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



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

May 1, 2017

to

For the R	Repo	rting Per	iod: May	1, 2015		to _Ma	y 1, 2017		<u>-</u> s
☐ Annual Report ☐ New Permittee	\boxtimes	Progress Renewal	Report Permittee			Due Date: <u>J</u> ւ	ne 29, 201	7_	
			GENE	RAL INFO	ORMA	TION			
Permittee Name:	Cł	HARLEST	OWN TOWNSH	IIP	NPD	ES Permit No.:	PAI-1305	507	
Mailing Address:	PO	Box 507			Effec	ctive Date:	May 1, 2	015	
City, State, Zip:	De	evault, PA	19432		Expi	ration Date:	April 30,	2019	
MS4 Contact Person:	Li	nda M Cse	te/Janice C B	ird	Ren	ewal Due Date:	October	30, 2018	
Title:		ownship M ecretary	anager/Assist	tant	Adm	in. Extended?	☐ Yes	⊠ No	
Phone:	61	0-240-032	8		Mun	icipality:	Charlest	town Twp	
Email:	ac	dmin1@ch	arlestown.pa.	us	Cou	nty:	Chester		
Co-Permittees (if applic	cable)	: NA							
						RMATION			
Are there any discharg	es to	waters with	nin the Chesap	eake Bay W	/atersh	ed? Yes		Property and the second	
Identify all surface water requested information	ers tha (see i	at receive s nstructions	tormwater disc).	harges fron	n storm	sewers within the	MS4 urbar	nized area an	
Receiving Wate			Ch. 93 Class	. Impai	red?	Cause(s	5)	TMDL?	WLA?
Valley Creek (So	chuyll	xill)	EV	YE	S	PCB, AQUAT URBAN RUNOF VARIABIL SILTATION, H MODIFICA	F- FLOW TY, ABITAT	YES, PCB	YES
Pickering C	reek		HQ-TSF	YE	S	CAUSE UNK	NOWN	NO	NO
French Cre			TSF	YE	:S	PATHOGENS - UNKNOV		NO	NO
Valley Creek (Bra	andyw	vine)	CWF	YE	:S	AQUATIC LIFE RUNOFF- F VARIABILI SILTATIO	LOW TY &	YES	YES*
Pigeon R						The second	SOURCE		
	un		HQ-TSF	YE	ES	PATHOGENS - UNKNO		NO	NO
Pine Cre			HQ-TSF	YE			VN - URBAN	NO NO	NO NO

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Identify any Wasteload Allocations (Wload(s)):	/LAs) identified in	TMDLs for the	MS4, if applicable	. Identify the po	ollutant(s) and mass
The WLA for PCB's in Valley Creek the Christina River Study For Valley	(Schuylkill) is 0. Creek (Brandyw	Charlestown ine)	Township was no	t given a Waste	eload Allocation in

GENERAL MINIMUM CONTROL MEA		☐ No
lave you completed all MCM activities required by the permit for this	s reporting period?	
Provide current contact name and phone number information for the	required MCMs (if same as page 1, is	Phone
MCM	Contact Name	610-240-0326
f1 Public Education and Outreach on Storm Water Impacts	Linda Csete	610-240-0326
‡2 Public Involvement/Participation	Linda Csete	
3 Illicit Discharge Detection and Elimination (IDD&E)	Daniel Wright	610-840-9100
#4 Construction Site Storm Water Runoff Control	Daniel Wright	610-840-9100
#5 Post-Construction Storm Water Management in New Developme and Redevelopment		610-840-9100
#6 Pollution Prevention / Good Housekeeping	Jim Thompson	610-656-9315
MCM #1 – PUBLIC EDUCATION AND OUTR	EACH ON STORM WATER IMP	PACTS
 If you are not a new permittee, did you complete and submit you If Yes, provide the latest submission date: 6/7/2005 Date of last evaluation of or revision to the PEOP: 1/27/2005 What were the plans and goals for public education and outrea] MO
Utilized Materials provided in CRC Watersheds MS4 Joint Researched articles on line for additional content.	_	
5. Did the MS4 achieve its goal(s) for the PEOP during the report	ting period?	
Explain the rationale for your answer:		
Expanded resources on website and updated links, direct information packet to new residents, quarterly newsletters businesses. Website was enhanced this year to update for devices. Separate stormwater management section of we Ten links are provided on stormwater management.	scontained information manager of use 1	for multiple handheld
6. Identify specific plans and goals for public education and outre	each for the upcoming year:	
CRC Watersheds will no longer provide material. We will muncipalities to share resources.	expand our research activities and	coordinate with oth
BMP #2: Develop and maintain lists of target audience groups Measurable Goal: For new permittees, the lists shall be developed and updated as necessary every year thereafter. For renewal per annually.	within the first year of coverage under	the permit and review

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1.	For new permittees only, attach your target audience list(s) to the first report submitted to DEP.
2.	If you are not a new permittee, did you complete and submit your target audience list to DEP? ☑ Yes ☐ No If Yes, provide the latest submission date: See Exhibit A of this report.
3.	Date of last review or revision to target audience list(s): 3/15/17
BIV	IP #3: Annually publish at least one educational item on your Stormwater Management Program
and	casurable Goal: For new permittees, stormwater educational and informational items shall be produced and published in print color on the Internet within the first year of permit coverage. In subsequent years (and for renewal permittees), the list of items blished and the content in these items shall be reviewed, updated, and maintained annually. Your publications shall contain immwater educational information that addresses one or more of the 6 MCMs.
1.	For new permittees only, attach your published stormwater educational or informational materials to the first report submitted to DEP.
2.	If you are not a new permittee, did you complete and submit your published stormwater educational or informational materials to DEP? Yes No If Yes, provide the latest submission date: 1/29/15
3.	Do you have a municipal newsletter? Yes No If Yes, how often was it published during the reporting period and what MS4-related material did it contain? times, contained Citizen water quality hotline, citizen awareness to report water pollution, earth day event, hazardous waste event schedule, community shredding event, Devault Area Gateway Improvements, Organic Community Gardening at Brightside Farm and 7 other articles.
4.	Do you have a municipal website? Yes No (URL: http://www.charlestown.pa.us/) If Yes, what MS4-related material does it contain? http://www.charlestown.pa.us/stormwater.asp Contains a summary of the Township's MS-4 requirements, 10 Stormwater Education Links, Act 167 link, Over 25 posts including: the right tree in the right place, tips for streamside landowners, put rainwater to work for you, fertilize your lawn the easy way, caring for your wetlands, and 20 others.
5.	Describe any other method(s) used during the reporting period to provide information on stormwater to the public: Handouts are made available at the township office, at meetings, elections, other public functions. A section is provided in the new Annual Report which was first published in 2015.
6.	Date of most recent review and/or update to published stormwater educational materials: 4/15/15
7.	Identify specific plans for the publication of stormwater materials for the upcoming year: Now that CRC Watersheds is no longer providing a Joint MS4 Education and Outreach Municipal Program, we will do our own research for suitable information and partner with neighboring muncipalities through our professional associations including the Chester County Managers' Consortium and Chester County Secretaries in Loal Government group.
BN	MP #4: Distribute stormwater educational materials to the target audiences

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

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

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New residents received an information packet including information on stormwater management, septic system facts, household hazardous waste collection, yard waste collection, monthly stormwater planner. Brochures and flyers are made available in permit packets, the township lobby and as handouts at township meetings. Sent letters to restuarants and food service establishments on good housekeeping. Website offers subscription service to receive e-mail updates. Township Mailing List is continually updated to reach target audience.

MCM #2 - PUBLIC INVOLVEMENT/PARTICIPATION

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

Measurable Goal: A new permittee's PIPP shall be developed and implemented during the first	year of coverage under this
Measurable Goal: A new permittee's PIPP shall be developed and implemented damig the hard General Permit. All permittees shall re-evaluate the PIPP each permit year and revise as needed.	Tour FIFT Shan morado, bac
not be limited to:	

- Opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of programs and activities related to this General Permit.
- Methods of routine communication to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the permittee's regulated small MS4s or their receiving waters.
- Making your periodic reports available to the public on your website, at your municipal offices, or by US Mail upon request.
- For new permittees only, attach your written PIPP or a summary thereof to the first report submitted to DEP. 1.
- If you are not a new permittee, did you complete and submit your written PIPP or summary to DEP? ☑ Yes ☐ No If Yes, provide the latest submission date:
- Date of last review and/or update to the PIPP:
- Explain how your PIPP addresses items a, b and c of the Measurable Goal:
 - a. Township Engineer presented the annual report in May 2016 and May 2017 and comments/discussion was solilcited from those present. Newsletter articles invite feedback and comments, reports of pollution.
 - b. Manager attends meetings and programs offered by CRC Watersheds and other programs as they become available.
 - c. Minutes are made available on the township website, open space inspection reports are sent to the homeowners associations of the developments where inspections take place. Inspector discusses improvements with the property owners/HOAs.

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

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

- Was an MS4-related ordinance or SOP developed during the reporting period? ☐ Yes ☒ No
- If Yes, describe how you advertised the draft ordinance and how you provided opportunities for public review, input and feedback:
- 3. If an ordinance or SOP was enacted/developed or amended during the reporting period, provide the following information:

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

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

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

- 1. Date of the public meeting(s): 5/2/16, 5/1/17
- How were meeting(s) advertised to the public? Township Website
- Indicate where the meeting(s) were held and the number of attendees:
 Great Valley Middle School, 12 members of the public in 2016, 17 in 2017.
- 4. What types of MS4-related activities did you solicit public involvement and participation for? open space inspections, earth day & streamside clean up event April 16, 2016 and April 22, 2017, trail cleanups. Held presentation on Riparian Buffer Ordinances on May 1, 2017.
- 5. What MS4-related activities did the public participate in? Earth Day road side clean up event, tree planting at Charlestown Park, trail cleanups. Over 100 people participate in the Organic Garden program at Brightside Farm. Fido stations at Charlestown Park used approximately 4,000 bags in this reporting period.

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

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

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

- 1. For new permittees only, attach your written IDD&E program to the first report.
- If you are not a new permittee, did you complete and submit your written IDD&E program to DEP? ☐ Yes ☐ No If Yes, provide the latest submission date: 2014
- Date of last review and/or update to IDD&E program: 5/10/2015

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

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

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

2.	For new permittees only, attach the completed map to the 4 th year Annual Report.
3.	Date of last update or revision to map(s): 5-5-17
4.	Total number of discharge points in your storm sewer system that: Discharge directly to surface waters (outfalls): 46 Discharge to storm sewers owned by others: 2
5.	Total number of outfalls that are mapped at this time: 48
per	IP #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), new mittees shall show, and renewal permittees shall update, the entire storm sewer collection system, including roads, ets, piping, swales, catch basins, channels, basins, and any other features of the permittee's storm sewer system luding municipal boundaries and/or watershed boundaries.
and	asurable Goals: For new permittees, develop the map(s) by the end of the fourth (4th) year of coverage under the permit dupdate and maintain the map(s) as necessary each year of permit coverage thereafter. For renewal permittees, update and intain the map(s) as necessary during each year of permit coverage.
1.	Have you completed a map(s) that includes roads, inlets, piping, swales, catch basins, channels, basins, municipal boundaries and watershed boundaries? \boxtimes Yes \square No
2.	If Yes, is the map(s) on the same map(s) as for outfalls and receiving waters? ⊠ Yes ☐ No
3.	For new permittees only, attach the completed map to the 4 th year Annual Report.
4.	If you are not a new permittee, did you complete and submit your map to DEP? ☑ Yes ☐ No If Yes, provide the latest submission date: 6-29-2015
5.	Date of last update or revision to map: 5-10-2015
ide	IP #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field screening, entify the source of any illicit discharges, and remove or correct any illicit discharges using procedures developed der BMP #1.
ou of tra Inv Pro to	r all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the tfall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, insporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance ventory/Sample Collection field sheet excerpted from the Illicit Discharge Detection and Elimination: A Guidance Manual for orgram Development and Technical Assessments (CWP, October 2004). Adequate written documentation shall be maintained justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and eliminate the cit flow also shall be documented.
Th	e results of outfall inspections and actions taken to remove or correct illicit discharges shall be summarized in periodic reports.
1.	For new permittees only, were at least 40% of all outfalls screened during dry weather? Yes No
	If Yes for #1, indicate the number screened and the percent of all outfalls it represents. If No for #1, indicate reason(s) why this was not completed:
	Are you on pace to screen all outfalls twice during the permit term? 🗌 Yes 🗎 No
2.	Are you on pace to screen all outfalls twice during the permit term? Yes No For renewal permittees, indicate the percent of outfalls screened during the reporting period: 95%

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	3.	For all permittees, indicate the percent of outfalls screened that revealed dry weather flows: 18%
	4.	Did any dry weather flows reveal color, turbidity, sheen, odor, floating or submerged solids? ☐ Yes ☒ No
		If Yes for #4, attach all sample results to this report with a map identifying the sample location. Explain the corrective action(s) taken in the attachment.
-	6.	Do you use the "Outfall Reconnaissance Inventory / Sample Collection Field Sheet" provided in the permit?
		⊠ Yes □ No
		If No, attach a copy of your monitoring form.
	imp the	IP #5: Enact a stormwater management ordinance (municipal entities) or develop an SOP (non-municipal entities) to plement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to regulated small MS4.
	froi tha noi	casurable Goal: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance of mean Act 167 Plan approved by the Department in 2005 or later, the MS4 Stormwater Management Ordinance; or an ordinance of satisfies all applicable requirements in a completed and signed MS4 Stormwater Management Ordinance Checklist. (For in-municipal permittees, new permittees shall develop and implement a Standard Operating Procedure (SOP) within the first permittees are accurately.
	Re sat	ar of coverage). newal permittees must continue to maintain, update, implement, and enforce a Stormwater Management Ordinance that inspect the state of the stat
	Me so	easurable Goal: New permittees shall submit a letter signed by a municipal official, municipal engineer, or the municipal licitor as an attachment to their first year report certifying the enactment of an ordinance that meets all applicable requirements this permit. Renewal permittees shall update their existing ordinance, if necessary, and submit documentation of completion the Department. (For non-municipal permittees, submit the SOP to the first report).
	1.	Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that prohibits non-stormwater discharges? ☑ Yes ☐ No
		If Yes, indicate the date of the ordinance or SOP: 10-30-14
	2.	For new permittees only, attach an ordinance (or SOP) and letter from an official, engineer or solicitor that prohibits non-stormwater discharges to the first report submitted to DEP.
	3.	If you are not a new permittee, did you complete and submit your ordinance (or SOP) and letter from an official, engineer or solicitor that prohibits non-stormwater discharges to DEP? 🛛 Yes 🔲 No
	4.	Were there any violations of the ordinance during the reporting period? Yes No
		If Yes, describe what enforcement actions were taken for each violation:
	В	MP #6: Provide educational outreach to public employees, business owners and employees, property owners, the eneral public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.
	M be st	leasurable Goals: During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences using methods outlined under MCM #1. If not already established, set up and promote a tormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year of permit overage for the public to use to notify you of illicit discharges, illegal dumping or outfall pollution. Respond to all complaints in a mely and appropriate manner. Document all responses, include the action taken, the time required to take the action, whether the complaint was resolved successfully.
	1	period? X Yes No
		If Yes, what was distributed? See MCM 1 above.
	1	

2.	Is there a well-publicized method for employees, businesses and the public to report stormwater pollution incidents? ☑ Yes ☐ No				
3.	Do you maintain documentation of all responses, action taken, and the time required to take action? 🛛 Yes 🔲 No				
	MCM #4 – CONSTRUCTION SITE STORM WATER RUNOFF CONTROL				
Are	you relying on PA's statewide program for stormwater associated with construction activities to satisfy this MCM?				
\boxtimes	Yes No (If No, complete all remaining questions for this MCM; if Yes, skip to MCM #5).				
You	BMP #1: Develop your program consisting of all procedures necessary to comply with the requirements of this MCM. Your program shall provide for construction stormwater permitting, construction inspection, and enforcement of installation and maintenance of the necessary E&S control measures. Your program shall describe clearly how your program will be coordinated with DEP's NPDES Construction Stormwater Permitting program.				
cov	asurable Goals: For new permittees, the written program for this MCM shall be developed during the first year of permit erage; nevertheless, you are responsible for implementation of this MCM during entire term of this permit, including the time are developing your program.				
For prog	all permittees, your program shall be reviewed and updated during each year of permit coverage. The purpose of the written gram is to establish clear roles and responsibilities for the implementation of the MCM #4 requirements. An agreement ween the permittee, the CCD, and any other resources to be used by the permittee that clearly defines roles for each entity ecommended. If an agreement is made, you shall place and keep a written copy in your file, consistent with the Retention of cords requirements in this Permit. Please note that in accordance with Section A.2.h in Part A of the Authorization to charge, as the permittee you are responsible to ensure that implementation of all requirements under this Permit are fulfilled.				
1.	For new permittees only, attach the written stormwater associated with construction activities program to the first report submitted to DEP.				
2.	If you are not a new permittee, did you complete and submit your written stormwater associated with construction activities program to DEP? Yes No				
	If Yes, provide the latest submission date:				
3.	Date of last update or revision to the stormwater associated with construction activities program:				
BM	P #2: The permittee shall enact, implement, and enforce an ordinance to require the implementation of erosion and liment control BMPs, as well as sanctions to ensure compliance.				
Me tha	asurable Goal: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance t meets all applicable requirements of this permit. (Non-municipal permittees shall develop and implement an SOP).				
an	asurable Goal: Permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as attachment to their first periodic report certifying the enactment and implementation of a stormwater management ordinance t meets all requirements of this permit.				
1.	For new permittees only, attach an ordinance (or SOP) and letter from an official, engineer or solicitor that addresses stormwater associated with construction activities to the first report submitted to DEP.				
2.	If you are not a new permittee, did you complete and submit your ordinance (or SOP) and letter from an official, engineer or solicitor that addresses stormwater associated with construction activities to DEP? Yes No				
	If Yes, provide the latest submission date:				

BMP #3: Develop and implement requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality. While sediment is the most common pollutant of concern for MCM #4, there are other types of pollutants that also can be a concern and the intent of this BMP is to address these other types of pollutants, such as, but not limited to, discarded building materials, washout from concrete trucks, chemicals, litter, and sanitary waste.
Measurable Goal: New permittees shall establish requirements to address this BMP by the end of the first year of permit coverage. Renewal permittees shall continue to implement existing requirements and update as necessary. This could be implemented by written municipal ordinance/code provisions, by standard notes on the site plans, by any other written format that accomplishes the objectives of this BMP, or by any combination of these measures. The goal of this BMP shall be communicated to construction site operators during pre-construction meetings. This BMP shall be implemented during each year of the MS4 permit. Permittees must prepare and maintain records of site inspections, including dates and results and you must maintain these records in accordance with the Retention of Records requirements in this Permit.
1. Identify the mechanism(s) in place to regulate construction site operators and wastes produced at construction sites:
2. During the reporting period what has been the results of implementing the mechanism(s) described above?
BMP #4: Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public (to the permittee) regarding local construction activities. The permittee shall demonstrate acknowledgement and consideration of the information submitted, whether submitted verbally or in writing.
Measurable Goal : Permittees shall establish and implement a tracking system to keep a record of any submitted public information as well as your response, actions, and results. This BMP shall be implemented during each year of coverage under this General Permit and information should be submitted with the each periodic report.
Describe the tracking system established for documenting public information concerning local construction activities and describe responses taken during the reporting period:
MCM #5 - POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT
Are you relying on PA's statewide program for MCM #5 BMPs #1 - #3? ☑ Yes ☐ No
(If No, complete all remaining questions for this MCM; if Yes, skip to BMP #4)
BMP #1: Develop a written procedure that describes how the permittee shall address all required components of this MCM. Guidance can be found in the Pennsylvania Stormwater Best Management Practices Manual.
Measurable Goal : The written procedure shall be developed by the end of the first year of permit coverage and be reviewed and updated every permit year thereafter, as needed. The intent of BMP #1 is for the permittee to describe how the listed tasks will be accomplished.
1. For new permittees only, attach your written procedure for post-construction management to the first report.
2. If you are not a new permittee, did you complete and submit your written procedure for post-construction management to DEP? Yes No
If Yes, provide the latest submission date:
The state of the s
3. Date of last review or update of post-construction management procedure:

the con Mar	BMP #2: Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to he local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions. This requirement can be met by ensuring that the selected BMPs comply with the municipal Stormwater Management Ordinance that meets the requirements of the permit.				
stor spre	asurable Goal: All qualifying development or redevelopment projects shall be reviewed to ensure that their post-construction mwater management plans and selected BMPs conform to the applicable requirements. A tracking system (e.g., database, eadsheet, or written list) shall be maintained to record qualifying projects and their associated BMPs. In your records, you li note if there are no qualifying projects in a calendar year.				
1.	Number of development or redevelopment projects in urbanized area during reporting period:				
2.	Describe the tracking system in place:				
3.	Describe the structural and/or non-structural BMPs that were required for these projects:				
BM	P #3: Ensure that controls are installed that shall prevent or minimize water quality impacts.				
ens list) not con trac	asurable Goal: All qualifying development or redevelopment projects shall be inspected during the construction phase to sure proper installation of the approved structural PCSM BMPs. A tracking system (e.g., database, spreadsheet, or written a shall be implemented to track the inspections conducted and to track the results of the inspections (e.g., BMPs were, or were installed properly). Permittees not relying on DEP's statewide QLP to satisfy requirements under this BMP shall summarize instruction inspections and results in periodic reports. See BMP #6 for requirements related to post-construction inspection and ocking of PCSM BMPs to ensure that the operation and maintenance plan is being implemented.				
	Ps to this report.				
me pro	IP #4: The permittee shall enact, implement, and enforce an ordinance (municipal) or SOP or other regulatory chanism (non-municipal) to address post-construction stormwater runoff from new development and redevelopment pjects, as well as sanctions and penalties associated with non-compliance, to the extent allowable under State or allow.				
Me ma	easurable Goal: Within the first year of coverage under this permit, new permittees shall enact and implement a stormwater inagement ordinance (municipal) or SOP (non-municipal) that meets the requirements of this General Permit.				
as	easurable Goal: All permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor an attachment to their first periodic report certifying the enactment of a stormwater management ordinance that meets the quirements of this General Permit.				
1.	Do you have an ordinance (or SOP) to address post-construction stormwater runoff from new and redevelopment projects and does it include sanctions? ☑ Yes ☐ No				
	If Yes, indicate the date of the ordinance or SOP: Last Updated 10-30-2014				
	For new permittees only, attach a copy of the ordinance or SOP.				
2.	If you are not a new permittee, has the ordinance (or SOP) been submitted to DEP with a letter from an official, engineer or solicitor that certifies the enactment of an ordinance or SOP for PCSM activities? \boxtimes Yes \square No				
3.	Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities? ☐ Yes ☐ No				

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

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

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

Identify ordinances enacted or updated during the reporting period to ensure consistency with LID practices:
 Ordinances Last Updated 10-30-14

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

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

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

- all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003;
- the exact location of the PCSM BMP (e.g., street address);
- information (e.g., name, address, phone number(s)) for BMP owner and entity responsible for BMP Operation and Maintenance (O&M), if different from BMP owner;
- the type of BMP and the year it was installed;
- maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources;
- the actual inspection/maintenance activities for each BMP;
- an assessment by the permittee if proper operation and maintenance occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.
- 1. For new permittees only, attach the written inspection program to ensure that stormwater BMPs are properly operated and maintained.
- 2. If you are not a new permittee, did you complete and submit your written inspection program to ensure that stormwater BMPs are properly operated and maintained to DEP? ☑ Yes ☐ No

 If Yes, provide the latest submission date: 2006
- 3. How do you ensure that stormwater BMPs are properly operated and maintained? Explain if you rely on means other than municipal inspections to ensure adequate O&M (consistent with your stormwater ordinance).
 - All new projects must enact the Township's Operation and Maintenance Agreement which requires annual inspections by a qualified professional.
- 4. Date that inspection program was last reviewed or updated: 4/30/2015
- 5. Total number of sites with PCSM BMPs installed as of the date of this report: 31 Sites in Twp, not all drain to MS4
- 6. Total number of sites inspected during this reporting period: NA
- 7. Number of sites found to have PCSM BMP deficiencies: NA

8. Number of enforcement actions taken during this reporting period: 0

MCM #6 - POLLUTION PREVENTION / GOOD HOUSEKEEPING

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

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

	Have you identified all facilities and activities owned and operated by the permitee that have the potential to generate stormwater runoff into the MS4? \boxtimes Yes \square No
2.	When was the inventory last reviewed? 4/30/17

- When was it last updated? 4/30/17
- 4. How many new facilities and/or activities were added to this inventory during this reporting period? 2

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

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

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

3.	Date of last review or update to O&M program: 2006
۷.	If Yes, provide the latest submission date: 2006
2	If you are not a new permittee, did you complete and submit your written O&M program to DEP? ⊠ Yes ☐ No
1.	For new permittees only, attach the written O&M program to the first Annual Report.
rev	iew the O&M program annually, edit as necessary, and continue to implement during every year of permit coverage.

