APPENDIX K
HONOLULU HARBOR OUTFALL MAPS

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APPENDIX L
OUTFALL RECONNAISSANCE INVENTPORY REPORTS

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Outfall	Date	Flow	Indicators	Overall Characterization	Notes
P 44/45-03	7/5/2012	None	Outfall damage from erosion, sediment and corrosion stains, healthy vegetation and fish	Potential	
P 41-03	7/5/2012	Moderate flow	Green benthic growth, outfall damage from erosion	Unlikely	
P 41-01	7/5/2012	None	Exposed pipe, sediment deposits, healthy pink coral		
P 38-04	7/5/2012	Moderate flow	Opaque turbidity, poor water quality due to sediment	Potential	1st upstream was wet with no flow or sediment. 2nd upstream was dry, no filter, and requires maintanence
P 38-01	7/5/2012	Moderate flow	Poor water quality with oil sheen	Potential	
P 37-02	7/5/2012	None	Algae deposits	Unlikely	Upstream trench drain wet
P 37-01	7/5/2012	Moderate flow	Slight cloudiness, viscous film on surface, brown benthic growth	Obvious	
P 36-01	7/6/2012	Moderate flow	Sediment deposits, floating fibers	Obvious	Chased upstream 4 manholes from Hawaiian Ice on Nico's side and fibers are plastic shards
P 35-05	7/6/2012	Moderate flow	Green benthic growth, healthy fish	Unlikely	1st and 2nd manhole had flow present, drains in parking lot were dry
P 35-03	7/6/2012	Substantial flow	Petroleum odor, slight cloudiness, floating debris	Suspect	1st manhole flow was 5 gal/min and had a petroleum odor and debris. 2nd manhole was a y-junction with a 5 gal/min flow, petroleum odor and sediemtn deposits
P 34-06	7/6/2012	None	None	Unlikely	Upstream stream had no flow
P 34-03	7/6/2012	None	Sediment deposits	-	
P 34-02	7/6/2012	None	None	-	
P 34-04	7/6/2012	None	None	Unlikely	
P 35-05	7/6/2012	None	None	Unlikely	
P 34-01	7/6/2012	None	Upstream drain only. Heavy sediment	Unlikely	Needs maintenance, no filter
P 33-01/02	7/6/2012	None	Upstream drain only. Sediment deposits	Unlikely	1st drain had sediment and no flow, 2nd drain had no flow, sediment, 1 inch of water and trash
P 32-04	7/6/2012	None	Upstream drain only. Sediment deposits	Unlikely	Standing water and sediment
P 32-03	7/6/2012	None	Upstream drain only. None	Unlikely	Standing water. Needs to be cleaned, construction debris and waste were stored on top of drain
P 32-02	7/6/2012	-	Upstream trench drain only. Oil stains and sediment deposits	Potential	Drain contains heavy sediment and petroleum odor. Vehicle parking lot above drain
P 31-03	7/6/2012	-	Upstream drain only. None	Unlikely	Standing water, milky substance floating
P 31-02	7/6/2012	None	Upstream drain only. None	Unlikely	Standing water
P 31-01	7/6/2012	None	Upstream drain only. Gravel and sediement deposits	Unlikely	Standing water

Outfall	Date	Flow	Indicators	Overall Characterization	Notes
P 26-01	7/16/2012	-	Sheen noted in harbor waters, ~6 inches of sediment in vault box	Unlikely	
P 25-02/01	7/16/2012	-	Dry, no sediment, no staining, no indicators of discharge	Unlikely	
P 24-01	7/16/2012	-	Clear water, active fish in receiving water, tidal debris inside vault box, 2-4" of organic matter and trash	Unlikely	
P 23-03	7/16/2012	-	Standing water, green flowline algae, sediment deposit, grate cover has potential to fall in vault box	Unlikely	
P 23-02	7/16/2012	-	Light sediment and dry	Unlikely	
P 23-01	7/16/2012	-	Light sediment, drain closest to outfall was wet, trash in receiving waters and drain away from outfall had light sediment	Unlikely	
P 22-01	7/16/2012	-	Drain had greasy spots on grate cover and was full of water. Drain by building had 4" sediment build up	Unlikely	
P 21-06	7/16/2012	-	Two pipes leading to outfall, one was plugged with sediment and a rag	Unlikely	
P 21-03	7/16/2012	-	Dry, sediment rich, box culvert	Unlikely	
P 20-01	7/16/2012	-	Heavy sediment accumulation, unable to move grate, ~3/4 of pipe full with sediment	Unlikely	
P 19-08	7/16/2012	-	Tidal influence of water, light sediment, tidal water has sheen- most likely from incident	Unlikely	
P 19-01	7/16/2012	-	Tidal water influences heavy trash build up, grate covered by metal plate	Unlikely	
P 12-1 to P12-5	7/16/2012	None	No indicators, minor trash	Unlikely	
P 05-01 to P 05-03 and P 05-UT	7/16/2012	None	No indicators, some light sediment in grates, trash at P 05-03, P 05-02 had cigarette butts	Unlikely	
P 51A-01	7/17/2012	None	1" of sediment inside pipe	Unlikely	
P 51A-02	7/17/2012	None	Light sediment	Unlikely	
P 51A-03	7/17/2012	None	None	Unlikely	
P 51B-01	7/17/2012	None	Barnacles in first 2-3 ft of pipe	Unlikely	
P 51B-02	7/17/2012	None	Barnacles	Unlikely	
P 51B-03	7/17/2012	None	Barnacles	Unlikely	
P 51C-01	7/17/2012	None	Barnacles	Unlikely	
P 51C-02	7/17/2012	Moderate Flow	Rust, odorless flow	Unlikely	
P 51C-03	7/17/2012	None	None	Unlikely	

