

ATTACHMENT #2



Town of Emmitsburg

2018/2019 Outfall Screening Report

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>CMR1</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>840</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>56°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.698855</u>	Longitude: <u>-77.317819</u>	GPS Unit: <u>Trimble</u>	GPS LMK #: _____
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>CMR1</u>	
Land Use in Drainage Area (Check all that apply):			
<input checked="" type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g... origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____ In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input checked="" type="checkbox"/> Open drainage	<input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input checked="" type="checkbox"/> Other: _____	Depth: <u>29"</u> Top Width: <u>48"</u> Bottom Width: <u>1'</u>	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume	Liter	Bottle	
	Time to fill	Sec		
<input type="checkbox"/> 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	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Visible brown overflow, No clear path to stream

Outfall CMR1 (9/25/19)



Town of Emmitsburg
2019 IDDE Outfall Inspections

ALWL Project No. 2178.002.001

OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>CMR2</u>	
Today's date: <u>4/26/19</u>		Time (Military): <u>0911</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>58°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>34.698864</u>	Longitude: <u>-77.318385</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>CMR2</u>	
Land Use in Drainage Area (Check all that apply):			
<input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>16"</u> In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume	Liter	Bottle	
	Time to fill	Sec		
<input type="checkbox"/> 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	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall CMR2 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>CMR3</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>9:24AM</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>62°F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.700011</u>	Longitude: <u>-77.320076</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>CMR3</u>	
Land Use in Drainage Area (Check all that apply):			
<input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>16"</u> In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully
<input checked="" type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input checked="" type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input checked="" type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input checked="" type="checkbox"/>	<input type="checkbox"/> Only <input checked="" type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall CMR3 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>CMR4</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>9:30 AM</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>62°F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.700067</u>	Longitude: <u>-77.320154</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>CMR4</u>	
Land Use in Drainage Area (Check all that apply):			
<input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume	Liter	Bottle	
	Time to fill	Sec		
<input type="checkbox"/> 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	
Ammonia		mg/L	Test strip	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	looks new
Deposits/Stains	<input checked="" type="checkbox"/>	<input type="checkbox"/> Oily <input checked="" type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	faint
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Intermittent flow trap set? <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

Outfall CMR4 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>CMRS</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>9:45AM</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>64°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.699792</u>	Longitude: <u>-77.320375</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>CMRS</u>	
Land Use in Drainage Area (Check all that apply):			
<input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input checked="" type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>16"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool	
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall CMR5 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>CMR6</u>	
Today's date: <u>4/25/19</u>		Time (Military): <u>10:01 AM 1001</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>67°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.701704</u>	Longitude: <u>-77.322474</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Sony S7 Edge</u>		Photo #: <u>CMR6</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input checked="" type="checkbox"/> Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input checked="" type="checkbox"/> PVC ^{x1} <input type="checkbox"/> HDPE <input checked="" type="checkbox"/> Steel ^{x2} <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input checked="" type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>12"</u> In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, type:</i> <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall CMR6 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>ELA1</u>	
Today's date: <u>9/28/19</u>		Time (Military): <u>1049</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>80° F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.701899</u>	Longitude: <u>-77.324067</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>ELA1</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>10"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	Crack in pipe
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall ELA1 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>ELA2</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>1156</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>76° F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.701793</u>	Longitude: <u>-77.327036</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>ELA2</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: <u>Conservation/Recreation (C-R)</u>	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input checked="" type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>6"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall ELA2 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>ELA3</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>12:04 AM</u> 13:04	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>76°F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.702015</u>	Longitude: <u>-77.327459</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>ELA3</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: <u>Conservation/Recreation (C-R)</u>	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> CP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: <u>Clay</u>	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____ <input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>16"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	Crack in pipe
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other	

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If Yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall ELA3 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>ELA 4</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>12:07 PM</u> <u>13:07</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>76°F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.702034</u>	Longitude: <u>-77.327594</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Sansung S7 Edge</u>		Photo #s: <u>ELA 4</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: <u>Conservation/Recreation (C-R)</u>	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> PVC <input type="checkbox"/> PVC <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Other: <u>Clay</u>	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>16"</u> In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

excessive sediment build up

Outfall ELA4 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>EMS1</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>10:20</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>69°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.702788</u>	Longitude: <u>-77.319312</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>EMS1</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: <u>Conservation/Recreation (C-R)</u> Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