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

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

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

- 1. For new permittees only, attach the written training program to the first Annual Report.
- 2. If you are not a new permittee, did you complete and submit your written training program to DEP? ☑ Yes ☐ No If Yes, provide the latest submission date: 2006
- 3. Date of last review or update to training program: 5-22-06
- 4. Identify the date(s) of employee training, the names of attendees, the topics covered, and the training presenters: NA, Township has only one part time roadmaster

BEST MANAGEMENT PRACTICES (BMPs)								
Provide an assessment of the appropriateness of the BMPs implemented to date, and identify any steps that will be taken to address deficiencies in the BMPs or make changes to BMPs or other aspects of the SWMP developed by the permittee. NA								
MS4 TMDL Plan	Chesapeake Bay Pollutant Reduction Plan (CBPRP)							
Is the permittee required to develop an MS4 TMDL Plan? ☐ Yes ☑ No	Is the permittee required to develop a CBPRP? ☐ Yes ☒ No							
What is the status of the TMDL Design Details (if applicable)? Under Development (Due Date: Submitted to DEP (Submission Date: Approved by DEP (Approval Date:	What is the status of the CBPRP (if applicable)? Under Development (Due Date:) Submitted to DEP (Submission Date:) Approved by DEP (Approval Date:)							
For permittees with DEP-approved MS4 TMDL Plans and/or 0 activities identified in those plans:	CBPRPs, describe progress with implementing BMPs and other							
For permittees with DEP-approved MS4 TMDL Plans and/or CB reductions (for those with MS4 TMDL Plans) or pollutant reductione cumulative reductions achieved through implementing the ENA	PRPs, complete the section below. Identify the required pollutant tions committed to by the permittee (for those with CBPRPs) and BMPs, as of the end of the reporting period:							

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

BMP INVENTORY

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

NPDES Permit?																
Date Installed or Implemented																
Receiving Waters																
Longitude	n .	0 1 2	0 1 3	е .	F 0	u 1 0	R : 0	R	n t o	n 0	E 6 0	e .	£ 0	0 3 33	u (0	r 0
Latitude	n 0	. 0		n		. 0			R 6	E 0	E 0	E 6 0	п °		K 1 0	0
DA (sf)																
BMP Name / Description	NA															

OTHER REQUIRED REPORT ELEMENTS
Identify the progress towards achieving the statutory requirements of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP) and complying with water quality standards.
NA NA
Provide a summary of stormwater activities planned during the next reporting cycle (not identified previously in this report):
NA NA
Provide a summary of notices, intergovernmental agreements and other relevant documents if the permittee is relying on another governmental entity to satisfy any of its permit obligations
NA NA

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).

Date

Township Engineer

Name of Responsible Official

Signature

(610) 840-9167 Telephone No.

EXHIBIT A

May 1, 2015 - May 1, 2017 CRC Joint MS4 Education and Outreach Municipal Program: Year 13-14 Information for Annual Report MCMs #1, #2 and # 6

MCM #1 A – Update Target Audience Information

- Expanded the resources for stormwater education on the Township Website www.charlestown.pa.us, now in its 11th year of development.
- Website offers subscription service to receive e-mail updates
- Updated the Township Mailing List to reach Target Audience
- Update monthly mailing list of new residents

MCM #1 B

Direct Mailing

- All building permit application packets and land development application packets include stormwater and construction industry BMP brochures.
- New residents receive a packet of information that includes:

Stormwater Management for Small Projects – What a Homeowner Needs to Know the flyer "Don't Let Storm Water Run Off with Your Money and Our Community!" Info on the Household Hazardous Waste Program Car Washes & Your Stream Cars for Cleaner Creeks Green Guide to Clean Water for residents Citizen Water Quality Hotlines

Residents received four newsletters each year that contain stormwater information.

Website Updates:

The Township Website has a separate page for the Stormwater Management, which explains the MS4 program and includes the following.

Numerous Website links include:

- US EPA Stormwater Program Overview
- DEP Southeast Regional Office

Streamside Forests for Wildlife

Targeted Residential Outreach

- All New Residents receive an information packet including information on stormwater management, septic system facts, household hazardous waste collection, monthly stormwater planner
- Brochures & Flyers are made available in Permit packets, the Township Lobby and as handouts at Township meetings as appropriate, including the following:
 - Approval to Build is Only the Beginning
 - Pool Water Discharge
 - Updated Water Quality Hotlines

Targeted Commercial Outreach

Good Housekeeping for Restaurants and Food Service Establishments

Newsletter Articles

- Community Shredding Event 2016
- 2016 Household Hazardous Waste Events Schedule
- Earth Day Event Scheduled for April 16, 2016
- Devault Area Gateway Improvements
- 2017 Household Hazardous Waste Events Schedule
- The Right Tree in the Right Place
- Adopt & Beautify Program in Devault
- Free Tree!
- Clean Your Corner
- Alternatives to Salt for Treating Icy Sidewalks & Driveways
- Eart Day Event Scheduled for April 22, 2017
- Devault Basin Landscaping Organic Community Gardening at Brightside Farm Park

Public Participation

- 1. Earth Day Roadside & Streamside Cleanup April 16, 2016 approximately 75 residents participated, collecting over 300 bags of trash and discarded larger items from the roadsides and stream banks including 12 tires, a keg, and a large screen TV.
- 2. Earth Day Roadside & Streamside Cleanup April 22, 2017 approximately 100 residents participating, collecting two pick up truchs work of trash and discarded larger items.
- 3. Presentation-Riparian Buffer Ordinances Mr. Theurkauf of Theurkauf & Associates and Vicki Laubach with Green Valleys Watershed Association presented information on:
 - · helping farmers preserve buffers without losing land
 - chemical and biological thresholds

12/16/16	clean inlets – Bodine Road
1/19/17	inlet repair on Crestview, Raven Hill and Buckwalter Roads, Sawgrass Lane
1/26/17 -	
1/27/17	Repair inlets Wyndham Lane
3/9/17	Repair berm & curbs on Maryhill, Ravenhill, Rees and Howell Roads

Inlet & Culvert Repairs

Inlet Repairs – Somerset Development
Inlet Repairs at Crown Oak and Wyndham Drives
Repairs to soil & erosion controls on shoulders – Wells Road
Remove and rebuild new inlets on Crown Oak and Wyndham
top soil &seed shoulders of Wells, Yellow Springs for soil erosion control
top soil & seed and blanket shoulders of Wells, Blackberry areas
Excavate pipe end and swale, raise pipe to remove water from inlet on Township
Line Road
Repair cross pipe on Academic Way, add soil and seed
Repair damaged curb on Spring Meadow Lane
3/16
inlet repair and concrete curb replacement in Whitehorse @ Charlestown
Development
inlet repairs at Whitehorse @ Charlestown development

Special Projects

9/3/15	tree removal from Wells Road
6/13/16	Install 6' pipe around Charlestown Mill to raceway

Snow Removal

12/3/15 12/4/15 12/7/15	stockpile salt mix salt & anti-skid mix salt & anti-skid
12/17/16	Snow & Ice removal
1/6/17	Snow & Ice removal
1/7/17	Snow & Ice removal
2/9/17	Snow & Ice removal
2/10/17	Snow & Ice removal
3/10/17	Snow & Ice removal
4/14/17	Snow & Ice removal
4/15/17	Snow & Ice removal
4/16/17	Snow & Ice removal

Linda Csete

From:

"CRC Watersheds Association" <info@crcwatersheds.org>

Date:

Tuesday, February 28, 2017 3:13 PM

To: Subject: <admin1@charlestown.pa.us> Update on MS4 Program



As many of you know, CRC has been in the process of revising our program focus to align with the needs of our community and our municipal partners based on our available resources and Board passions. We are known for our "get your hands dirty" programs that highlight stream cleanups and tree plantings - and that will not change. The demand for these programs is stronger than ever. However, the demand for our educational support to our municipal partners related to their MS4 permits has waned in recent years as much of the information that has been provided can be recycled and reused without compromising the integrity of individual programs.

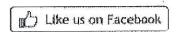
CRC is therefore looking to support our municipal partners in their efforts to develop and implement Pollution Reduction Plans (PRPs) under the new requirements of the General Stormwater Permit being authorized by Pennsylvania DEP. We will still provide information to our municipal sponsors related to our Annual CRC Streams Cleanup, listing amounts of trash removed and number of volunteers contributing to the effort at each locale. However, we intend to expand our tree planting (and maintenance) programs to support sediment reduction efforts incorporated in individual PRPs. To this point, CRC will work with municipalities and other organizations to plan and implement local and regional tree planting programs, leveraging local, state, and private funds for the benefit of the Chester, Ridley and Crum Creek waterways and riparian corridors through the reduction of sediment loads and streambank erosion.

CRC's efforts to expand our tree planting program which is intended to augment local stormwater PRPs is in its infancy. However, we will be reaching out to each of you as a past collaborator to determine how we can best support and enhance your local planning and implementation programs related to the new permit requirements.

Thank you for your support and patience. We look forward to talking with each of you in the coming months.

Tracy Bouvette, CRC Board President

CRC Watersheds Assoc. | 610.359.1440 | info@crcwatersheds.org | www.crcwatersheds.org



Chester Ridley Crum Watersheds Association, P.O. Box 227, Gradyville, PA 19039

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ANNUAL MS-4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM)

ENGINEER'S REPORT FOR 14TH YEAR

CHARLESTOWN TOWNSHIP

I am here to provide an overview of the MS4 (Municipal Separate Storm System Engineer's Report for the 13th year. As you know we received an NPDES (National Pollutant Discharge Elimination System) Permit in year 2003 and submitted a renewal for the Permit in 2012. The current version of the permit became effective on May 1, 2014 and expires on April 30, 2019. The current version contains modifications to the previous permit. These modifications consist of:

Reports are to be submitted in the first, third, and fifth year instead of annually. The reporting periods are through May 1, 2015, May 1, 2017, and Jan 30, 2019 (part of the renewal of the permit).

A new version of the forms has been created that require additional information on the six protocols included in the Permit.

The PA D.E.P. outlined six (6) protocols which were to be followed to meet its compliance:

The **DEP protocols** are:

MCM #1 - Public education and outreach on stormwater impacts

MCM #2 - Public involvement/participation

MCM #3 – Illicit discharge detection and elimination (IDD&E)

MCM #4 - Construction site stormwater runoff control

MCM #5 - Post-construction stormwater management in new development and re-development

MCM #6 - Pollution prevention/good housekeeping for municipal operations

We received comments from D.E.P. for Years 9 and 10 dated March 31, 2014 which suggests that we continue to improve how we implement their protocol but have not received any new comments since then.

Linda Csete continues to improve the education and public participation elements (MCM #1 and MCM #2) of the program. She is working with the Chester-Crum Creek (CRC) Watershed Association which assists the Township with the Public Education and Public Participation requirements. Some suggested comments offered by D.E.P. will be incorporated in the next year's report.

• Illicit Discharge Detention and Elimination (IDD&E) (MCM #3) is being implemented by the Township Engineer.

PADEP has not provided us with a review of our Year 11 report. The most recent review performed by PADEP was of the Year 9 and 10 Reports that was issued in March 2014. We clarified with the submission of the Year 11 Annual Report a majority of the items in that review.

Multiple waterways within the Township have been classified as "Approved Streams Integrated List Non Attain". This means that PADEP has performed a field analysis of the streams and found that the streams are not meeting their water classification in one of four areas: Aquatic Life, Fish Consumption, Recreational Use, or Potable Water Supply. Pigeon Run is impaired for pathogens; Pine Creek is impaired for causes unknown; Schuylkill River is impaired for PCB's; Valley Creek (Schuylkill) is impaired for PCB's, pathogens, siltation, water/flow variability, other habitat alterations; Valley Creek (Brandywine) is impaired for water/flow variability, siltation, and PCB's; Pickering Creek is impaired for water/flow variability; and French Creek is impaired for pathogens. The Township is responsible under the MS4 Program to update our MS4 Map to show which of the Township's outfalls drain to these streams. copy of the MS4 Map will be submitted with the 2017 Report. We also need to ensure that new discharges from our MS4 system will not cause or contribute to the impairment of these streams. This is performed during our review process of all Subdivision and Land Development submissions and all Grading and Erosion and Sedimentation Control Permits. We recommend these requirements be added to the Stormwater Management Ordinance ensure anv new development within the Township complies with these requirements.

The Township's updated MS4 Map now includes the location of roadside swales and curblines of all Township maintained roads. We have updated our mapping to remove all outfalls that are associated with PennDOT property and private property since the Township is only required to operate and maintain outfalls that are located on Township property or

have Township property draining to them. This has reduced the number of outfalls the Township is responsible for.

We continue to implement our Stormwater Management Ordinance which prohibits the discharge of non-stormwater into the Township storm sewer system. The Township's Stormwater Management Ordinance was previously revised to comply with the Chester County Act 167.

The Township has IDD&E education information available in their lobby for residents and contractors. DEP requested that the Township distribute IDD&E education information to make the target audiences aware of different types of illicit discharges and connections, how to avoid them, and what to do if they are observed.

- Construction Site Stormwater Runoff Control (MCM #4) Although
 plans are reviewed by the Township Engineer's office for compliance with
 the Township Ordinances, we are now allowed to rely on PADEP's review
 of the NPDES Permit for Construction Activities Permit for compliance with
 this item. All projects with greater than one acres of disturbance are
 required to obtain an NPDES Permit. This simplifies the annual reporting
 and record keeping of the Township with regard to the Township's MS4
 Permit.
- Post-construction Stormwater Management in New Development and Re-development (MCM #5) is implemented during and after construction. We are now allowed to rely on PADEP's review of the NPDES Permit for Construction Activities Permit for compliance with most requirements of this item. However, we still need to enforce our compliant stormwater management ordinance, develop and implement measure to encourage Low Impact Development, and enforce operation and maintenance of Post Construction Stormwater Management BMP's.

We have created an inventory data list for all projects which are completed to follow-up the Operations and Maintenance (O&M) responsibilities. This list will be updated as needed to keep it current. Since As-built Plans are required for all completed projects, we intend to utilize these plans to update the Township's inventory of stormwater management BMP's.

The Stormwater Management Ordinance was previously updated to comply with the Chester County Act 167. The Ordinance requires additional during construction and post-construction responsibilities to be performed by the lot owners. These responsibilities will be enforced by the Township.

 Pollution Prevention/Good Housekeeping for Municipal Operations (MCM #6) is updated as necessary and follow-up is continued by our Roadmaster.

In October 2016, Randy Patry of our office attended an MS4 Workshop to learn about the upcoming new requirements that will be required for our next permit that will begin in 2019. We will need to submit the application package by the end of January 2019.

The new permit will require the delineation of the drainage area to each storm sewer system controlled by the Township within the urbanized area that is located within a watershed impaired for siltation or nutrient impairment. This will affect the southern portion of the Township that drains to both Valley Creeks since they are impaired for siltation.

We will then need to model the siltation loading for the areas modeled in the comment above and provide water quality BMP's that will reduce the amount of siltation by 10 percent.

Charlestown Township Board of Supervisors Business Meeting Minutes of May 1, 2017

The first business meeting for May was held May 1, 2017 at the Great Valley Middle School in the Choral Room, #154, 255 N. Phoenixville Pike, in Malvern, PA.

Present

Supervisors: Frank A. Piliero, Chairman, Charles A. Philips, Vice Chairman, Kevin R. Kuhn, Michael J. Rodgers, and Hugh D. Willig.

Consultants: Mark P. Thompson, Esq. and Daniel Wright, P.E.

Staff: Linda Csete, Manager, Jim Thompson, Public Works, Tim Hubbard, Fire Marshal, and Lisa Gardner, Recording Secretary.

Public: See attached list

Call to Order: 7:00 p.m.

Announcements

Mrs. Csete made three announcements.

The Board of Supervisors held an Executive Session on April 3, following the business meeting, and before tonight's May 1st meeting, to discuss legal matters.

The 12th Annual Earth Day Event on Saturday had a great turnout, with both individual residents and groups including the Planning Commission, Trout Unlimited, two scout troops, and the Great Valley Mountain Bike Team turning out to help clean up our roads, parks and stream sides.

PA State Representative Duane Milne's Annual Recycling and Shredding Event is taking place at Great Valley Penn State Campus this Saturday from 9 am to noon.

Citizens Forum

Lieutenant Donahue of the PA State Police introduced himself as the new commander of the Embreeville Barracks. He reported two recent unrelated burglaries, with most calls due to automobile accidents or false alarms.

Members from the Pickering Crossing Development were in attendance to obtain the Township's answers to 5 questions stemming from the neighboring Allan Myers Devault Asphalt Plant. Mr. Robertson and Mr. Wattamwar wished to discuss the following:

- 1. There has been no action since their initial questions in the spring of 2016.
- 2. There has been no action on the decibel readings, higher than the Zoning Ordinance allows, that have been reported to Mr. Wright.
- 3. There has been no Township response to the higher level of output, and therefore noise, that takes place when the plant goes into a high production cycle.

Reports

Mr. Kuhn had one request. He asked Mr. Hubbard to check on a brief beep from the Limerick siren that sounded instead of the usual longer siren.

Mr. Kuhn moved to accept the April 2017 reports #1-13 as submitted and Mr. Philips seconded. Mr. Piliero called for discussion, and there being none, called the vote. All were in favor.

Hearing

Andersen Conditional Use Application

Mr. Thompson opened the hearing; the proceedings were taken by Mr. Mark Hagerty, Court Reporter. The Andersens wish to obtain a Conditional Use at 23 Eastwick Drive. Mr. MacKay told the Board that the Andersens want to remove an existing driveway that only goes to their home, and construct a new driveway that serves the barn and home. The new driveway would be within 2 feet of high ground water elevation (Section 1104.2.B.1). This is the reason for the Conditional Use hearing. The Andersens also own an adjacent lot. It is a smaller parcel (2.23 acres) that is not developed and does not have a driveway access.

Mr. Thompson entered the following exhibits:

B1-Application #CU-17-01 B2-Public Notice B-3 Proof of Publication

Proof of Notification to the surrounding neighbors within 250 feet in attendance was to be Exhibit B4, however Mr. Andersen did not have these required documents.

Therefore, the hearing was continued to June 5, 2017 at 7:00 p.m. at the Great Valley Middle School, 255 N. Phoenixville Pike, Malvern, PA, Room 154.

Old Business - none

New Business

Charlestown Day Update

Mrs. Csete announced that September 16th is the next Charlestown Day. Mrs. Schlichter will update Supervisors in June or July.

Appointment to Design Review Committee

Mr. Thompson verified that Mr. Comitta could not be the Planning Commission member for the HARB Committee. Mr. Willig and Mr. Kuhn both attempted to discuss the HARB's meeting time, being somewhat difficult to attend at a 4pm time slot. Mr. Philips said that the time of the meeting would not change.

Since Mr. Allen will no longer serve on the Design Review Committee, Mr. Richter, from the Planning Commission, volunteered to be the representative on the DRC. Mr. Kuhn moved to appoint

Discussion: Speed Humps for Benburb and Marian Roads

The Roadmaster discussed the possible need for Benburb Road speed humps. He has posted "Children at Play" signs and has exhausted ways for slowing or reducing traffic near the intersection of Charlestown and Coldstream Roads.

Mrs. Csete said that specific procedures must be followed if speed humps are constructed to ensure the roads are still eligible for state Liquid Fuel Funds. Mr. Rodgers suggested portable speed humps.

The Roadmaster's first step is to contact PennDOT and request that they lift the curb at the intersection of Charlestown and Coldstream Roads in front of the former Stables Bar. This may reduce the number of motorists using Benburb Road as a shortcut so speed humps would be unnecessary. Hopefully this will begin a dialogue to improve the conditions near Benburb, Coldstream, and Charlestown Roads.

Approve Updated Historical Resources Map

Mr. Philips said he and Mrs. Rosemary Philips worked with Mr. Comitta to provide 5 updates for the Historic Resources Map. It is an appendix to the Historic Resources Protection Ordinance and has to be approved by the Board when there are changes.

- 1. A pink dot has been added to the Legend, to signify Demolished Structures. Sites 9, 63, 68, and 70 have been converted from green to pink.
- 2. Previous site R-7, noting Historic Building Ruins, has been removed.
- 3. Site number 87A has been added in green, and site 87 has moved slightly to the north.
- 4. Site number 153 has been added in green, in Charlestown Village.
- 5. The lot enveloping sites 147 and 153 has been added.

Mr. Kuhn moved to approve the amended Historic Resources Map dated April 28, 2017, and Mr. Philips seconded. Mr. Piliero called for discussion and there being none, called the vote. All were in favor. Mr. Thompson will confirm whether a zoning ordinance amendment is needed since the map is an appendix to the historic resources protection ordinance.

Review Bid Specs for Charlestown Mill Lighting Fixtures

Mr. Philips referred to the Lighting Fixture Specs dated March 2017 provided by Interpretive Solutions to be used in preparing the bid package for the Mill lighting project.

Mr. Kuhn moved to accept the bid specs for use in preparing the bid package for the Charlestown Mill lighting project, and authorized advertising. Mr. Rodgers seconded. Mr. Piliero called for discussion, and there being none, called the vote. All were in favor.

Open Bids - 2017 Road Paving Project

The following bids were received by the Township Office for the 2017 Road Paving Project.

Charlestown Paving & Excavating Inc. \$197,423.80 Cedar Springs Construction Co. \$161,174.00 Innovative Construction Services, Inc. \$174,439.00

Lisa K. Gardner Recording Secretary

CHARLESTOWN TOWNSHIP

MEETING OFBoard of Ausewesons

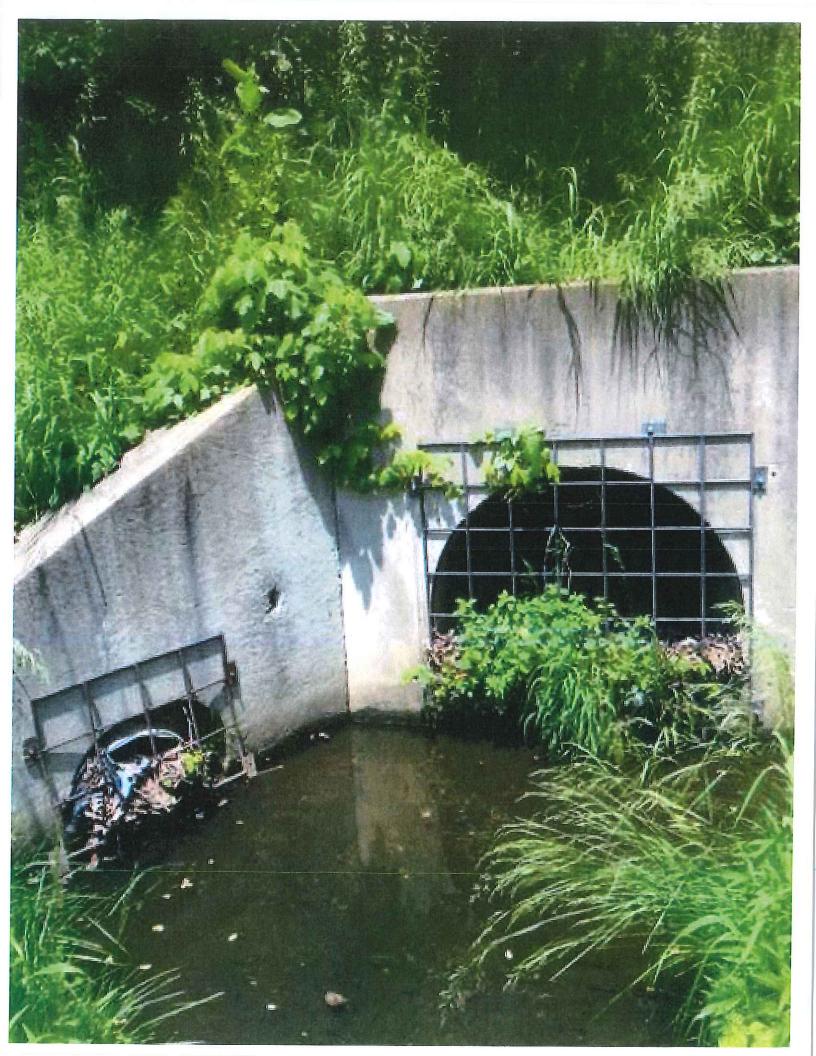
DATE may 1, 2017

ATTENDANCE: Please sign in legibly

Name:	Address or Co	mpany Name:	Phone #	Email:
Paul + AlexisM	Carthy 524 C	hunh Rd	(do 9335599	Glerismocally rul
	e Los 554			46 fredlissachwast, m
Greg Nardi	3161 Bl	ackbeery Lane	610 709 7470	areanardi 718quelle
			6(0-644-462)	
PARITOSH W.	ATTAMWAR 133	Shilling Ave	312-401-6953	paritoshwattamwa
< loss KeBE	intsa 120	& Skilling Aug	484-883-44	A TELE RESERVENDED.CO
Erice A	manda Jous	26 Tiptor	breklon!	935-5865
E	icus (B) Juse	Suipment tom	n andy Suge	e (i) aclicery
Kobert Floran	ne Burns	558 Chur	rch Rd	935-5865 e @ aol.com
	+ Cottone			
DONAL	Andersen	***		
Fred	Gwynnet	(sp.1)		
8			No.	ethological ethological statement so
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	AND ALLOW	200		

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Backg	ground Data											
Subwatershed:				Outfall II	Outfall ID: 788							
Today's date: 6	/1/16			Time (M	Time (Military): [2:36] Form completed by: 5 M. Nei							
Investigators:					mpleted by:		i')					
Temperature (°F):	85°	Rainf	fall (in.): Last 24 hours:	O Last	t 48 hours:	0						
Latitutde:		gitude:	GPS Unit: GPS LMK #:									
Camera:				Photo #s:	į							
Land Use in Drainag	ge Area (Check all that appl	ly):		1	3.							
☐ Industrial				☐ Open Space								
☐ Ultra-Urban Resi	idential			☐ Institu	utional							
Suburban Reside	ential			Other:	·			=======================================				
☐ Commercial		n		Known I	ndustries:			347-344				
Notes (e.g, origin o	of outfall, if known):					9						
1)				;/		4-000						
Section 2: Outfal	Il Description			.1								
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	□ RCP M	CMP	Circular	Single		Diameter/Dimension	ns:	In Water:				
	□ PVC □	HDPE	☐ Eliptical	Double		48 9 18		☐ No ☐ Partially ☐ Fully				
Closed Pipe	☐ Steel		Вох	☐ Triple	2			Fully				
5599	Other:	-	☐ Other:	Other:	·			With Sediment:				
		_						Partially Fully				
	Concrete		202									
311	☐ Earthen		☐ Trapezoid			Depth:						
Open drainage	☐ rip-rap		☐ Parabolic			Top Width:						
<i>v</i> '	AND AN AREA OF		☐ Other:		Bottom Width:							
<u>datività e e e e e e e e e e e e e e e e e e e</u>	☐ Other:			ration upon a m								
☐ In-Stream	(applicable when co	3 11 11 11 11		the ACC TOTAL			CHAINS.					
Flow Present?	☐ Yes	₩ No	If No, Ski	ip to Section 5	5							
Flow Description (If present)	☐ Trickle ☐	Moderate	e Substantial									
Section 3: Quant	titative Characterizat	tion										
occion o. Quant	Hadro Cha, actor	A STATE OF THE PARTY OF THE PAR	FIELD DATA FOR FI	LOWING O	UTFALLS							
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	Flow depth				1	In	Та	pe measure				
☐Flow #2	Flow width		223		F	t, In	Ta	pe measure				
	Measured length		3 33		F	t, In	Та	pe measure				
	Time of travel					S	S	top watch				
Ten	mperature				8	°F	Th	ermometer				
	рН			pH	pH Units Test strip/Pr							
Aı	mmonia				n	ng/L	5	l'est strip				