Outfall	Date	Flow	Indicators	Overall Characterization	Notes
P 52-01	7/17/2012	None	Water in pipe but no flow	Unlikely	
P 52-01	7/17/2012	None	Staining	Potential	
P 52-02	7/17/2012	None	None	Unlikely	
P 52-02	7/17/2012	None	Sediment deposits	Unlikely	
P 53-01	7/17/2012	None	Barnacles and sediment deposits	Unlikely	
P 04-BOX	7/18/2012	None	Barnacles and shells	Unlikely	
P 04-01	7/18/2012	None	Wet inside pipe, no flow, small amount of sediment	Unlikely	
P 04-BOX	7/18/2012	None	None	Unlikely	
P 04-00	7/18/2012	None	Barnacles, shells and leaves inside	Unlikely	4-5 ft pipe potentially clogged with bricks
P 01-01	7/18/2012	None	None	Unlikely	Vibrant coral and fish in area
P 01-02	7/18/2012	-	None	Unlikely	Across from Sand Island sign "Do not anchor" closest to ocean
P 02-01	7/18/2012	None	Yes	Unlikely	
P 02-05	7/18/2012	None	Yes	Unlikely	
P 02-06	7/18/2012	None	Barnacles and shells	Unlikely	
P 02-11	7/18/2012	None	Barnacles and shells	Unlikely	
P 02-13	7/18/2012	None	Barnacles and shells	Unlikely	
P 03-02 and 24" outfall	7/18/2012	None	Barnacles and shells	Unlikely	
18" outfall	7/18/2012	Trickle	Yes	Unlikely	At NW corner of Pier 3 building
P 03-BOX	7/18/2012	None	Yes	Unlikely	Fully submerged, only partially visible when water lowers. Located at corner of P3 closest to road
P 15-01	7/18/2012	None	Garbage inside, appears to be clogged	Unlikely	
P 44/45-03	7/18/2012	None	Barnacles and shells	Unlikely	
P 44/45-04	7/18/2012	None	None	Unlikely	
P 44/45-02	7/18/2012	None	Outfall damage from cracking, chipping or spalling	Unlikely	
P 44/45-01	7/18/2012	None	None	Unlikely	
P 35-04	7/19/2012	None	None	Unlikely	Area around outfall is bermed unable to get close to see sediment build up, if any
P 35-03	7/19/2012	Moderate flow	None	Unlikely	
P 35-02	7/19/2012	Trickle	Barnacles and shells	Unlikely	
P 35-01	7/19/2012	None	White stains in pipe	Unlikely	

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	~~P35-05~~ P35-04
Today's date: 7/19/12		Time (Military): 0805	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: ~~300~~ 400	

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Area around outfall is fenced unable to get close to see Sediment buildup, if any.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[x] Closed Pipe	[ ] RCP [x] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[x] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[x] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 24" Can't see	In Water: 3/4 [ ] No [x] Partially [x] Fully With Sediment: ? [ ] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [x] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P35-03	
Today's date: 7/19/12		Time (Military): 0815	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 402	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Coming from offsite.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

Unable to get close to effluent

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

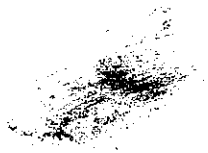
Are physical indicators that are not related to flow present? ☒ Yes ☒ No *(If No, Skip to Section 6)*

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?



OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P35-02	
Today's date: 7/19/12		Time (Military): 0825	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 404	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P35-01
Today's date:	7/19/12	Time (Military):	0830
Investigators:	KR	Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	405, 406

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P04 -1300
Today's date: 7/18/12		Time (Military):	0805
Investigators: AR		Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

#354, 355

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[ ] Circular [ ] Eliptical [X] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 8ft x 3ft deep	In Water: [ ] No ½ [X] Partially [ ] Fully With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P4-01
Today's date:	7/18/12	Time (Military):	0808
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

#356 Wet inside pipe, No flow

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P04 - Box	
Today's date: 7/18/12		Time (Military): 0813	
Investigators: AR		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

#357-358 Approx 20ft ~~E~~ East of P401

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 8ft x ~4ft deep	In Water: 4/5 ☐ No ☐ Partially ☒ Fully With Sediment: Can't see ? ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P4-00
Today's date:	7/18/12	Time (Military):	0815
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	359 - 360 - 361

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
4-5ft pipe potentially clogged w/ bricks

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: ~~36~~ 24"	In Water: [ ] No [ ] Partially [ ] Fully With Sediment: [ ] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P1-01	
Today's date: 7/18/12		Time (Military): 0835	
Investigators: MR		Form completed by: MR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 362	

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Vibrant Coral and fish in area

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P1-02
Today's date:	7/18/12	Time (Military):	0852
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	364

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Across from Sand Island Sign "DO NOT Anchor" closest to ocean

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P2-01	
Today's date: 7/18/12		Time (Military): 0907	
Investigators: MR		Form completed by: MR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 3568	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
At bend near P1+P2 elbow in back corner; 11"x10"x4" spray painted above

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: ~18" Can't see	In Water: [ ] No [ ] Partially [X] Fully With Sediment: ? [ ] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	42-05
Today's date:	7/18/12	Time (Military):	0920
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	369, 370

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	B2-06
Today's date:	7/18/12	Time (Military):	0925
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	372, 371

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P2-11	
Today's date: 7/18/12		Time (Military): 0930	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 373	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 24"	In Water: 1/3- [ ] No [X] Partially 1/2 [ ] Fully With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P2-13	
Today's date: 7/18/12		Time (Military): 0935	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 374	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 24"	In Water: [ ] No [X] Partially [ ] Fully (Y/3) With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P302 / P3-02-2 (24" outfall)
Today's date:	7/18/12	Time (Military):	0942
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	376, 377 (north), 378 (24" outfall) → P3-02

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Both are ~20ft from each other

