_ 1 43. Carter Road triangle 17. Falmer Drive Garage ~ 1 Ĺ 1 Ĺ 44. 14th Street 18. Campbell Est. (Anthony Ct) 45. Hannah's Lane I 19. Campbell Est. (Rexford 46. Hannah's Lane II Dr.) 20.Southhampton Est. (off 1 L 47. Washington/Freemansburg Bethman) 21. Vineyard Ph.4 (behind 1 1 48. Washington & Oliver Schweps) 22. New Orchard 1 (East of $\checkmark$ V $\checkmark$ $\checkmark$ $\mathcal{V}$ 49. Rutland Road Swale $\mathbf{V}$ Esquire) $\checkmark$ r 23. New Orchard 2(west of Esquire) 50. Housenick Park 1 1\_ L in 1 24. Vineyards walking path 51. 3rd & Walnut 1 t. 25. Hope Road ponds Pa DOT 1/ 52. Hope Rd. & Sturbridge 26. Willow Park at creek 53. Carter Road pond $\mathcal{I}$ -٦ 27. Lakeview Estates 1 & 2 54. Nancy Run Estates Ū V ~

WEEK OF: June 13, 2022



FACILITY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR	FRI.	EQUIP.	TASK	DONE	Initials
1. Municipal Park										28. Rolling Greens									
2. Municipal Park - Northside complex	$\checkmark$						-	V	V	29. Oakland/Hecktown									
3. Municipal Park - Meyer Lane										30. Shop Rite (Gloucester)									
4. Comer Park										31. Santee									
5. 14th Street Park					/		~	~		32. Long Court						1			
6. Chetwyn Terrace										33. Kings Crossing Pond									
7. Birchwood Park										34. Scherman Boulevard I									
8. Rail Trail/Bike Path		1				1	-	-	L	35. Scherman Boulevard II	[								
9. Towpath/Canal Trail										36. Galway Drive I									
10. 5th Street Municipal Complex Lawns										37. Galway Drive II									
11. Nancy Run Creek									-	38. Highland Park I								1	
12. Ohio Street Lots										39. Highland Park II									
13. Freemansburg Avenue - lots behind houses			÷ .	· · ·						40. Highland Park III					·			-	
14. Emerald Hills Greenway										41. LVIP VI - Baglyos					1				
15. Highland Park Greenway										42. LVIP VI - Emrick Blvd	1						V	V	~
16. Municipal Building Lawn										43. Carter Road triangle									
17. Falmer Drive Garage										44. 14th Street									
18. Campbell Est. (Anthony Ct)	V V						$\checkmark$		$\checkmark$	45. Hannah's Lane I									
19. Campbell Est. (Rexford Dr.)	$\checkmark$					~	$\checkmark$	$\checkmark$	$\checkmark$	46. Hannah's Lane II									
20.Southhampton Est. (off Bethman)										47. Washington/Freemansb	urg								
21. Vineyard Ph.4 (behind Schwens)										48. Washington & Oliver									
22. New Orchard 1 (East of Esquire)										49. Rutland Road Swale									
23. New Orchard 2(west of Esquin	re)									50. Housenick Park									
24. Vineyards walking path	L									51. 3rd & Walnut								V	
25. Hope Road ponds Pa DO	$T \checkmark$			S						52. Hope Rd. & Sturbridge	-								
26. Willow Park at creek										53. Carter Road pond			ļ						
27. Lakeview Estates 1 & 2		1								54. Nancy Run Estates									

FACILITY	MON.	TUES.	WED	TUID	FDI	EQUIP.	TAEV	DONE	Inidial	FACILTY	MON	$p_{00}$		THUDED	L. EQUIP.	TARZ	DONE	T-14-1
. Municipal Park	MON.	TUES.	WED.	THUK.	FKI.	EQUIP.	IASK	DONE	Initials		MON.	TUES. W	/ED.	THURFR	L. EQUIP.		DONE	Initials
-		~								28. Rolling Greens			1			'L		<u> </u>
2. Municipal Park - Northside complex										29. Oakland/Hecktown						K.		
. Municipal Park - Meyer										29. Oakialid/Tiecklowii								
Jane					18					30. Shop Rite (Gloucester)								
. Comer Park										31. Santee			V			$\sim$		
. 14th Street Park										32. Long Court			$\overline{\mathbf{V}}$			1	V	V
. Chetwyn Terrace	Irim				$\checkmark$					33. Kings Crossing Pond			-					
. Birchwood Park										34. Scherman Boulevard I	$\checkmark$					<b></b>	~	
8. Rail Trail/Bike Path										35. Scherman Boulevard II							$\overline{}$	
. Towpath/Canal Trail										36. Galway Drive I							V	
0. 5th Street Municipal Complex Lawns										37. Galway Drive II								
1. Nancy Run Creek						1				38. Highland Park I								
2. Ohio Street Lots									~	39. Highland Park II								
3. Freemansburg Avenue - ots behind houses							·····		17	40. Highland Park III						1		1 * · · ·
4. Emerald Hills Greenway	~									41. LVIP VI - Baglyos								
5. Highland Park Greenway										42. LVIP VI - Emrick Blvc	ł							
6. Municipal Building Lawn										43. Carter Road triangle								
7. Falmer Drive Garage					2	- 1_		L	- 2	44. 14th Street								
8. Campbell Est. (Anthony Ct)									-	45. Hannah's Lane I								
9. Campbell Est. (Rexford										46. Hannah's Lane II								
20.Southhampton Est. (off Bethman)										47. Washington/Freemansb								1
1. Vineyard Ph.4 (behind				/						48. Washington & Oliver								
chwens) 22. New Orchard 1 (East of (squire)			1							49. Rutland Road Swale		+						
23. New Orchard 2(west of Esquire	e)		V						$\uparrow \checkmark$	50. Housenick Park	Trim							+
4. Vineyards walking path				1/					V	51. 3rd & Walnut	JV:M							1
25. Hope Road ponds Pa DO	Г									52. Hope Rd. & Sturbridge		<u> </u>						
6. Willow Park at creek						-				53. Carter Road pond								
27. Lakeview Estates 1 & 2	V	1								54. Nancy Run Estates		<u> </u>				1		

1919 9th st cut

WEEK OF: Ju

June 27, 2022

FACILITY	MON.	TUES.	WED.	THUR.	FRI.	EQUIP.	TASK	DONE	Initials	FACILTY	MON.	TUES.	WED.	THUR.FRI.	EQUIP.	TASK	DONE	Initials
1. Municipal Park										28. Rolling Greens								
2. Municipal Park -												1				/	/	
Northside complex										29. Oakland/Hecktown					× ×		$\mathcal{L}$	
<ol> <li>Municipal Park - Meyer</li> </ol>																'		
Lane										30. Shop Rite (Gloucester)			ļ					
4. Comer Park	1					<i>i</i>		14	1	31. Santee								
5. 14th Street Park		11				V			10	32. Long Court								/
6. Chetwyn Terrace					$\checkmark$				V	33. Kings Crossing Pond								
7. Birchwood Park		V				V		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	V	34. Scherman Boulevard I								
8. Rail Trail/Bike Path										35. Scherman Boulevard II								
9. Towpath/Canal Trail							1			36. Galway Drive I								
10. 5th Street Municipal Complex Lawns	~						1		1	37. Galway Drive II								
11. Nancy Run Creek										38. Highland Park I						V	V	V
12. Ohio Street Lots										39. Highland Park II	V				17		J	1
13. Freemansburg Avenue -		· · ·							1.				· ·					
lots behind houses					L		ļ			40. Highland Park III								
14. Emerald Hills Greenway										41. LVIP VI - Baglyos								
15. Highland Park Greenway										42. LVIP VI - Emrick Blve	d.	NA CONTRACT	1		Alle	VE	Ver	-(
16. Municipal Building Lawn			$\overline{}$							43. Carter Road triangle		I V	1		V			
17. Falmer Drive Garage			1							44. 14th Street		V	1					
18. Campbell Est. (Anthony Ct)										45. Hannah's Lane I		V			~		レ	V
19. Campbell Est. (Rexford Dr.)										46. Hannah's Lane II					5			
20.Southhampton Est. (off Bethman)										47. Washington/Freemansb	urg							
21. Vineyard Ph.4 (behind Schweps)							-			48. Washington & Oliver	T							
22. New Orchard 1 (East of				1						49. Rutland Road Swale	1						1	<u>†</u>
Esquire) 23. New Orchard 2(west of Esquir		1							-	50. Housenick Park						1-2	17	
24. Vineyards walking path	1									51. 3rd & Walnut							<u>†                                    </u>	
25. Hope Road ponds Pa DO	т Т		$\checkmark$							52. Hope Rd. & Sturbridge	e						1	<u>†</u>
26. Willow Park at creek	-	1						1	†	53. Carter Road pond	<u> </u>					+	+ V	
27. Lakeview Estates 1 & 2			1	1	1					54. Nancy Run Estates		1	+	1			1	1

## STORM WATER FACILITY INSPECTION REPORT

SITE: Vine yards Ph. 4

LOCATION: Vintage Dr. Bethlehem Township

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing (posts, rails, mesh material)	Poor Fair	Needs comple Thils. I area needs mesh capair	Replaced Irail. 5-4-22
Gate	Good Poor		Replaced mesh where needed.
(lock intact, hinges)	Fair Good	Needs hingt	Replaced broken hinge 5-4-22
Turf	Poor	Washdut by inlets	
(ground hogholes, overgrowth, washouts, sinkholes)	Fair / Good		
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair	NIA	
Pipe Structures (rust, holes, collapse, blockages)	Good     V       Poor	N/A	
Water (standing, running)	Poor Fair Good	Minor Standing water	
Miscellaneous (litter, etc.)	Poor Fair Good V	Minor litter Branches on/by Pence	
Weather Conditions: $40^{\circ}$ Par-		Inspected By:	Scott + Jon

## STORM WATER FACILITY INSPECTION REPORT

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SITE: Southampton DATE: 3-7-22 LOCATION: Callington Cir Bethlehen Township

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FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing (posts, rails, mesh material)	Poor Fair Good	Few Bioken fails	REPLACED I RAIL ATTO 5-2-22
Gate (lock intact, hinges)	Poor . Fair Good	NJ lock:	LOCK+ CHAIN INSTALLED. REPAIRED GATE 5-2-22
Turf (ground hogholes, overgrowth, washouts, sinkholes)	Poor Fair Good	NIA	
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair / Good	Sediment in concrete waterway leading to outlet	
<b>Pipe Structures</b> (rust, holes, collapse, blockages)	Poor Fair Good	N/A	
Water (standing, running)	Poor Fair Good	NIA	
Miscellaneous (litter, etc.)	Poor Fair Good	N/A	
Weather Conditions: <u>Corrections</u>	·		y: 504+ + 50n

# STORM WATER FACILITY INSPECTION REPORT

SITE: Long Ct. Pond DATE: 3-10-22 LOCATION: Long Ct. Bethlehem Township

FACILITY	CONDI	ΓΙΟΝ	REPAIRS NEEDED	<b>REPAIRS COMPLETED</b>
Fencing (posts, rails, mesh material)	Poor Fair Good	/	Needs couple mils	REPLACED 2 RATLS WEDGED & POST 5-2-22
Gate (lock intact, hinges)	Poor Fair Good		Needs adjustiment	ADJUSTED GATE 5-2-22
<b>Turf</b> (ground hogholes, overgrowth, washouts, sinkholes)	Poor Fair Good	<u> </u>	Some washout in front of inlet. Some groundhoy helds	
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good		NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair Good		NIA	
<b>Pipe Structures</b> (rust, holes, collapse, blockages)	Poor Fair Good		M/A	
Water (standing, running)	Poor Fair Good		NIA	
Miscellaneous (litter, etc.)	Poor Fair Good		WIA	
Weather Conditions: $29^{\circ}$ $540$	۸Ÿ		Inspected By:_	Scott + Jon