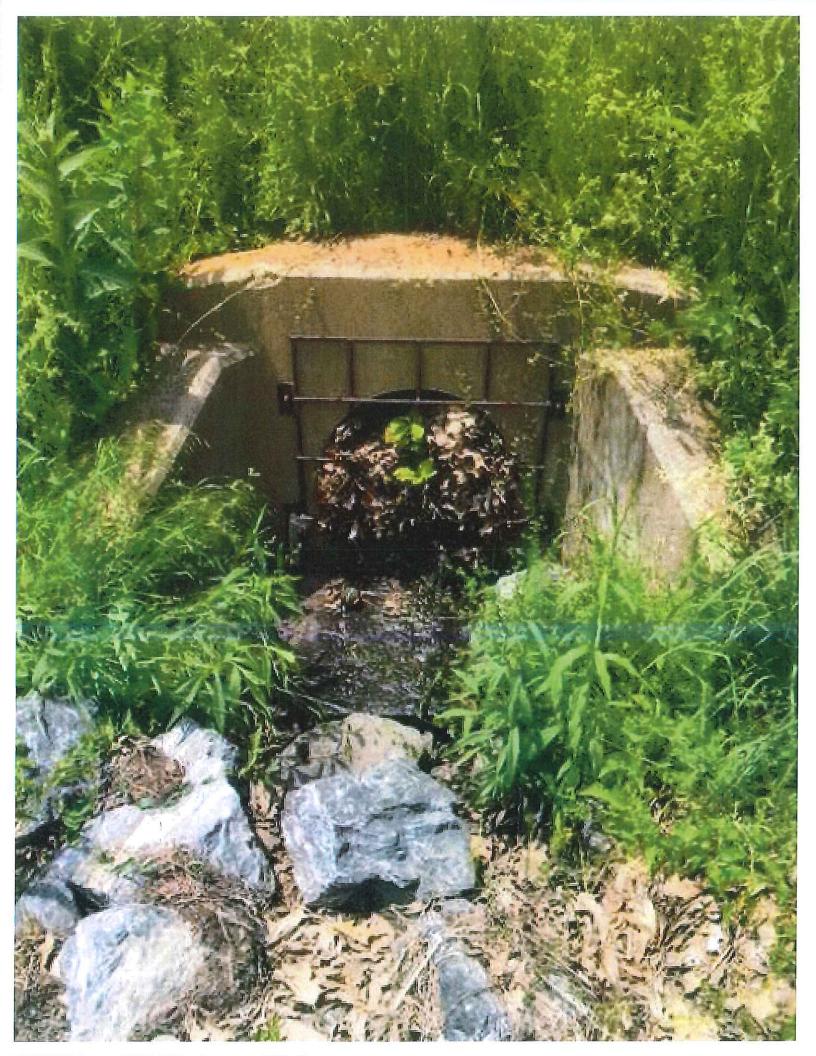
Section 1: Bac	kground Data					Marie Land Colon State Congress (1)	
Subwatershed:				Outfall ID:	1911		
Today's date:	6/1/16			Time (Militar	y): 13:00		
Investigators:	98.			Form complet	ed by: J. M. Neil	Water Advanced	
Temperature (°F)): 85	Rain	fall (in.): Last 24 hou	nrs: <i>O</i> Last 48 h	ours:		
Latitutde:		Longitude:		GPS Unit:	GPS LI	MK #:	
Camera:		3.1		Photo #s:	N		
Land Use in Drai	nage Area (Check a	ill that apply):			9	is .	
☐ Industrial				Open Space	e .		
Ultra-Urban F	Residential			☐ Institution	al		
☑ Suburban Res	idential	ť		Other:	and the state of t		
☐ Commercial				Known Indust	ries:		
	n of outfall, if know	100000000000000000000000000000000000000		51	v.če		
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	□PVC	☐ HDPE	☐ Eliptical	☐ Double	Isin	□ No ☑ Partially	
☑ Closed Pipe	☐ Steel		Вох	☐ Triple		Fully	
			☐ Other:			With Sediment:	
	Other.		Other.	Other:		☑ No ☐ Partially ☐ Fully	
	☐ Concre	ete	☐ Trapezoid		D. d.		
По	☐ Earther	n			Depth:		
Open drainage	e 🔲 rip-rap		☐ Parabolic		Top Width:		
	Other:		☐ Other:		Bottom Width:		
☐ In-Stream	(applicabl	e when collecting	samples)				
Flow Present?	☐ Yes	☑ No	If No, 1	Skip to Section 5		La residenti di Nazareggia di Ave	
Flow Description (If present)	☐ Trickle	☐ Moderate	Substantial				
Section 3: Qua	ntitative Chara	cterization					
			FIELD DATA FOR	FLOWING OUTFA	LLS		
P/	ARAMETER		RESULT		UNIT	EQUIPMENT	
□Flow#1	Volume				Liter	Bottle	
	Time to fil				Sec		
-	Flow deptl				In	Tape measure	
□Flow #2	Flow width	Manage A.	10 10		Ft, In	Tape measure	
	Measured len				Ft, In	Tape measure	
	Time of travel				S Stop v		
T	emperature				°F	Thermometer	
	рН				pH Units Test strip/Probe		
2%	Ammonia				mg/I	Test strin	



Subwatershed:	ekground Data			Outfall ID:	11100				
Today's date:	6/1/16			Time (Military	1908				
Investigators:	6/./10		11/3/2020	Form complete	()				
Temperature (°F)): 85	Rain	fall (in.): Last 24 ho						
Latitutde:). X 2	Longitude:	all (III.). Last 27 III	GPS Unit:					
Camera:		Longitude.		Photo #s:	Gib	LIMLK #:			
ALSO CONTROLLED	inage Area (Check all	that apply);		THOID Wa.	***				
☐ Industrial	mage ritem (content	mac appropri		Open Space	2				
☐ Ultra-Urban R	Daoidantial			☐ Institutiona					
Suburban Resi				14 - A I C CONT A YOUR WAYNESS WILLIAM					
A 13 CONTRACTOR OF CONTRACTOR	adentiai				•				
Commercial				Known Industr	ries:				
140tes (e.g, origi	in of outfall, if known):		ž.					
Section 2: Out	fall Description			7.9					
LOCATION	N MA	TERIAL	METHIC	SHAPE	DIMENSIONS (1	IN.) SUBMERGED			
	RCP	☑ CMP	Circular	☑ Single	Diameter/Dimensions:	In Water:			
	☐ PVC	☐ HDPE	☐ Eliptical	☐ Double	_54 in				
Closed Pipe	☐ Steel		☐ Box	☐ Triple	16	☐ Fully			
	Other:		☐ Other:	☐ Other:		With Sediment:			
	540 10 400 100		No Accessory	p-strikkinsanensis-u		☐ Partially ☐ Fully			
	☐ Concrete	2							
	☐ Earthen		☐ Trapezoid		Depth:				
☐ Open drainage			☐ Parabolic		Top Width:				
	12-12-12-12-12-12-12-12-12-12-12-12-12-1		Other:		Bottom Width:				
☐ In-Stream	Other: _	when collecting							
Flow Present?	(applicable	When conecting ☑ No		, Skip to Section 5					
Flow Description				, Skip to Section 3					
(If present)	☐ Trickle	☐ Moderate	Substantial		<u></u>				
ection 3: Qua	ntitative Charac	terization							
		TE TELL	FIELD DATA FO	R FLOWING OUTFA	LLS				
P/	ARAMETER		RESULT		UNIT	EQUIPMENT			
□Flow#1	Volume				Liter	Bottle			
IFIOW n.i	Time to fill				Sec				
	Flow depth				In	Tape measure			
□Flow #2	Flow width		, ,,		Ft, In	Tape measure			
	Measured leng	th	,,		Ft, In	Tape measure			
	Time of trave	1			S	Stop watch			
Temperature					°F Thermometer				
	pН				pH Units Test strip/Probe				
1	Ammonia				mg/L Test strip				



Section 1: Ba	ackgrou	und Data						
Subwatershed:		1			Outfall ID:	378		
Today's date:		/1/ib			Time (Military):	13:20		
Investigators:		T. McWei			Form completed by	1000000	Well	-
Temperature (°F):	86	Rain	fall (in.): Last 24 hours:	O Last 48 hours			
Latitutde:			Longitude:		GPS Unit:		GPS LMK #	<i>‡</i> :
Camera:					Photo #s:			100
Land Use in Da	rainage A	rea (Check all tha	at apply):					
☐ Industrial					Open Space			
Ultra-Urban	n Resident	tial			☐ Institutional			
Suburban R	esidential				Other:			
☐ Commercial	1							
Notes (e.g, ori	gin of out	tfall, if known):	411		Known industries:			
	Ÿ.							
					1			
Section 2: Ou	CONTRACTOR OF THE PARTY OF THE	escription		<u> </u>	+0			
LOCATIO	NC	MATE	RIAL	SH	APE	DIMENSIO	NS (IN.)	SUBMERGED
		RCP	☑ CMP	☑ Circular	Single	Diameter/Dimensi	ions:	In Water:
		□ PVC	HDPE	☐ Eliptical	☐ Double	24 in		☑ No ☐ Partially
Closed Pipe		☐ Steel		Вох	☐ Triple			☐ Fully
		Other:		Other:	Other:	1		With Sediment:
		a:						☐ Partially
		Concrete						☐ Fully
		☐ Earthen		☐ Trapezoid		Depth:		
🗌 Open drainas	ge	Annual St.		☐ Parabolic		Top Width:		
		☐ rip-rap		☐ Other:		Bottom Width:		
7		Other:						
In-Stream		(applicable who		samples)				
low Present?		☐ Yes	₩ No	If No, Skip	to Section 5			
Flow Description If present)		☐ Trickle	☐ Moderate	☐ Substantial				
		2.0						
ection 3; Qua	intitativ	ve Character	ization			All the second s		
	ARAME	TED		FIELD DATA FOR FL		PART STATE		
	ARAME	Volume	Assert Section	RESULT		NIT	EQI	UIPMENT
Flow #1	-	Time to fill				Liter		Bottle
		Flow depth				Sec		
-1-u		Flow width	,	"		In transfer	S	e measure
Flow #2		easured length	,	,,,		t, In		e measure
		ime of travel			F	t, In S		e measure
Г	L Γemperatu					o _F		op watch
	pН					Units		rmometer
	Ammonia	a		***				strip/Probe
		•			m	g/L	T	est strip



Section 1: Back	ground Data						
Subwatershed:				Outfall ID:	187 l		
Today's date:	6/1/16			Time (Military):	13:30		
Investigators:	J. McWeil			Form completed	by: J. M.a	eil _	
Temperature (°F):	86	Rainf	all (in.): Last 24 hours	: O Last 48 hour	rs: 🔿	L	
Latitutde:		Longitude:	100	GPS Unit:		GPS LMK #	#:
Camera:	The State of			Photo #s:	3		press
Land Use in Drain	age Area (Check all tha	ıt apply):			× ±		
☐ Industrial				Open Space			
Ultra-Urban Re	esidential			☐ Institutional			
Suburban Resi	dential			Other:			4)
☐ Commercial				Known Industries	Si		
Notes (e.g, origin	of outfall, if known):					***	
Testion 1. Outf	all Description				Ser.		
LOCATION		RIAL	S	HAPE	DIMENSIO	ONS (IN.)	SUBMERGED
1	RCP	☑ CMP	☑ Circular	☑ Single	Diameter/Dimer		In Water
	□ PVC	HDPE	☐ Eliptical	☐ Double	421	h	☑ No □ Partially
Closed Pipe	☐ Steel		Box	☐ Triple		,	☐ Fully
Closed Fibe				Other:			With Sediment:
	Other:		Other:	Omer.	**		Partially Fully
	☐ Concrete					and the same of th	
	☐ Earthen		☐ Trapezoid		Depth:		
☐ Open drainage			☐ Parabolic		Top Width:		
	☐ rip-rap		☐ Other:		Bottom Width:		
	Other:	_					
☐ In-Stream	(applicable w	- 1					
Flow Present?	☐ Yes	₫ №	If No, S	kip to Section 5			
Flow Description (If present)	☐ Trickle	☐ Moderate	e Substantial				
Section 3: Quar	ntitative Characte	rization					
			A TOTAL STREET, AND ADDRESS OF THE PARTY OF	FLOWING OUTFAL		Man.	
P/	RAMETER		RESULT		UNIT	E	QUIPMENT
□Flow#1	Volume				Liter		Bottle
	Time to fill				Sec		
i9	Flow depth		, ,,		In		Tape measure
□Flow #2	Flow width		, "		Ft, In		Tape measure
-	Measured length				Ft, In		Cape measure
	Time of travel		4		S Stop water		Thermometer
T	emperature				pH Units		est strip/Probe
	pH				20.0		Test strip
	Ammonia	- 1		1	mg/L		Lest SILID



Section 1: Back	ground Data								
Subwatershed:				Outfall ID:	729				
Today's date: 🕜	1/16		•	Time (Military)					
Investigators:	dead			Form completed	Form completed by: j. Martings				
Temperature (°F):	86	Rainf	all (in.): Last 24 hou	rs: & Last 48 hours: &					
Latitutde:		Longitude:		GPS Unit:		GPS LMK #			
Camera:	.f.			Photo #s:		d.			
Land Use in Drain	nage Area (Check all th	at apply):				1			
☐ Industrial				Open Space					
☐ Ultra-Urban R	esidential			☐ Institutional					
Suburban Resi	dential			Other:					
☐ Commercial					es:				
	n of outfall, if known):		··	ILIOWII IIIddau	201				
Notes (e.g, origin	roroddan, ir known).								
			- Company of the Comp						
Section 2: Outf	fall Description	9							
LOCATION	MATI	ERIAL		SHAPE	DIMENSION	IS (IN.)	SUBMERGED		
	□ RCP	СМР	Circular	Single	Diameter/Dimension	ons:	In Water:		
/	□ PVC	HDPE	☐ Eliptical	☐ Double	36"		☐'Partially		
Closed Pipe	☐ Steel		Box	☐ Triple			☐ Fully		
TA Croses rape	75 Hz		☐ Other:	☐ Other:			With Sediment:		
	Other:		Ciner:	Other:			Partially		
							Fully		
	Concrete		☐ Trapezoid		Depth:				
Open drainage	☐ Earthen		☐ Parabolic		Top Width:				
Open dramage	☐ rip-rap		1 A A		Bottom Width:				
	Other:		Other:		Bottom width.	 -			
☐ In-Stream	(applicable w	hen collecting	samples)						
Flow Present?	☐ Yes	∑No	If No,	Skip to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate	: Substantial						
Section 3: Qua	ntitative Characte	erization							
section 3. Quan	ппануе спагаец	CITZACION	FIELD DATA FOR	R FLOWING OUTFAL	LS				
P.	ARAMETER		RESULT		UNIT	EC	QUIPMENT		
	Volume				Liter		Bottle		
□Flow #1	Time to fill				Sec		Action to the second of		
	Flow depth				In	Tr	ape measure		
- Inst	Flow width	140	33		Ft, In		ape measure		
□Flow #2	Measured length	1	, "		Ft, In		ape measure		
	Time of travel				S		Stop watch		
T	emperature				°F	T	nermometer		
	pH		344		pH Units	Tes	st strip/Probe		
	Ammonia		30 - 30 41 - 32 - 33 - 34 - 34 - 34 - 34 - 34 - 34		mg/L Test strip				



Section 1: Back	ground Data								
Subwatershed:				Outfall ID:	MARS 1743				
Today's date:	5/1/16		en anno anno anno anno anno anno anno an	Time (Military):					
Investigators:	J. McNeil			Form completed b	y: J. McNe	()			
Temperature (°F):	86°	Rainf	fall (in.): Last 24 hours:	() Last 48 hours: (
Latitutde:		Longitude:	Secretary Control Control II	GPS Unit:	GI	PS LMK #:			
Camera:				Photo #s:					
Land Use in Drain	age Area (Check all that	apply):							
☐ Industrial				Open Space					
Ultra-Urban Re	esidential			☐ Institutional					
Suburban Resid	dential			Other:					
☐ Commercial				Known Industries					
Notes (e.g, origin	a of outfall, if known):		'F				1)		
LOCATION		RIAL	SH	IAPE	DIMENSIONS	(IN.)	SUBMERGED		
- J	□ RCP □ PVC	☑ CMP	☑ Circular	☑ Single ☐ Double	Diameter/Dimensions	:	In Water: ☐ No ☐ Partially ☐ Fully		
Closed Pipe	☐ Steel		Box	☐ Triple			With Sediment:		
	Other:		Other:	Other:			□ No □ Partially □ Fully		
□ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:		☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:				
☐ In-Stream	(applicable who	en collecting	samples)						
Flow Present?	☐ Yes	No	If No, Ski	ip to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate	e Substantial						
Section 3: Quan	ititative Character	ization							
			FIELD DATA FOR F	LOWING OUTFALL	S				
PA	RAMETER		RESULT		UNIT	EQ	UIPMENT		
□Flow#1	Volume				Liter		Bottle		
	Time to fill				Sec		=		
	Flow depth				In	Ta	pe measure		
□Flow #2	Flow width				Ft, In	Ta	pe measure		
	Measured length		, ,,		Ft, In		pe measure		
	Time of travel				S	S	top watch		
Te	Temperature				°F Thermometer				
	pH			I	oH Units	Test	t strip/Probe		

Ammonia

mg/L

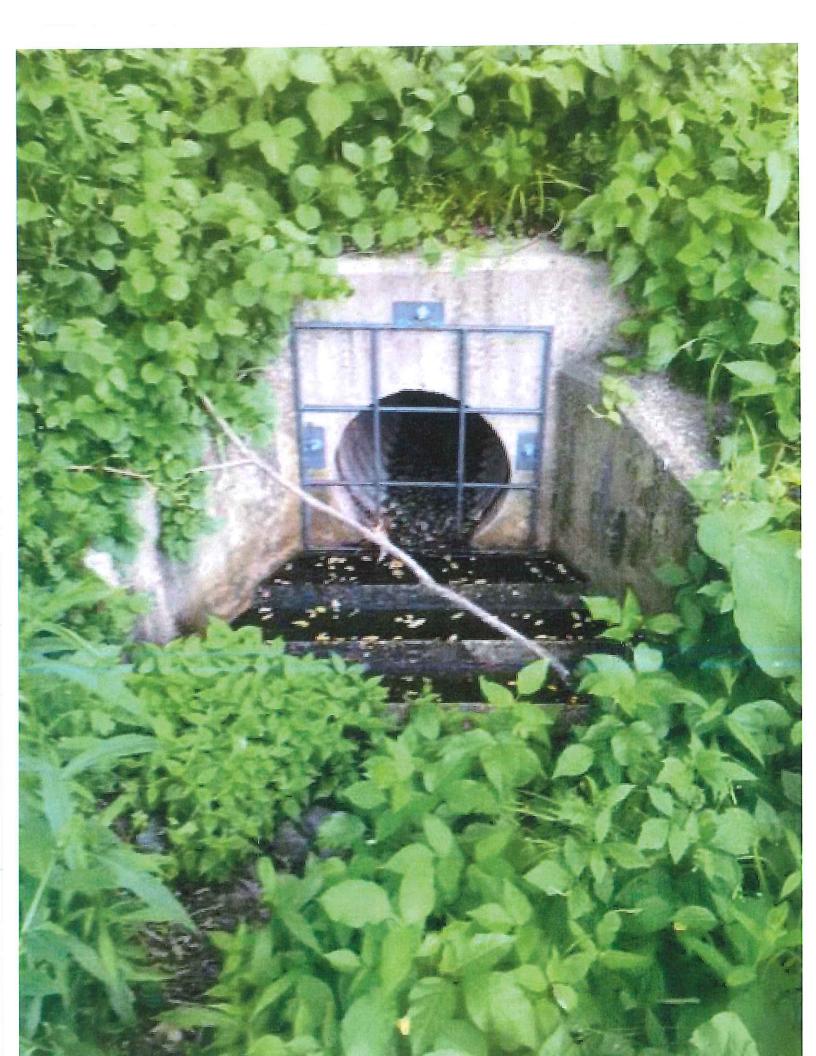
Test strip



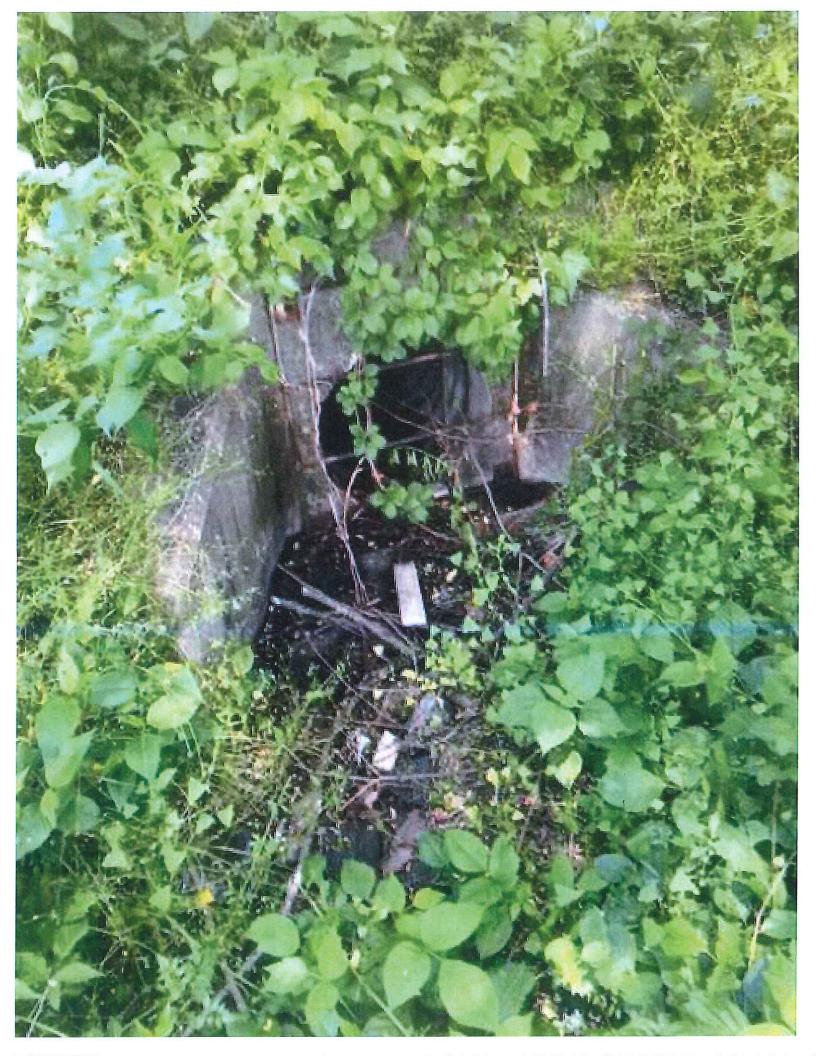
Section 1: Ba		und Data							
Subwatershed:					Outfall ID:	1763			
Today's date:	6	/1/16			Time (Military):	14:00			
Investigators:		J. MiNE			Form completed	by: J. Mare	ù(
Temperature (°	°F):	860		fall (in.): Last 24 hours:	Ø Last 48 hou	Ø Last 48 hours: Ø			
Latitude:			Longitude:		GPS Unit:		GPS LMK #		
Camera:	2	7 N. S.			Photo #s:				
Land Use in Dr	rainage A	rea (Check all th	nat apply):						
☐ Industrial					Open Space	2			
Ultra-Urban	Residen	tial			☐ Institutional				
🗹 Suburban Re	esidential	1			Other:				
☐ Commercial	į					s:			
Notes (e.g., orig	gin of out	fall, if known):	***************************************						
	-								
Section 2: Ou	tfall D	escription							
LOCATIO	ON :	MAT	ERIAL	SH	APE	DIMENSI	ONS (IN.)	SUBMERGED	
		RCP	CMP	☑ Circular	⊠ Single	Diameter/Dime	nsions:	In Water:	
		□ PVC	☐ HDPE	☐ Eliptical	☐ Double	36 "		,⊠No ☐ Partially	
Closed Pipe		☐ Steel		Вох	☐ Triple			Fully	
		Other:		☐ Other:	Other:			With Sediment:	
			-					Partially Fully	
		☐ Concrete							
		☐ Earthen		☐ Trapezoid		Depth:			
Open drainag	ge	☐ rip-rap		☐ Parabolic		Top Width:			
		Other:		☐ Other:		Bottom Width:	, 		
☐ In-Stream	*****	-		samples)		17.14.17.14.17.17.17.17	Whatelan in		
Flow Present?		✓ Yes	☐ No	Section of the Control of the Contro	o to Section 5				
low Description	ì	Trickle	☐ Moderate	☐ Substantial	o to section 5				
If present)		J. T.	- Intoderate						
ection 3: Qua	ntitati	ve Characte	rization		277				
				FIELD DATA FOR FL	OWING OUTFALL	S			
P.	ARAME	TER		RESULT	科技的特別	UNIT	EQI	JIPMENT	
□Flow#1		Volume				Liter		Bottle	
		Time to fill				Sec			
		Flow depth				In	Тар	e measure	
Flow #2		Flow width				Ft, In	Тар	e measure	
		leasured length				Ft, In	Тар	e measure	
Time of travel				S	Ste	op watch			
Temperature					°F		Thermometer		
	pН				p	pH Units Test st		strip/Probe	
Ammonia						mg/L	T	est strip	