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 24"	In Water: [ ] No [X] Partially [ ] Fully (Y/3) With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No	*If No, Skip to Section 5*			
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: 18th outfall	
Today's date: 7/18/12		Time (Military): 0952	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
@ NW Corner of Pier 3 Bldg ; ponding of water inside pipe

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P3-Box	
Today's date: 7/18/12		Time (Military): 0955	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 386 - 387	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

fully somerged, only ~~part~~ partially visible when water lowers Located at corner of P3 closest to road

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[ ] Circular [ ] Eliptical [X] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 3ft across Depth unknown	In Water: [ ] No [ ] Partially [X] Fully With Sediment: ? [ ] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P15-01	
Today's date: 7/18/12		Time (Military):	
Investigators: AR		Form completed by: 1025	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s: 391	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Garbage inside, looks clogged-

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: ____	[X] Single [ ] Double [ ] Triple [ ] Other: ____	Diameter/Dimensions: 8"	In Water: [X] No [ ] Partially [ ] Fully With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: ____	[ ] Trapezoid [ ] Parabolic [ ] Other: ____		Depth: ____ Top Width: ____ Bottom Width: ____	
[ ] In-Stream	(applicable when collectiug samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P44/45E – 03
Today's date:	7/18/12	Time (Military):	1100
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	392

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 18"	In Water: [ ] No [X] Partially [ ] Fully (1/3) With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P44/45 – 04
Today's date: 7/18/12		Time (Military):	1105
Investigators: ARL		Form completed by:	ARL
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	393

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P44/45 – 02
Today's date:	7/18/12	Time (Military):	1150
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	394

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	P44/45-01
Today's date:	7/18/12	Time (Military):	1115
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	395

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[x] Closed Pipe	[ ] RCP [x] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[x] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[x] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 12"	In Water: [x] No [ ] Partially [ ] Fully With Sediment: [x] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [x] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PSIA-01	
Today's date: 7/17/12		Time (Military): 1833	
Investigators: AP		Form completed by: AP	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [x] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Photo 329

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☒	☐ Oily ☐ Flow Line ☐ Paint ☒ Other: sediment	sediment and algae 1" inside pipe
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	PSI A-02
Today's date:	9/17/12	Time (Military):	0854
Investigators:	AL	Form completed by:	AL
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Photo #327, water inside pipe — no flow.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☒	☐ Oily ☐ Flow Line ☐ Paint ☐ Other: sediment	(sediment) and algae very little 1-2" inside pipe.
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PS1A-03	
Today's date: 7/17/12		Time (Military): 0900	
Investigators: MZ		Form completed by: MZ	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☒ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Photo 312, school fish present

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 36"	In Water: ☐ No ½ ☒ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PSI3-01	
Today's date: 7/17/12		Time (Military): 0907	
Investigators: AR...		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☒ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Pipe to 325-326 Barracades inside pipe first 2-3 ft

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 12"	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	PS1B-02
Today's date:	7/17/13	Time (Military):	0915
Investigators:	AR	Form completed by:	AR
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

8665 322

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 36"	In Water: [ ] No [X] Partially [ ] Fully ½ With Sediment: [X] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No *If No, Skip to Section 5*				
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	PS12-03
Today's date:	7/17/12	Time (Military):	0930
Investigators:	MR	Form completed by:	N
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- [X] Industrial
- [ ] Ultra-Urban Residential
- [ ] Suburban Residential
- [ ] Commercial
- [ ] Open Space
- [ ] Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

#331-335, Water inside pipe — no flow

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
[X] Closed Pipe	[ ] RCP [X] CMP [ ] PVC [ ] HDPE [ ] Steel [ ] Other: _____	[X] Circular [ ] Eliptical [ ] Box [ ] Other: _____	[X] Single [ ] Double [ ] Triple [ ] Other: _____	Diameter/Dimensions: 18½ 12-1	In Water: [X] No [ ] Partially [ ] Fully With Sediment: [ ] No [ ] Partially [ ] Fully
[ ] Open drainage	[ ] Concrete [ ] Earthen [ ] rip-rap [ ] Other: _____	[ ] Trapezoid [ ] Parabolic [ ] Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
[ ] In-Stream	(applicable when collecting samples)				
Flow Present?	[ ] Yes [X] No	*If No, Skip to Section 5*			
Flow Description (If present)	[ ] Trickle [ ] Moderate [ ] Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
[ ] Flow #1	Volume		Liter	
	Time to fill		Sec	
[ ] Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: DS1(--01	
Today's date: 7/17/12		Time (Military): 0935	
Investigators: AL		Form completed by: AL	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
#3536

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	PSLC-02
Today's date:	7/17/12	Time (Military):	0939
Investigators:	AL	Form completed by:	AL
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
#7357 ; Flow no odor

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 12"	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☒ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow #1	Volume	~1-2 gal / min	Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature		Ambient Temp	°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other: No odor.	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☒	☒ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)
Notes: Potential tidal influence due to low tide					

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PSIC-03	
Today's date: 2/17/12		Time (Military): 0950	
Investigators: AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
#1- 392, leaking water pipe nearby

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 4"	In Water: ☒ No ☐ Partially ☐ Fully With Sediment: ☒ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No	*If No, Skip to Section 5*			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Wrong ID on PSC

Section 1: Background Data

Subwatershed:		Outfall ID: PS2.-01	
Today's date: 7/17/12		Time (Military): 0957	
Investigators: MR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☒ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

343 1 Water in pipe -- No flow

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PS2-01 ?	
Today's date: 7/17/12		Time (Military): 1015	
Investigators:		Form completed by: AZ	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
#345

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 1 ft 2	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Not 3
PS2 PS2-02

Section 1: Background Data

Subwatershed:		Outfall ID: PS2-02	
Today's date: 7/17/12		Time (Military): 1017	
Investigators: MK		Form completed by: MK	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☑ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____ / ☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 4'	In Water: ☐ No ☑ Partially 2/3 ☐ Fully With Sediment: ? ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)			
Flow Present?	☐ Yes ☒ No	*If No, Skip to Section 5*		
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: DS2-09	
Today's date: 7/17/12		Time (Military): 1529	
Investigators: AZ		Form completed by: AZ	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