# STORM WATER FACILITY INSPECTION REPORT

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SITE: Lake view Estates 1+2 DATE: 3-7-22 LOCATION: Cross winds Dr Betnlehen Township

FACILITY	CONDITION	REPAIRS NEEDED	<b>REPAIRS COMPLETED</b>
Fencing	Poor	Couple of ruils Broken	Roplaced 4 poils + 1 post
(posts, rails, mesh material)	Fair	LOUPR OF TOB BIOFER	
	Good		5-2-22
Gate	Poor	I pull USE client .	-
(lock intact, hinges)	Fair	Could use slight . adjustment	
	Good		
Turf	Poor		
(ground hogholes, overgrowth,	Fair	N/A	
washouts, sinkholes)	Good		
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	N/A	
	Good V		
Outlet Structures	Poor	Some Sedimint on concrete Waterway to pond ontlet	?
(cracks,chips,blockages,grates)	Fair	sound a to and antiet	
	Good	warrong to point other	
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	NIA	
	Good	IVIA	
Water	Poor		
(standing, running)	Fair	NIA	
į	Good		
Miscellaneous	Poor	Minor amount of litter	
(litter, etc.)	Fair	Minor amount on	
	Good	Some Graffiti	
Weather Conditions: $57^{\circ}$ Par	tly Cloudy		Scott + Jon

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# STORM WATER FACILITY INSPECTION REPORT

SITE: New Orchard 1 LOCATION: Esquise Dr.		DATE: 3-8-2	2
		Bethlenem Town Ship	
FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing (posts, rails, mesh material)	Poor Fair Good	Needs a few rails	Replaced 3 rails. 5-2-22
Gate (lock intact, hinges)	Poor Fair Good	· N/A	· ·
<b>Turf</b> (ground hogholes, overgrowth, washouts, sinkholes)	Poor Fair Good	NIA	
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Pipe Structures (rust, holes, collapse, blockages)	Poor Fair Good	NIA	
Water (standing, running)	Poor Fair Good	NA	
Miscellaneous (litter, etc.)	Poor Fair Good	NIA	
Weather Conditions: $39^{\circ}$ C	loudy	Inspected By	: Scull + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: New Orchard 2 LOCATION: Esquire Dr. Betulehem Township

FACILITY	CON	DITION		REPAIRS NEEDED	Τ	<b>REPAIRS COMPLETED</b>
<b>Fencing</b> (posts, rails, mesh material)	Poor Fair Good			Back Fence damaged other aleas need sails		Replaced Cinils 3-31-22
Gate (lock intact, hinges)	Poor Fair Good			Needs adjustment		Adjusted 3-8-00
Turf (ground hogholes, overgrowth, washouts, sinkholes)	Poor Fair Good	1	1 m	Comple ground has hales		
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good			N/A		
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair Good			Sediment on concrete Waterways lading to Out let		· · · · · · · · · · · · · · · · · · ·
<b>Pipe Structures</b> (rust, holes, collapse, blockages)	Poor Fair Good			NIA		
Water (standing, running)	Poor Fair Good			NIA		
Miscellaneous (litter, etc.)	Poor Fair Good			Minor litter		
Weather Conditions: $38^{\circ}$ (	londy			Inspected By	:	cott + Son

# STORM WATER FACILITY INSPECTION REPORT

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SITE: Santee Pond DATE: 3-9-22 LOCATION: Santee Rd + Clifton Ave Bethlehem Township

FACILITY	CONDITION	REPAIRS NEEDED	<b>REPAIRS COMPLETED</b>
Fencing (posts, rails, mesh material)	Poor / Fair Good	- Missing Section of ferre	
Gate (lock intact, hinges)	Poor Fair Good	- Needs adjustment. Gate hinge twisted.	Replaced twisted hings 5-4-22
Turf (ground hogholes, overgrowth, washouts, sinkholes)	Poor Fair Good	Some rats and washouts	
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Pipe Structures (rust, holes, collapse, blockages)	Poor Fair Good	- NIA	
Water (standing, running)	Poor Fair Good	N/A	
Miscellaneous litter, etc.)	Poor Fair Good	Minul amount of litter	
Weather Conditions: $37^{\circ}$ R	-417	Inspected By:	Scott + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: <u>(ampbell Est. (Rex ford)</u> DATE: <u>3-7-22</u> LOCATION: <u>Rex ford</u> Dr. <u>Bethlehem Township</u>

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FACILITY	CONI	DITION	Ι	REPAIRS NEEDED	Т	<b>REPAIRS COMPLETED</b>
Fencing	Poor		1		+	
(posts, rails, mesh material)	Fair		1	NIA		
	Good					
Gate	Poor .		1	Che could use	1.	·
(lock intact, hinges)	Fair		1	Gate could use adjustment		
	Good	V	1			
Turf	Poor			Few groud hay holes	1	
(ground hogholes, overgrowth,	Fair		1	rew growing hore		
washouts, sinkholes)	Good		1			
Inlet Structures	Poor			A [ [ ]	+	
(cracks,chips,blockages,grates)	Fair			NIA		
	Good	~				
Outlet Structures	Poor			1	1	
(cracks,chips,blockages,grates)	Fair			NIA		
	Good	$\checkmark$				
Pipe Structures	Poor			1 ./ 1	Τ	
(rust, holes, collapse, blockages)	Fair			N/IA		
	Good	V				
Water	Poor			/ .		
(standing, running)	Fair			NIA		
	Good	$\checkmark$				
Miscellaneous	Poor			1 / 1		
(litter, etc.)	Fair			NIA		
	Good	$\checkmark$		·····		
Weather Conditions: 72° Ma	ostly Clou	d-y		Inspected By	;(	Scott + Jon

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# STORM WATER FACILITY INSPECTION REPORT

SITE: Highland Park # (Derby East) DATE: 3-9-22 LOCATION: Derby Ln. Bethlehem Township

FACILITY	CONDITION	Τ	REPAIRS NEEDED	Τ	<b>REPAIRS COMPLETED</b>
Fencing (posts, rails, mesh material)	Poor Fair		Needs a couple rails		Replaced 1 19:1 3-30-22
( · · · · , · · · · · · · · · · · · · ·	Good	-			5 - 50 - 522
Gate	Poor				-
(lock intact, hinges)	Fair		NIA		
	Good		-		
Turf	Poor		Some groundhog holes		
(ground hogholes, overgrowth,	Fair	_			
washouts, sinkholes)	Good				
Inlet Structures	Poor		/ / A		
(cracks,chips,blockages,grates)	Fair		NIA		
	Good				
Outlet Structures	Poor		NIA NIA		
(cracks,chips,blockages,grates)	Fair		for the second		
	Good /				
Pipe Structures	Poor		. / / A		
(rust, holes, collapse, blockages)	Fair		NIA		
	Good				
Water	Poor				
(standing, running)	Fair		NIA MINUT NETTER	i	÷
· · · · · ·	Good		-		
Miscellaneous	Poor		Minur litter		
(litter, etc.)	Fair				
	Good				
Weather Conditions: $35^{\circ}$ W	Cintry Mix		Inspected By	/:	Scott + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: Highland Park I (Derby West) DATE: 3-9-22 LOCATION: Derby Ln Bethlehim Township

FACILITY	CONDITION		REPAIRS NEEDED	Τ	REPAIRS COMPLETED
Fencing	Poor		Neids couple inits	1	Replaced 2 posts
(posts, rails, mesh material)	Fair	]			
	Good	]			5 raits 3-30-22
Gate	Poor .				
(lock intact, hinges)	Fair		NA		
	Good				
Turf	Poor		some ground hoy holds	Τ	
(ground hogholes, overgrowth,	Fair	_	~		
washouts, sinkholes)	Good				
Inlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair		NA		
	Good 🗸		,		
Outlet Structures	Poor		- 4	Τ	
(cracks,chips,blockages,grates)	Fair		NIA		
	Good		/ · · ·		
Pipe Structures	Poor		TTA		
(rust, holes, collapse, blockages)	Fair		NIA		
	Good			ļ	
Water	Poor		1 - 1		
(standing, running)	Fair		NA		
	Good				
Miscellaneous	Poor		<i>.</i> .		
(litter, etc.)	Fair		NIA		
	Good				
Weather Conditions: $34^{\circ}$ W	intry Mix		Inspected By	<u>.</u> _:	cott t Jon

# STORM WATER FACILITY INSPECTION REPORT

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SITE: Washington/Freemansburg Pond DATE: 3-10-22 LOCATION: Washington St. + Freemansburg Auc. Betwlehem Township

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing	Poor	Needs some Mils.	Replaced 3posts +14 mils
(posts, rails, mesh material)	Fair		
	Good		3-30-22-
Gate	Poor .	· ·	
(lock intact, hinges)	Fair	$\neg   N/A$	
	Good		
Turf	Poor	Minor Washout by inlet	
(ground hogholes, overgrowth,	Fair	Coloment hefore outlet in	
washouts, sinkholes)	Good	Minor Washout by inlet. Sediment before outlet in concrete water way	
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	- N/A	
	Good 🗸	////	
Outlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	NIA	
	Good		
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	NIA	
	Good V		
Water	Poor		
(standing, running)	Fair	$\square$ $N/A$	
	Good		· · · · · · · · · · · · · · · · · · ·
Miscellaneous	Poor		
(litter, etc.)	Fair	NIA	
	Good V	<u>                                     </u>	
Weather Conditions: <u>36°</u>	4nny	Inspected By	:Scott + Jon

# STORM WATER FACILITY INSPECTION REPORT

.

SITE: Washington / Oliver Pond LOCATION: Washington St. + Oliver Ct. Bethlehem Township

FACILITY	CONDITION	REPAIRS NEEDED	<b>REPAIRS COMPLETED</b>
Fencing	Poor	Needs rails.	Remilie broken 3th Ails. 3-30-2
(posts, rails, mesh material)	Fair	Back fina damaged.	Ferminen Dryllen > 1411). 3-3010
	Good		
Gate	Poor .		
(lock intact, hinges)	Fair	NIA	
	Good 🗸	1014	
Turf	Poor	Washouts by inlets.	
(ground hogholes, overgrowth,	Fair	Washouts by inlets. Some ground hey holes	
washouts, sinkholes)	Good		
Inlet Structures	Poor		
(cracks, chips, blockages, grates)	Fair	NIA	
	Good		
Outlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	NIA	
	Good		
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	NIA	
	Good		
Water	Poor		
(standing, running)	Fair	N/A	
	Good		
Miscellaneous	Poor	Minor amount of litter.	
(litter, etc.)	Fair 🗸	Minor amount of litter. Dead tree Gallen down.	
	Good	Brincies.	
Weather Conditions: $36^{\circ}$ Su	<u>^</u>	Inspected By	: <u>Scott + Jon</u>

# STORM WATER FACILITY INSPECTION REPORT

SITE: Nancy Run Estates DATE: 3-15-22 LOCATION: 10th St. Bethlehem Township

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FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing (posts, rails, mesh material)	Poor Fair Good	Needs post and rnil	Replaced I post and Smills 3-22-22
Gate (lock intact, hinges)	Poor . Fair Good	NIA	
<b>Turf</b> (ground hogholes, overgrowth, washouts, sinkholes)	Poor Fair Good	NIA	
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
<b>Pipe Structures</b> (rust, holes, collapse, blockages)	Poor Fair Good	NIA	
Water (standing, running)	Poor Fair Good	NIA	
Miscellaneous (litter, etc.)	Poor Fair Good	NIA	
Weather Conditions: $40^{11}$ Sa	ΛΛγ	Inspected B	y: Scott + Jun