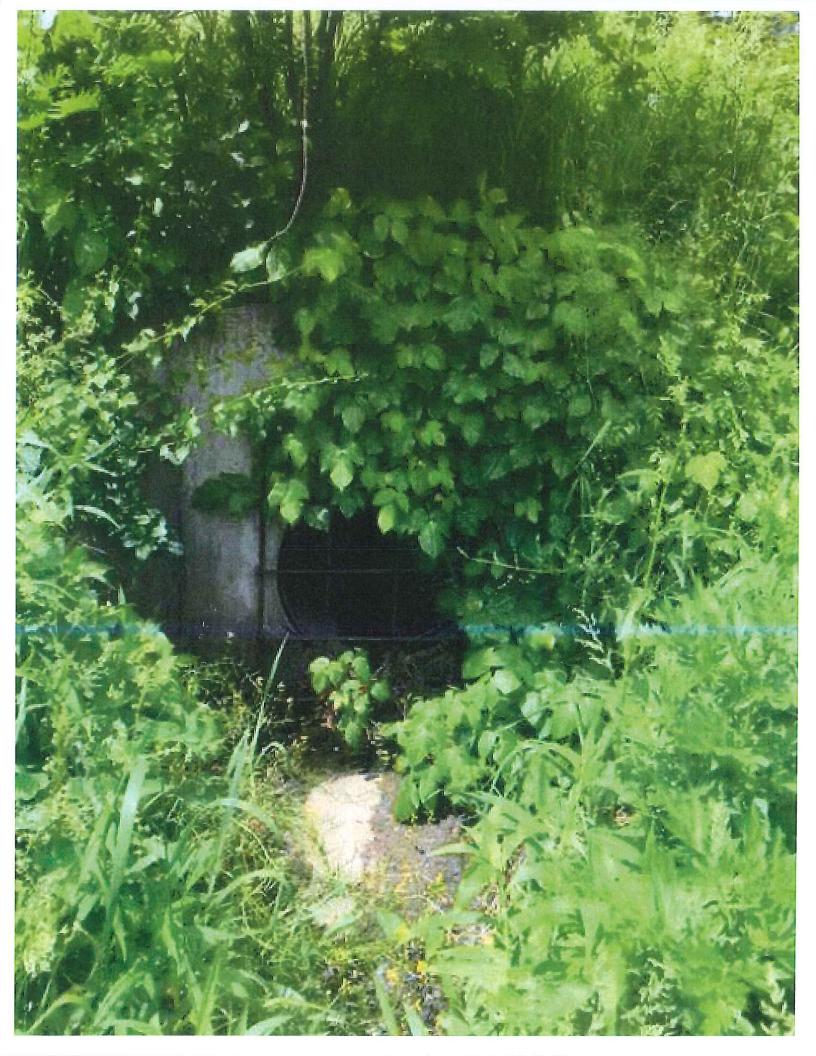
Section 1: Ba	ickgrou	ınd Data							
Subwatershed:					Outfall ID:	776 a.	- 10 10 10 10 10 10 10 10 10 10 10 10 10		
Today's date:	6/	11/16			Time (Military): 14:00				
Investigators:	J.	nNeil			Form completed by		, i l		
Temperature (°)	F): 8	7°	Ra	infall (in.): Last 24 hours:	Last 48 hours				
Latitude:			Longitude	;	GPS Unit:		GPS LMK #		
Camera:					Photo #s:			\$	
Land Use in Dra	ainage Ai	rea (Check all tha	at apply):						
☐ Industrial					Open Space	9			
Ultra-Urban	Resident	ial			☐ Institutional				
X Suburban Re	esidential				Other:				
☐ Commercial					Known Industries:			**	
Notes (e.g., orig	in of out	fall, if known):							
		1					****		
Section 2: Ou			1110 . 21156	To Law to the Design Action Services					
LOCATIO	N	MATE	RIAL	SH	APE	DIMENSIO	ONS (IN.)	SUBMERGED	
		RCP	Z CMP	Circular	Single	Diameter/Dimer	sions:	In Water:	
		□ PVC	☐ HDPE	☐ Eliptical	☐ Double	18	<u>in</u>	⊠ No □ Partially	
Closed Pipe		☐ Steel		☐ Box	☐ Triple			☐ Fully	
		Other:	-	☐ Other:	☐ Other:			With Sediment: No	
						1		Partially Fully	
		☐ Concrete						//////////////////////////////////////	
		☐ Earthen		☐ Trapezoid		Depth:			
Open drainag	ge	☐ rip-rap		☐ Parabolic		Top Width:	_		
2		0-1		☐ Other:		Bottom Width:			
7 r o	16	Other:	- 4 480°2 (4	yer jog toffessorif, at two commers	and the state of t				
In-Stream				g samples)					
Flow Present?		X Yes	Пи	0 If No, Skip	to Section 5				
If present)		Trickle	☐ Modera	te Substantial		7			
ection 3: Qua	ntitativ	ve Character	ization						
	- N. W. T.			FIELD DATA FOR FL	OWING OUTEAUS	Syderia de Japan	rg.vÇastavê,v	igna och bet se	
P/	ARAME	TER		2 2 2 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	2 22 V V 12 3 2 V V V	INIT	FOI	JIPMENT	
□Flow#1		Volume		<u>- Tahuhadan Di Buduh</u>		Liter		Bottle	
		Time to fill		4-7-24-000-00-00-00-00-00-00-00-00-00-00-00-0		Sec		20110	
	Flow depth				In	Tap	e measure		
□Flow#2		Flow width		,,		t, In		e measure	
	М	easured length		, ,,		t, In		e measure	
	Time of travel				S		op watch		
Temperature							rmometer		
рН				pH			strip/Probe		
7	Ammonia					ig/L		est strip	



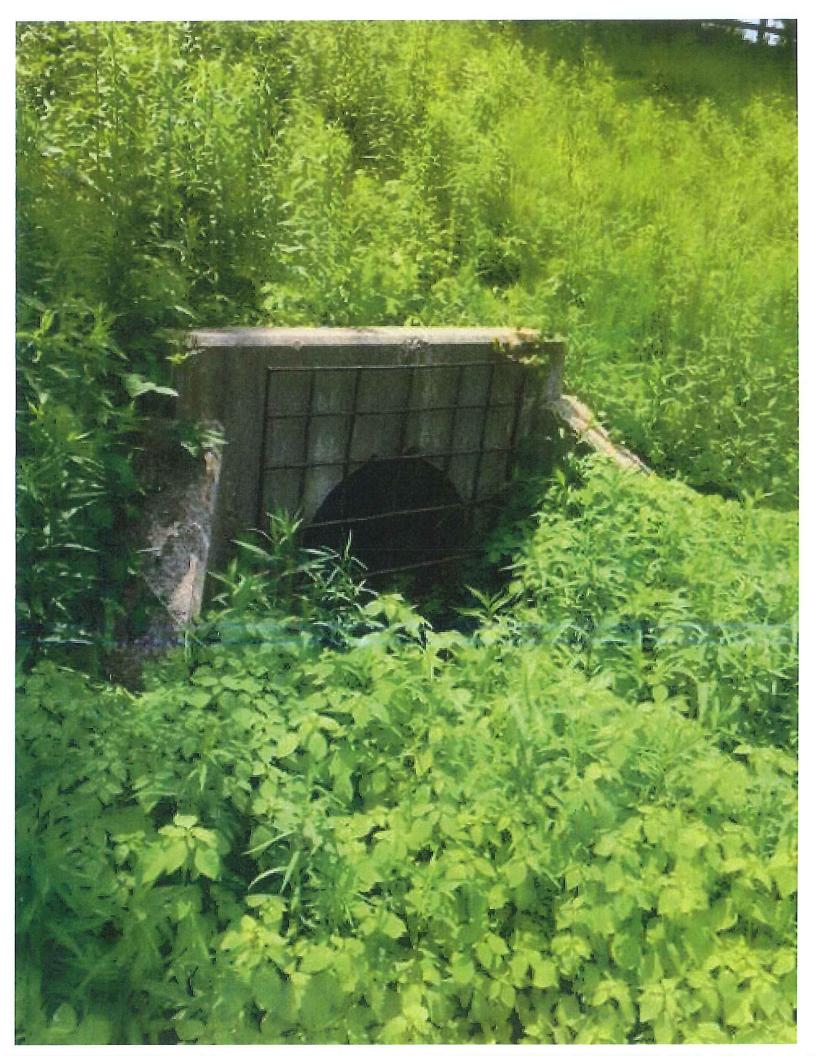
Section 1: Ba	ickgrou	ınd Data							
Subwatershed:					Outfall ID:		1769a.		•
Today's date:	6/1/	16			Time (Mili	tary):	14'05		
Investigators:		Mer'i			Form comp	leted by	: T.M.W.	ei I	
Temperature (°	F): 5	37°	Rair	nfall (in.): Last 24 hour	s: () Last 4	8 hours:	0	<i>A</i>	
Latitude:			Longitude;		GPS Unit:	GPS Unit: GPS LMK #:			
Camera:					Photo #s:				
Land Use in Dr	ainage Ar	rea (Check all th	at apply):						
☐ Industrial					Open Sp	ace	€		3
☐ Ultra-Urban	Resident	ial			☐ Institutio	onal			1
Suburban Re	esidential				Other:				
									3
Notes (e.g., orig	in of outf	all, if known):	•						
	W								
Section 2: Ou	tfall De	scription	erice , Zaron .	·					
LOCATIO	N.	МАТЕ	RIAL	S	HAPE		DIMENSIO	NS (IN.)	SUBMERGED
		□ RCP	∠ CMP	Circular Circular	Single		Diameter/Dimens	5	In Water:
		□ PVC	☐ HDPE	☐ Eliptical	☐ Double		16'	<u> </u>	No Partially
Closed Pipe		☐ Steel		Вох	☐ Triple				
		Other:		☐ Other;	Other:	-			With Sediment: No
									☐ Partially ☐ Fully
		☐ Concrete							
		☐ Earthen		☐ Trapezoid			Depth:		
Open drainag	ge	☐ rip-rap		☐ Parabolic		Top Width:			
N28		Other:	,	☐ Other:	Bottom Width:				
☐ In-Stream			+ san'i	samples)		CAN TO	1416 (1-124 N.) - T. (1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	in a series as	
Flow Present?		☐ Yes	No.		rip to Section 5		STATE OF STATE		and a line of the
Flow Description					ир то весион з				
(If present)		☐ Trickle	☐ Moderate	Substantial			*		
Section 3: Qua	ntitativ	e Character	rization						
St. St. The	1. V 1. 7.3 V 1. 1. 1.	CATANO.	to an analysis.	FIELD DATA FOR F	LOWING OUT	ΔΙΙς.	在25年底以前	VACASTANZA	YOU THE STORY
· Line P	ARAME	TER		RESULT		A	NIT	EOU	JIPMENT
□Flow#1		Volume			1, 1, 40, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		iter		Bottle
		Time to fill				S	ec		
		Flow depth				•]	In ;	Тар	e measure
□Flow #2	Flow #2 Flow width			»		Ft	, In	Тар	e measure
	Measured length					Ft	, In	Тара	e measure
	Time of travel						S	Sto	p watch
Т	`emperatu	re						mometer	
рН						pH Units Test strip/Probe		strip/Probe	
	Ammonia					mg/L Test strip		st strip	



Section 1: Bacl	kground Data								
Subwatershed:				Outfall ID:	1770				
Today's date:	3/1/16			Time (Milita	Time (Military): 1410				
Investigators:	J. Mc Nei			Form comple	21. / 10.	ei)			
Temperature (°F):	: 87	Rainf	fall (in.): Last 24 hour	s: 6 Last 48	hours:		25 - 20,41 - 20,41		
Latitutde:		Longitude:		GPS Unit:		GPS LMK #	<i>t</i> :		
Camera:				Photo #s:			GE 244 - 127 - 1		
Land Use in Drain	nage Area (Check all th	at apply):							
☐ Industrial				Open Spa	ace				
Ultra-Urban R	esidential			☐ Institutio	onal				
Suburban Resi	idential			Other:					
☐ Commercial				Known Indu	stries:				
Notes (e.g, origin	n of outfall, if known):								
						74			
						-			
The said of the said of the said of the said	fall Description								
LOCATION		ERIAL		SHAPE	DIMENSIO		SUBMERGED		
	RCP	CMP	Circular Circular	☑ Single	Diameter/Dimens		In Water:		
	□ PVC	HDPE	☐ Eliptical	☐ Double	30 in		Partially Fully		
Closed Pipe	☐ Steel		Вох	☐ Triple					
	Other:		☐ Other:	Other:			With Sediment:		
				A selection or common			☐ Partially ☐ Fully		
	Concrete					PROCESSION OF THE PROCESSION O			
	☐ Earthen		☐ Trapezoid		Depth:				
Open drainage	e		☐ Parabolic		Top Width:	=			
	☐ rip-rap		Other:		Bottom Width:				
—	Other:								
☐ In-Stream		hen collecting		MENVERSON					
Flow Present?	☐ Yes	☑ No	If No, S	Skip to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate	e Substantial						
Section 3: Oug	ntitative Characte	arization							
section 5. Qua.	Illianive Charact.	STILATION	FIELD DATA FOR	FLOWING OUT	FALLS				
P/	ARAMETER		RESULT		UNIT	E	QUIPMENT		
	Volume				Liter		Bottle		
□Flow #1	Time to fill				Sec				
	Flow depth				In	Т	ape measure		
ua	Flow width		j 33		Ft, In	Т	ape measure		
□Flow #2	Measured length	1	, ,,		Ft, In	Т	ape measure		
1	Time of travel				S		Stop watch		
T	Cemperature				°F Thermometer		'hermometer		
	pH				pH Units Test strip/Probe		est strip/Probe		
	Ammonia				mg/L		Test strip		



Section 1: Bac	ckgrou	nd Data						/#	
Subwatershed:					Outfall ID:	1794 a.			
Today's date:	61	1/16			Time (Military): (2.130)				
Investigators:	J.,	McNeil 30			Form completed l		leil		
Temperature (°F	i): 8	50	Rain	fall (in.): Last 24 hours:	O Last 48 hour				
Latitude:		I	Longitude:		GPS Unit:		GPS LMK #	•	
Camera:					Photo #s:				
Land Use in Drai	inage Ar	ea (Check all that a	apply):				70,000		
☐ Industrial					Open Space	¥			
Ultra-Urban F	Residenti	ial			☐ Institutional				
Suburban Res	sidential				Other:				
Commercial Known Industries:									
Notes (e.g., origin	n of outfa	all, if known):			2.			***************************************	
0. // 0.0 //						The same of the sa			
Section 2: Out			Will Communicati	Heavy state of the state of	co alife o Nadro i Tao Conc	the life of the specific the property.	or Stability A colorection	International day Some device As-	
LUCATION	Ŋ.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		SHA			ONS (IN.)	SUBMERGED	
		STANK .	X CMP	Circular Circular	Single	Diameter/Dime		In Water: No	
		□PVC [HDPE	☐ Eliptical	☐ Double	24 1	n	☐ Partially	
🛮 Closed Pipe		☐ Steel		Вох	☐ Triple			☐ Fully	
		Other:		☐ Other:	☐ Other:			With Sediment: No	
								Partially Fully	
		Concrete							
		☐ Earthen		☐ Trapezoid		Depth:			
Open drainage	2	☐ rip-rap	**	Parabolic	Top Width:				
		☐ Other:		Other:		Bottom Width:			
☐ In-Stream			collecting	samples)					
Flow Present?		Yes	□ No		to Section 5		Per Traction	######################################	
Flow Description		☐ Trickle	Moderate	•	To decision b				
(If present)									
Section 3: Quan	ntitativ	e Characteriz	ation	e.					
	. N. 1. 7. 8. . 1		7 6 - 1 2 A 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FIELD DATA FOR FLO	OWING OUTFALLS				
PA	RAMET	ER *		RESULT		UNIT	EQI	JIPMENT	
□Flow#1		Volume				Liter		Bottle	
		Time to fill				Sec		•	
		Flow depth		.0		In	Тар	e measure	
□Flow#2		Flow width	,	,,		Ft, In	Тар	e measure	
err van Street Mariata (Street Street Street	Me	easured length		27		Ft, In	Тар	e measure	
	Time of travel					S	Sto	op watch	
Te	emperatu	ге				°F Thermome		rmometer	
pH					pI	pH Units Test strip/Probe			
А	Ammonia	l				mg/I	T	not atrin	



Section 1: Backgr	ound Data					
Subwatershed:					807	
Today's date: 6	11/16		101.00	Time (Military):	14:30	
Investigators:	/1/16 J.M. Wei	1		Form completed by:	0 10	- Andrews
Temperature (°F):	86 "	Rainfa	all (in.): Last 24 hours:	O Last 48 hours:	0	
Latitutde:		ongitude:		GPS Unit:	GPS LMK #	3)
Camera:			100000000000000000000000000000000000000	Photo #s:		
Land Use in Drainage	e Area (Check all that a	apply):				(4)
☐ Industrial				Open Space		
Ultra-Urban Resid	lential			☐ Institutional		
Suburban Residen	itial			Other:		
☐ Commercial				Known Industries:		
Notes (e.g, origin of	outfall, if known):	was policy (less of the press)				
Section 2: Outfall LOCATION	Description MATER	IAL	SH	НАРЕ	DIMENSIONS (IN.)	SUBMERGED
	RCP	ビ CMP	Circular	☑ Single	Diameter/Dimensions:	In Water; No
	□ PVC	☐ HDPE	☑ Eliptical	☐ Double	52 x 32 in	☐ Partially
Closed Pipe	☐ Steel		Вох	☐ Triple		☐ Fully
KZ CYCOST I	Other:		☐ Other:	☐ Other:		With Sediment:
	J Outsi.			L 5		Partially Fully
	Concrete					
	☐ Earthen		☐ Trapezoid		Depth:	
☐ Open drainage	☐ rip-rap		☐ Parabolic		Top Width:	
	Other:		☐ Other:		Bottom Width:	
☐ In-Stream	(applicable when		eamnles)			
Flow Present?	Yes	□ No		kip to Section 5		
Flow Description (If present)		☐ Moderate				
Section 3: Quanti	tative Characteri	zation				
			FIELD DATA FOR F	FLOWING OUTFALLS		
PARA	AMETER		RESULT	ı	JNIT E	QUIPMENT
ПЕ!#1	Volume				Liter	Bottle
□Flow #1	Time to fill				Sec	
	Flow depth				In T	ape measure
□Flow #2	Flow width	7	"		Ft, In T	ape measure
1104 112	Measured length					ape measure
	Time of travel				S	Stop watch
Tem	perature				°F Thermometer	
	pН			pI	H Units Te	est strip/Probe
An	nmonia			1	mg/L	Test strip



Section 1: Backgr	ound Data								
Subwatershed:				Outfall ID: 57	1698				
Today's date:	6/1/16			Time (Military): 14',30					
Investigators:	T, Muller			Form completed by:	J.M.Wel	0000			
Temperature (°F):	J. M. Nest	Rainf	all (in.): Last 24 hours:	C Last 48 hours:	Ò				
Latitutde:		gitude:		GPS Unit: GPS LMK #:					
Camera:				Photo #s:		W-881 barrens			
Land Use in Drainage	e Area (Check all that appl	y):							
☐ Industrial				Open Space					
Ultra-Urban Resid	lential			☐ Institutional					
Suburban Residen	tial			Other:					
☐ Commercial									
Notes (e.g, origin of	outfall, if known):			÷1					
1 14				28					
Section 2: Outfall LOCATION	Description MATERIAL		CH	APE	DIMENSIONS (IN.)	SUBMERGED			
LUCATION	AND DESCRIPTION OF THE PERSON	CMP	☐ Circular	Single	Dimensions (IN.)				
				1 353	Diameter/Dimensions:	In Water:			
	□ PVC □ 1	HDPE	☐ Eliptical	☐ Double		☐ Partially ☐ Fully			
Closed Pipe	☐ Steel		□Box	☐ Triple		With Sediment:			
	☐ Other:	Other:		☐ Other:		□ No □ Partially			
						Fully			
	☐ Concrete				- Control of the Cont				
<u></u>	☐ Earthen		☐ Trapezoid		Depth:				
Open drainage	☐ rip-rap		Parabolic		Top Width:				
	☐ Other:		Other:		Bottom Width:				
☐ In-Stream	(applicable when co	llecting	samples)						
Flow Present?	☐ Yes	☑ No		o to Section 5					
Flow Description (If present)		Moderate							
Section 3: Quantit	tative Characterizat	ion							
			FIELD DATA FOR FL	OWING OUTFALLS					
PARA	METER		RESULT	THE REPORT	INIT E	QUIPMENT			
Flow #1]	Liter	Bottle			
	Time to fill	Time to fill			Sec				
	Flow depth)))			ape measure			
□Flow #2	Flow width	Flow width'		I		ape measure			
	Measured length			I		ape measure			
	Time of travel					Stop watch			
Temp	perature				°F T	hermometer			
	,U				I Inite Ta	et etrin/Probe			

mg/L

Test strip

Ammonia



Section 1: Backgr Subwatershed:	round Data			Outfall ID: 7173					
	1-11			Time (Military):	2173 8:50				
Investigators:	/z/16 T. M.Neil 69°			Form completed by: J. Mc Ne.					
Temperature (°F):	fa ⁰	Rainf	fall (in.): Last 24 hours:	Last 48 hours		<u> </u>			
Latitutde:	67	Longitude:	* *	GPS Unit: GPS LMK #:					
Camera:		When we will be a second of the second of th		Photo #s:					
Land Use in Drainag	e Area (Check all that	apply):							
☐ Industrial				Open Space					
Ultra-Urban Resi	dential			☐ Institutional					
Suburban Resider	ntial			Other:					
☐ Commercial				Known Industries:					
Notes (e.g, origin or									
LOCATION	MATE	RIAL	SH	APE	DIMENSION	NS (IN.)	SUBMERGED		
Closed Pipe	☐ RCP ☐ PVC ☐ Steel ☐ Other:	MCMP ☐ HDPE	Circular Eliptical Box Other:	Single Double Triple Other:	Diameter/Dimensi	ons:	In Water: No Partially Fully With Sediment: No Partially Fully		
□ Open drainage	Concrete Earthen rip-rap Other:	, and	☐ Trapezoid ☐ Parabolic ☐ Other:	L	Depth: Top Width: Bottom Width:				
☐ In-Stream	(applicable wh		samples)						
Flow Present?	☐ Yes	DA∵No	If No, Ski	ip to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate	e						
Section 3: Quanti	tative Character	rization							
			FIELD DATA FOR F	LOWING OUTFALLS					
PAR	AMETER		RESULT		UNIT	E	QUIPMENT		
□Flow #1	Volume				Liter		Bottle		
	Time to fill				Sec	T	ape measure		
Flow depth			2 32		In Ft, In		ape measure		
□Flow #2		feasured length,, "			Ft, In		ape measure ape measure		
-					S S		Stop watch		
Time of travel Temperature					o₽	hermometer			
	pH			n			Test strip/Probe		
-				P	mg/L		Test strin		
Ammonia									



Subwatershed:	ekground Data			Outfall ID:	2228				
Today's date:	6/2/16			Time (Military): 9:16 Form completed by: J. M. ak II					
Investigators:	J. McNeil	1		Form completed by:	J. M.a	611			
Temperature (°F):	-7		fall (in.): Last 24 hours:	Last 48 hours:	Ø				
Latitutde:		Longitude:		GPS Unit:		GPS LMK #	<i>t</i> :		
Camera:				Photo #s:					
Land Use in Drain	inage Area (Check all tha	at apply):							
☐ Industrial				☐ Open Space					
☐ Ultra-Urban R	Residential			☐ Institutional					
Suburban Resi	sidential			Other:					
☐ Commercial				Known Industries:					
	in of outfall, if known):								
LOCATION	The state of the s	ERIAL	SH	APE	DIMENSIO	NS (IN.)	SUBMERGED		
	□ RCP	☑ CMP	Circular	Single	Diameter/Dimens		In Water:		
	□ PVC	☐ HDPE	☐ Eliptical	☐ Double	142 in		☑ No ☐ Partially		
Closed Pipe	☐ Steel		Вох	☐ Triple			☐ Fully		
SASSEMBLOS SERVICES	☐ Other:		☐ Other:	☐ Other:			With Sediment:		
	SOUTH SOUTH STATE OF THE SOUTH S						Partially Fully		
	☐ Concrete				Depth:				
*	☐ Earthen			☐ Trapezoid					
Open drainage			☐ Parabolic		Top Width:				
	☐ Other:		☐ Other:		Bottom Width:				
☐ In-Stream		hen collecting	1-3	THE PERSON NAMED IN THE					
Flow Present?	Yes	No	-	- Castley 5	and the said of the				
Flow Description				p to Section 5					
(If present)	☐ Trickle	☐ Moderate	e Substantial						
Section 3: Quar	ntitative Characte	erization							
			FIELD DATA FOR FL	OWING OUTFALLS					
PA	ARAMETER		RESULT	U	NIT	EQ	QUIPMENT		
□Flow#1	Volume			I	Liter		Bottle		
	Time to fill				Sec				
	Flow depth				In	Tape measure			
□Flow #2	Flow width			F	Ft, In		ipe measure		
	Measured length			F			ipe measure		
	Time of travel				S	Stop watch			
Te	Cemperature				°F		nermometer		
	рН			pH	Units	Tes	t strip/Probe		
		I.			α/I		Tost stain		