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Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☐ Single ☒ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 8-10 ft across 3ft deep	In Water: ☐ No ☒ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	D53-01
Today's date: 7/12/12		Time (Military):	1038
Investigators: MZ		Form completed by:	MZ
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☒ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

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Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 4'	In Water: ☐ No ☒ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☒ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P26-01	
Today's date: 7/16/12		Time (Military): 0908	
Investigators: MA, ACR, HDOT JG + J		Form completed by: Anthony Rodriguez	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Sheen noted in Harbor Waters ; ~6" of sediment in vault box
Inlet East of outfall has ~1" of sediment in vault

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P25-02 / 01 ?	
Today's date: 7/16/12		Time (Military):	
Investigators: AZR, MA		Form completed by: ACR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Dry, No sediment, No staining; No indicators of discharge

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PZ4-01	
Today's date: 7/16/12		Time (Military): 0930	
Investigators:		Form completed by: AER	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Clear water, active fish in receiving water
Tidal debris inside vault box, 2-4" of organic mater and trash

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: D23-03	
Today's date: 7/16/12		Time (Military): 0948	
Investigators: MA, ARR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: ______________________
- Known Industries: ______________________

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Standing water, green flowline algae, sediment in flowline, grate cover has potential to fall in, vault box

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: D23-02	
Today's date: 7/16/12		Time (Military): 1002	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Light Sediment (2"), dry,

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P23-01 ?	
Today's date:		Time (Military):	
Investigators: MA Herr		Form completed by: ACR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial	☐ Open Space
☐ Ultra-Urban Residential	☐ Institutional
☐ Suburban Residential	Other: _____
☐ Commercial	Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Light sediment; Drain closest to outfall was wet, trash in receiving waters. Drain away from outfall (second one) was lightly damp w/ light sediment.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	F22-01
Today's date:	7/16/12	Time (Military):	1025
Investigators:	MA AR	Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Drain had greasy parts on pallet over crate, full of water; could not lift
Drain by building had sediment build up (~4")

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P21-06	
Today's date: 7/16/17		Time (Military): 1035	
Investigators: MA AZZ		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
2 pipes leading to outfall, 1 was plugged shut w/ sediment and rag

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P21-03	
Today's date: 7/16/17		Time (Military): 1055	
Investigators: MA AR		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Dry, sediment rich (depth unknown), box culvert

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P20-01	
Today's date: 7/16/12		Time (Military): 1105	
Investigators:		Form completed by: ACR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Heavy sediment ~~accumulation~~, unable to remove grate, ~ 3/4 of pipe full of sediment.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P19-08	
Today's date: 7/16/12		Time (Military): 1122	
Investigators: MA AR		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Tidal influence of water, sediment buildup (light)
Tidal water had sheen - most likely from incident

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P19-01	
Today's date:		Time (Military): 1128	
Investigators: MA ACR		Form completed by: ACR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
Tidal Water influence, heavy trash buildup, accumulation of trash from tidal water; grate covered by metal plate.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P12-1 > P12-5	
Today's date: 7/16/12		Time (Military): 1135	
Investigators: MA AR		Form completed by: AR	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
No Indicators, No flow, Minor trash.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia		.	ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: ~~P05 - P01~~ ~~P02~~ P05-01 → P05-03	
Today's date: 7/12/12		Time (Military): 1145 P05-UT	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.
No flow indicators, some light buildup of sediment in spaces in parking lot
Trash at P05-03; P05-02 had cigarette butts

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: PB6-01	
Today's date: 7/6/12		Time (Military): 1010	
Investigators: JW		Form completed by: JW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

shards ~~was~~ upstream 4 manholes, candy from Hawaiian Ice machine on Nicos side. Fibers are plastic shards

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P35-05	
Today's date: 7/6/12		Time (Military): 1034	
Investigators: SW		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill	1 gal/min	Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Chased up stream
manhole 1: flow present
manhole 2: flow present, Y-junction
drain in p-lot: too heavy
2nd drain in p-lot: dry. → suspected: infiltration from cracked pipe.

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P35-03	
Today's date: 7/8/12		Time (Military): ~~1556~~ 1056	
Investigators:		Form completed by: SV	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow #1	Volume		Liter	
	Time to fill	5 gal/min	Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

1st manhole: 5 gal/min, petroleum odor (2), some debris

2nd manhole: Y-junction, 5 gal/min, petroleum odor (2), sediment deposits.

* let Highways know (#00240)

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: 234-06	
Today's date: 7/6/12		Time (Military): 1117	
Investigators: SW		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description could not see outfall

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

upstream stream - no flow

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P34-03	
Today's date: 7/6/12		Time (Military): 1120	
Investigators:		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P34-02	
Today's date: 7/6/12		Time (Military): 1121	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P34-04	
Today's date: 7/6/12		Time (Military): 1122	
Investigators:		Form completed by: JW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P35-05	
Today's date: 7/6/12		Time (Military): 1123	
Investigators:		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P34-01	
Today's date: 7/6/12		Time (Military): 1129	
Investigators:		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

Upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

needs maintenance, happy 50, no filter

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P33-01 or 02?	
Today's date: 7/6/12		Time (Military): 1133	
Investigators:		Form completed by: JC	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

1st drain - sediment, no flow

2nd drain - 1" of water (tidal?), trash, & sediment, no flow

Note: Roof drains enter this SD

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P32-04	
Today's date: 7/6/12		Time (Military): 1137	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream old drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

E1 standing water, sediment

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P32-03	
Today's date: 7/6/12		Time (Military): 1144	
Investigators:		Form completed by: JW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

standing water

* needs to be cleaned, plywood + construction debris/ waste stored on top of drain
Pasha or HSI or Harbors needs to clean

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: 832-02	
Today's date: 7/6/12		Time (Military): 1147	
Investigators:		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream french drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

French drain contains heavy sediment and petroleum odor. Car parking area above.