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# STORM WATER FACILITY INSPECTION REPORT

SITE: LVIP VI EMICH Blud DATE: 3-15-22

LOCATION: EMLICK Blud

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED		
Fencing	Poor				
(posts, rails, mesh material)	Fair	I N/A			
Gate	Good /				
(lock intact, hinges)	Poor . Fair		·		
(lock intact, iniges)	Good	N/A			
Turf	Poor				
(ground hogholes, overgrowth,	Fair	Few groundhay holes			
washouts, sinkholes)	Good				
Inlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair	NIA			
	Good V	701			
Outlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair	NIA			
	Good				
Pipe Structures	Poor				
(rust, holes, collapse, blockages)	Fair	NIA			
	Good				
Water	Poor	NIA			
(standing, running)	Fair				
	Good 🗸	i			
Miscellaneous	Poor				
(litter, etc.)	Fair	NIA			
	Good				
Weather Conditions: $46^{\circ}$ Sur	n ^-/	Inspected	By: Scott + Jon		

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# STORM WATER FACILITY INSPECTION REPORT

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SITE: Emerald Hills Greenway DATE: 3-15-22 LOCATION: Washington St., Blidge Ln., 10<sup>41</sup> St. Betwlehem Township

FACILITY	CON	DITION	REPAIRS NEI	EDED	<b>REPAIRS COMPLETED</b>
Fencing	Poor				
(posts, rails, mesh material)	Fair		NIA		
	Good				
Gate	. Poor			-	· ·
(lock intact, hinges)	Fair		NIA		
	Good	$\checkmark$			
Turf	Poor		Some groundhing	holes	
(ground hogholes, overgrowth,	Fair		Some gloundhay Couple washould at	ound headwell	
washouts, sinkholes)	Good				
Inlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair		NIA		
	Good	V			
Outlet Structures	Poor		,		
(cracks,chips,blockages,grates)	Fair		NA		
	Good				
Pipe Structures	Poor				
(rust, holes, collapse, blockages)	Fair		NIA		
	Good				
Water	Poor				
(standing, running)	Fair				
	Good	$\checkmark$			
Miscellaneous	Poor		Minor lifter		
(litter, etc.)	Fair				
I	Good	$\checkmark$			1
Weather Conditions: 46° Sur	<u>ny</u>		In	spected By:	Sii++ + Jon

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# STORM WATER FACILITY INSPECTION REPORT

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SITE: Scherman Boure MINIZ DATE: 3-15-22 LOCATION: Scherman Blug + Tamar: nd Dr. Bethlehem Township

FACILITY	CONDITION		REPAIRS NEEDED	T	<b>REPAIRS COMPLETED</b>
Fencing	Poor		/		
(posts, rails, mesh material)	Fair		NIA		
	Good		// / /		
Gate	Poor		11	ŀ	
(lock intact, hinges)	Fair	_	NIA		
Те	Good			ļ	
Turf	Poor	_	Few hills and wishouts		
(ground hogholes, overgrowth,	Fair	_	'		
washouts, sinkholes) Inlet Structures	Good				
	Poor Fair	-	. ( ( )		
(cracks,chips,blockages,grates)	Good	-	NIA		
Outlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair	-	NIA		
(cracks, cmps, blockages, grates)	Good	-	1/1/1		
Pipe Structures	Poor				••••••••••••••••••••••••••••••••••••••
(rust, holes, collapse, blockages)	· · · · · · · · · · · · · · · · · · ·	-	NIA		
	Good	-			
Water	Poor		· · ·		
(standing, running)	Fair	7	NIA		
·	Good				· · · · · · · · · · · · · · · · · · ·
Miscellaneous	Poor		Minue a mount of liter		
(litter, etc.)	Fair				
	Good 🗸				
Weather Conditions: $35^{\circ}$ S	4nny		Inspected By:	5	cott t Jan

# STORM WATER FACILITY INSPECTION REPORT

SITE: Scherman Boulevard I

DATE: 3-15-22

LOCATION: Schermin Blud

Bethkhim Township

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FACILITY		CONDITION			REPAIRS NEEDED	REPAIRS COMPLETED		
Fencing		Poor				1		
(posts, rails, mesh material)		Fair		1.	NIA			
		Good						
Gate	1 1	Poor					-	
(lock intact, hinges)		Fair			NIA			
		Good						
Turf	1 4	Poor						
(ground hogholes, overgrowth,	1 F	Fair			NIA			
washouts, sinkholes)		Good	$\checkmark$					
Inlet Structures	1 1	Poor						
(cracks,chips,blockages,grates)	1 L	Fair			NIA			
		Good	$\checkmark$					
Outlet Structures		Poor			× .			
(cracks,chips,blockages,grates)		Fair			NIA			
		Good						
Pipe Structures	. F-	Poor						
(rust, holes, collapse, blockages)		Fair			NIA			
		Good	$\checkmark$		-	ļ		
Water		Poor			(1)			
(standing, running)		Fair			NA		1	
	<u> </u>	Good	<u> </u>					
Miscellaneous	. J-	Poor			NIA			
(litter, etc.)		Fair			1/1/+			
	(	Good	V					
Weather Conditions: 33° Sunny					Inspected By	:	Loft + Jon	

## STORM WATER FACILITY INSPECTION REPORT

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SITE: Galway Dr. I Pond DATE: 3-15-22 LOCATION: Bridge Lo. + Galway Dr. Retulehim Township

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing	Poor		
(posts, rails, mesh material)	Fair Good	N/A	
Gate	Poor		
(lock intact, hinges)	Fair Good	NIA	
Turf	Poor		
(ground hogholes, overgrowth, washouts, sinkholes)	Fair Good	NIA	
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair Good	N/A	
Outlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair Good	NIA	
Pipe Structures	Poor V	· · · · · · · · · · · · · · · · · · ·	
(rust, holes, collapse, blockages)	Fair Good	NIA	
Water	Poor V		
(standing, running)	Fair	NIA	
Miscellaneous	Good V		
litter, etc.)	Fair Good	NIA	

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## STORM WATER FACILITY INSPECTION REPORT

.

SITE: Galway DI. I Pond DATE: 3-10-22 LOCATION: Sapphile Ln Bethlichen Township

FACILITY	CONDITION	REPAIRS NEEDED REPAIRS COMPLETED
Fencing	Poor	
(posts, rails, mesh material)	Fair	NIA III
	Good	
Gate	Poor .	
(lock intact, hinges)	Fair	NIA
	Good	
Turf	Poor	Fround have holes
(ground hogholes, overgrowth,	Fair 🗸	- Ground holes Erosion around inlet
washouts, sinkholes)	Good	Eroji on anti tr
Inlet Structures	Poor	
(cracks,chips,blockages,grates)	Fair	N/A
	Good	
Outlet Structures	Poor	
(cracks,chips,blockages,grates)	Fair	NIA
	Good	
Pipe Structures	Poor	
(rust, holes, collapse, blockages)	Fair	N/A
	Good V	
Water	Poor	some standing water
(standing, running)	Fair /	
:	Good	
Miscellaneous	Poor	Small amount of litter
(litter, etc.)	Fair	
	Good	
Weather Conditions: 45° Su	·^/	Inspected By: $5co4+ 50n$

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# STORM WATER FACILITY INSPECTION REPORT

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SITE: Community Center Pond DATE: 3-10-72 LOCATION: Farmers ville Rd. Bethlehem Tourship

FACILITY	CONDITION		REPAIRS NEEDED	I	REPAIRS COMPLETED
Fencing	Poor				
(posts, rails, mesh material)	Fair		NIA		
	Good		10114		
Gate	Poor			╶┼╌┼╸	
(lock intact, hinges)	Fair		NIA		
	Good		10111		
Turf	Poor		Fee ground hay holes		
(ground hogholes, overgrowth,	Fair				
washouts, sinkholes)	Good 🗸				
Inlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair		NIA		
	Good 🗸				
Outlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair		NA		
	Good 🗸		· · · · · · · · · · · · · · · · · · ·		
Pipe Structures	Poor		NIA		
(rust, holes, collapse, blockages)	Fair				
	Good V				
Water	Poor				
(standing, running)	Fair	·	NIA		
:	Good		5		
Miscellaneous	Poor		NIA		
(litter, etc.)	Fair		NIA		
	Good		<u> </u>		
Weather Conditions: $43^{\circ}$ 5	4nny		Inspected By	y: <u>51</u>	ott + Jon

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# STORM WATER FACILITY INSPECTION REPORT

SITE: Kings Crossing Pond DATE: 3-10-22

LOCATION: Ohio St. + Freemans burg Ave Bethlehen Taunship

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing	Poor		
(posts, rails, mesh material)	Fair	N/A	
	Good		
Gate	Poor	· / (A	· ·
(lock intact, hinges)	Fair	NIA	
	Good		
Turf	Poor	Major Washouts by inlets	
(ground hogholes, overgrowth,	Fair	Major washints by inlets Sinkholds. Ground hog holes	
washouts, sinkholes)	Good		
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	NIA	
	Good		
Outlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	NA	
	Good		
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	NIA	
	Good 🗸		
Water	Poor		
(standing, running)	Fair	NIA	:
3	Good		
Miscellaneous	Poor		
(litter, etc.)	Fair	NIA	
	Good	,	
Weather Conditions: $32^{\circ}$ Si	inny	Inspected By:_	Scott + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: Highland Park II (Preckness) DATE: 3-9-22 LOCATION: Preckness Pl Betuleton Township

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FACILITY	CONDITION		REPAIRS NEEDED	Т	REPAIRS COMPLETED
Fencing	Poor	T	1 .	1	
(posts, rails, mesh material)	Fair		NIA		
	Good				
Gate	. Poor	,		1	-
(lock intact, hinges)	Fair		NIA		
	Good				
Turf	Poor		Couple ground hog holes	Τ	
(ground hogholes, overgrowth,	Fair				
washouts, sinkholes)	Good				
Inlet Structures	Poor		<i>,</i>	Τ	
(cracks,chips,blockages,grates)	Fair		NIA		
	Good				
Outlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair		NIA		
	Good 🗸				
Pipe Structures	Poor				
(rust, holes, collapse, blockages)			NIA		
	Good V				[
Water	Poor		CA A		
(standing, running)	Fair		NIA		e e construction de la construction
4	Good		i		· · · · · · · · · · · · · · · · · · ·
Miscellaneous	Poor				
(litter, etc.)	Fair		NIA		
	Good				
Weather Conditions: $35^{\circ}$ b	vintly Mix		Inspected By	: <u></u>	icott + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: Rolling Greens DATE: 3-9-22 LOCATION: Valley View Dr. Bethlehem Township

FACILITY	CON	DITION	REPAIRS NI	EEDED	REPAIRS COMPLETED
Fencing	Poor				
(posts, rails, mesh material)	Fair		N/A		
, · · · · · · · · · · · · · · · · · · ·	Good		/////		
Gate	Poor				
(lock intact, hinges)	Fair	_	NIA		
	Good	$\checkmark$			
Turf	Poor		( )		
(ground hogholes, overgrowth,	Fair	-	NIA		
washouts, sinkholes)	Good	$\checkmark$			
Inlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair	G	1//4		
	Good	i	10.11		
Outlet Structures	Poor				
(cracks,chips,blockages,grates)	Fair	4	ALIA		
	Good	Ľ	10111		
Pipe Structures	Poor		NIA NIA		
(rust, holes, collapse, blockages)	Fair		A//A		
	Good	$\checkmark$			
Water	Poor		r / A		
(standing, running)	Fair	/	NIA		
	Good		/	:	3
Miscellaneous	Poor				
(litter, etc.)	Fair		NIA		
	Good				
Weather Conditions: 36°	Rain		]	Inspected By:	Scott + Jon