### Flow #2 Flow #2 Flow #42 Flow width	Section 1: Ba	ackgrou	und Data								
Today Adam Control	Subwatershed:					Outfall ID:	Outfall ID: 57-32/				
Rainfall (in.): Last 24 hours	Today's date:	6	12/16			Time (Military):	21 257				
Ratiful (in): Last 24 hours:	Investigators:	J.	M Nesl								
Camera	Temperature (°	F): 7	76 °	Rair	nfall (in.): Last 24 hou	urs: Last 48 hou		-0 (
And Use in Drainage Area (Check all that apely):	Latitutde:			Longitude:		GPS Unit:					
Industrial						Photo #s:			X Table		
Ultra-Urban Residential	Land Use in Dr	ainage A	rea (Check all	that apply):							
Saburdan Residential Other	☐ Industrial					Open Space			*		
Commercial Known Industries:	☐ Ultra-Urban	Resident	tial			☐ Institutional					
Commercial Known Industries: Notes (e.g., crigin of outfall, if known): Section 2: Outfall Description Industries: I	Suburban Re	esidential				Other:					
Section 2: Outfall Description LOCATION MATERIAL SHAPE DIMENSIONS (IN.) SUBMERGED RCP CMP Circular Single Diameter/Dimensions: In Water: No PvC HDPE Eliptical Double Box Triple With Sediment: No Partially Pully Pully	Commercial										
Colosed Pipe Concrete Concr	Notes (e.g, orig	gin of out	fall, if known)	•		Idiowii ilidustiic.	0.				
No No No No No No No No											
RCP CMP Circular Single Diameter/Dimensions: In Water No Partially PVC HDPE Eliptical Double I I No Partially Pully									28		
PVC	LOCATIO	N	1000			БНАРЕ	DIMENSIO	NS (IN.)	SUBMERGED		
Closed Pipe Steel	Closed Pipe	RCP	X CMP	Circular	Single			In Water:			
Other: O		□ PVC	HDPE	☐ Eliptical	☐ Double	18 %	in	☐ Partially			
Other:		☐ Steel		Вох	☐ Triple			☐ Fully			
Concrete			☐ Other:		☐ Other:	Other:					
Concrete											
Gopen drainage			☐ Concrete								
Tip-rap	S.—S:		☐ Earthen ☐ Trapezoid				Depth:	Depth:			
Other:	☐ Open drainag	ge	□ rin-ran		☐ Parabolic		Top Width:				
In-Stream (applicable when collecting samples)			200 San		☐ Other:		Bottom Width:				
Yes No 15 No, Skip to Section 5 Now Present?	☐ In-Stream				1						
Trickle											
Trickle				[Z] 140	If No, S	kip to Section 5					
FIELD DATA FOR FLOWING OUTFALLS PARAMETER RESULT UNIT EQUIPMENT	If present)		Trickle	☐ Moderate	☐ Substantial						
FIELD DATA FOR FLOWING OUTFALLS PARAMETER RESULT UNIT EQUIPMENT	ection 3: Oua	ntitatix	o Characte	wlastisu							
PARAMETER RESULT UNIT EQUIPMENT □Flow #1 Volume Liter Bottle □ Time to fill Sec Tape measure □ Flow depth In Tape measure □ Flow width ' " Ft, In Tape measure □ Measured length ' " Ft, In Tape measure □ Time of travel S Stop watch □ Temperature □ F Thermometer	cetton 5. Qua	neneatty	C CHAI ACL	IZALIOII	ETELD DATA FOR	EL OWENC OUTEN LA					
Volume Liter Bottle Time to fill Sec Flow #2 Flow width ' " Ft, In Tape measure Measured length " Ft, In Tape measure Time of travel S Stop watch Temperature oF Thermometer	P/	ARAMET	ΓER			FLOWING OUTFALLS					
Time to fill Sec					RESULT	3,332111 219/419	The second secon		LINE SHARE THE PROPERTY OF THE PARTY OF THE		
Flow depth	Flow #1					39753435	Bottle				
Flow #2 Flow width								Tr-	na maggues		
Measured length ' " Ft, In Tape measure Time of travel S Stop watch Temperature °F Thermometer	7Flow #2				-						
Time of travel S Stop watch Temperature °F Thermometer	Measured length		asured length ""								
Temperature °F Thermometer											
nH	T	emperatu	re						_ 80_9/81.81.81.84		
F = 1030 SUID/1 100E		pН				pl	The		st strip/Probe		
Ammonia mg/L Test strip	Ammonia						mg/L				



Section 1: Bad	ckground	Data									
Subwatershed:					Outfall ID:	ST2460					
Today's date:		6/2/1	6		Time (Milita	Time (Military): 9:36					
Investigators:	J.	6/2/1 M. Ne	11		Form compl	Form completed by: J- McDeil					
Temperature (°F		713		fall (in.): Last 24 ho	ours: Ø Last 48						
Latitutde:			Longitude:		GPS Unit:		GPS LMK	#:			
Camera:					Photo #s:						
Land Use in Dra	inage Area (Check all th	hat apply):			-0 101					
☐ Industrial					Open Spa	ice					
Ultra-Urban 1	Residential				☐ Institution	nal					
Suburban Res	sidential				Other:						
☐ Commercial						stries:					
Notes (e.g, origi	in of outfall,	if known):			TEXOWN INCIDEN	aries.					
		•									
								3			
Section 2: Out											
LOCATION			ERIAL		SHAPE	DIMENSIO	VS (IN.)	SUBMERGED			
		RCP	CMP	Circular	Single	Diameter/Dimensi		In Water:			
6		PVC	HDPE	☐ Eliptical	☐ Double	_ 12 in		□ No ▶ Partially			
Closed Pipe		Steel		Вох	☐ Triple			Fully			
		Other:		☐ Other:	Other:			With Sediment:			
								□ No □ Partially □ Fully			
		Concrete									
		Earthen		☐ Trapezoid		Depth:					
Open drainage		rip-rap		☐ Parabolic		Top Width:					
		Other:		Other:		Bottom Width:					
In-Stream			nen collecting s	omples)							
low Present?		Yes	Ion concernig s		Gring G. C.	ADES A SESSION (III)					
low Description					Skip to Section 5						
lf present)	⊔:	Trickle	☐ Moderate	☐ Substantial							
ection 3: Quan	ntitative C	haracte	rization								
The second second	restative C	mar acte	TIZACION	FIFI D DATA FOR	FLOWING OUTFA	lle.					
PA	RAMETER			RESULT	TEOWING COTTA	UNIT	F0	UTDMENT			
Volume					Liter	EQ	UIPMENT Bottle				
□Flow #1	Tim	e to fill				Sec		Bottle			
	Flov	w depth				In	Та	pe measure			
Flow #2	Flov	Flow width'		"		Ft, In		pe measure			
	Measu	red length				Ft, In	Tape measure				
	Time	of travel			2 1	S		top watch			
Te	emperature					°F		ermometer			
	pН					pH Units	oH Units Test s				
Ammonia						mg/L	Т	est strip			



Section 1: Back	ground Data								
Subwatershed:			4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 -	Outfall	ID:	572577			
Today's date:	6/2/16		Time (J1 23 22					
Investigators:	J.McNeil			Form completed by: T-Newer 1					
Temperature (°F):	710	Rair	nfall (in.): Last 24 hours		st 48 hours:	- 1000	201		
Latitutde:		Longitude:		GPS U	nit:		GPS LMK	#.	
Camera:				Photo #	s:				
Land Use in Drain	age Area (Check all that	apply):							
☐ Industrial				□Оре	n Space				
Ultra-Urban Re	sidential		☐ Insti	tutional					
Suburban Resid	ential								
☐ Commercial									
	of outfall, if known):			Known	Industries: _				
riotes (e.g, origin	or outrail, it known):								
ection 2: Outfa	ll Description								
LOCATION	MATERI	AL	SH	APE		DIMENSIO	NS (TN)	SUBMERGE	
	□ RCP [M CMP	☑ Circular	Single		Diameter/Dimens		In Water:	
☑ Closed Pipe	□ PVC [HDPE	☐ Eliptical	☑ Double		48" AND		☐ No	
	☐ Steel		Вох	Inguistry in		10 1400)		☐ Partially☐ Fully	
•	Other:		D G	☐ Triple				With Sediment:	
	Other:		Other:	Other:				☐ No	
								☐ Partially☐ Fully	
	Concrete		☐ Trapezoid ☐ Parabolic		Denth:				
Open drainage	☐ Earthen					Depth:			
	□ гір-гар		(4 - 2)			Top Width:			
	☐ Other:	Other:			B		Bottom Width:		
] In-Stream	(applicable when	collecting s	samples)		101 E 110				
ow Present?	⊠ Yes	□No		to Section 5	ide e	II ola	_	Market	
ow Description	Trickle	Moderate		to beeton 5	7 5	mall pipe o	17 Y		
present)	1733 TTORIO	Moderate	☐ Substantial						
ction 3: Quanti	tative Characteriza	tion							
			FIELD DATA FOR FLO	OWING OL	TFALLS		47031100		
PARA	METER		RESULT			IIT	FOI	ITDACAIT	
]Flow#1	Volume	Volume				iter		JIPMENT Bottle	
Time to fill						ec ec		Bottle	
Flow depth					In		Tone mass		
Flow #2	Flow width	,			Ft, In		Tape measure Tape measure		
	Measured length		35	Ft,				e measure	
Time of travel					S			op watch	
Temperature								mometer	
рН					pH Units Test s				

mg/L

Test strip

Ammonia



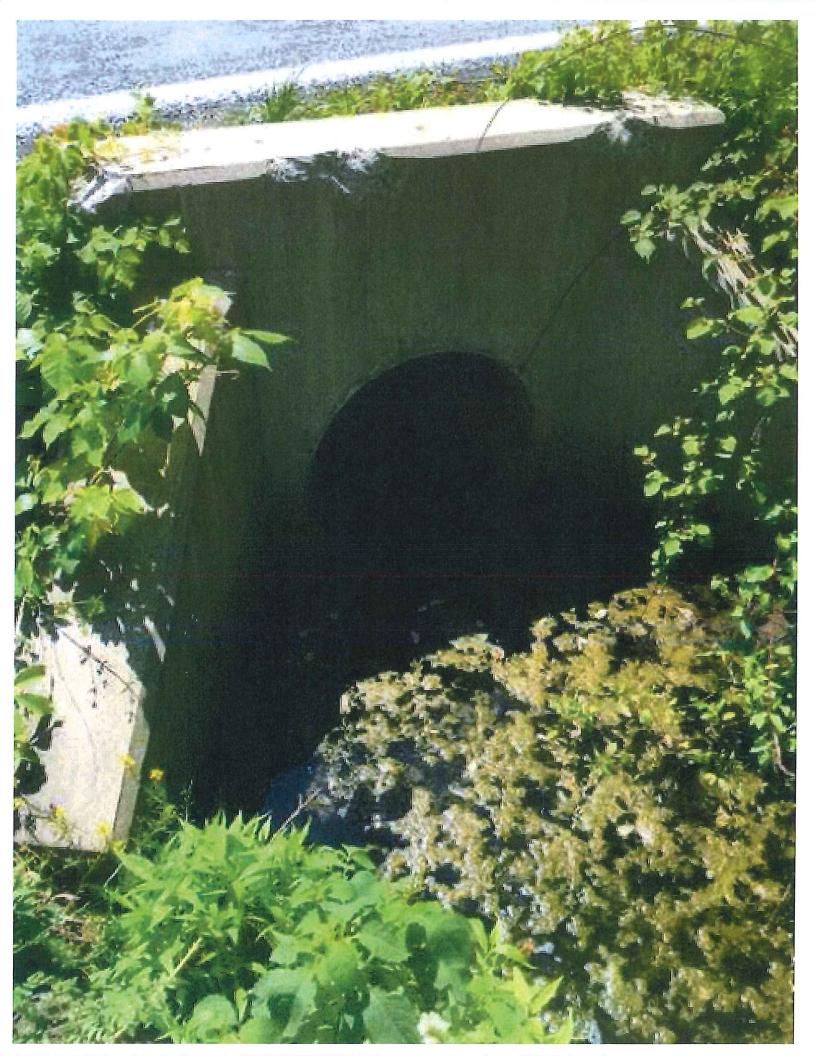


Section 1: Backgro	ound Data						
Subwatershed:	7		2	Outfall ID:	7432		
Today's date:	6/2/16			Time (Military)): 10:45		
Investigators:	J. M. Well			Form complete	d by: J. Me	Neil	
Temperature (°F):	710	Rainf	fall (in.): Last 24 hours	:: Ø Last 48 ho		****	
Latitutde:	L	ongitude:		GPS Unit:		GPS LMK #	<i>t</i> :
Camera;				Photo #s:	į.		
Land Use in Drainage,	Area (Check all that ap	pply):			j		0.000 0.000
☐ Industrial				Open Space	. !		
Ultra-Urban Reside	ential			☐ Institutional	Į.		
Suburban Residenti	ial			Other:	ia	4	
☐ Commercial				Known Industri	ies:		
Notes (e.g, origin of o	outfall, if known):		2 2 3 4 7 7 8 9 7	**************************************			
					(V_4)		
Section 2: Outfall I					•,		
LOCATION	MATERIA		Manufacture and the second	HAPE	DIMENSIO		SUBMERGED
		XCMP	Circular	Single	Diameter/Dimen		In Water:
	□ PVC □	HDPE	☐ Eliptical	☐ Double	241	M	Partially Fully
Closed Pipe	☐ Steel		Вох	☐ Triple			
<i>(</i>	Other:		☐ Other:	☐ Other:			With Sediment:
							☐ Partially ☐ Fully
The state of the s	☐ Concrete						
	☐ Earthen		☐ Trapezoid		Depth:		
☐ Open drainage	☐ rip-rap		☐ Parabolic		Top Width:	_	
	100-000 DYN 97		☐ Other:		Bottom Width: _		
☐ In-Stream	Other:			KATE WATER	THE STORY OF THE STORY	Carta Agreement	
Flow Present?	(applicable when			O G day E	cantes also allegates		
Flow Present? Flow Description	☐ Yes	DKN0		kip to Section 5		MININE DE LA CONTRACTION DEL CONTRACTION DE LA C	
(If present)	☐ Trickle ☐	Moderate	Substantial				
Section 3: Quantita	the Characteria	ation		person the limit has a street accommon parameter and			
ection 3: Quantita	HIVE CHAPACIETIZA	ation	FIELD DATA FOR F	OWING OUTFAL	110		
PARAM	METER		RESULT	LOWER COTTO	UNIT	FC	QUIPMENT
	Volume				Liter		Bottle
□Flow #1	Time to fill				Sec		Donie
	Flow depth				In	Te	ape measure
	Flow width	,	33		Ft, In		ape measure
Flow #2 Measured length ""					Ft, In		ape measure
Time of travel					S Stop water		
Tempe	rature			°F Thermometer			
pF	H		-	pH Units Test strip/Probe		st strip/Probe	
Amm	ionia				mg/L	,	Test strip

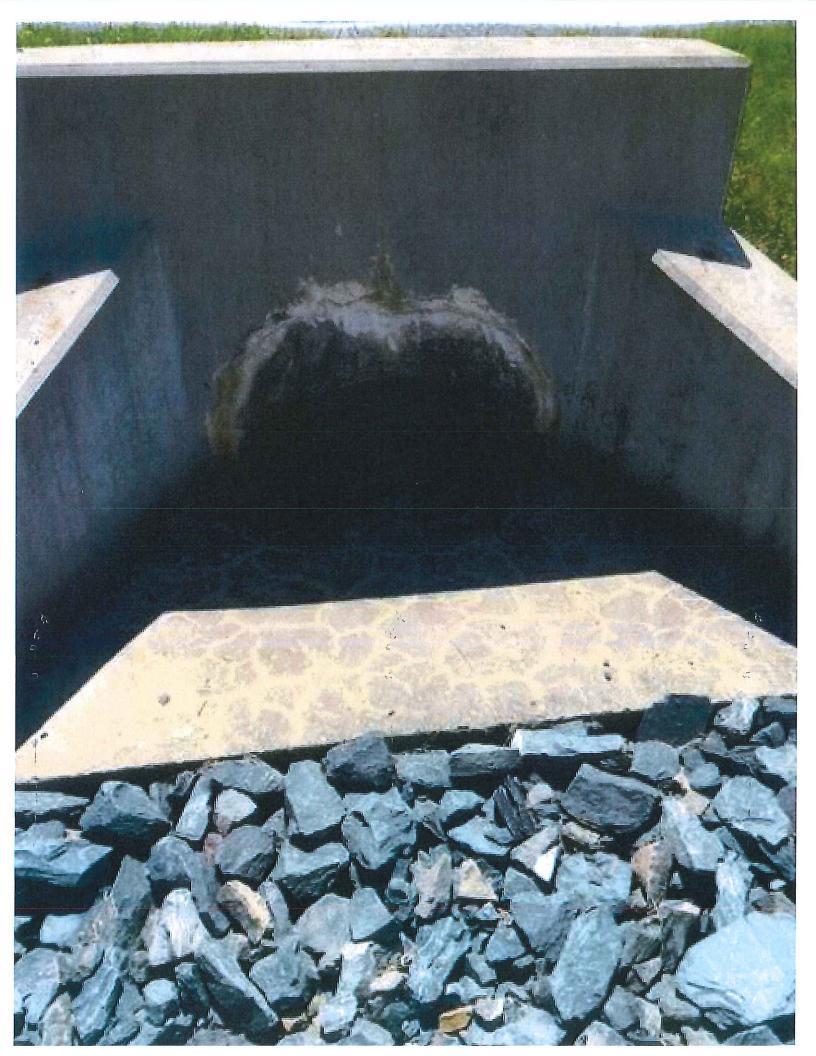


Section 1: B	ackgrou	ınd Data								
Subwatershed:					Outfall ID:	ST2A		•		
Today's date:	6,	12/16			Time (Military):	11:20				
Investigators:		J.M.Ne	il		Form completed l		Vell			
Temperature (°F):	72°	Rain	nfall (in.): Last 24 hours:	Last 48 hour	s: Ø	- ~ [
Latitude:			Longitude:		GPS Unit:		GPS LMK #	/ ₁ :		
Camera:					Photo #s:					
Land Use in Dr	rainage A	rea (Check all th	nat apply):		(
☐ Industrial					☐ Open Space					
Ultra-Urbar	n Resident	tial			☐ Institutional					
Suburban R	esidential				Other:					
☐ Commercia	l	195			Known Industries:					
Notes (e.g., orig	gin of out	fall, if known):								

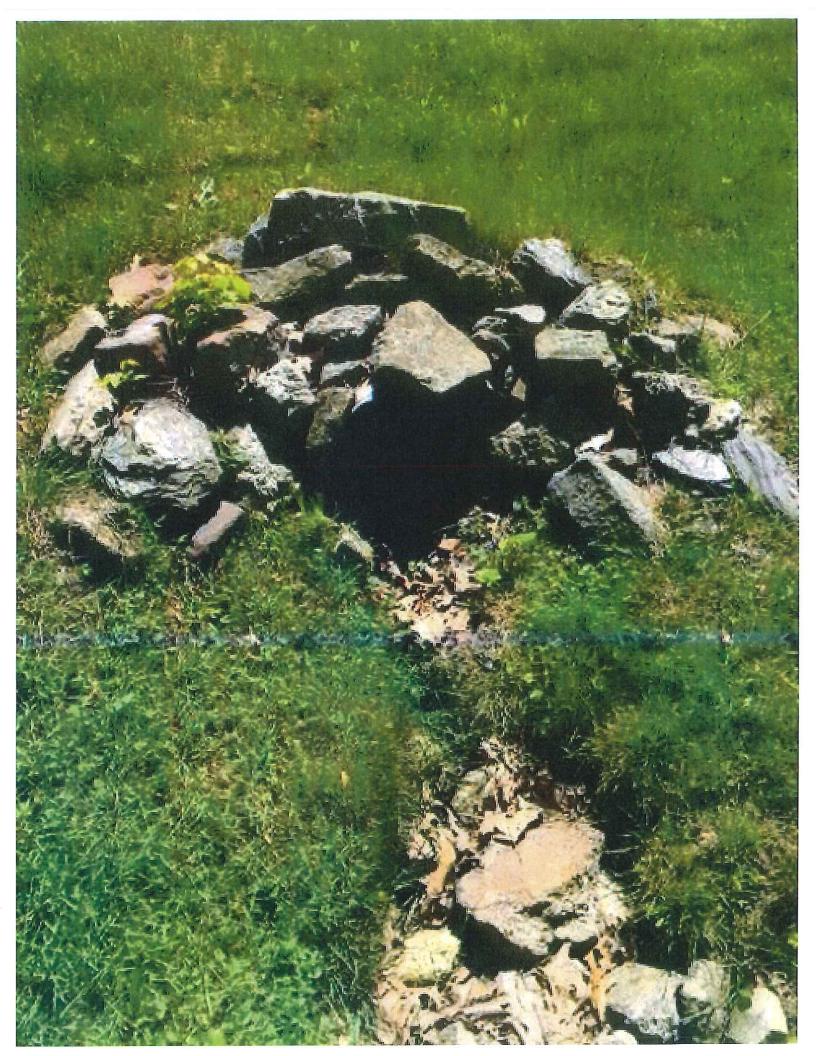
Section 2: Ou		escription MATE	Sarge Stability	- 45 gave bull all an deligende for	ten palo ni tradici (Californi	the Para South of the manager	- y	In Street Street		
LOCALIC	אור.	1		SH/	C MARK THE CHARLE AVAILABLE		ONS (IN.)	SUBMERGED		
		FRCP		Circular	Single	Diameter/Dime		In Water:		
/		□ PVC	☐ HDPE	☐ Eliptical	☐ Double	50	in	Partially		
Closed Pipe		☐ Steel		Вох	☐ Triple			☐ Fully		
•		Other:		☐ Other:	☐ Other:			With Sediment:		
								Partially Fully		
		☐ Concrete			200					
		Earthen		☐ Trapezoid		Depth:				
☐ Open draina	ge	☐ rip-rap		☐ Parabolic		Top Width:	_			
		Other:		Other:		Bottom Width:				
☐ In-Stream			A Lage Land Angle	samples)	e e e e e e e e e e e e e e e e e e e	The same at two commen	ari e restala da			
Flow Present?		☐ Yes	No.			######################################				
Flow Description					to Section 5					
If present)		Trickle	☐ Moderate	Substantial	6.	(*)				
ection 3: Qua	ntitativ	e Character	rization	7						
ir. ir airi	N April		1:1:0:0	FIELD DATA FOR FLO	OWING OUTFALLS	: H0734 34,234	rangarawa rangara			
P	ARAME	ΓER		RESULT	The State of the State State	JNIT	FOI	JIPMENT		
□Flow#1		Volume		The transfer of the standard of		Liter	· · · · · · · · · · · · · · · · · · ·	Bottle		
		Time to fill				Sec	***************************************			
		Flow depth	70			In	Tap	e measure		
Flow #2 Flow width,,,			1	Ft, In		e measure				
Measured length ""					⁷ t, In		e measure			
Time of travel						S		op watch		
Temperature						°F Thermometer		-		
рН				pH	pH Units Test strip/Probe		strip/Probe			
Ammonia mg/L Test strip										



Section 1: Ba	ackgrou	and Data								
Subwatershed:	(Outfall ID:	ST4A				
Today's date:		6/2/	16		Time (Military):	11:50				
Investigators:		J.M.1 74°	Jeil		Form completed b					
Temperature (°	F):	740	Rain	fall (in.): Last 24 hours:	Last 48 hours					
Latitude:			Longitude;		GPS Unit:		GPS LMK #	:		
Camera:					Photo #s:					
Land Use in Dr	ainage A	rea (Check all the	at apply):			W				
☐ Industrial					Open Space	*1				
Ultra-Urban	Residen	tial			☐ Institutional					
Suburban Re	esidentia	1			Other:	***				
☐ Commercial	Ĭ.				Known Industries:					
Notes (e.g., orig	gin of out	fall, if known):					-			
						- Wild Control				
Section 2: Ou			TOTAL OF BUILD	- Aragon (altopia) yengesaya	menuation valle interiory.	or Tean Sustice has properly	: Nest table militable	Tele construited home decreases		
LUCATIC)N	MATE			APE		ONS (IN.)	SUBMERGED		
		FIRCP		Circular	Single	Diameter/Dimer		In Water: No		
. 2		□ PVC	HDPE	Eliptical	Double	2410	7 (6)"	Partially Fully		
Closed Pipe		☐ Steel		Вох	☐ Triple			With Sediment:		
l		Other:		☐ Other:				☑ No		
								☐ Partially ☐ Fully		
		☐ Concrete		□ ramid		- 1				
		☐ Earthen		☐ Trapezoid		Depth:				
Open drainag	ge	□ гір-гар	150	Parabolic		Top Width:				
		Other:		☐ Other:		Bottom Width: _	of the second se			
☐ In-Stream	-	(applicable wh	en collecting	samples)	ata Vitali.					
Flow Present?		☐ Yes	(ZI-No		p to Section 5	William Street, The Street	"Vist of Media advan	THE WAS A DAMPER OF WES		
Flow Description	1	☐ Trickle	☐ Moderate	☐ Substantial		¥.				
(If present)										
ection 3: Qua	ntitati	ve Character	ization							
				FIELD DATA FOR FL	OWING OUTFALLS					
P	ARAME	TER		RESULT	字:::::	TINL	EQI	UIPMENT.		
□Flow#1		Volume				Liter	A	Bottle		
		Time to fill		77 SAC 07 DAY 100		Sec				
		Flow depth				In	Тар	oe measure		
□Flow #2		Flow width]	Ft, In	Тар	ne measure		
		feasured length			I	7t, In	Тар	e measure		
		Time of travel				S	Sto	op watch		
	remperat	ure				°F	The	rmometer		
рН			pH	pH Units		Test strip/Probe				
Ammonia					n	ng/L	Te	est strip		



Section 1: B	ackgrou	und Data								
Subwatershed	:				Outfall ID:	T6A				
Today's date:	6/	2/16			Time (Military):	12:00				
Investigators:	j	- MiNeil			Form completed by		.Nevl			
Temperature (°F): "	740	Rain	fall (in.): Last 24 hours	: 6 Last 48 hours					
Latitude:			Longitude:		GPS Unit:		GPS LMK #	 :		
Camera:					Photo #s:					
Land Use in D	rainage A	rea (Check all th	at apply):							
☐ Industrial				₹त	☐ Open Space					
Ultra-Urba	n Residen	tial			☐ Institutional					
Suburban R	tesidential				Other:	-0				
☐ Commercia	1				Known Industries:					
Notes (e.g., ori	gin of out	fall, if known):								
Section 2: Or LOCATI		7	Sakig, e Sakahi, g	44. N. S.	man (#45 o stado (*5a) Teor	u Bari Silairik ammusu.	Nach e Ne Julea No.	I do no describe desperato e de co		
LOCATIO	ON			SH		DIMENSIO	A Live As a Danger	SUBMERGED		
		RCP	CMP	Circular	Single	Diameter/Dimen		In Water: No		
,	PVC HDPI			Eliptical	☐ Double	20 in	x 14 in	Partially Fully		
Closed Pipe		☐ Steel		Вох	☐ Triple			11 11-5 150 - 07		
2	14	Other:		☐ Other:	☐ Other:			With Sediment:		
								☐ Partially ☐ Fully		
		☐ Concrete								
		☐ Earthen		☐ Trapezoid	Depth:					
Open draina	ge	 □ гір-гар		☐ Parabolic		Top Width:	-			
			•	☐ Other:		Bottom Width: _				
☐ In-Stream	19 44 19 55	Other:	- Antiniant	samplės)	NOTES SAFFLES SAME	Mark Stars Time	1975 Virtual Page 188			
Flow Present?	(e)					Paragraph Andreas				
		Yes	No	If No, Ski	p to Section 5					
Flow Description If present)	1	☐ Trickle	☐ Moderate	☐ Substantial		2				
ection 3: Qu	antitati	ve Character	rization							
te. Opilieri			ti prosenta. Poposta informa	FIELD DATA FOR FI	OWING OUTFALLS		reconstant			
,	ARAME	TER	w);	RESULT	0 99 91 10 71 1	NIT	EOU	JIPMENT		
□Flow#1	4	Volume			1	iter		Bottle		
		Time to fill				Sec				
Flow depth						In	Тар	e measure		
Flow #2 Flow width,, "				F	t, In	Тар	e measure			
Measured length'"				F	t, In	Тар	e measure			
		Time of travel				S	Sto	op watch		
	Temperati	ire				°F	The	rmometer		
рН				pН	pH Units Test strip/Probe		strip/Probe			
	Ammoni	a			m	g/L	Te	est strip		