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P31-03	
Today's date:		Time (Military): 1152	
Investigators:		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

upstream drain: standing water, ~~oily~~ milky substance floating

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: 931-02	
Today's date: 7/6/12		Time (Military): 1454	
Investigators:		Form completed by: JW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

drain. standing water

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: 931-01	
Today's date: 7/6/12		Time (Military): 1156	
Investigators:		Form completed by: JW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description upstream drain only

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	
	Time to fill		Sec	
☐Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

drain. Standing water

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: D-44/45-03	
Today's date: 7/5/12		Time (Military): 935	
Investigators: SW, MA, JG, RL, BYZ		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 .05 in	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial	☐ Open Space
☐ Ultra-Urban Residential	☐ Institutional
☐ Suburban Residential	Other: _____
☑ Commercial	Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☑	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	erosion
Deposits/Stains	☑	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	~~sediment and algae~~ sediment, corrosion, trash
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	healthy mangroves
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	healthy school of fish
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P41-03	
Today's date: 7/5/12		Time (Military): 1006	
Investigators: SW, MA		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 .04	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P41-01	
Today's date: 7/5/12		Time (Military): 1011	
Investigators: [illegible]		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 0.04	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☑ Closed Pipe	☑ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☑ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☑ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: ~~36"~~ 24"	In Water: ☐ ~~No~~ ☑ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

1sf upstream: SD has no flow, some pebbles.

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P38-04	
Today's date: 7/5/12		Time (Military): 1039	
Investigators: SW		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 0.04	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

1st upstream - wet, but no flow, no sediment

2nd upstream - dry, filter in place - needs maintenance

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: D38-01	
Today's date: 9/5/12		Time (Military): 1052	
Investigators: SW		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 0.04	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P37-02	
Today's date: 2/5/12		Time (Military): 1107	
Investigators: JV		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 0.01	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

upstream trench drain wet. nearby spray overspray

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID: P37-01	
Today's date: 7/5/12		Time (Military): 1113	
Investigators:		Form completed by: SW	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0	Last 48 hours: 0 0.01	
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☑ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industries: _____

Notes (e.g.., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.

Section 2: Outfall Description

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

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

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

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

Notes: Potential tidal influence due to low tide

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

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

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

Section 6: Overall Outfall Characterization

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

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

closed upstream to SD b/t POP & ~~FIF~~ UFC. Flow present only from ~~FIF~~ UFC. Washdown of deck after fish chemistry occurring. New additions have been made to wash area that connect to 2nd sani inlet (nearest POP side). This sani valve only opens when outside hose is being used. Crew was using inside hose so bypassed sani connection leading to SD discharge.

APPENDIX M
HARBORS GROUND MAINTENANCE
SPILL CLEANUP LOG

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Appendix A

January 2012

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved

NO OIL SPILLS FOR JANUARY 2012

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II/STATE OF HAWAII/DOT/HARBOR DIVISION
OCG

Appendix A

February 2012

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved

NO OIL SPILLS REPORTED FOR FEBRUARY 2012

DON KAULEINAMOKU /MAINTENANCE AND REPAIR SUPERVISOR II/DOT/HARBOR DIVISION/ OCG

Appendix A

March 2012

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved

NO OIL SPRILLS TO REPORT FOR MARCH 2012 OR
DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II / STATE OF HAWAII/DEPARTMENT OF TRANSPORTATION/ HARBOR DIVISION/ SANITATION AND GROUND UNITS

Appendix A

MONTHLY SPILL LOG

April 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
4/16/12	USED OIL	1/4 QUART	UNKNOWN	NO		PIER 15 REFUSE CREW NOTICED OIL IN BOTTOM OF REFUSE CONTAINER. CLEANED SPILL WITH OIL PADS (4)

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II-SANITATION AND GROUNDS UNITS
DEPARTMENT OF TRANSPORTATION/STATE OF HAWAII/HARBOR DIVISION

FOR THE MONTH OF APRIL 2012

Appendix A

MAY 2012

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
5/10/12	AIR GAS FUMES	UNKWN.	AIR GAS COMPANY	N		PIER 40 YOUNG BROS.TIME 8:45am REPORT STREET SWEEPER OPERATERS AIR GAS FROM CONTAINER LEAKING CALLED HAR.ENVIROMENTAL SECTION & Y/B OPERATIONS MANAGER.AIR GAS COMP.ON SITE TURNED VALVE CLOSED TIME 10:30am

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II OF HAR/OCG HARBOR DIVISION
DEPARTMENT OF TRANSPORTATION STATE OF HAWAII

Appendix A

JUNE 2012

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
6/3/12	oil	1/4qrt.	unknown	n		time:8:20am labor crew cleaned oil under refuse container with 4-u degreaser,water,pads & dust absorbent at pier 37
6/3/12	oil	1/2qrt.	unknown	n		time:6:30am pier 36.labor crew cleaned oil under refuse can with 4-u degreaser,water,pads & dust absorbent.
6/3/12	oil	1/2qrt.	unknown	n		time:10:00am pier 16.labor crew claened oil under refuse container with 4-u degreaser, water,pads & dust absorbent.
6/3/12	oil	1/4qrt.	unknown	n		time:11:00am & 12:40pm pier 18 labor crew cleaned oil under refuse container with 4-u degreaser,water,pads & dust absorbent.
6/5/12	oil	1qrt.	unknown	n		time:7:40am pier 31 staging area.refuse crew cleaned oil spill coming from overturned a/c unit with 4-u,water,pads & dust absorbent.