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# STORM WATER FACILITY INSPECTION REPORT

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SITE: <u>Oakland / Heckown</u> LOCATION: <u>Oakland</u> Rd. + Hecktown Rd Bethlehem Township

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FACILITY	CONDITION	REPAIRS NEEDED	<b>REPAIRS COMPLETED</b>
Fencing	Poor		
(posts, rails, mesh material)	Fair	N/A	
	Good		
Gate	Poor		-
(lock intact, hinges)	Fair	· N/A	
	Good		
Turf	Poor	. ( ( )	
(ground hogholes, overgrowth,	Fair	NIA	
washouts, sinkholes)	Good 🗸	Ĩ	
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	NIA	
	Good		
Outlet Structures	Poor	Some built up sediment infront of outlet	
(cracks,chips,blockages,grates)	Fair	infront of outlet	
2	Good		
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	NIA	
NV- 4	Good V		
Water	Poor Fair	( ( )	
(standing, running)	Good	NIA	
Miscellaneous	Poor	······································	<b></b>
(litter, etc.)	Fair	NIA	
	Good		
Weather Conditions: $37^{\circ}$ C		Inspected By:	Scott r Jon

# STORM WATER FACILITY INSPECTION REPORT

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SITE: <u>Gloucester Pond</u> DATE: <u>3-9-22</u> LOCATION: <u>Gloucester</u> Dr Bethlehem Township

FACILITY	CON	DITION		REPAIRS NEEDED		REPAIRS COMPLETED
Fencing	Poor					
(posts, rails, mesh material)	Fair			NIA		
-	Good		1	/0/ 41		
Gate	Poor			(cA ···		
(lock intact, hinges)	Fair		7	NIA		
	Good		7	,		
Turf	Poor			Some Groundnug holes		
(ground hogholes, overgrowth,	Fair		٦			
washouts, sinkholes)	Good		7			
Inlet Structures	Poor					
(cracks,chips,blockages,grates)	Fair		7	NA		
	Good		7			
Outlet Structures	Poor			Outlet block ed, sediment infort of outlet		
(cracks,chips,blockages,grates)	Fair			infront of outlet		
	Good					
Pipe Structures	Poor					
(rust, holes, collapse, blockages)	Fair			NIA		
	Good			/ / / /		
Water	Poor					
(standing, running)	Fair			NIA		
	Good		Ì		_	
Miscellaneous	Poor			Small Amount of litter		
(litter, etc.)	Fair					
	Good					
Weather Conditions: <u>37°</u> (	loudy			Inspected By:	5	Cott + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: <u>Carter Rd.</u> Pond DATE: 3-8-22 LOCATION: <u>Carter Rd</u> Bathlehem Township

,

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing	Poor		
(posts, rails, mesh material)	Fair	- NIA	
	Good		
Gate	Poor .	· ·	· · · · ·
(lock intact, hinges)	Fair	NIA	
	Good		
Turf	Poor	I groundhog hole	
(ground hogholes, overgrowth,	Fair		
washouts, sinkholes)	Good	7	
Inlet Structures	Poor	I I I A	
(cracks,chips,blockages,grates)	Fair	N/H	
	Good 🗸		
Outlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	N/A	
	Good 🗸		
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	NA	
	Good		
Water	Poor		
(standing, running)	Fair	NIA	
· · · · · · · · · · · · · · · · · · ·	Good		1
Miscellaneous	Poor		
(litter, etc.)	Fair	NIA	
	Good		
Weather Conditions: $44^{\circ}$ Sym	<u>107</u>	Inspected By	: Scott + Jon

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# STORM WATER FACILITY INSPECTION REPORT

.

SITE: Hannah's Ln. 2 DATE: 3-8-22 LOCATION: Hannah's Ln Bethlehem Township

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
Fencing	Poor		
(posts, rails, mesh material)	Fair		
	Good	N/A	
Gate	Poor		
(lock intact, hinges)	Fair	·	
	Good		
Turf	Poor		
(ground hogholes, overgrowth,	Fair	NIA	
washouts, sinkholes)	Good		
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	/ A	
	Good		
Outlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	NIA	
	Good		
Pipe Structures	Poor		
(rust, holes, collapse, blockages)	Fair	N/A	
	Good 🗸		
Water	Poor		
(standing, running)	Fair	NIA	
	Good		, , , , , , , , , , , , , , , , , , ,
Miscellaneous	Poor	IIA	
(litter, etc.)	Fair	N/17	
	Good		
Weather Conditions: 42° Pal	tly Cloudy	Inspected By	1: Slott + Jon

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# STORM WATER FACILITY INSPECTION REPORT

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SITE: Hannah's Lone 1 DATE: 3-8-22 LOCATION: Hannah's Lo. Bethlehem Township

FACILITY	CONDITION	REPAIRS NEEDED	<b>REPAIRS COMPLETED</b>
Fencing	Poor	.1.(1	
(posts, rails, mesh material)	Fair	N/A	
	Good	, , , , ,	
Gate	Poor		
(lock intact, hinges)	Fair	NA	
	Good	/ / / /	
Turf	Poor	Some glound hog holes	
(ground hogholes, overgrowth,	Fair		
washouts, sinkholes)	Good		
Inlet Structures	Poor		
(cracks,chips,blockages,grates)	Fair	N/A	
	Good		
Outlet Structures	Poor	1 + 1	
(cracks,chips,blockages,grates)	Fair	NIA	
	Good		
Pipe Structures	Poor	11.	
(rust, holes, collapse, blockages)	Fair	NA	
	Good		
Water	Poor	Small amount of Stanling water	
(standing, running)	Fair	stanling water	
	Good 🗸		:
Miscellaneous	Poor		
(litter, etc.)	Fair	NIA	
	Good		
Weather Conditions: 42° Par	+1y Cloudy	Inspected By:	Scott + Jon

# STORM WATER FACILITY INSPECTION REPORT

SITE: 14th St. Pond DATE: 3-8-22 LOCATION: 14th St. Bethlehem Township

FACILITY	CONDITION		Τ	REPAIRS NEEDED		<b>REPAIRS COMPLETED</b>
Fencing	Poor					
(posts, rails, mesh material)	Fair		1	NIA		
	Good		1	// / / 1		
Gate	Poor	-	1	NIA NIA		· ·
(lock intact, hinges)	Fair		1	NIA		
	Good	$\checkmark$	]			
Turf	Poor			Washouds around headmannis Ground has not		
(ground hogholes, overgrowth,	Fair		]	General has half		
washouts, sinkholes)	Good			Stown hug how		
Inlet Structures	Poor					
(cracks,chips,blockages,grates)	Fair	4	]	NIA		
	Good	$\checkmark$				
Outlet Structures	Poor			(		
(cracks,chips,blockages,grates)	Fair			NIA		
	Good	$\checkmark$				
Pipe Structures	Poor					
(rust, holes, collapse, blockages)				por 1A		
	Good			'		
Water	Poor					
(standing, running)	Fair	:		NIA		
	Good	$\sqrt{1-1}$				
Miscellaneous	Poor					
(litter, etc.)	Fair	<i></i>	NA	NIA		
	Good	/				
Weather Conditions: $42^6$ Pa	irtly Clo	udy		Inspected By:_	5	Lott + Jun

# STORM WATER FACILITY INSPECTION REPORT

SITE: <u>Campbell Est</u> (Anthony) DATE: <u>3-7-22</u> LOCATION: <u>Anthony Ct.</u> Beth lehem Town Ship

FACILITY	CONDITION	REPAIRS NEEDED	REPAIRS COMPLETED
<b>Fencing</b> (posts, rails, mesh material)	Poor Fair	NIA	
Gate	Good V Poor		
(lock intact, hinges)	Fair Good	= $//A$	
Turf	Poor	Few holes, washould around inless + outlet	
(ground hogholes, overgrowth, washouts, sinkholes)	Fair / Good	a round inters + outlet	
Inlet Structures (cracks,chips,blockages,grates)	Poor Fair		
-	Good	NIA	
Outlet Structures (cracks,chips,blockages,grates)	Poor Fair Good	NIA	
Pipe Structures (rust, holes, collapse, blockages)	Poor Fair	MIA	
Water	Good V		
(standing, running)	Poor Fair Good	Smill aniunt of standing water	
Miscellaneous litter, etc.)	Poor Fair	NIA	
	Good $\checkmark$		
Weather Conditions: <u>Collor</u> Fai	1	Inspected By:	Scott + Jun

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# STORM WATER FACILITY INSPECTION REPORT

•

SITE: Hope Rd Ponds

.

DATE: 3-7-22

LOCATION: Hope Rd Bethlenem Township

•

FACILITY		CONDITION			REPAIRS NEEDED	REPAIRS COMPLETED		
Fencing		Poor			And Spal of Feace	1		
(posts, rails, mesh material)		Fair			One Spot of fence mesh damaged			
		Good						
Gate		Poor	-		-	1		
(lock intact, hinges)		Fair			NIA			
		Good			1077			
Turf		Poor						
(ground hogholes, overgrowth,		Fair			NIA			
washouts, sinkholes)		Good	$\checkmark$					
Inlet Structures		Poor						
(cracks,chips,blockages,grates)		Fair			NIA			
		Good						
Outlet Structures		Poor						
(cracks,chips,blockages,grates)		Fair			NIA			
		Good	$\checkmark$					
Pipe Structures		Poor			.4			
(rust, holes, collapse, blockages)		Fair			W/A			
		Good	$\checkmark$		-			
Water	1 1	Poor			(			
(standing, running)		Fair			NIA		i de la companya de l	
	i	Good	V				)	
Miscellaneous		Poor			Minor litter			
(litter, etc.)	1 1	Fair						
		Good	$\checkmark$					
Weather Conditions: <u>64° Partly Cloudy</u> Inspected By: <u>Scott</u> + <u>500</u>								

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# STORM WATER FACILITY INSPECTION REPORT

SITE: LVIP II - Baglyos DATE: 3-15-22 LOCATION: Baglyos Cir

FACILITY	CON	DITION		REPAIRS NEEDED	Τ	REPAIRS COMPLETED
Fencing	Poor			í.	1	
(posts, rails, mesh material)	Fair		]	NIA		
	Good		]	/ 0		
Gate	Poor				1	
(lock intact, hinges)	Fair			NIA		
	Good	V				
Turf	Poor			Some Groundhay halls SinkLoids and Unshoulds	Τ	
(ground hogholes, overgrowth,	Fair		]	contractor de succharte		
washouts, sinkholes)	Good			SINFLORS and UNSTONIS		
Inlet Structures	Poor				Τ	
(cracks,chips,blockages,grates)	Fair			NIA		
	Good			·		
Outlet Structures	Poor			NIA		
(cracks,chips,blockages,grates)	Fair					
	Good			,		
Pipe Structures	Poor					
(rust, holes, collapse, blockages)	Fair			NIA		
	Good					
Water	Poor					
(standing, running)	Fair	· · · · · · · · · · · · · · · · · · ·		NIX		
	Good			· · · · · · · · · · · · · · · · · · · ·		
Miscellaneous	Poor			Some litter		
(litter, etc.)	Fair					
	Good					
Weather Conditions: $56^{\circ}$ $54^{\circ}$	<u>^y</u>			Inspected By	<u> </u>	1044 + Jun

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# STORM WATER FACILITY INSPECTION REPORT

SITE: Reading Center Pind DATE: 3-15-22 LOCATION: Falmer D1.