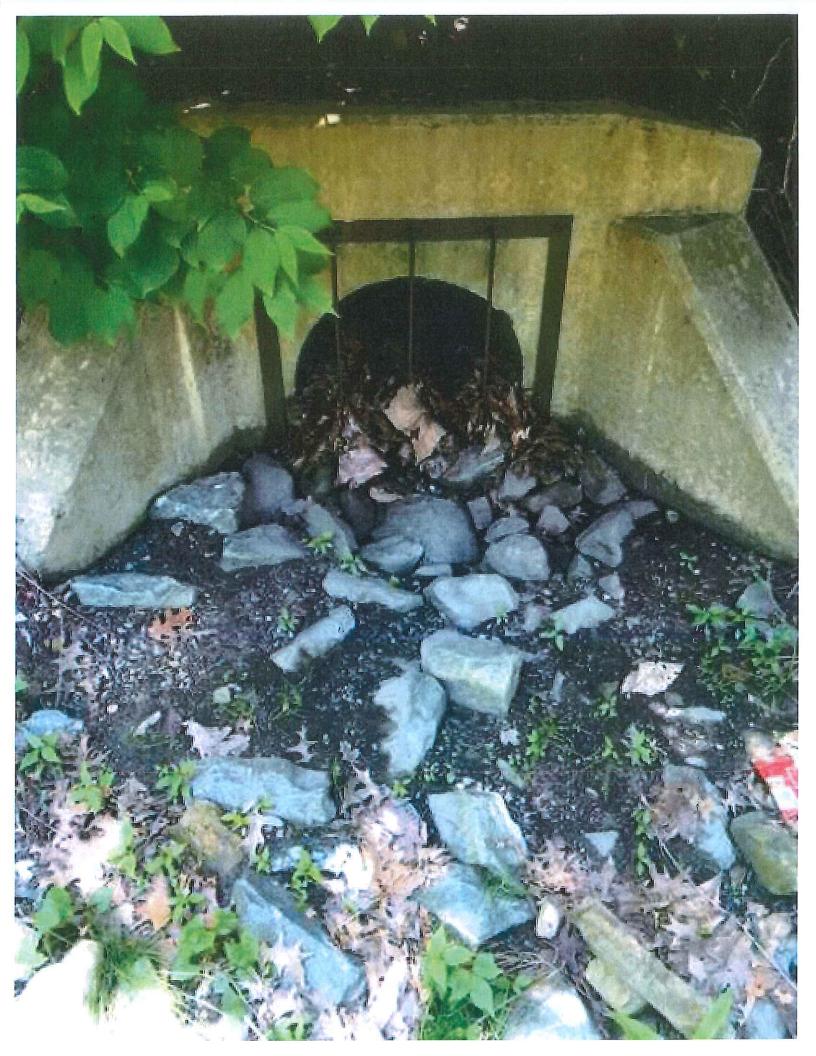
Section 1: Ba	ackgrou	ınd Data						
Subwatershed:					Outfall ID:	1092	W/Annager	·
Today's date:		6/2/11	b		Time (Military):	12:45		
Investigators:		J. McW			Form completed by	J. McA	ell	
Temperature (°	'F):	76°	Rain	fall (in.): Last 24 hours:	Last 48 hours:	8		
Latitude:			Longitude:		GPS Unit:	_~	GPS LMK #	
Camera:					Photo #s:			
Land Use in Dr	ainage A	rea (Check all tha	t apply):					
☐ Industrial					Open Space	26.		
Ultra-Urban	Resident	tial			☐ Institutional			
Suburban R	esidential				Other:			
Commercial					Known Industries: _			
Notes (e.g., orig	gin of out	fall, if known):						
		E						
Continu 1. O.	46- U.D.					10 10 10 10 10 10 10 10 10 10 10 10 10 1		***************************************
Section 2: Ou LOCATIO		The second secon	OTAL CARRES	SH	Vag ioo mendene dans	Refusioitament	hadhildh didaadh	na produkturan ara subero.
A CALCONIA	14 11/14	RCP			Ampliant to the many protests.	DIMENSIO	11 11 11 11	SUBMERGED
				Circular	Single	Diameter/Dimens	sions;	In Water: ☐ No
		□ PVC	☐ HDPE	☐ Eliptical	☐ Double			☐ Partially ☐ Fully
Closed Pipe		☐ Steel		Box	☐ Triple			With Sediment:
		Other:		☐ Other:	☐ Other:			□ No
								☐ Partially ☐ Fully
		☐ Concrete			100000			
		☐ Earthen		☐ Trapezoid		Depth:		
Open drainag	ge	☐ rip-rap		Parabolic		Top Width:		
		Other:		☐ Other:		Bottom Width:		
☐ In-Stream			en collecting s	samples)		Stational Control	in, zedina ve	
Flow Present?		Yes	☐ No	E THINK I MY LOW L. NO.	to Section 5			
Flow Description	1				to Section 3			
(If present)		☐ Trickle	☐ Moderate	☐ Substantial		*		
Section 3: Qua	ntitativ	ve Characteri	zation					
			gar an assaria Tegariya tagir	FIELD DATA FOR FL	OWING OUTFALLS		ng Mayer	
ri ya ki in p	ARAME"	ΓER		RESULT	· 53 Jan 19 7 15 3 5	NIT	EQU	JIPMENT
□Flow#1		Volume			L	iter	7 3 24 1 7 7 7 7	Bottle
		Time to fill			S	ec		
		Flow depth				ĺn .	Тар	e measure
∏Flow #2		Flow width		·	Ft	, In	Тар	e measure
Measured length'"			Ft	, In	Тарс	measure		
Time of travel						S	Sto	p watch
Temperature				0	°F Th		mometer	
рН				рН (pH Units Test strip/P		trip/Probe	
Ammonia				mg	z/L	Te	st strip	



Other:	Section 1: Ba	ckground Data						
Today Salace 1/2 1	Subwatershed:				Outfall ID:	1048		
Temperatuse (*1):	Today's date:	6/2/16			Time (Military):		55	
Temperature (**)	Investigators:	J.M.N	1011		Form completed	by: T	Me Weil	
Latitude: Longitude: Chanalate: Photo fig: Photo fig: Chanalate: Photo fig: Phot	Temperature (°F			afall (in.): Last 24 hou	rs: & Last 48 hou			
Photo #is:	Latitude;	←	Longitude:	· · · · · · · · · · · · · · · · · · ·	GPS Unit:		GPS LMK #	
Industrial	Camera;				Photo #s:			·
Ultra-Urban Residential	Land Use in Dra	ninage Area (Check all t	that apply):					
Closed Pipe Concrete Content	☐ Industrial				Open Space	*		
Notes (e.g., origin of outfall, if known):	Ultra-Urban	Residential			☐ Institutional			
Notes (e.g., origin of outfall, if known): Notes (e.g., origin	Suburban Re	sidential			Other:			
Notes (e.g., origin of outfall, if known): Section 2: Outfall Description	☐ Commercial							
LOCATION MATERIAL SHAPE DIMENSIONS (IN) SUBMERGED	Notes (e.g., origi	in of outfall, if known):						
LOCATION MATERIAL SHAPE DIMENSIONS (IN) SUBMERGED								
LOCATION MATERIAL SHAPE DIMENSIONS (IN) SUBMERGED	nativ same vans vans	•	- TOTAL - CO					
Closed Pipe CMP			J. 102 , 61150	Tue- construction				
PVC	LOCATIO				4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	DIMENS	IONS (IN.)	SUBMERGED
Pound Partially Partiall		RCP	\square CMP	Circular	Single	1		In Water:
Other: O		☐ PVC	☐ HDPE	☐ Eliptical	☐ Double	16	in	
Other: Other: Other: Other: Other: Other: Paratially Fully	Closed Pipe	☐ Steel		Вох	☐ Triple			☐ Fully
Concrete		Other:	an a or so x	☐ Other:	☐ Other:			With Sediment:
Concrete								☐ Partially
Gopen drainage		☐ Concrete						
rip-rap		☐ Earthen		☐ Trapezoid		Depth:		
Other:	∐ Open drainage			☐ Parabolic		Top Width:		
In-Stream (applicable when collecting samples)		1950 9,500		☐ Other:		Bottom Width:		
	T Y. C4		— V 18 ilavil. 18 Kupr.	1-9751-14-24-277#352	a produce object acceptos	The second program of the second		
Continue				2 1 2 2 3 3 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	也是到了这种情况		的。因是其他	
Substantial			MΝο	If No, S.	kip to Section 5			*
FIELD DATA FOR FLOWING OUTFALLS PARAMETER RESULT UNIT EQUIPMENT	If present)	☐ Trickle	☐ Moderate	☐ Substantial		11 100		
FIELD DATA FOR FLOWING OUTFALLS PARAMETER RESULT UNIT EQUIPMENT	ection 3: Quar	ntitative Characte	rization	10 SF				
PARAMETER RESULT UNIT EQUIPMENT □Flow #1 Volume Liter Bottle □Flow #2 Flow depth In Tape measure □Flow width ' " Ft, In Tape measure Measured length ' " Ft, In Tape measure Time of travel S Stop watch Temperature °F Thermometer pH pH Units Test strip/Probe	ir. Frida.			FIELD DATA FOR I	LOWING OUTFALLS		yeta eğa tikkiley	rang to wanta away
Flow #1 Volume	PA	RAMETER		and the second second			S P EOI	ITOMENIT
Time to fill Sec				<u> </u>	ESPECIALIZAÇÃO ENACTORA	***************************************		
Flow depth	LIFIOW#1	Time to fill						Dottie
Flow #2 Flow width		Flow depth					Tan	e measure
Measured length ' " Ft, In Tape measure Time of travel S Stop watch Temperature °F Thermometer pH pH Units Test strip/Probe	TFlow #2	Flow width	<u> </u>	39			:	
Time of travel S Stop watch Temperature pH pH Units Test strip/Probe							· · · · · ·	
Temperature °F Thermometer pH pH Units Test strip/Probe		Time of travel						
pH pH Units Test strip/Probe	Temperature					°F		
Ammonia		рН			pI	I Units		
	Ammonia					ng/L		



Section 1: Ba	ckgrou	nd Data	-						
Subwatershed:					Outfall ID:	1035		•	
Today's date:	(3/2/16			Time (Military):	13:05			
Investigators:	J	.M. Well			Form completed by		Je. SI	<u> </u>	
Temperature (°I	F):	760	Rainf	fall (in.): Last 24 hours:	Cast 48 hours:			<u> </u>	
Latitude:		I	ongitude:		GPS Unit;		GPS LMK #:		
Сатега:		-1			Photo #s:				
Land Use in Dra	ainage Ar	ea (Check all that a	ipply):						
☐ Industrial		*			Open Space	*			
Ultra-Urban	Residenti	ial			☐ Institutional				
Suburban Re	esidential				Other:				
☐ Commercial									
Notes (e.g., orig	in of outf	all, if known):			40				
Section 2: Out			2 - E-12-Say	Lancard and the same of the sa		_			
LOCATIO	N	The state of the s	AL	SH	APE	DIMENSIONS	(IN.)	SUBMERGED	
1		X RCP	CMP	Circular	Single Single	Diameter/Dimension	15;	In Water:/	
		□ PVC [HDPE	☐ Eliptical	☐ Double	- 24 in		☐ Partially	
Closed Pipe	Closed Pipe			Вох	☐ Triple			☐ Fully	
	Other:			☐ Other:	☐ Other:			With Sediment: ☐ No	
								Partially Fully	
		☐ Concrete						//////////////////////////////////////	
		☐ Earthen		☐ Trapezoid		Depth:			
Open drainag	ge			☐ Parabolic		Top Width:			
		☐ rip-rap	¥1	☐ Other:	Bottom Width:				
		Other:	anto de Alegario	the had a seaton to see the second	and the second s				
☐ In-Stream				samples)					
Flow Present?	-	☐ Yes	No.	If No, Skip	p to Section 5				
Flow Description (If present)		☐ Trickle ☐	Moderate	Substantial		151			
Section 3: Qua	ntitativ	e Characteriz	ation						
	- S - Sp - 7			FIELD DATA FOR FL	OWING OUTFALLS		N N5 ⁴ (622) 10 1-2 1 1 2		
P/	ARAMET	ΓER		RESULT	No. of the Control of	NIT C	EQU	JIPMENT	
□Flow#1		Volume			I	Liter		Bottle	
		Time to fill				Sec			
	Flow depth				In	Тар	e measure		
Flow #2 Flow width'"			F	t, In	Тар	e measure			
Measured length ""			F	t, In	Тара	e measure			
Time of travel							pp watch		
Temperature					°F Thermometer		rmometer		
	рН				pH	Units	Test strip/Probe		
Ammonia				m	mg/L Test strip		est strip		



Section 1: Back	ground Data						
Subwatershed:				Outfall ID:	ST561		
Today's date:	6/8/16			Time (Military):		
Investigators:	0/ -/			Form complete	ed by: 08:35		
Temperature (°F):	610	Raint	fall (in.): Last 24 hour				
Latitutde:	3	Longitude:		GPS Unit:	•	GPS LMK #	1
Camera:				Photo #s:			
Land Use in Draina	age Area (Check all tha	at apply):					
☐ Industrial				☐ Open Space	•	is i	
☐ Ultra-Urban Re	sidential			☐ Institutiona	I,		
Suburban Resid	lential			Other:		10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
Commercial				Known Industr	ies:		
	of outfall, if known):						
Section 2: Outfa	all Description	4-/					T
LOCATION				НАРЕ	DIMENSIO		SUBMERGED
	RCP	CMP	Circular	⊠ Single	Diameter/Dimens	sions:	In Water:
	□ PVC	☐ HDPE	☐ Eliptical	☐ Double	16"		Partially Fully
Closed Pipe	☐ Steel		☐ Box	☐ Triple			With Sediment:
	Other:		☐ Other:	☐ Other:			☐ No
				,			Partially Fully
	☐ Concrete						
	☐ Earthen		☐ Trapezoid	19.	Depth:		
Open drainage	□ гір-гар		☐ Parabolic		Top Width:	<u>_</u> 8	
	Other:		☐ Other:		Bottom Width: _		
☐ In-Stream	(applicable w	han aallaating	normales)				<u> </u>
	Yes	No		Skip to Section 5			
Flow Present?		AINO	1) 110, 1	экір іо зесііон з			
Flow Description (If present)	☐ Trickle	☐ Moderat	e Substantial				
Section 2. Onen	titative Characte	wigation					
section 3. Quan	manye Characte	IZALIOII	FIFI D DATA FOR	FLOWING OUTFA	IIS		
ΡΔ	RAMETER		RESULT		UNIT	EC	QUIPMENT
	Volume		ALCO COLOR		Liter		Bottle
□Flow#1	Time to fill				Sec		
	Flow depth		1		In	T	ape measure
	Flow width		2 22		Ft, In	100	ape measure
□Flow #2	Measured length		3 33		Ft, In		ape measure
Time of travel			S		Stop watch		
Temperature					°F Thermometer		hermometer
	pH				pH Units	Te.	st strip/Probe
Ammonia mg/L					mg/L		Test strip



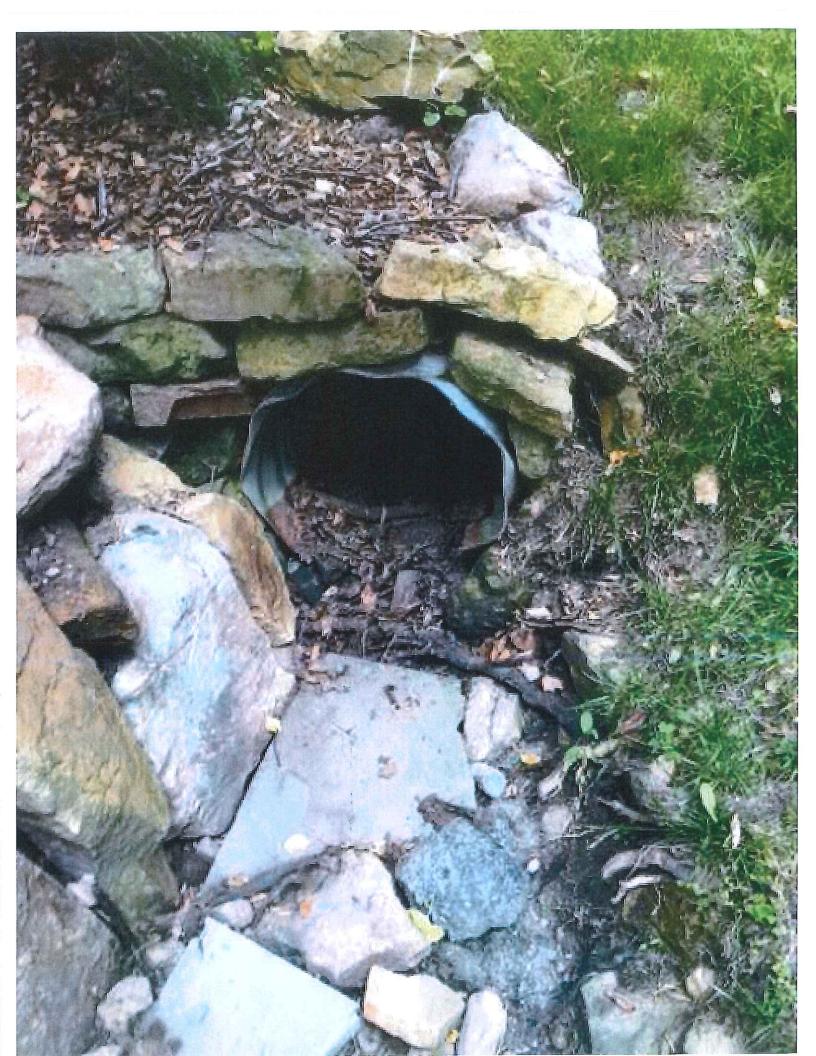
Section 1: Back	ground Data							
Subwatershed:				Outfall ID:	361			
Today's date:	6/8	/16		Time (Military):	0915			
Investigators:	6/8, J-M	- Nell		Form completed l	Dy: J. M. Ne	11		
Temperature (°F):		Rainfa	all (in.): Last 24 hours:	Last 48 hour	s: <i>B</i>			
Latitutde:		Longitude:		GPS Unit:		GPS LMK #		
Camera:				Photo #s:				
Land Use in Drain	age Area (Check all tha	t apply):						
☐ Industrial				Open Space				
☐ Ultra-Urban R	esidential			☐ Institutional				
Suburban Resi	dential			Other:			<u> </u>	
☐ Commercial				Known Industries				
	of outfall, if known):							
110100 (0.6, 011611	1 01 044441, 12 1440 1447							
			PETER STATE OF THE					
Section 2: Outf	all Description							
LOCATION	I MATE	RIAL	SI	IAPE	DIMENSIO	NS (IN.)	SUBMERGED	
	□ RCP	⊠ CMP	Circular	Single	Diameter/Dimens	sions:	In Water:	
	□ PVC	HDPE	☐ Eliptical	☐ Double			Partially	
Closed Pipe	☐ Steel		☐ Box	☐ Triple	W (an not	be	☐ Fully	
	Other:		☐ Other:	☐ Other:	Meusur is burn	ed, pipe	With Sediment:	
					is burn	ied	☐ Partially Fully	
	Concrete	***************************************						
	☐ Earthen		☐ Trapezoid		Depth:			
☐ Open drainage	8		☐ Parabolic		Top Width:	_		
	☐ rip-rap		☐ Other:		Bottom Width: _			
	Other:	_				Water Personal		
☐ In-Stream	(applicable wi				A LINE LOS H			
Flow Present?	☐ Yes	No.	If No, Sk	tip to Section 5				
Flow Description (If present)	☐ Trickle	☐ Moderate	: Substantial		No. No Control of the State			
Section 3: Quar	ntitative Characte	rization						
			FIELD DATA FOR I	LOWING OUTFALL	.s			
P.A	RAMETER		RESULT		UNIT	EC	UIPMENT	
	Volume				Liter		Bottle	
□Flow#1	Time to fill				Sec			
	Flow depth				In	Ta	npe measure	
□Flow #2	Flow width	<u></u>	, ,,		Ft, In	Ta	npe measure	
□Flow #2	Measured length		, ,,,		Ft, In	Ta	pe measure	
	Time of travel				S	5	Stop watch	
Temperature					°F	°F Thermometer		
and the second second second second	pН				pH Units	Tes	et strip/Probe	
Ammonia			F.S.A. (1900)		mg/L		Test strip	



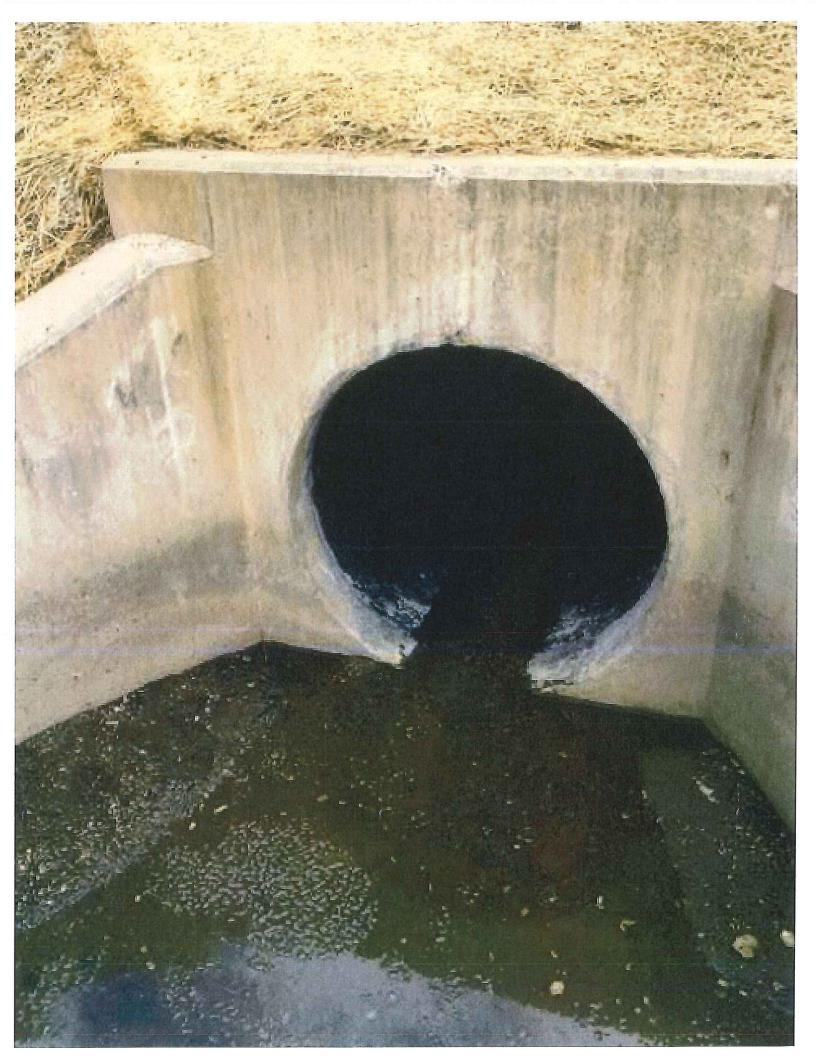
Section 1: Bacl Subwatershed:				Outfall ID:	5T301		
Today's date:	118	///		Time (Military):	0925		
Investigators:	6/ 0;	/16 n_Nell Raint		Form completed by	y: J-Ma	611	
Temperature (°F):	618	Rainf	all (in.): Last 24 hours:		: 6	16.1	
Latitutde:		Longitude:		GPS Unit:	7	GPS LMK #	!:
Camera:		5963		Photo #s:		L	Walk Long Cold at 15.1 M
Land Use in Drain	nage Area (Check all tha	t apply):					
☐ Industrial				☐ Open Space			
Ultra-Urban R	esidential			☐ Institutional			
Suburban Resi	dential			Other:			
☐ Commercial							
1940 - All Completion for economic con-	of outfall, if known):				***************************************	-	
Section 2. Out	all Description		©				
LOCATION	all Description MATE	RIAL	SH	IAPE	DIMENSIO	NS (IN.)	SUBMERGED
5	□ RCP	СМР	Circular	Single	Diameter/Dimens		In Water:
			☐ Eliptical	Double	16		No ☐ Partially
Closed Pipe	☐ Steel	ш	☐ Box ☐ Triple			-	Fully
Closed I the							With Sediment:
	Other:		Other:	Other:			☐ Partially
				1			Fully
	Concrete		☐ Trapezoid		Depth:		
☐ Open drainage	☐ Earthen		☐ Parabolic		Top Width:	_	
(Z) (20)	☐ rip-rap		☐ Other:		Bottom Width:		
	Other:				5000		
☐ In-Stream	(applicable wh						
Flow Present?	☐ Yes	Ĭ X (No	If No, Ski	ip to Section 5			
Flow Description (If present)	☐ Trickle	☐ Moderate	e ☐ Substantial				
Section 3: Quar	ntitative Character	rization					
			FIELD DATA FOR F	LOWING OUTFALLS	3		
PA	RAMETER		RESULT		UNIT	EC	QUIPMENT
□Flow#1	Volume				Liter		Bottle
LITIOW #1	Time to fill				Sec		
	Flow depth				In	T	ape measure
□Flow #2	Flow width		, ",		Ft, In	Ta	ape measure
	Measured length		,,		Ft, In	Ta	ape measure
	Time of travel				S	5	Stop watch
Temperature				*	°F	T	hermometer
pH Units Test strip/Probe							

mg/L

Test strip



Section 1: Backg	ground Data						
Subwatershed:				Outfall ID:	3453		
Today's date:	6/8/16			Time (Military):	1020		200000000000000000000000000000000000000
Investigators:	J.M. Nell			Form completed by		/(
Temperature (°F):	66	Rainf	fall (in.): Last 24 hour	s: 💋 Last 48 hours:	Ø		
Latitutde:		Longitude:		GPS Unit:		GPS LMK #	
Camera:				Photo #s:			
Land Use in Drainag	ge Area (Check all tha	at apply):					
☑ Industrial				Open Space	()		
Ultra-Urban Res	idential			☐ Institutional	*2		
☐ Suburban Reside	ential			Other:			
☐ Commercial				Known Industries:			
Notes (e.g, origin o	of outfall, if known):		***************************************				
	1000 S1000 2 000						
	THE TAX PARTY OF THE PARTY OF T						
Section 2: Outfal			T-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				
LOCATION	MATE			HAPE	DIMENSION		SUBMERGED
	RCP	☐ CMP	☐ Circular	Single	Diameter/Dimensio	ons:	In Water: ₃□ No
	□ PVC	HDPE	☐ Eliptical	Double	48"		Partially Fully
Closed Pipe	☐ Steel		Вох	☐ Triple			100000 B
	Other:		☐ Other:	☐ Other:			With Sediment:
							Partially Fully
	☐ Concrete						
	☐ Earthen		☐ Trapezoid		Depth:		
Open drainage	☐ rip-rap		☐ Parabolic		Top Width:		
	Other:		☐ Other:		Bottom Width:		
☐ In-Stream	(applicable wh	en collecting	samples)				
Flow Present?	☐ Yes	No		Kip to Section 5			
Flow Description		_/		kip to Beetton 5			
(If present)	☐ Trickle	☐ Moderate	Substantial				
Section 3: Quant	itative Character	rization					
occion or Quant	itutive characte	· ization	FIELD DATA FOR	FLOWING OUTFALLS			
PAR	AMETER	WALL TO	RESULT		JNIT	EO	UIPMENT
	Volume				Liter		Bottle
□Flow#1	Time to fill				Sec		
	Flow depth		-		In	Та	pe measure
□Flow#2	Flow width		, ", ", ", ", ", ", ", ", ", ", ", ", ",	I	Ft, In	Та	pe measure
Measured length ""			999	I	t, In	Та	pe measure
Time of travel					S		top watch
Tem	perature	V2		°F	Th	emometer	
PH					l Units	Tes	strip/Probe
Ammonia mg/L Test strip					Test strip		