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II OF /HAR-OCG
DEPARTMENT OF TRANSPORTATION / HARBOR DIVISION /SANITATION AND GROUND UNITS

Appendix A

MONTHLY SPILL LOG July 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
7/2/12	oil	1/4qrt	unknown	n		time 12:40pm labor crew , report oil spill at pier 18 containment center.cleaned spil with 4-u,pads,dust.
7/2/12	oil	5gl1n.	unknown	n		time7:00am janitor III report to sup.I oil spill at pier 18 containment center.sup.I respon 7:10am.area already contained by janitor III with oil dust. labor crew responed 7:35am. cleaned spill with 4-u,pads & dust absorbent.
7/13/12	oil	1/2gl.	unknown	n		pier 36 oil contaiment center time 9:00am labor crew cleaned oil spill from containment center with 4-U degreaser,water oil pads & dust absorbent.

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II OF HAR/OCG
DEPARTMENT OF TRANSPORTATION /HARBOR DIVISION / SANITATION AND GROUNDS UNITS

Appendix A

MONTHLY SPILL LOG August 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individual's Involved
8/16/12	OIL SPILL AT PIER 36 REFUSE [illegible] ENCLOSURE	1/4 QUART	N/A	NO		USED THREE(3) OIL PADS TO SOAK UP OIL USE DEGREASER AND OIL SPONGE AT THIS AREA BY SCRUBBING IN DEGREASER AND SPRINKLE OIL SPONGE AND SWEEP OIL SPONGE BACK AND FORTH OVER THE DEGREASER SWEPT USED OIL SPONGE AND PLACE IT WITH THE USED OIL PADS INTO A TRASH BAG AND DISPOSE IT INTO A 2 CUBIC YARD REFUSE CONTAINER WHICH WILL BE DUMP AND HAUL TO H POWER KENNETH ZANE AND DEAN RITA DID THE CLEAN UP. ZANE NOTIFIED THE SUPERVISOR PRIOR TO AND AFTER THE CLEAN UP OF SPILL OIL VIA RADIO
8/24/12	OIL	2 SPOTS	N/A	NO		PIER 36 OIL CONTAINMENT CENTER 2 SPOTS OF OIL REPORTED BY LABOR CREW TIME:12:33pm CLEANED SPILL WITH OIL DEGREASE OIL PADS & DUST.

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II
DEPARTMENT OF TRANSPORTATION/HARBOR DIVISION/STATE OF HAWAII/OCG

Appendix A

MONTHLY SPILL LOG SEPTEMBER 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
9/26/12	2 QUARTS HYDRAULIC OIL-DUE TO BROKEN HYDRAULIC LINE WHILE PRE	2 QUARTS	STATE OF HAWAII SH9272 ROLL OFF	NO		OIL SPILL HAPPEN AT 0630 HOURS IN THE SAND ISLAND BASEYARD. BROKEN
	TRIPPING TRUCK IN SAND ISLAND BASEYARD		TRUCK			HYDRAULIC LINE BLEW ON SH 9272 ROLL OFF TRUCK WHILE TRUCK WAS WARMING UP AND BEING PRE TRIP.
						4 OCG EMPLOYEES RESPONDED TO THE OIL SPILL BY USING OIL PADS TO SOAK UP OIL
						ON GROUND. THE GROUP THEN USED DEGREASER AND WORK IT INTO THE OIL SPILL. THE GROUP
						THEN USED OIL SPONGE ON THE DEGREASER AND OIL SPILL AND WORK IT IN BY USING PUSH BROOMS.
						PICK UP USED OIL SPONGE AND PUT IT IN TRASH BAG AND PLACE IT INTO BASEYARD
						~~REFUSE CONTAINER THAT~~ OUR REFUSE TRUCK PICK UP AND HAUL TO H POWER USED 4 OIL PADS 1/3 GALLON OF DEGREASER
						1/4 BAG OF OIL SPONGE OIL SPILL WAS SECURED AT 0700 HOURS

DON KAULEINAMOKU/MAINTENANCE AND REPAIR SUPERVISOR II
DEPARTMENT OF TRANSPORTATION/ STATE OF HAWAII/ HARBOR DIVISION/OCG

Appendix A

MONTHLY SPILL LOG OCTOBER 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved

NO OIL SPILLS FOR OCTOBER 2012 TO REPORT

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBOR DIVISION HAR/OCG

Appendix A

MONTHLY SPILL LOG November 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBOR DIVISION HAR/OCG

NO OIL SPILLS REPORTED FOR THE MONTH OF NOVEMBER 2012

Appendix A

MONTHLY SPILL LOG DECEMBER 2012

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved 3
12/13/12 2012	MOTOR OIL	1/4 QUART	N/A	NO		REFUSE CREW CLEANED OIL SPILL THAT WAS COMMING OUT OF REFUSE CONTAINER (ABOUT 1/4 QUART). CLEANED OIL SPILL WITH 4-U DEGREASER MIX WITH WATER, 5 OIL PADS, 1/2 GALLON OF OIL SPONGE FROM 0656 - 0720 HOURS

DON KAULEINAMOKU MAINTENACE AND REPAIR SUPERVISOR II
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBOR DIVISION HAR/OCG