FACILITY	CON	DITION		REPAIRS NEEDED		REPAIRS COMPLETED
Fencing	Poor		Γ	· · · · · · · · · · · · · · · · · · ·	1	
(posts, rails, mesh material)	Fair		1			
	Good		1	NIA		
Gate .	Poor					·
(lock intact, hinges)	Fair		]	NA		
	Good	$\checkmark$	]			
Turf	Poor		Τ		1	
(ground hogholes, overgrowth,	Fair	,		NA		
washouts, sinkholes)	Good	$\vee$	]			
Inlet Structures	Poor		Γ			
(cracks,chips,blockages,grates)	Fair	1	].	NA		
	Good	$\overline{\mathbf{V}}$	1			
Outlet Structures	Poor			( A		
(cracks,chips,blockages,grates)	Fair			NIA		
	Good	V				
Pipe Structures	Poor					
(rust, holes, collapse, blockages)	Fair			NIÁ		
	Good					
Water	Poor			. 7 . 6		
(standing, running)	Fair			NIA		3
	Good	$\checkmark$				- +
Miscellaneous	Poor			1/1		
(litter, etc.)	Fair		- NIA			
	Good	$\checkmark$				
Weather Conditions: 51° 5401	ly			Inspected By	:	500++ + Jun

# POLLUTANT CONTROL MEASURES (PCMs)

Storm Sewershed Map, Source Inventory, and Investigations of Suspected Sources are attached.



# POLLUTANT CONTROL MEASURES INVENTORY

#### Submitted to:

BETHLEHEM TOWNSHIP ATTN: Doug Bruce, Township Manager 4225 Easton Avenue Bethlehem, PA 18020 Phone: 610-814-6400 Email: dbruce@bethlehemtwp.org

### Submitted by:

HERBERT, ROWLAND & GRUBIC, INC. 369 East Park Drive Harrisburg, PA 17111 717.564.1121

# TABLE OF CONTENTS

1.	POLLUTANT CONTROL MEASURES
	1.1 Metals and/or pH1
	1.2 Pathogens1
	1.3 Priority Organic Compounds2
2.	LOCATION MAP
3.	POLLUTANT CONTROL MEASURES INVENTORY

#### APPENDICES:

Appendix A – MS4 Downstream Waters Impairments

Appendix B – Priority Pollutant List

Appendix C – Location Maps

Appendix D – PCM Inventory

# POLLUTANT CONTROL MEASURES

MS4 permittees with coverage under the PAG -13 General Permit that discharge to impaired waters are required to implement Pollutant Control Measures (PCMs), as applicable. To identify the impaired waterways for the municipality within the General Permit, consult Appendix A. PCMs are activities undertaken by the MS4 permittee to identify and control pollutant loading to impaired waters from MS4s, regardless of whether Total Maximum Daily Load (TMDL) has been approved. PCMs are Best Management Practices (BMPs) and other strategies that are in addition to the permittee's Stormwater Management Program (SWMP) and all Minimum Control Measures (MCMs) associated with the SWMP. PCMs must be implemented where the permittee 1) has at least one stormwater outfall that discharges to impaired waters, and 2) the "cause of impairment" is one or more of the following: Metals and/or pH Associated with Abandoned Mine Drainage, Pathogens, and or Priority Organic Compounds.

During the third year of General Permit coverage, the permittee is required to develop an inventory of all suspected and known sources of impairments within the MS4 regulated waterways. The inventory must identify whether the sources is suspected or known, the basis for this determination, the responsible party (if known), and any corrective action the permittee has taken or plans to take for any of these sources.

The following year, the permittee shall complete an investigation of each suspected source. The investigation must include stormwater sampling if the investigation is required as part of implementing the IDD&E Program under MCM #3 of the General Permit, and otherwise is voluntary. It is important for the permittee to document the progress of its investigations, source control efforts and BMPs to control sources of impairments.

The goal of identifying, testing, and ultimately controlling the impairments within the MS4 regulated waterways is to reduce the discharge of pollutants from stormwater and point and nonpoint pollutant sources to the maximum extent practicable in a manner that protects water quality.

#### Metals and/or pH

One possible surface water impairment is from metals and or pH associated with Abandoned Mine Drainage (AMD). When a mine closes, dewatering a mine generally ceases. Underground mines often fill; mine water may be released through openings such as adits, or through fractures and fissures that reach the surface. Water from abandoned mines may contain significant concentrations of heavy metals and total dissolved solids and may have elevated temperatures and altered pH, depending on the nature of the orebody and local geochemical conditions. These waters may become acidic over time when exposed to oxygen and, if present, pyrites or other sulfide minerals. The acidic water may also solubilize metals contained in the mine and materials, creating high concentrations of metals in solution. These acidic metal-laden waters may also contain metals in excess of water quality standards and be of significant concern to human health and the environment. Common metals found with AMD are arsenic, cadmium copper, silver, and zinc. Although metals and pH are commonly associated with AMD, industrial sites may also produce metals and pH that can contaminate waterways as well.

Where it is determined that sources of metals and/or acidity are being discharged into the permittee's MS4, the permittee shall notify DEP in writing within 90 days of the permittee's findings. DEP then may require the owner or operator of the industrial site to submit an application for NPDES permit coverage and/or implement BMPs to reduce pollutant loadings.

#### Pathogens

Another possible surface water impairment is from pathogens. A pathogen, in the oldest and broadest sense, is anything that can produce disease. Typically, water-borne pathogens are an

infectious agent usually caused by some sort of fecal coliform. The most prevalent indicator organism to assess the levels of pathogens in water resources is E. coli, however many other indicator organisms exist. Some waterborne pathogenic diseases that may coincide with fecal coliform contamination include ear infections, dysentery, typhoid fever, viral and bacterial gastroenteritis, and hepatitis A. Pathogens are likely to enter rivers from many potential sources, including lateral inputs from pastures and riparian zones, influx of pathogen-contaminated groundwater, direct deposit of fecal matter from livestock and wildlife, discharge of contaminated sanitary sewer flows, and wastewater treatment plan effluents.

The permittee shall enforce ordinances that prohibit illicit and illegal connections and discharges of sewage to the MS4. Anytime an illicit and illegal connection or discharge of sewage into the MS4 is discovered by the permittee, the permittee shall report the finding in the subsequent Annual MS4 Status Report along with a description of corrective action by the permittee.

### Priority Organic Compounds

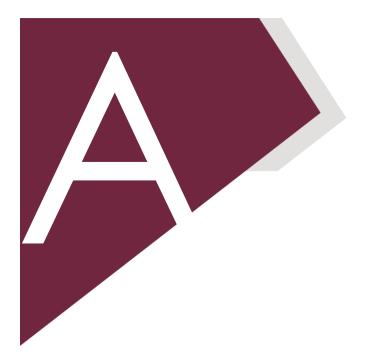
The last possible surface water impairment that PCMs will be implanted for are priority organic compounds. The Priority Pollutant List, found in Appendix B, is a list of chemical pollutants the EPA regulates, and has developed analytical test methods. Pollution by organic chemicals in the waterways occurs by various mechanisms. Naturally occurring organic chemicals produced by aquatic microorganisms contaminate surface waters. Industrial waste containing artificial chemicals flows into and contaminates water. Volatile organic compounds, (VOCs), pesticides, phenolic compounds, phthalates, and nitrogen-containing compounds, are often detected in polluted water. Dioxins and polynuclear aromatic hydrocarbons (PAHs), produced during combustion of organic materials, are also found in surface waters. With 126 different pollutants by the EPA, the Priority Organic Compounds is the broadest category of pollutants. However, many of these pollutants can be traced to industrial waste and agricultural runoff.

# LOCATION MAP

Appendix C is a Location Map identifying the suspected and known impaired water pollution sources.

# POLLUTANT CONTROL MEASURES INVENTORY

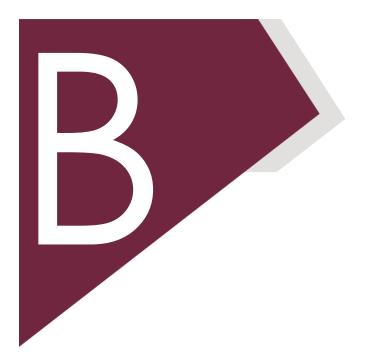
Appendix D is the inventory of all suspected and known PCMs identified by the permittee. Additionally, the appendix provides notes, conclusions, and possible corrective actions for each suspected responsible party contributing to the PCM.



# APPENDIX A: MS4 DOWNSTREAM WATERS IMPAIRMENTS



MS4 Name	NPDES ID	Individual Permit Required?	Reason	Impaired Downstream Waters or Applicable TMDL Name	Requirement(s)	Other Cause(s) of Impairment
Northampton County	/					
ALLEN TWP	PAI132250	Yes	IP			
				Catasauqua Creek	Appendix E-Siltation (5)	
				Lehigh River	Appendix A-Metals (5), Appendix E-Organic Enrichment/Low D.O., Siltation, Suspended Solids (5)	
				Dry Run	Appendix E-Siltation (5)	Water/Flow Variability (4c)
				Hokendauqua Creek	Appendix E-Siltation, Suspended Solids (5)	
BANGOR BORO	PAG132249	No		Unnamed Tributaries to Martins Creek	Appendix E-Siltation (5)	Flow Alterations, Other Habitat Alterations (4
BATH BORO	PAI132215	Yes	SP, IP			· · · · ·
BAITIBORO	1741102210	103	01,11	East Branch Monocacy Creek	Appendix E-Siltation (5)	
				Monocacy Creek	Appendix E-Siltation (5)	Other Habitat Alterations (4c)
BETHLEHEM CITY	PAI132210	Yes	SP, IP			
			,	Monocacy Creek	Appendix E-Siltation (5)	Other Habitat Alterations (4c)
				Lehigh River	Appendix C-PCB (5), Appendix E-Organic Enrichment/Low D.O., Siltation, Suspended Solids (5)	
				Nancy Run	Appendix E-Siltation (5)	Water/Flow Variability (4c)
				Saucon Creek	Appendix E-Siltation (5)	
				Unnamed Tributaries to East Branch Saucon Creek		Other Habitat Alterations, Water/Flow Variabil (4c)
				Unnamed Tributaries to Lehigh Coal And Navigation Canal	Appendix E-Siltation (5)	Water/Flow Variability (4c)
				East Branch Saucon Creek	Appendix E-Siltation (5)	
BETHLEHEM TWP	PAI132214	Yes	SP, IP			
				Delaware River		Mercury (5)
				Lehigh River	Appendix C-PCB (5), Appendix E-Organic Enrichment/Low D.O., Siltation, Suspended Solids (5)	
				Monocacy Creek	Appendix E-Siltation (5)	Other Habitat Alterations (4c)
				Nancy Run	Appendix E-Siltation (5)	Water/Flow Variability (4c)
BUSHKILL TWP	PAI132219	Yes	SP, IP			
				Shoeneck Creek	Appendix E-Siltation (5)	Water/Flow Variability (4c)
				Bushkill Creek	Appendix B-Pathogens (5)	
				East Branch Monocacy Creek	Appendix E-Siltation (5)	
				Monocacy Creek	Appendix E-Siltation (5)	Other Habitat Alterations (4c)
CHAPMAN BORO	PAI132257*	Yes	SP, W-I	Monocacy Creek	Appendix E-Siltation (5)	Other Habitat Alterations (4c)
EAST ALLEN TWP	PAI132212	Yes	SP, IP			
		100	01,11	East Branch Monocacy Creek	Appendix E-Siltation (5)	
				Catasauqua Creek	Appendix E-Siltation (5)	
				Lehigh River	Appendix E-Organic Enrichment/Low D.O., Siltation, Suspended Solids (5)	
				Monocacy Creek	Appendix E-Siltation (5)	Other Habitat Alterations (4c)
				Unnamed Tributaries to Shoeneck Creek	Appendix E-Siltation (5)	Water/Flow Variability (4c)



# APPENDIX B: PRIORITY POLLUTANT LIST





# **Priority Pollutant List**

**Priority Pollutants** are a set of chemical pollutants we regulate, and for which we have developed analytical test methods. The current list of 126 Priority Pollutants, shown below, can also be found at <u>40 CFR Part 423</u>, <u>Appendix A</u>.