Subwatershed:				Outfall II): 3397		
Today's date:	6/8/16 J. MINUIT			Time (Mi	litary): (03	0	
Investigators:	J.MiNeil			Form con	npleted by:	J. McKeil	
Temperature (°F):		Rainf	fall (in.): Last 24 hour	rs: Last	48 hours:		
Latitutde:		Longitude:		GPS Unit	:	GPS LMK	#:
Camera;				Photo #s:			
Land Use in Drainage	Area (Check all th	at apply):				40	
Industrial				☐ Open	Space		
Ultra-Urban Resid	ential			☐ Institu	tional		
☐ Suburban Residen	tial			Other:			
☐ Commercial				Known In	dustries:		
Section 2: Outfall							
LOCATION		ERIAL		SHAPE	DI	MENSIONS (IN.)	SUBMERGED
	RCP	CMP	Circular Circular	Single	Diame	ter/Dimensions:	In Water: ☐ No
	☐ PVC	☐ HDPE	☐ Eliptical	☐ Double		36	Partially Fully
Closed Pipe	☐ Steel		Вох	☐ Triple			W. 1007 - 200 - 1000 -
×	Other:		Other:	Other:			With Sediment: Partially Fully
□ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:		☐ Trapezoid ☐ Parabolic ☐ Other:			idth: Width:	
☐ In-Stream		hen collecting	samples)				<u> </u>
Flow Present?	Yes	□ No		Skip to Section 5			
Flow Description (If present)	Trickle	☐ Moderate	: Substantial				
Section 3: Quantit	ative Characte	erization	FIELD DATA FOR	FLOWING OL	ITFALLS		
PARA	METER		RESULT		UNIT	E	QUIPMENT
□Flow#1	Volume				Liter		Bottle
	Time to fill				Sec		
	Flow depth				In	Т	ape measure
□Flow #2	Flow width		, ,,		Ft, In	П	ape measure
	Measured length		" "		Ft, In	Т	ape measure
	Time of travel				S	1111	Stop watch
Temp	erature				°F	T	hermometer
pН					pH Units	Te	st strip/Probe

mg/L

Test strip



Section 1: Back Subwatershed:				Outfall ID:	573229				
Today's date:	6/5	2/16		Time (Military):	1050				
Investigators:	4,	3/16 McWeil		Form completed by	<i>-</i> , , , , , , , , , , , , , , , , , , ,				
Temperature (°F):		Rainf	fall (in.): Last 24 hours:	Last 48 hours	Last 48 hours:				
Latitutde:		Longitude:		GPS Unit:	GPS LMK #	#:			
Camera:				Photo #s:					
Land Use in Drain	nage Area (Check all tha	at apply):				a			
☐ Industrial				Open Space		9			
Ultra-Urban Re	esidential			☐ Institutional					
☐ Suburban Resi	dential			Other;					
Commercial				Known Industries:					
Section 2: Outf	n of outfall, if known): fall Description								
LOCATION				IAPE	DIMENSIONS (IN.)	SUBMERGED			
	⊠ RCP	☐ CMP	Circular	Single	Diameter/Dimensions:	In Water:			
	☐ PVC	☐ HDPE	☐ Eliptical ☐ Double		36"	Partially Fully			
Closed Pipe	☐ Steel		☐ Box	☐ Triple		With Sediment:			
	Other:		☐ Other:	☐ Other:		With Sediment: No Partially Fully			
	☐ Concrete		☐ Trapezoid		Depth:				
☐ Open drainage	☐ Earthen		☐ Parabolic		Top Width:				
	☐ rip-rap		Other:		Bottom Width:				
	Other:		LI Outer.		DULLOIII YY IUUI.				
☐ In-Stream	(applicable wh	aen collecting	samples)						
Flow Present?	☐ Yes	Σίνο	If No, Ski	ip to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate	e Substantial						
Section 3: Quar	ntitative Character	rization			7.				
			FIELD DATA FOR FI	LOWING OUTFALLS	5				
PA	ARAMETER		RESULT		UNIT EC	QUIPMENT			
□Flow#1	Volume				Liter	Bottle			
	Time to fill				Sec				
	Flow depth					ape measure			
□Flow #2	Flow width		, , , , , , , , , , , , , , , , , , , ,			'ape measure			
	Measured length		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			ape measure			
	Time of travel					Stop watch			
Те	emperature					'hermometer			
	pН			l r	oH Units Tes	est strip/Probe			

mg/L

Test strip

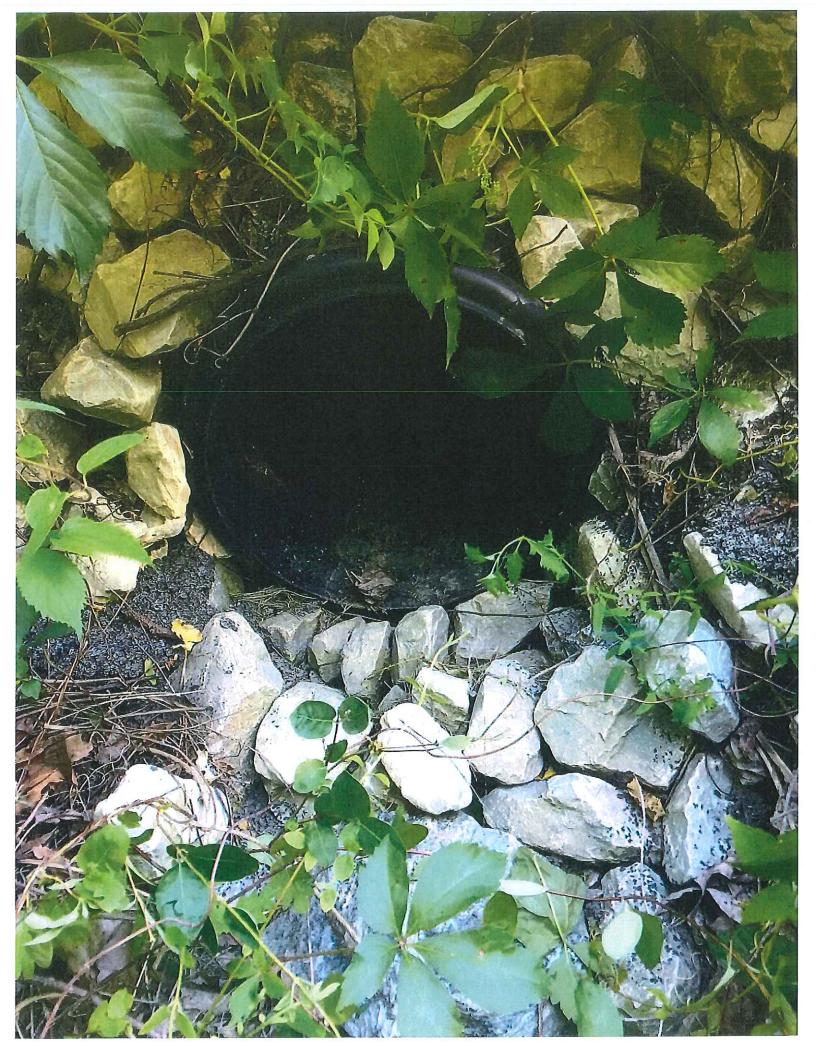


Subwatershed:				Outfall ID:	ST84Z	
Today's date:	6/13/16			Time (Military):	0820	
Investigators:	6/13/16 J.M. Nei	Ī		Form completed by	0820 y: J. M. Was)	
Temperature (°F):	62°		fall (in.): Last 24 hour	rs: Last 48 hours	: B	
Latitutde:		Longitude:		GPS Unit:	GPS LM	K #:
Camera:				Photo #s:		
Land Use in Drainage	ge Area (Check all that a	apply):				26,133446 - 249,001
[X] Industrial				☐ Open Space		
Ultra-Urban Resid	dential			☐ Institutional		
☐ Suburban Residen	ntial			Other:		
☐ Commercial				Known Industries:		
Notes (e.g, origin of	f outfall, if known):					
7 4! 2. Owtfol'	I Describtion			***************************************		EX
Section 2: Outfall LOCATION	MATER:	TAL	5	БНАРЕ .	DIMENSIONS (IN.)	SUBMERGED
		□СМР	Circular	Single	Diameter/Dimensions:	
2000		HDPE	☐ Eliptical	☐ Double	16'	In Water: No ☐ Partially
	/	MINIT			500 50	☐ Fully
Closed Pipe	☐ Steel		Box	☐ Triple		With Sediment:
	☐ Other:		☐ Other:	☐ Other:		No Partially
						Fully
	☐ Concrete		☐ Trapezoid		Depth:	
	☐ Earthen					
Open drainage	□ rip-rap		☐ Parabolic		Top Width:	
	Other:	and a	Other:		Bottom Width:	
☐ In-Stream	(applicable when	n collecting	samples)			XIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Flow Present?	☐ Yes	No	If No. !	Skip to Section 5		
Flow Description (If present)	☐ Trickle	☐ Moderate	te Substantial			
Section 3: Quanti	itative Characteri	ization				
			FIELD DATA FOR	FLOWING OUTFALLS	S	
PAR	AMETER		RESULT		UNIT	EQUIPMENT
	Volume				Liter	Bottle
□Flow #1	Time to fill				Sec	
	Flow depth				In	Tape measure
□r: .#0	Flow width		,,		Ft, In	Tape measure
LIFIOW #2	Flow #2 Measured length		333		Ft, In	Tape measure
Time of travel					S	Stop watch
Tem	perature				°F	Thermometer
	pH			r	oH Units	Test strip/Probe

Ammonia

Test strip

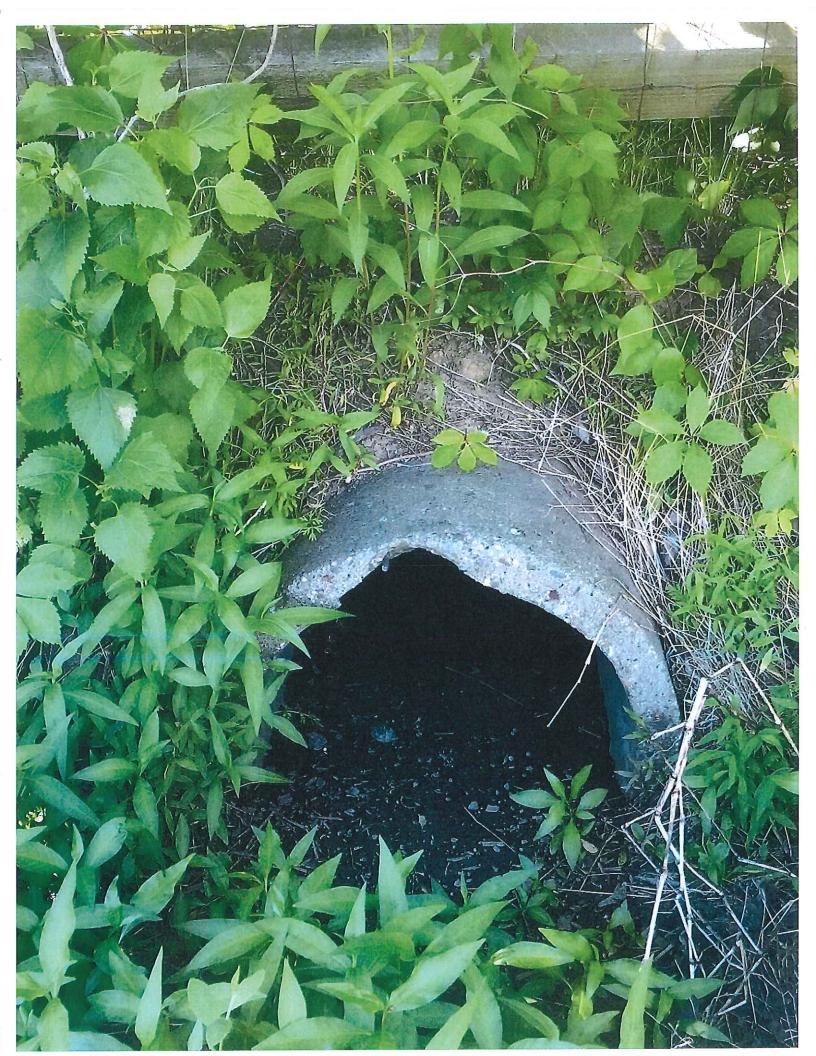
mg/L



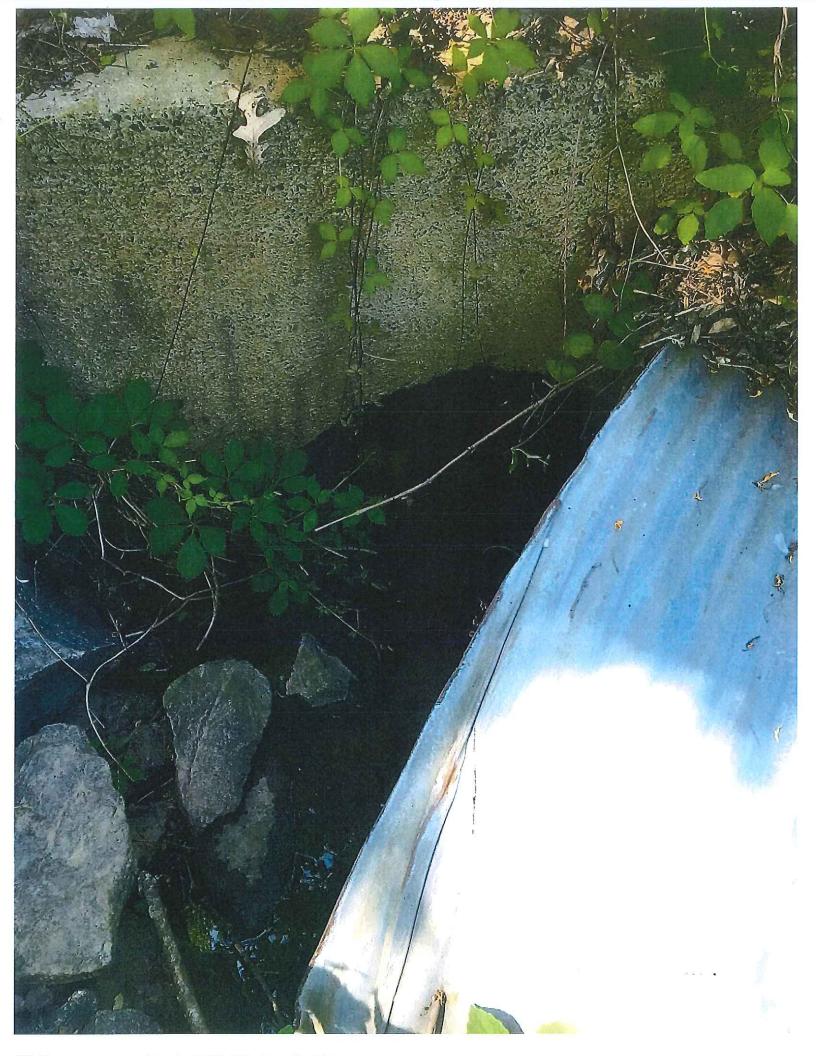
	ground Data			Out II ID:	(=2.0.0	- Very Land Committee Committee
Subwatershed:	1 /2/		***	Outfall ID:	573513 0845 by: J.M.Ne; 1	
Today's date:	6/13/	16		Time (Military):	0845	
Investigators:	6/13/ J.M.Nes 62	1		Form completed	by: J.McNeil	
Temperature (°F):	62		all (in.): Last 24 ho			
Latitutde:		Longitude:		GPS Unit:	GPS LN	1K #:
Camera:				Photo #s:		
•	nage Area (Check all t	nat apply):				
A-Industrial				Open Space		
Ultra-Urban R	esidential			☐ Institutional		
Suburban Resi	dential			Other:		
☐ Commercial				Known Industrie	s:	
	n of outfall, if known):					
Section 2: Outf	all Description	ERIAL		SHAPE	DIMENSIONS (IN.) SUBMERGED
LOCATION	RCP	₹ CMP	Circular	Single	Diameter/Dimensions:	In Water;
		"	,	/	36"	No
	□ PVC	HDPE	☐ Eliptical	☐ Double		_ ☐ Partially ☐ Fully
Closed Pipe	☐ Steel		Box	Triple		With Sediment:
	Other:		Other:	Other:		No ☐ Partially ☐ Fully
	Concrete		☐ Trapezoid	and the first of the second	Depth:	
	☐ Earthen		250-000 N		9420 13 48	
Open drainage	☐ rip-rap		☐ Parabolic		Top Width:	
	Other:		Other:		Bottom Width:	
☐ In-Stream		vhen collecting	samples)			
Flow Present?	Yes	□ No		Skip to Section 5		
Flow Description (If present)	☐ Trickle	Moderate	Substantial		an a	
Section 3: Quar	ıtitative Charact	erization				
occion 5. Quai	inative charact	CHEATION	FIELD DATA FO	R FLOWING OUTFAL	LS	
PA	RAMETER		RESULT		UNIT	EQUIPMENT
	Volume	CONTRACTOR OF THE PARTY OF THE	F-400		Liter	Bottle
□Flow#1	Time to fill		WHAT S.J. 1195-7-151-15 - 15-15-15-15		Sec	Terror of the second se
	Flow depth				In	Tape measure
	Flow width		3% 33%		Ft, In	Tape measure
□Flow #2	Measured lengt	h	, ,,		Ft, In	Tape measure
	Time of travel				S	Stop watch
T	emperature				°F	Thermometer
244 - 00 - 00	pH		***************************************		pH Units	Test strip/Probe
	Ammonia				mg/L	Test strip



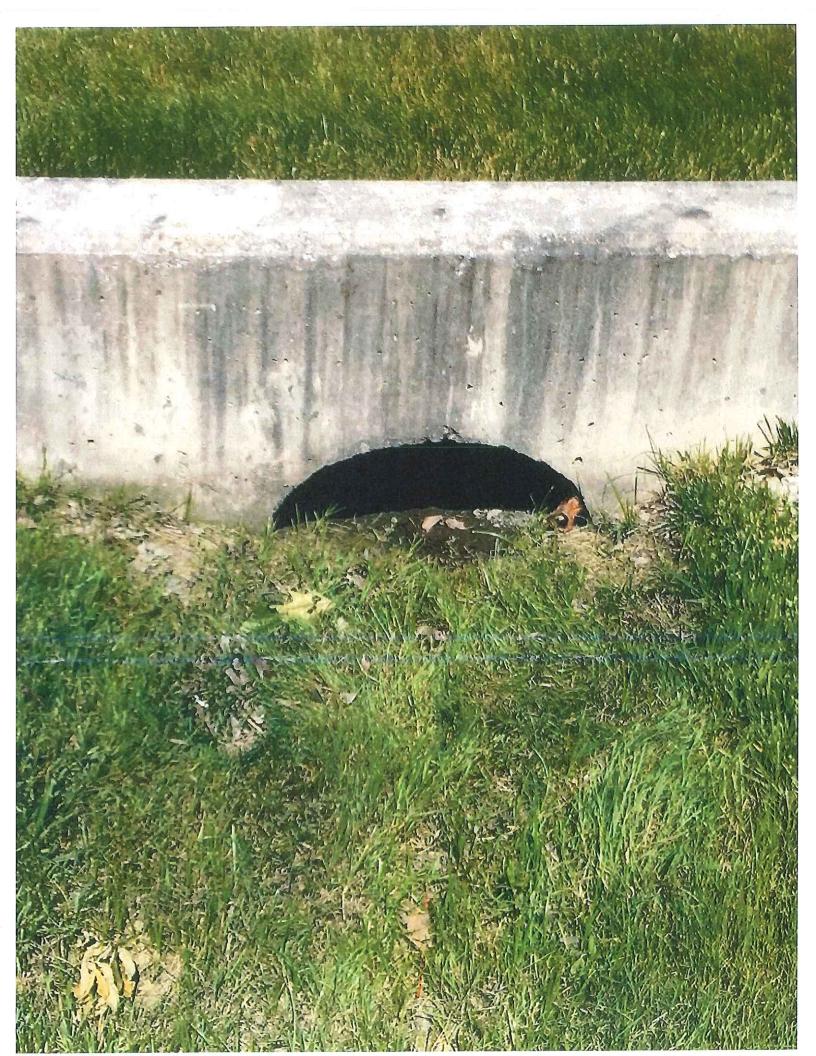
Section 1: Backg	round Data				Manager and the second	
Subwatershed:				Outfall ID: 5-	T333 L	
Today's date:	6/13/	16		Time (Military):	0930	
Investigators:	J MUM	les!	1 - 4 11 - 11 - 11 - 11 - 11 - 11	Form completed by:	J. Miwell	
Temperature (°F):	640		all (in.): Last 24 hours:	Last 48 hours:	Ø	
Latitutde:	Long	gitude:	Commence of the second	GPS Unit:	GPS LMK #	:
Camera:				Photo #s:	A NAME AND THE OWNER OF THE OWNER OWNE	
Land Use in Drainag	ge Area (Check all that appl	y):				6
Industrial				Open Space		
☐ Ultra-Urban Res	idential			☐ Institutional		
☐ Suburban Reside	ential			Other:		
☐ Commercial				Known Industries: _		
Notes (e.g, origin o	of outfall, if known):					
					AND THE RESERVE OF THE PARTY OF	
Section 2: Outfal						
LOCATION	MATERIAI			APE	DIMENSIONS (IN.)	SUBMERGED
	Three [CMP /	Circular	Single	Diameter/Dimensions:	In Water:
	′ □ PVC □	HDPE	☐ Eliptical	☐ Double	T2	☐ Partially ☐ Fully
Closed Pipe	☐ Steel		☐ Box	☐ Triple		With Sediment:
/\	Other:		☐ Other:	☐ Other:	15 E	□ No
						Partially Fully
	☐ Concrete					
	☐ Earthen		☐ Trapezoid		Depth:	
Open drainage	☐ rip-rap		☐ Parabolic		Top Width:	
			☐ Other:		Bottom Width:	
Пт. Оф.,,,,,	(applicable when co	Heating (samples)			<u> </u>
In-Stream	Yes	No.		ip to Section 5		
Flow Present? Flow Description				p to Bection 5		
(If present)	☐ Trickle ☐	Moderate	Substantial			
Section 3: Quant	itative Characteriza	tion				
			FIELD DATA FOR F	LOWING OUTFALLS		
PAR	RAMETER		RESULT	, and the second	JNIT E	QUIPMENT
DEI#1	Volume				Liter	Bottle
□Flow#1	Time to fill				Sec	
	Flow depth				In T	ape measure
□Flow #2	Flow width		,			`ape measure
	Measured length		,,			ape measure
	Time of travel				S	Stop watch
Ter	nperature				°F T	Thermometer
	pH			pI	I Units Te	est strip/Probe
٨	mmonia				me/L	Test strip