Are Physical Indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION		COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Corrosion	<input type="checkbox"/> Peeling Paint	looks new
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line	<input type="checkbox"/> Paint <input type="checkbox"/> Other	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive	<input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Suds	<input type="checkbox"/> Colors <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Other	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange	<input type="checkbox"/> Green <input type="checkbox"/> Other	

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam		

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

Outfall EMS1 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>EMS2</u>	
Today's date: <u>9/25/11</u>		Time (Military): <u>10:28</u>	
Investigators: <u>DSP/SAR</u>		Form completed by: <u>DSP/SAR</u>	
Temperature (°F): <u>69°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.70273</u>	Longitude: <u>-77.318952</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>EMS2</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: <u>Conservation/Recreation (C-R)</u> Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall EMS2 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>STA 1</u>	
Today's date: <u>4/25/19</u>		Time (Military): <u>10:55AM</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>72°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.701195</u>	Longitude: <u>-77.324131</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>STA1</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

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

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall STA1 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>STA 2</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>11:12 AM</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>74°</u>	Rainfall (in.): Last 24 hours: <u>0</u>	Last 48 hours: <u>0</u>	
Latitude: <u>39.701544</u>	Longitude: <u>-77.326113</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>STA2</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input checked="" type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>42"</u> Depth: _____ Top Width: _____ Bottom Width: _____
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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		<u>18°C</u>	°F	Thermometer
pH		<u>8</u>	pH Units	Test strip/Probe
Ammonia		<u>0.25</u>	mg/L	Test strip
Nitrate/Nitrite		<u>3/0</u>	ppm	
Phosphate		<u>5</u>	ppm	
Total Chlorine Res		<u>0</u>	ppm	

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No

(If No, Skip to Section 5)

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

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

Are physical indicators that are not related to flow present? ☐ Yes ☐ No

(If No, Skip to Section 6)

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool <input type="checkbox"/> Intermittent flow trap set? <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

Outfall STA2 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>TMR1</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>1:49 PM 13:49</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>78°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.707956</u>	Longitude: <u>-77.332441</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>TMR1</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: <u>Low Density Residential (R-1)</u>	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input checked="" type="checkbox"/> RCP <input checked="" type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>66"</u> In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall TMR1 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>WLD1</u>	
Today's date: <u>4/25/19</u>		Time (Military): <u>12:48pm</u> 13:48	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>77°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.702796</u>	Longitude: <u>-77.330388</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>WLD1</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input checked="" type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
<input checked="" type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: <u>14"</u>	In Water: <input checked="" type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall WLD1 (9/25/19)



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>WLD2</u>	
Today's date: <u>4/25/19</u>		Time (Military): <u>1257</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>77°F</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.70251</u>	Longitude: <u>-77.330722</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #s: <u>WLD2 & WLD2(1)</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial		<input type="checkbox"/> Open Space	
<input type="checkbox"/> Ultra-Urban Residential		<input type="checkbox"/> Institutional	
<input type="checkbox"/> Suburban Residential		Other: _____	
<input type="checkbox"/> Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input checked="" type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input checked="" type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____		Depth: <u>3'5"</u> Top Width: <u>5'4"</u> Bottom Width: <u>1'10"</u>	
<input type="checkbox"/> In-Stream	(applicable when collecting samples)				
Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If No, Skip to Section 5</i>				
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER	RESULT	UNIT	EQUIPMENT	
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall WLD2 (9/25/19)
First Photograph



Outfall WLD2 (9/25/19)
Second Photograph



OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed: <u>Toms Creek</u>		Outfall ID: <u>WLD3</u>	
Today's date: <u>9/25/19</u>		Time (Military): <u>1:18 PM 13:18 PM</u>	
Investigators: <u>DSP & SAR</u>		Form completed by: <u>DSP & SAR</u>	
Temperature (°F): <u>77°</u>	Rainfall (in.): Last 24 hours: <u>0</u> Last 48 hours: <u>0</u>		
Latitude: <u>39.703429</u>	Longitude: <u>-77.331113</u>	GPS Unit: <u>Trimble</u>	GPS LMK #:
Camera: <u>Samsung S7 Edge</u>		Photo #: <u>WLD3</u>	
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial		<input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: <u>High Density Residential (R-3)</u> Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
<input type="checkbox"/> 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
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow	<input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes	<input type="checkbox"/> No If Yes, type: <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

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

Outfall WLD3 (9/25/19)