These are not the only pollutants regulated in Clean Water Act programs. The list is an important starting point for EPA to consider, for example, in developing national discharge standards (such as Effluent Guidelines) or in national permitting programs (such as NPDES).

- 1. Acenaphthene
- 2. Acrolein
- 3. Acrylonitrile
- 4. Benzene
- 5. Benzidine
- 6. Carbon tetrachloride
- 7. Chlorobenzene
- 8. 1,2,4-trichlorobenzene
- 9. Hexachlorobenzene
- 10. 1,2-dichloroethane
- 11. 1,1,1-trichloreothane
- 12. Hexachloroethane
- 13. 1,1-dichloroethane
- 14. 1,1,2-trichloroethane
- 15. 1,1,2,2-tetrachloroethane
- 16. Chloroethane
- 17. (Removed)
- 18. Bis(2-chloroethyl) ether
- 19. 2-chloroethyl vinyl ethers
- 20. 2-chloronaphthalene
- 21. 2,4,6-trichlorophenol
- 22. Parachlorometa cresol
- 23. Chloroform
- 24. 2-chlorophenol
- 25. 1,2-dichlorobenzene
- 26. 1,3-dichlorobenzene
- 27. 1,4-dichlorobenzene
- 28. 3,3-dichlorobenzidine
- 29. 1,1-dichloroethylene
- 30. 1,2-trans-dichloroethylene
- 31. 2,4-dichlorophenol
- 32. 1,2-dichloropropane
- 33. 1,3-dichloropropylene
- 34. 2,4-dimethylphenol

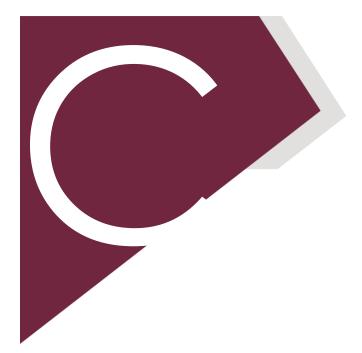
- 35. 2,4-dinitrotoluene
- 36. 2,6-dinitrotoluene
- 37. 1,2-diphenylhydrazine
- 38. Ethylbenzene
- 39. Fluoranthene
- 40. 4-chlorophenyl phenyl ether
- 41. 4-bromophenyl phenyl ether
- 42. Bis(2-chloroisopropyl) ether
- 43. Bis(2-chloroethoxy) methane
- 44. Methylene chloride
- 45. Methyl chloride
- 46. Methyl bromide
- 47. Bromoform
- 48. Dichlorobromomethane
- 49. (Removed)
- 50. (Removed)
- 51. Chlorodibromomethane
- 52. Hexachlorobutadiene
- 53. Hexachlorocyclopentadiene
- 54. Isophorone
- 55. Naphthalene
- 56. Nitrobenzene
- 57. 2-nitrophenol
- 58. 4-nitrophenol
- 59. 2,4-dinitrophenol
- 60. 4,6-dinitro-o-cresol
- 61. N-nitrosodimethylamine
- 62. N-nitrosodiphenylamine
- 63. N-nitrosodi-n-propylamine
- 64. Pentachlorophenol
- 65. Phenol
- 66. Bis(2-ethylhexyl) phthalate
- 67. Butyl benzyl phthalate
- 68. Di-N-Butyl Phthalate

- 69. Di-n-octyl phthalate
- 70. Diethyl Phthalate
- 71. Dimethyl phthalate
- 72. Benzo(a) anthracene
- 73. Benzo(a) pyrene
- 74. Benzo(b) fluoranthene
- 75. Benzo(k) fluoranthene
- 76. Chrysene
- 77. Acenaphthylene
- 78. Anthracene
- 79. Benzo(ghi) perylene
- 80. Fluorene
- 81. Phenanthrene
- 82. Dibenzo(,h) anthracene
- 83. Indeno (1,2,3-cd) pyrene
- 84. Pyrene
- 85. Tetrachloroethylene
- 86. Toluene
- 87. Trichloroethylene
- 88. Vinyl chloride
- 89. Aldrin
- 90. Dieldrin
- 91. Chlordane
- 92. 4,4-DDT
- 93. 4,4-DDE
- 94. 4,4-DDD
- 95. Alpha-endosulfan
- 96. Beta-endosulfan
- 97. Endosulfan sulfate
- 98. Endrin
- 99. Endrin aldehyde

- 100. Heptachlor
- 101. Heptachlor epoxide
- 102. Alpha-BHC
- 103. Beta-BHC
- 104. Gamma-BHC
- 105. Delta-BHC
- 106. PCB-1242 (Arochlor 1242)
- 107. PCB-1254 (Arochlor 1254)
- 108. PCB-1221 (Arochlor 1221)
- 109. PCB-1232 (Arochlor 1232)
- 110. PCB-1248 (Arochlor 1248)
- 111. PCB-1260 (Arochlor 1260)
- 112. PCB-1016 (Arochlor 1016)
- 113. Toxaphene
- 114. Antimony
- 115. Arsenic
- 116. Asbestos
- 117. Beryllium
- 118. Cadmium
- 119. Chromium
- 120. Copper
- 121. Cyanide, Total
- 122. Lead
- 123. Mercury
- 124. Nickel
- 125. Selenium
- 126. Silver
- 127. Thallium
- 128. Zinc
- 129. 2,3,7,8-TCDD

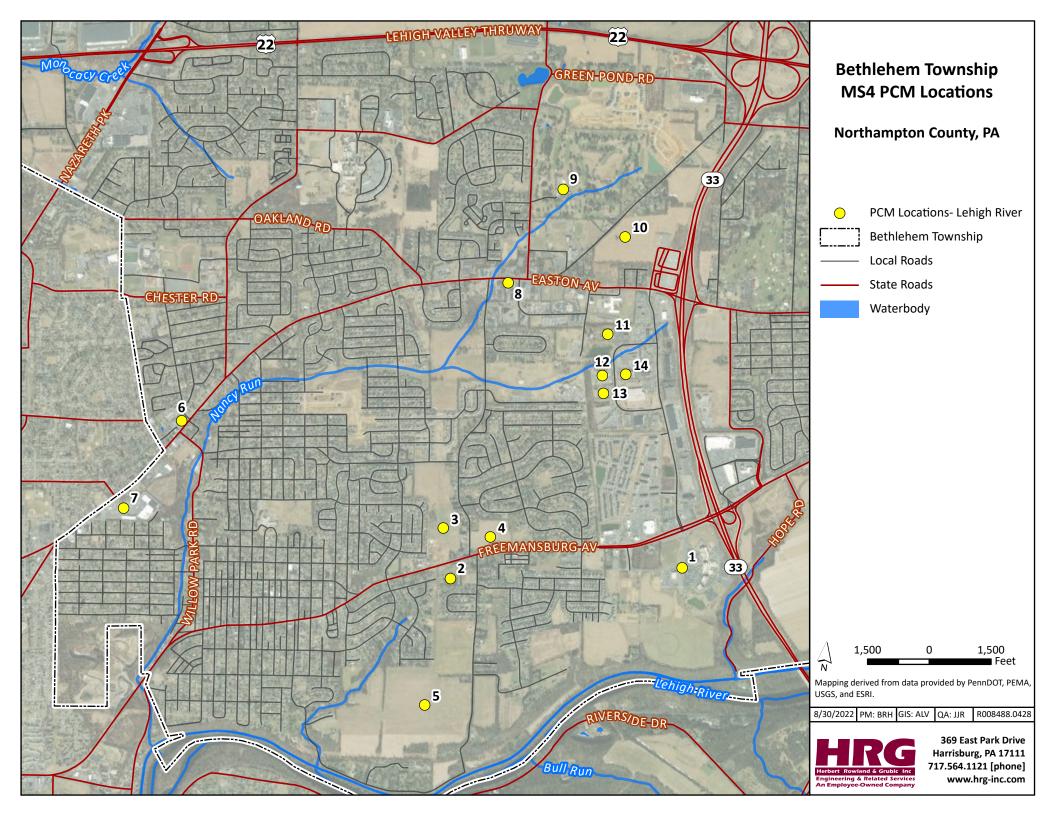
#### **Additional Information**

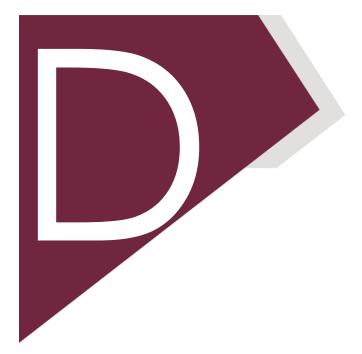
• Toxic and Priority Pollutants Under the Clean Water Act



# APPENDIX C: LOCATION MAPS







# APPENDIX D: PCM INVENTORY



	Table 1: PCM Inventory for Lehigh River						
Identifier*	Address	Responsible Party**	Impairment***	Suspected/ Known	Basis of Determination	Notes	Corrective Action****
1	1827 St Luke's Blvd, Easton, PA 18045	St Lukes Hospital -	Priority Organic	Suspected	Medical site that may release harmful chemicals into		
		Anderson Campus	Compounds		the surrounding waterways. Garden area suspected of		
					using pesticides that may discharge into waterways.		
2	4114 Birch Dr, Bethlehem, PA 18020	PPL Eletric Utilities	Priority Organic	Suspected	Electrical substation with possibility of illicit discharge.		
		Corporation	Compounds				
3	4209 Freemansburg Ave, Bethlehem,	Dale A & Gloria J	Priority Organic	Suspected	Crop land suspected of using pesticides that may		
	PA, 18020	Koehler	Compounds		discharge into waterways.		
4	5241 Freemansburg Ave, Easton, PA	Bethlehem Area School	Priority Organic	Suspected	Crop land suspected of using pesticides that may		
	18045	District	Compounds		discharge into waterways.		
5	1620 Farmsville Rd, Bethlehem, PA	Pennsylvania Power &	Priority Organic	Suspected	Crop land suspected of using pesticides that may		
	18020	Light CO	Compounds		discharge into waterways.		
6	3280 Easton Avenue, Bethlehem, PA	C O Proeprty Tax Dept	Priority Organic	Suspected	Gas Station with Petroleum tanks that may discharge		
	18020		Compounds		into waterways.		
7	2918 Easton Ave, Bethlehem, PA 18017	Easton Commons	Priority Organic	Suspected	Gas Station with Petroleum tanks that may discharge		
		Bethlehem LLC	Compounds		into waterways.		
8	4440 Easton Ave, Bethlehem, PA 18020	BCS Bethlehem LLC	Priority Organic	Suspected	Gas Station with Petroleum tanks that may discharge		
			Compounds		into waterways.		
9	3604 Farmersville Rd, Bethlehem, PA	Green Pond Country	Priority Organic	Suspected	Golf course suspected of using pesticides that may		
	18020	Club	Compounds		discharge into waterways.		
10	3520 Church Rd, Bethlehem, PA 18020	PC Land LLC	Priority Organic	Suspected	Crop land suspected of using pesticides that may		
			Compounds		discharge into waterways.		
11	2801 Baglyos Cir, Bethlehem PA 18020	Strahman Industries LLC	Priority Organic	Suspected	Industrial Site that may discharge illict chemicals into		
			Compounds		waterways.		
12	2701 Baglyos Cir, Bethlehem PA 18020	Losco Family Properties	Priority Organic	Suspected	Industrial Site that may discharge illict chemicals into		
		LLC	Compounds		waterways.		
13	2651 Baglyos Cir, Bethlehem PA 18020	2651 Baglyos Circle LLC	Priority Organic	Suspected	Industrial Site that may discharge illict chemicals into		
			Compounds		waterways.		
14	2760 Baglyos Cir, Bethlehem PA 18020	RMS Technology LLC	Priority Organic	Suspected	Industrial Site that may discharge illict chemicals into		
			Compounds		waterways.		