Subwatershed:				Outfall ID:	ST537			
Today's date:	6/13/16		2. 2010.01 (2000)	Time (Military):	1005			
Investigators:	J. Milved			Form completed by:	J-McWell	/		
Temperature (°F):	650	Rainf	all (in.): Last 24 hours:	Last 48 hours:	Ø			
Latitutde:		Longitude:		GPS Unit:	GPS	LMK #:		
Camera:				Photo #s:				
Land Use in Drain	age Area (Check all th	at apply):						
☐ Industrial				Open Space		•		
☐ Ultra-Urban Ro	esidential			☐ Institutional				
Suburban Resi	dential			Other:				
☐ Commercial				Known Industries:				
	of outfall, if known):							
	CONT.					MARKET MAN TO TAKE A POST OF THE PARTY OF TH		
Section 2: Outf				W-22 22				
LOCATION		ERIAL		APE	DIMENSIONS ()			
	RCP	⊠(CMP	☐ Circular	Single	Diameter/Dimensions:	In Water: ☐ No		
	□ PVC	☐ HDPE	☐ Eliptical	☐ Double	36''	Partially ☐ Fully		
Closed Pipe	☐ Steel		Вох	☐ Triple		With Sediment:		
	Other:		☐ Other:	Other:		□ No		
		(4)				⊠Partially ☐ Fully		
	☐ Concrete				D. J.			
	☐ Earthen		☐ Trapezoid		Depth:			
Open drainage	☐ rip-rap		☐ Parabolic		Top Width:			
	Other:		☐ Other:	Bottom Width:				
☐ In-Stream		hen collecting	samples)			X////////////////////////////////		
Flow Present?	☐ Yes	2 00	THE RESERVE THE PARTY OF THE PA	p to Section 5				
Flow Description				P 10 200				
(If present)	☐ Trickle	☐ Moderate	Substantial					
Section 3: Quar	ntitative Characte	erization						
TOURS OF THE PROPERTY OF THE P			FIELD DATA FOR F	LOWING OUTFALLS				
PA	RAMETER		RESULT	,	JNIT	EQUIPMENT		
	Volume				Liter	Bottle		
□Flow#1	Time to fill				Sec			
	Flow depth		And the second second		In	Tape measure		
Пп. //о	Flow width		2 22	1	Ft, In	Tape measure		
Flow #2 Measured length ""			, <u>, , , , , , , , , , , , , , , , , , </u>	1	Ft, In	Tape measure		
	Time of travel				S	Stop watch		
Te	emperature				°F	Thermometer		
	pН			pI	l Units	Test strip/Probe		



Section 1: Backgr	round Data			Outfall ID:	ST421		
Today's date:	(1211			Time (Military):	1020		
Investigators:	5/13/16			Form completed b	The state of the s	1	
Temperature (°F):	6/13/16 5. M-Neil 65°	Rainfa	all (in.): Last 24 hour			,t 1	
Latitutde:		ongitude:		GPS Unit:		GPS LMK #	
Camera:			Address of the Control of the Contro	Photo #s:			
	ge Area (Check all that ap	ply):				to mind it grows	-
☐ Industrial		±0.35.00		Open Space			
☐ Ultra-Urban Resi	idential			☐ Institutional			
☑ Suburban Resider							
	littai						
Commercial	C 10 11 101			Known maustres.			
Notes (e.g, origin o	f outfall, if known):						
Section 2: Outfal	I Description						
LOCATION	MATERIA	AL		SHAPE	DIMENSIO	NS (IN.)	SUBMERGED
10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	RCP	CMP	Circular	Single	Diameter/Dimens	ions:	In Water:
	□ PVC □	HDPE	☐ Eliptical	☐ Double	24"		Partially
Closed Pipe	☐ Steel		Вох	☐ Triple			☐ Fully
,	Other:		Other:	☐ Other:			With Sediment:
							Partially Fully
	☐ Concrete						
	☐ Earthen		☐ Trapezoid		Depth:		
☐ Open drainage			☐ Parabolic	Top Width:			
	☐ rip-rap		☐ Other:	Bottom Width:			
	Other:	ur ska					<u> </u>
☐ In-Stream	(applicable when						
Flow Present?	☐ Yes	X,No	If No,	Skip to Section 5			
Flow Description (If present)	☐ Trickle ☐	Moderate	e Substantial		10.00		
Section 3: Quant	itative Characteriz	ation					
			FIELD DATA FOR	R FLOWING OUTFALL	s		
PAR	RAMETER		RESULT		UNIT	E	QUIPMENT
	Volume				Liter		Bottle
□Flow#1	Time to fill				Sec		
	Flow depth		200000000000000000000000000000000000000		In	T	ape measure
- Int #0	Flow width		""		Ft, In	Т	ape measure
Flow #2 Measured length ,,		27		Ft, In	Т	ape measure	
	Time of travel				S	i i	Stop watch
Ter	nperature				°F	Т	hermometer
	pH				pH Units	Те	st strip/Probe
Δ	mmonia				mg/L		Test strip

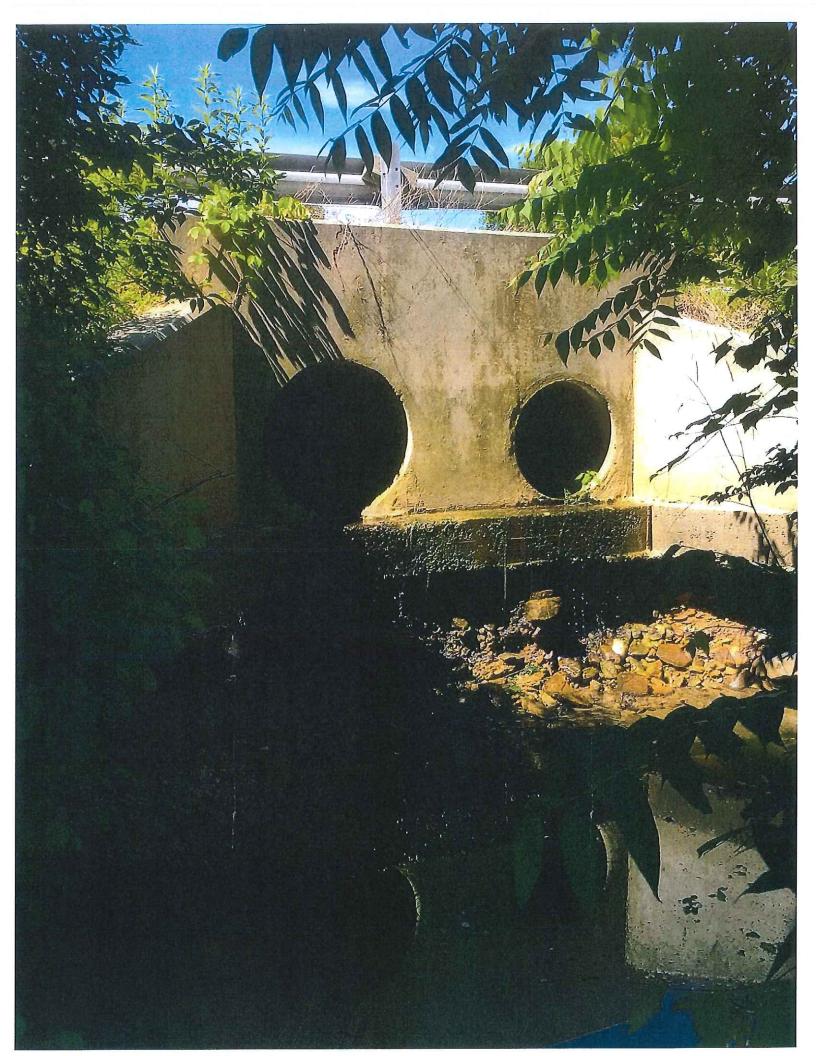


Subwatershed:				Outfall ID: 5T 392					
Today's date:	6/13/16			Time (Mil	itary):	1040			
Investigators:	J.M. We	11	7	Form completed by: J. M. N.					
Temperature (°F):	6/13/16 J. M. We	Rainfa	all (in.): Last 24 hours:						
Latitutde:		gitude:		-GPS Unit: GPS LMK #:					
Camera:				Photo #s:					
Land Use in Drainage	e Area (Check all that app	ly):							
☐ Industrial				Open S	Space			20	
☐ Ultra-Urban Resid	lential			☐ Institut	tional				
Suburban Residen	tial			Other:					
☐ Commercial		Known In							
Notes (e.g, origin of	outfall, if known):	Visit							
Section 2: Outfall LOCATION	Description MATERIA		CL	IAPE	W 718	DIMENSI	ONE (TN)	SUBMERGED	
LOCATION			Circular						
	2	CMP		☐ Single		Diameter/Dimer		In Water:	
	□ PVC □	HDPE	☐ Eliptical	Double		JA AM	0)0	☐ Partially ☐ Fully	
Closed Pipe	☐ Steel		Вох	Triple				S 50	
Y 8	Other:		Other:	Other:				With Sediment: No Partially Fully	
	☐ Concrete		П.,			D .			
	☐ Earthen		☐ Trapezoid			Depth:			
Open drainage	☐ rip-rap		☐ Parabolic			Top Width:			
	Other:		Other:			Bottom Width:			
☐ In-Stream	(applicable when co	ollecting s	samples)						
Flow Present?	Yes	□ No	If No, Sk	ip to Section 5	B	BOTH F	PES		
Flow Description (If present)	□ Trickle □	Moderate	Substantial						
ection 3: Quantit	ative Characteriza	tion		1)					
			FIELD DATA FOR F	LOWING OU	TFALLS				
PARA	METER		RESULT		U	NIT	EQ	UIPMENT	
DElow #1	Volume				L	iter		Bottle	
□Flow#1	Time to fill					Sec			
	Flow depth					In	Ta	pe measure	
Flow #2 Flow width Measured length		- ,			F	t, In	Ta	pe measure	
		,			F	t, In	Ta	pe measure	
Time of travel)	S	S	top watch	
Temp	perature				1	°F	Th	ermometer	
	pH				.pu	Units	Tec	t strip/Probe	

Ammonia

mg/L

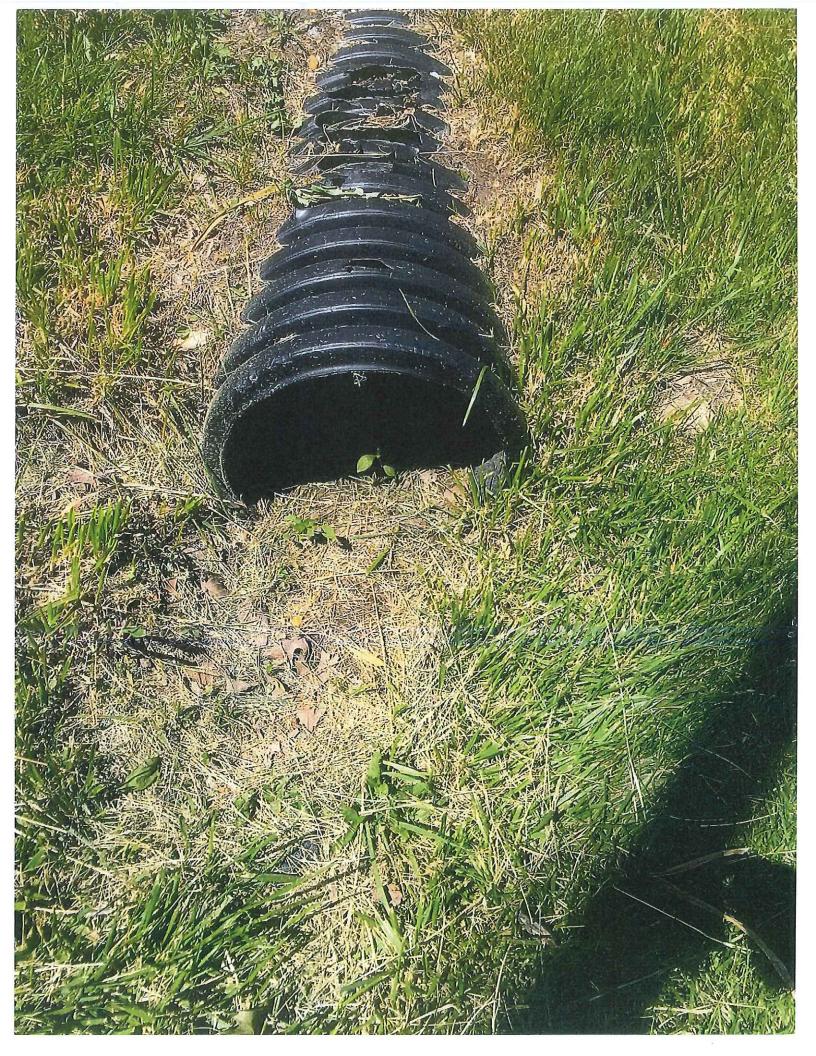
Test strip



Section 1: Back	ground Data						
Subwatershed:		2000		Outfall ID:	561		
Today's date:	6/13/ 5/Med 67°	16.		Time (Military):	1045 5.n.a		100 Mar and 100 Mar
Investigators:	J.M.	les!		Form completed by	y: J.M.a	Jes 1	
Temperature (°F):	67"	Rainf	all (in.): Last 24 hours	s: B Last 48 hours	: <i>P</i>		
Latitutde:		Longitude:		GPS Unit:		GPS LMK #	:
Camera:				Photo #s:			
Land Use in Drain	age Area (Check all th	at apply):					
☐ Industrial				Open Space		50	
☐ Ultra-Urban Re	esidential			☐ Institutional			
Suburban Resid	dential			Other:			
☐ Commercial				Known Industries:			
Notes (e.g, origin	of outfall, if known): all Description						
LOCATION		ERIAL	S	HAPE	DIMENSIO	NS (IN.)	SUBMERGED
	□ RCP	É-CMP	☑ Circular	⊠ Single	Diameter/Dimens	ions:	In Water:
	☐ PVC	☐ HDPE	/ ☐ Eliptical	☐ Double			≥⁄No □ Partially
Closed Pipe	☐ Steel		Вох	☐ Triple	* Unmensu	ruble	☐ Fully
TICIOSCA I IV	Other:		☐ Other:	☐ Other:			With Sediment:
	Outer						Partially Fully
	☐ Concrete		☐ Trapezoid		Depth:		
	☐ Earthen						
Open drainage	☐ rip-rap		☐ Parabolic		Top Width:		
	Other:	and the second s	Other:		Bottom Width:		
☐ In-Stream	(applicable w	hen collecting	samples)				XIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Flow Present?	☐ Yes	OME	If No, S	Skip to Section 5			
Flow Description (If present)	☐ Trickle	☐ Moderate	e				
Section 3: Quar	ntitative Characte	erization					
				FLOWING OUTFALLS			
PA	RAMETER		RESULT		UNIT	E	QUIPMENT
□Flow#1	Volume				Liter		Bottle
	Time to fill				Sec		
-	Flow depth		W 45		In		ape measure
□Flow #2	Flow width		, , , , , , , , , , , , , , , , , , , ,		Ft, In		ape measure
Measured length'		, ,,,,		Ft, In		ape measure	
	Time of travel				S °F		Stop watch Thermometer
Te	emperature		21-72-7			-	st strip/Probe
	pH Ammonia			I	oH Units	16	Test strin



Section 1: Back	ground Data								
Subwatershed:				Outfall ID:	ST331				
Today's date:	9			Time (Military):	1106				
Investigators:	J. M. No 66°	Ji		Form completed by	5. MiNe	il			
Temperature (°F):	66"	Rainf	all (in.): Last 24 hours:	ours: & Last 48 hours: &					
Latitutde:		Longitude:		GPS Unit:		GPS LMK#			
Camera:				Photo #s:					
Land Use in Drain	age Area (Check all that	t apply):					fe fe		
☐ Industrial				☐ Open Space					
Ultra-Urban R	esidential			☐ Institutional			n c		
Suburban Resi	dential			Other:					
☐ Commercial				Known Industries:					
	a of outfall, if known): all Description								
LOCATION		RIAL	SH	IAPE	DIMENSIO	NS (IN.)	SUBMERGED		
	RCP	☐ CMP	Circular	Single	Diameter/Dimens	ions:	In Water:		
	□ PVC	[XHDPE	☐ Eliptical	Double	18"		j⊉√No □ Partially		
M (11 1):	☐ Steel	7	Вох	☐ Triple			☐ Fully		
Closed Pipe	The state of the s			System to see to the control of the			With Sediment:		
	Other:		Other:	Other:			No ☐ Partially ☐ Fully		
	☐ Concrete		☐ Trapezoid		Depth:				
Towns to the	☐ Earthen								
Open drainage	☐ rip-rap		☐ Parabolic		Top Width:				
	Other:		Other:	Bottom Width:					
☐ In-Stream	(applicable wh	en collecting	samples)			THEY PAR	<u> </u>		
Flow Present?	☐ Yes)Z(No	If No, Sk	ip to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate	e 🔲 Substantial						
Section 3: Quar	ntitative Character	rization	ETEL D DATA EOD E	LOWING OUTFALLS					
D/I	ARAMETER		RESULT		UNIT	FC	QUIPMENT		
	Volume		REGOLI		Liter		Bottle		
□Flow#1	Time to fill		2000-20		Sec	0-42			
	Flow depth				In	Т	ape measure		
	Flow width		5 55		Ft, In		ape measure		
TFlow #2		, ,,		Ft, In		ape measure			
Time of travel				S S		Stop watch			
T	emperature				°F		hermometer		
1	pH			r	oH Units	~	st strip/Probe		
	Ammonia		- 15 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	r	mg/L		Test strip		



Section 1: Back	ground Data									
Subwatershed:				Outfal	11 ID:					
Today's date:				Time ((Military):					
Investigators:				Form	completed by:					
Temperature (°F):		Rainf	all (in.): Last 24 hours:	L	ast 48 hours:					
Latitutde:		Longitude:		GPS Unit: GPS LMK #:						
Camera:				Photo #s:						
Land Use in Draina	nge Area (Check all tha	at apply):								
☐ Industrial				□Ор	en Space					
Ultra-Urban Re	sidential			☐ Ins	stitutional					
☐ Suburban Resid	ential			Other:	-	Misson Commission				
☐ Commercial				Knowi	n Industries: _					
Notes (e.g, origin	of outfall, if known):	V								
Section 2: Outfa										
LOCATION	MATE			APE		DIMENSIO		SUBMERGED		
	RCP	☐ CMP	☐ Circular	☐ Single		Diameter/Dimen	sions:	In Water:		
	□ PVC	HDPE	☐ Eliptical	☐ Doubl	le			☐ Partially ☐ Fully		
☐ Closed Pipe	☐ Steel		Box	☐ Triple	į			With Sediment:		
	Other:		☐ Other: ☐ O		:			□ No		
								Partially Fully		
	☐ Concrete					D. d.				
	☐ Earthen		☐ Trapezoid			Depth:				
Open drainage	□ гір-гар		Parabolic	Parabolic Top Width:			=			
	Other:		☐ Other:	Bottom Width:						
☐ In-Stream	(applicable wh	en collecting	samples)		ATTENDED			<u> </u>		
Flow Present?	☐ Yes	□ No	If No, Skip	n to Section	n 5					
Flow Description (If present)	☐ Trickle	☐ Moderate		41						
Section 3: Quant	titative Characte	rization								
			FIELD DATA FOR FL	.owing	OUTFALLS					
PAF	RAMETER		RESULT		U	NIT	EÇ	QUIPMENT		
□Flow#1	Volume				I	Liter		Bottle		
LIFIOW#1	Time to fill				;	Sec				
	Flow depth				55	In	Tε	ape measure		
□Flow #2	Flow width'		, "		F	t, In	Та	npe measure		
LITION #2	, Measured length		2 22		F	Ft, In T		npe measure		
	Time of travel				S Stop watch			stop watch		
Ter	mperature				× ×	°F	Th	nermometer		
	pН				pН	Units	Tes	st strip/Probe		

mg/L

Test strip

Section 1: Back	kground Data			1000					
Subwatershed:				Outfall ID:					
Today's date:			2002000	Time (Military):					
Investigators:				Form completed by	:				
Temperature (°F)	:	Raint	fall (in.): Last 24 hours:	Last 48 hours:					
Latitutde:		Longitude:		GPS Unit: GPS LMK #:					
Camera:				Photo #s:					
Land Use in Drain	nage Area (Check all th	at apply):							
☐ Industrial				☐ Open Space					
Ultra-Urban R	tesidential			☐ Institutional					
Suburban Resi	idential			Other:					
☐ Commercial				Known Industries:	ii)		1.000 - 1.1.0		
20 2000 000 00 0000	n of outfall, if known): fall Description				3				
LOCATION	MATI	ERIAL	SH	APE	DIMENSIO	NS (IN.)	SUBMERGED		
	□ RCP □ CMP □		☐ Circular	☐ Single	Diameter/Dimens	sions:	In Water:		
	□ PVC	☐ HDPE	☐ Eliptical	☐ Double	-		☐ No ☐ Partially		
☐ Closed Pipe	☐ Steel		Вох	☐ Triple			☐ Fully		
	Other:		Other:	Other:			With Sediment; ☐ No ☐ Partially ☐ Fully		
	☐ Concrete		Пт	4	D. d.				
	☐ Earthen		☐ Trapezoid		Depth:				
Open drainage	rip-rap		☐ Parabolic		Top Width:	=			
	Other:		Other:	Bottom Width:					
☐ In-Stream		hen collecting	samples)				<u> </u>		
Flow Present?	☐ Yes	□ No		p to Section 5					
Flow Description (If present)	☐ Trickle	☐ Moderate		*	1				
Section 3: Onar	ntitative Characte	rization							
section 5. Quar	terrative Characte	112211011	FIELD DATA FOR F	LOWING OUTFALLS					
PA	RAMETER		RESULT		JNIT	EC	UIPMENT		
	Volume				Liter		Bottle		
□Flow#1	Time to fill				Sec				
	Flow depth				In	Ta	ipe measure		
	Flow width ""			₹t, In		ipe measure			
Flow #2 Measured length ""]	t, In	Та	pe measure			
Time of travel					S Stop watch				
T	emperature				°F	Th	nermometer		
3,4,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,	pН			pH	Units	Tes	t strip/Probe		
	Ammonia		3. 3. 11.00 (0.00)	r	ng/L		Test strip		

Section 1: Ba	ackgrou	nd Data									
Subwatershed:							all ID:				
Today's date:							Time (Military):				
Investigators:			572.0.1 = +734.91			Form	completed by	:			
Temperature (°	'F):			Rain	fall (in.): Last 24 hours	ours: Last 48 hours:					
Latitutde:			Longi	tude:		GPS Unit: GPS LMK #:					
Camera:						Photo	#s:				
Land Use in Dr	ainage Ar	ea (Check all th	at apply)):							
☐ Industrial						☐ Open Space					
☐ Ultra-Urban	Residenti	al				☐ Institutional					
Suburban R	esidential					Other					
☐ Commercial	L										
Notes (e.g, ori											
LOCATIO	NC	MATI	RIAL		SH	APE		DIMENSION	IS (IN.)	SUBMERGED	
ž z		RCP	☐ CN	νIP	☐ Circular	Single				In Water:	
		☐ PVC	□н	OPE	☐ Eliptical	☐ Doub				□ No □ Partially	
Closed Pipe		☐ Steel			Вох	☐ Triple				Fully	
		Other:			☐ Other:	☐ Other:				With Sediment:	
					Guier.	Other.	·			☐ No ☐ Partially ☐ Fully	
		☐ Concrete			☐ Trapezoid			D. J.			
10 1		☐ Earthen						Depth:			
Open drainag		☐ rip-rap			☐ Parabolic			Top Width:			
		Other:			☐ Other:	Bottom Width:					
In-Stream		(applicable wl	en colle	eting s	ramples)				THE WEST		
ow Present?		☐ Yes] No		p to Section	. 5				
low Description f present)		☐ Trickle	□Мо		☐ Substantial	o to Secuol	13				
ction 3: Qua	ntitativ	e Characte	rizatio	n .							
				T	FIELD DATA FOR FL	OWING	OUTFALLS				
P	ARAMET	ER			RESULT		U	NIT	EQ	UIPMENT	
Flow #1	Volume			L	iter	1000	Bottle				
] x 10 YY # 1	Time to fill				S	Sec					
		Flow depth						In	Taı	oe measure	
Flow #2		Flow width	_		"		Ft	, In		oe measure	
11.10W #Z	Ме	easured length	_	,				, In		e measure	
Time of travel						S		op watch			
0	Гетрегаtu	re					°F Thermometer				
	pН						pН	Units		strip/Probe	

mg/L

Test strip

Section 1: Bac	ekground Data							
Subwatershed:				Outfall ID:	Outfall ID:			
Today's date:					Time (Military):			
Investigators:					Form completed by:			
Temperature (°F)):	Rai	nfall (in.): Last 24 ho					
Latitude: Longitude:				GPS Unit:	CONTRACT TO CONTRACT OF THE CO			
Camera:				Photo #s:		GI U LIVIK II.		
Land Use in Drain	nage Area (Check all t	that apply):						
☐ Industrial				Open Space	☐ Open Space			
Ultra-Urban Residential				☐ Institutional	☐ Institutional			
☐ Suburban Residential				Other:	Other:			
☐ Commercial					Known Industries:			
Notes (e.g., origin	of outfall, if known):							
Section 2. O.46	-N.D. 1.11	No.						
Section 2: Outfa	an Description MAT	EDTAI	(1995年) (1985年) (1985年)	ndryn pro nasana regi	Note bar Superior series			
- 1 - 2 - 2 - 2 - 2 - 3 - 3 - 3 - 3 - 3 - 3	□ RCP			SHAPE			SUBMERGED	
	□ PVC	0.000	Circular	☐ Single	Diameter/Dim	ensions:	In Water:	
70 10	100 0000	☐ HDPE	☐ Eliptical	Double				
Closed Pipe	☐ Steel		Box	☐ Triple			☐ Fully	
	Other:		☐ Other:	☐ Other:			With Sediment: No Partially	
	☐ Concrete						☐ Fully	
-	☐ Earthen		☐ Trapezoid ☐ Parabolic		Depth:	Depth: Top Width:		
Open drainage	☐ rip-rap				Top Width:			
	Other:		☐ Other:		Bottom Width:	Bottom Width:		
		en collecting s	amnles)	The second state of the second	1	100 m. Tokada Alban		
ow Present?	☐ Yes	□ No	ing samples) No If No, Skip to Section 5					
ow Description f present)	☐ Trickle	☐ Moderate		kip to section 3				
ction 3: Quanti	itative Character	rization						
			FIELD DATA FOR	FLOWING OUTFALL	S	ng Garage	ring in the second	
PAR	AMETER		RESULT	10 13 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	UNIT	EQU	IPMENT	
]Flow #1	Volume				Liter		Bottle	
]Flow #2	Time to fill				Sec		*	
	Flow depth				In	Tape measure		
	Flow width	The state of the s			Ft, In	Tape measure		
	Measured length				Ft, In	Tape measure		
	Time of travel				S		Stop watch	
Temperature				°F		Thermometer		
рН			pl	pH Units		Test strip/Probe		
Ammonia				mg/L	Test strip			