APPENDIX N
ILLICIT DISCHARGE DATABASE

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Date of Enforcement	Tenant	Summary of Illicit Discharge Incident
2/7/12	Pacific Shipyards International	On two separate occasions visits were made to the unimproved lot near Pier 42 where sandblasting operations were occuring on the floating dry dock that is owned and operated by the Honolulu Shipyard, Inc., also known as Pacific Shipyards International (PSI). An employee was sandblasting, or possibly pressure washing the vessel "American Contender" with no dust barrier in place. Additionally the deck appeared to be wet, suggesting that it was recently washed. No structural barriers were in place to control wash water runoff into the harbor. Harbors personnel issued a letter to PSI informing them of their violation of the Clean Water Act, 33 U.S.C § 1251 et seq. (1972). They were informed that they must cease all sandblasting operations until controls can be put in place to prevent the migration of pollutants into state waters. Additionally, they were informed that they must provide written documentation of procedures used when sandblasting, identify the chemical characteristics of materials removed from ships during sandblasting and how sandblasted waste would be disposed of.
3/7/12	Pacific Commercial Services, LLC	Services (PCS) warehouse. The entire contents of the drum were released onto the asphalt in front of the warehouse. As soon as the spill occurred, PCS personnel spread several bags of clay absorbent on top of the oil to prevent spreading. Brooms were used to work the absorbent into the oil in the contaminated area. Contaminated asphalt was removed using jackhammers and excavators but no oil penetration was observed under the asphalt. All contaminated materials were packed into cubic yard triwalls for disposal. The 55-gallon drum
3/8/12	Island Movers and Pacific Shipyard International	sheen on the surface was observed flowing through the area occupied by Pacific Shipyard and Island movers. Pictures were taken and HDOT was contacted. The Coast Guard was also contacted to report the sheen coming through their properties and they determined that the issue should be handled by DOT Harbors. The day of the incident Weston personnel visited the site to take pictures and to investigate the site and find the potential origin of the sheen.
6/25/12	Reef Development of Hawaii, Inc.	Two male individuals were observed washing a vehicle with a pressure washer and a cloth on the ramp to Building 927. Soapy wash waster was observed going down the ramp and into harbor waters. Harbors personnel verbally warned the tenants and asked them to cease washing immediately. An action letter was sent to the tenant reminding them to avoid clean-up methods using free flowing water and asking for action to ensure similar incidents do not occur in the future.

Date of Enforcement	Tenant	Summary of Illicit Discharge Incident
7/6/12	Jems Enterprises, LLC	Floating plastic debris was observed flowing out of outfall P36-01. The source of the debris was investigated and it was found to be coming from a water tank owned by Jems Enterprises, LLC. A follow-up was conducted on 8/1/12 and the debris was observed once again. Harbors personnel contacted the Manager of Jems Enterprises, LLC and asked him to look into the issue. The debris was caused by a system deficiency and all damaged parts were replaced and a filter was installed into the system.
7/16/12	Young Brothers, Ltd.	A small pond of static water with white stains and petroleum hydrocarbon oil were observed under the shed of the Pier 21 mechanic shop. Further investigation revealed that the pond was caused from a maintenance employee rinsing a brake band in preparation for the loading and delivering of the item. It appeared that less than five gallons of water flowed into the harbor. Once discovered, Harbors personnel issued a verbal warning to the on-site employee. Less than a week later the Safety and Environmental Manager of YB followed up with an investigation and corrective action report. The employee was taught the proper cleaning methods and an environmental notice was created and sent to Pier 21 to serve as a reminder to use dry cleaning methods or rags.
7/17/12	Matson Navigation Company	The Matson vessel "Maunawili" was observed being painted by two painters standing on a lift based on a floating barge. No containment was provided so a considerable amount of paint was seen dripping into harbor waters. The painting crew was instructed to stop painting until a method could be devised that would keep the paint from dripping in the water, which can be hazardous to marine life. The painting supervisor was notified that their painting methods must be changed. Later an enforcement letter was issued for the case.
7/17/12	Matson Navigation Company	A molasses pipeline under Pier 51B between the 900 and 950 foot marks was observed leaking from a hole at the elbow of the pipeline. Harbors personnel informed the Matson supervisor of the illicit discharge.

Date of Enforcement	Tenant	Summary of Illicit Discharge Incident
7/18/12	Dependable Hawaiian Express, Inc.	management. Numerous oil stains on the soil underneath cars; accumulation area of tires, discarded mechanical apparatuses, and abandoned forklifts; a lead acid battery in a forklift which was exposed to the weather; plastic diesel containers without secondary containment; and various kinds of combustible debris and brush in the vicinity. An e-mail was sent to Ron Richardson of DHX with a list of issues to address.
7/19/12	K-Sea Transportation, Hawaii Division	Maintenance crew aboard the Tug "Nene" were observed doing surface preparation on the superstructure by power grinding and chipping. In response, Harbors and Weston personnel addressed the issue by speaking with the supervisor and having him stop work until adequate dust barriers could be installed. The importance of environmental stewardship was stressed to both the supervisor and maintenance crew. The maintenance crew installed a dust barrier around the frame before continuing work. It was requested that K-Sea Transportation take measures to ensure that all future maintenance on the vessels be equipped with adequate protection and that crews have proper training on the importance of environmental stewardship prior to work beginning.
8/23/12	Hawaii Stevedores, Inc.	A worker from Hawaii Stevedores was observed washing down the interior of a container at the Pier 1 Parking lot with the wash water flowing freely to the ground. The workers supervisor was contacted and the recommendation was made for workers to use dry cleaning methods or to wipe down the containers if necessary. Hawaii Stevedores' Environmental Officer was contacted for further corrective action.

Date of Enforcement	Tenant	Summary of Illicit Discharge Incident
10/4/12	Leo Ohai dba Oceanic Libra Corporation	Harbors personnel observed a large refrigerator near the rear of Ohai's facility on Pier 18. Refrigerator condensation was dripping and forming a stream of water going to a nearby storm drain inlet while collecting surface contaminants along its path. Growth of algae in the refrigerator unit suggest this condition had existed for a while. In the food preparation area signs of fish blood and other types of fish entrails were located on the pavement along with silt build up and flies which were being carried along with the refrigerator condensation to the storm drain. Workers at Ohai were notified immediately and it was recommended that a containment device be placed below the refrigerator to capture any condensate and that the water be disposed of in the sanitary sewer system. A suggestion was also made for proper containment and disposal of food scraps and fish entrails to keep them from reaching the pavement.
10/5/12	Leo Ohai dba Oceanic Libra Corporation	A facility visitor was observed washing a privately-owned vehicle with detergent near a storm drain inlet with soapy water being observed going into the inlet. The person was instructed to stop washing the vehicle and was informed that washing buildings, paved surfaces, vehicles and/or equipment with water and allowing the water to flow freely to the ground near storm drains is an illicit discharge.
10/19/12	Maritime License Center	A male individual was observed washing a vehicle with a pressure washer next to the Maritime License Center at Pier 24. Harbors personnel informed the individual to stop washing immediate and informed them that washing was not allowed on Harbors property without propers controls in place. A letter was sent to the tenant be ensure that such activity would no longer occur and a few weeks later the tenant responded to the concern.