\*Same Identifier as on location map \*\*If known \*\*\*Appendix A: Metals and or pH, Appendix B: Pathogens, Appendix C: Priority Organic Compounds \*\*\*\*Current and planned corrective action permitte will take



St. Luke's Hospital – Anderson Campus	Site Address:	1827 St. Luke's Blvd, Easton PA 18045	
9/12/2022	Municipality:	Bethlehem Township	
Weather: 75°F Humid, Cloudy		Northhampton	
Corrinne Cook	Date:	9/12/2022	
Corrinne Cook Staff Professional I	Date:	9/12/2022 7171-564-1121	
	9/12/2022	9/12/2022 Municipality:	

### **FIELD INSPECTION - PCMS:**

PCM impairment:			
Pathogens	Priority Organic Compounds	Metals/pH Associated with AMD	
Stream/Waterway of Investigated Tributa			
Locational Description:	Property:	Public 🛛 Private	
At the intersection of St. Luke's Blvd and F	Freemansburg Industrial Site?	? 🗆 Yes 🖂 No	
Ave	Was Sampling	Completed?  Ves  No	
	Are Sample Re	esults Attached? 🗌 Yes 🛛 No	
	If Discharging	g Directly to Waterway:	
	Color of Water	Color of Water Source Discharged Into:	
	🗌 Typical 🗌	Atypical (Describe:)	
	Odor of Water	Source Discharged Into:	
	🗆 Typical 🗆	Atypical (Describe:)	
	Floating Solids Obs	Observed?  Yes No	
	Scum Observe	ed? 🗆 Yes 🗆 No	
	Sheen Observe	ed? 🗆 Yes 🗆 No	
	Clarity of Wate	er Source Discharged Into:	
	🗆 Typical 🗆	Atypical (Describe:)	
	•		

# **OBSERVATIONS MADE:**

Lawn care products have been applied to lawn, possible harmful chemicals. No visual illicit discharges observed.









MS4 Permittee Name:         PPL Electric Utilities Corporation           Inspection Date:         9/12/2022		Site Address:	4114 Birch Dr, Bethlehem, PA 18020 Bethlehem Township	
		Municipality:		
Weather: 75°F Humid, Cloudy		County:	Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Title: Staff Professional I		Phone No.:	7171-564-1121	
Email:	ccook@hrg-inc.com	Signature:	Cinice Cik	

# **FIELD INSPECTION - PCMS:**

□ Pathogens	☑ Priority Organic Compounds □ Metals/pH Associated with AMD
Stream/Waterway of Investigate	Tributary: Lehigh River
Locational Description:	Property:  Public  Private
At the end of Birch Dr.	Industrial Site?  Ves  No
	Was Sampling Completed?  Ves 🛛 No
	Are Sample Results Attached?  Yes  No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes  No
	Clarity of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)

# **OBSERVATIONS MADE:**

No visuals of possible illicit discharges.





MS4 Permittee Name:	Dale A & Gloria J Koehler	Site Address:	4209 Freemansburg Ace, Bethlehem Pa 18020	
Inspection Date:	9/12/2022	Municipality:	Bethlehem Township	
Weather: 75°F Humid, Cloudy		County: Northhampton		
Inspector:	Corrinne Cook	Date:	9/12/2022	
Title:	Staff Professional I	Phone No.:	7171-564-1121	
Email:	ccook@hrg-inc.com	Signature:	Cimine Cik	

## **FIELD INSPECTION - PCMS:**

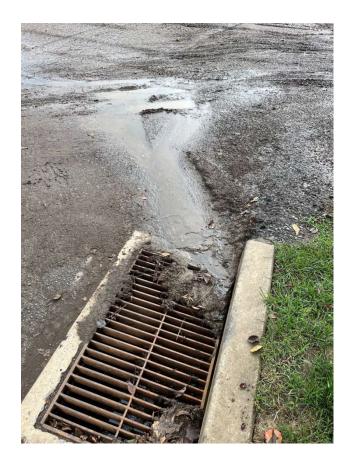
PCM Impairment:	
□ Pathogens	☑ Priority Organic Compounds □ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tribut	ary: Lehigh River
Locational Description:	Property:  Public  Private
At the end of Allen St.	Industrial Site?  Yes  No
	Was Sampling Completed?   Yes  No
	Are Sample Results Attached?  Yes  No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes No
	Clarity of Water Source Discharged Into:
	☐ Typical □ Atypical (Describe:)

# **OBSERVATIONS MADE:**

Cows/livestock on property. Possible illicit discharge flowing into stormwater system.

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MS4 Permittee Name: Bethlehem Area School Distri		Site Address:	5241 Freemansburg Ave, Easton, PA 18045	
Inspection Date:	9/12/2022	Municipality:	Bethlehem Township	
Weather: 75°F Humid, Cloudy		County:	Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Inspector: Title:	Corrinne Cook Staff Professional I	Date: Phone No.:	9/12/2022 7171-564-1121	

### **FIELD INSPECTION - PCMS:**

PCM Impairment:	
Pathogens      Price	ority Organic Compounds
Stream/Waterway of Investigated Tributary: L	ehigh River
Locational Description:	Property:  Public  Private
On Freemansburg Ave, across the street from S	chweps Industrial Site? □ Yes ⊠ No
Mobile Home Park parking lot.	Was Sampling Completed?  Ves  No
	Are Sample Results Attached? □ Yes ⊠ No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes  No
	Clarity of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)

# **OBSERVATIONS MADE:**

No visual of possible illicit discharge.







MS4 Permittee Name:	Pennsylvania Power & Light CO	Site Address:	1620 Farmersville Rd, Bethlehem, PA 18020
Inspection Date:	9/12/2022	Municipality:	Bethlehem Township
Weather:	75⁰F Humid, Cloudy	County:	Northhampton
Inspector:	Corrinne Cook	Date:	9/12/2022
Inspector: Title:	Corrinne Cook Staff Professional I	Date: Phone No.:	9/12/2022 7171-564-1121

### **FIELD INSPECTION - PCMS:**

PCM Impairment:			
Pathogens	☑ Priority Organic Compounds ☐ Metals/pH Associated with AMD		
Stream/Waterway of Investigated Tributa	<b>ry:</b> Lehigh River		
Locational Description:	Property:  Public  Private		
Down Farmersville Rd next to Hanchick's G	arage Inc. Industrial Site? □ Yes ⊠ No		
	Was Sampling Completed?  Ves  No		
	Are Sample Results Attached? □ Yes ⊠ No		
	If Discharging Directly to Waterway:		
	Color of Water Source Discharged Into:		
	□ Typical □ Atypical (Describe:)		
	Odor of Water Source Discharged Into:		
	□ Typical □ Atypical (Describe:)		
	Floating Solids Observed?  Yes  No		
	Scum Observed?  Yes  No		
	Sheen Observed?  Yes No		
	Clarity of Water Source Discharged Into:		
	□ Typical □ Atypical (Describe:)		

# **OBSERVATIONS MADE:**

No visuals of possible illicit discharge.





MS4 Permittee Name:	CO Property Tax Dept	Site Address:	3283 Easton Ave, Bethlehem, PA 18020	
Inspection Date:9/12/2022Weather:75°F Humid, Cloudy		Municipality:	Bethlehem Township	
		County:	Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Inspector: Title:	Corrinne Cook Staff Professional I	Date: Phone No.:	9/12/2022 7171-564-1121	

### **FIELD INSPECTION - PCMS:**

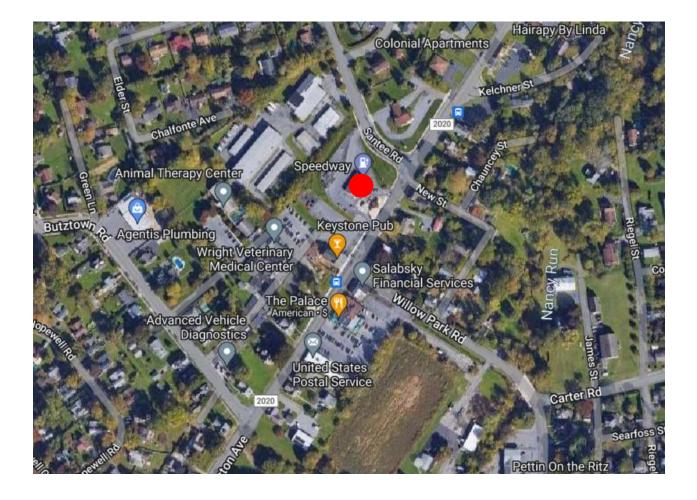
a Campaunda III Matala/nH Associated with AND	
c Compounds	
er	
Property:  Public  Private	
Industrial Site?  Ves  No	
Was Sampling Completed? $\Box$ Yes $\boxtimes$ No	
Are Sample Results Attached? $\Box$ Yes $\boxtimes$ No	
If Discharging Directly to Waterway:	
Color of Water Source Discharged Into:	
□ Typical □ Atypical (Describe:)	
Odor of Water Source Discharged Into:	
□ Typical □ Atypical (Describe:)	
Floating Solids Observed?  Ves  No	
Scum Observed?  Yes  No	
Sheen Observed?  Yes No	
Clarity of Water Source Discharged Into:	
□ Typical □ Atypical (Describe:)	

## **OBSERVATIONS MADE:**

Barrels on property by dumpsters. Could be an illicit discharge.









MS4 Permittee Name:	Easton Commons Bethlehem LLC	Site Address:	2918 Easton Ave, Bethlehem, PA 18017	
Inspection Date: 9/12/2022		Municipality:	Bethlehem Township	
Weather:	Weather: 75°F Humid, Cloudy		Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
	CONTINUE COOK			
Title:	Staff Professional I	Phone No.:	7171-564-1121	

### **FIELD INSPECTION - PCMS:**

PCM Impairment:		
Pathogens	☑ Priority Organic Compounds □ Metals/pH Associated with AMD	
Stream/Waterway of Investigated Tribu	utary: Lehigh River	
Locational Description:	Property:  Public  Private	
Giant gas station along Easton Ave.	Industrial Site?  Yes  No	
	Was Sampling Completed?   Yes  No	
	Are Sample Results Attached? □ Yes ⊠ No	
	If Discharging Directly to Waterway:	
	Color of Water Source Discharged Into:	
	□ Typical □ Atypical (Describe:)	
	Odor of Water Source Discharged Into:	
	□ Typical □ Atypical (Describe:)	
	Floating Solids Observed?  Yes  No	
	Scum Observed?  Yes  No	
	Sheen Observed?  Yes No	
	Clarity of Water Source Discharged Into:	
	□ Typical □ Atypical (Describe:)	

### **OBSERVATIONS MADE:**

Have hazardous waste buckets between pumps, possible source of illicit discharge.

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MS4 Permittee Name:	BCS Bethlehem LLC	Site Address:	4440 Easton Ave, Bethlehem, PA 18020	
Inspection Date: 9/12/2022		Municipality:	Bethlehem Township	
Weather:	Weather: 75°F Humid, Cloudy		Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Inspector: Title:	Corrinne Cook Staff Professional I	Date:	9/12/2022 7171-564-1121	

#### **FIELD INSPECTION - PCMS:**

PCM Impairment:			
□ Pathogens	Priority Organic Compounds     Deta		□ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tributa	ary: Lehigh Rive	er	
Locational Description:		Property:  Public	⊠ Private
Sunoco gas station at the intersection of F	almer Dr and	Industrial Site?  Ye	s 🛛 No
Easton Ave.	Γ	Was Sampling Compl	eted? 🗆 Yes 🛛 No
	Γ	Are Sample Results A	ttached? 🗆 Yes 🗵 No
	l l	If Discharging Directly to Waterway:	
	Γ	Color of Water Source	e Discharged Into:
	l l	Typical      Atypica	al (Describe:)
	l l	Odor of Water Source	Discharged Into:
	l l	Typical      Atypica	al (Describe:)
	Γ	Floating Solids Observ	ved? 🗆 Yes 🔲 No
	Γ	Scum Observed?	Yes 🗆 No
	l l	Sheen Observed? $\Box$	Yes 🗆 No
	Γ	Clarity of Water Source	e Discharged Into:
		Typical      Atypica	al (Describe:)

## **OBSERVATIONS MADE:**

No visuals of possible illicit discharge.







Green Pond Country Club	Site Address:	3604 Farmersville Rd, Bethlehem, PA 18020	
9/12/2022	Municipality:	Bethlehem Township	
75⁰F Humid, Cloudy	County:	Northhampton	
Corrinne Cook	Date:	9/12/2022	
Corrinne Cook Staff Professional I	Date:	9/12/2022 7171-564-1121	
	9/12/2022	9/12/2022 Municipality:	

### **FIELD INSPECTION - PCMS:**

PCM Impairment:			
□ Pathogens	🛛 Priority Organi	ic Compounds	□ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tribut	t <b>ary:</b> Lehigh Rive	er	
Locational Description:		Property:  Public	⊠ Private
Green Pond Country Club, off Farmer	sville Rd and	Industrial Site?  Ve	s 🖂 No
across from Tusketee Dr.		Was Sampling Comple	eted? 🗆 Yes 🛛 No
		Are Sample Results A	ttached? 🗆 Yes 🗵 No
		If Discharging Direct	ly to Waterway:
	Co	Color of Water Source	Discharged Into:
		🗆 Typical 🗆 Atypica	I (Describe:)
		Odor of Water Source Discharged Into:	
	Floating Solids Scum Observe	🗆 Typical 🗆 Atypica	I (Describe:)
		Floating Solids Observ	ved? 🗆 Yes 🗆 No
		Scum Observed?	Yes 🗆 No
		Sheen Observed?  Yes  No	
		Clarity of Water Source Discharged Into:	
		🗆 Typical 🗆 Atypica	I (Describe:)

## **OBSERVATIONS MADE:**

No visuals of illicit discharge.











MS4 Permittee Name:	PC Land LLC	Site Address:	5715 William Penn Hwy, Bethlehem, PA 18020	
Inspection Date:9/12/2022Weather:75°F Humid, Cloudy		Municipality:	Bethlehem Township Northhampton	
		County:		
Inspector:	Corrinne Cook	Date:	9/12/2022	
Title:	Staff Professional I	Phone No.:	7171-564-1121	
Email:	ccook@hrg-inc.com	Signature:	Cunice Cut	

### **FIELD INSPECTION - PCMS:**

PCM Impairment:				
$\Box$ Pathogens $\Box$ I	Priority Organic Compounds			
Stream/Waterway of Investigated Tributary: Lehigh River				
Locational Description:	Property:  Public  Private			
Intersect of William Penn Hwy and Emrick Blv	d. Industrial Site? □ Yes ⊠ No			
	Was Sampling Completed?   Yes  No			
	Are Sample Results Attached? □ Yes ⊠ No			
	If Discharging Directly to Waterway:			
	Color of Water Source Discharged Into:			
	□ Typical □ Atypical (Describe:)			
	Odor of Water Source Discharged Into:			
	□ Typical □ Atypical (Describe:)			
	Floating Solids Observed?  Yes  No			
	Scum Observed?  Yes  No			
	Sheen Observed?  Yes  No			
	Clarity of Water Source Discharged Into:			
	☐ Typical □ Atypical (Describe:)			

### **OBSERVATIONS MADE:**

No longer crop land, construction going on, on property.





Strahman Industries LLC	Site Address:	2801 Baglyos Cir, Bethlehem PA 18020	
9/12/2022	Municipality:	Bethlehem Township Northhampton	
75⁰F Humid, Cloudy	County:		
Corrinne Cook	Date:	9/12/2022	
Staff Professional I	Phone No.:	7171-564-1121	
	9/12/2022 75ºF Humid, Cloudy	9/12/2022     Municipality:       75°F Humid, Cloudy     County:	

### **FIELD INSPECTION - PCMS:**

PCM Impairment:	
□ Pathogens	☑ Priority Organic Compounds □ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tribu	ary: Lehigh River
Locational Description:	Property:  Public  Private
On Baglyos Circle off Emrick Rd.	Industrial Site? 🛛 Yes 🗌 No
	Was Sampling Completed?   Yes  No
	Are Sample Results Attached?  Yes  No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes No
	Clarity of Water Source Discharged Into:
	☐ Typical □ Atypical (Describe:)

## **OBSERVATIONS MADE:**

Barrel by dumpster, possible illicit discharge.







MS4 Permittee Name:	Losco Family Properties LLC	Site Address:	2701 Baglyos Cir, Bethlehem PA 18020	
Inspection Date:	9/12/2022	Municipality:	Bethlehem Township	
Weather:	75⁰F Humid, Cloudy	County:	Northhampton	
Increator	Corrigno Cook	Data	0/10/2022	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Inspector: Title:	Corrinne Cook Staff Professional I	Date: Phone No.:	9/12/2022 7171-564-1121	

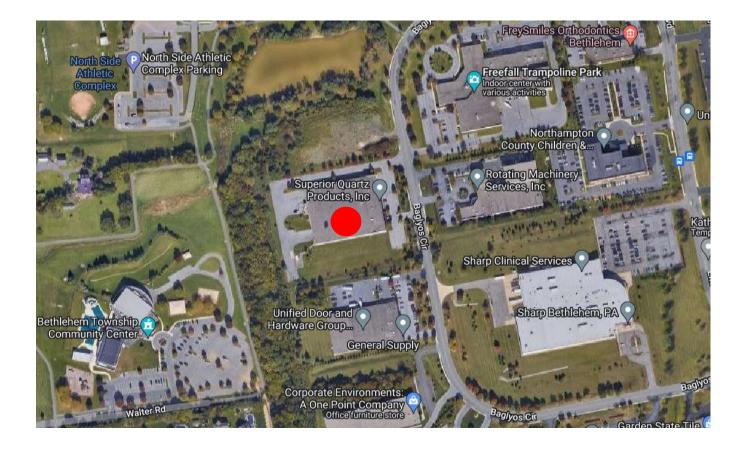
### **FIELD INSPECTION - PCMS:**

PCM Impairment:	
□ Pathogens	☐ Priority Organic Compounds ☐ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tribu	tary: Lehigh River
Locational Description:	Property:  Public  Private
On Baglyos Circle off Emrick Rd.	Industrial Site? 🛛 Yes 🖄 No
	Was Sampling Completed?  Ves 🛛 No
	Are Sample Results Attached? □ Yes ⊠ No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes No
	Clarity of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)

## **OBSERVATIONS MADE:**

No visuals of illicit discharge.







MS4 Permittee Name:	Unified Door and Hardware Group	Site Address:	2651 Baglyos Cir, Bethlehem Pa 18020	
Inspection Date:	9/12/2022	Municipality:	Bethlehem Township	
Weather:	75ºF Humid, Cloudy	County:	Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Inspector: Title:	Corrinne Cook Staff Professional I	Date: Phone No.:	9/12/2022 7171-564-1121	

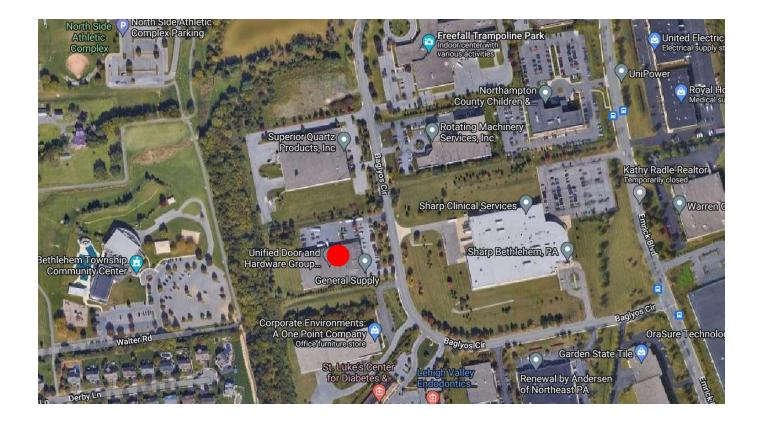
### **FIELD INSPECTION - PCMS:**

PCM Impairment:	
□ Pathogens	☑ Priority Organic Compounds □ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tribu	u <b>tary:</b> Lehigh River
Locational Description:	Property:  Public  Private
On Baglyos Circle off Emrick Road.	Industrial Site? 🛛 Yes 🗌 No
	Was Sampling Completed?   Yes  No
	Are Sample Results Attached? □ Yes ⊠ No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes  No
	Clarity of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)

## **OBSERVATIONS MADE:**

Little containers by opening (bay door) possible illicit discharge.







MS4 Permittee Name:	RMS Technology LLC	Site Address:	2760 Baglyos Cir, Bethlehem, PA 18020	
Inspection Date:	9/12/2022	Municipality:	Bethlehem Township	
Weather:	75⁰F Humid, Cloudy	County:	Northhampton	
Inspector:	Corrinne Cook	Date:	9/12/2022	
Inspector:	Corrinne Cook Staff Professional I	Date: Phone No.:	9/12/2022 7171-564-1121	

### **FIELD INSPECTION - PCMS:**

PCM Impairment:	
□ Pathogens	☐ Priority Organic Compounds ☐ Metals/pH Associated with AMD
Stream/Waterway of Investigated Tribu	t <b>ary:</b> Lehigh River
Locational Description:	Property:  Public  Private
Right off Emrich Blvd.	Industrial Site? 🛛 Yes 🗌 No
	Was Sampling Completed?  Ves 🛛 No
	Are Sample Results Attached?  Ves  No
	If Discharging Directly to Waterway:
	Color of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Odor of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)
	Floating Solids Observed?  Yes  No
	Scum Observed?  Yes  No
	Sheen Observed?  Yes  No
	Clarity of Water Source Discharged Into:
	□ Typical □ Atypical (Describe:)

## **OBSERVATIONS MADE:**

No visuals of illicit discharge.