Date of Enforcement	Tenant	Summary of Illicit Discharge Incident
12/14/12	Anchor Construction Management Corporation	Two illicit discharges were observed during the tenant inspection. The first discharge was a washing maching that was piped to drain to the exterior asphalt directly. The second discharge was hand washing detergent that was observed by a hose mounted to a green container. Harbors personnel provided warnings along with a request to discontinue use of the hand washing station and washing machine. A follow up was conducted on January 9, 2013 and both situations had been rectified.

APPENDIX O
RECORD OF ENFORCEMENT ACTIONS

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Tenant Name	Date on Letter	Subject	Type
Paradise Cruise, Inc.	1/23/2012	2011 Storm Water Compliance Inspection Results	Routine Inspection
Quickmove, Inc.	1/23/2012	2011 Storm Water Compliance Inspection Results	Routine Inspection
Marine Petroleum Corporation and Fuelman, Inc.	1/23/2012	2011 Storm Water Compliance Inspection Results	Routine Inspection
Paradise Cruise, Inc.	4/30/2012	AST - Violation of RP DOT-93-22 and H-06-2530 at Former KMR, Honolulu Harbor	AST Removal
Reef Development of Hawaii, Inc.	4/30/2012	AST - Violation of RP	AST Removal
Marine Petroleum Corporation	4/30/2012	AST - Violation of RP	AST Removal
Hawaii Transfer Company, Ltd	4/30/2012	AST - Violation of RP H-09-2654 at Former KMR, Honolulu Harbor	AST Removal
Akana Trucking, Inc.	4/30/2012	AST - Violation of RP H-10-2674 at Former KMR, Honolulu Harbor	AST Removal
Amazon Construction, Inc.	4/30/2012	AST - Violation of RP DOT-96-136 at Former KMR, Honolulu Harbor	AST Removal
Hi-Tec Roofing, Inc.	4/30/2012	AST - Violation of RP DOT-94-59 at Former KMR, Honolulu Harbor	AST Removal
Jem's Enterprises, LLC	5/3/2012	Environmental Compliance Inspection Results	Routine Inspection
Quickmove, Inc.	5/11/2012	Notice of Termination - RP No. H-98-162	Eviction Letter
Ty Pryne	5/21/2012	Environmental Compliance Inspection Results	Routine Inspection
Kong Enterprises, Inc.	5/22/2012	Letter of Termination and Notice to Vacate Account No. 300242 RP No. H-07-2579	Eviction Letter
Erik Builders, Inc.	5/30/2012	Environmental Assessment of Permitted Property at Keehi Industrial Lots, Kalihi-Kai, Oahu, TMK No. (1) 1-2-023:066; Revocable Permit Nos. H-97-1984 and H-98-2092	Site Inspection
Kumu Corporation	5/30/2012	Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, Hawaii, TMK No. (1) 1-2-023:073; RP No. H-97-1995	Site Inspection
Masuda Masonry	5/30/2012	Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, Hawaii, TMK No. (1) 1-2-023:074; RP No. H-97-1987	Site Inspection
Norman's Tractor Service	6/5/2012	Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, TMK No. (1) 1-2-023:036, RP No. H-97-1988	Site Inspection
Kokua Recycling	6/5/2012	Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, TMK No. (1) 1-2-023:047; Governor's Executive Order No. 3708, RP No. H-07-2577	Site Inspection
Nanakuli Neighborhood Housing Services, Inc.	6/5/2012	Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu Harbor, Island of Oahu, TMK No. (1) 1-2-023:063 (Portion) and a Portion GEO No. 3708, RP H-01-2248	Site Inspection
Paradise Equipment	6/13/2012	Notice of Termination - RP No. H-03-2415	Eviction Letter
Oceanic Libra Corporation	10/8/2012	Storm Drain Inlet at Pier 18	Other Observation
Kong's Enterprises, Inc.	12/5/2012	Letter of Revocation and Notice to Vacate - RP No. H-07-2579, Keehi Industrial Area	Eviction Letter

HAR-EE
1791.12

January 23, 2012

Mr. Marc Rubenstein
Paradise Cruise, Inc., RDH Transportation, Inc.,
and Royal Star
5 Sand Island Access Road, Box 121
Honolulu, Hawaii 96819

Dear Mr. Rubenstein:

Subject: 2011 Storm Water Compliance Inspection Results

Pursuant to requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) permits, site inspections of your facilities were conducted in 2011. We are forwarding a report documenting the findings of our inspections and any subsequent follow-up.

Based on the inspections, your facility was found to need improvements in the following areas:

1. The facility washes buses and limousines without proper controls or written approval from HDOH or HDOT Harbors. The wash area is directly over storm drain and oily residue was observed flowing into the storm drain. Immediately cease washing activities until an application for washing is submitted to HDOT Harbors and approved. Notify employees not to remove the storm drain cap. The facility may also contract an approved washing contractor until a permit is approved. The requirements of the submittal to Harbors Division can be found in the attached report.

   Previous inspection reports generated on December 4, 2009 and December 14, 2010 have required written approval from HDOH or HDOT Harbors in order to continue washing. This report constitutes the third written notice. **Harbors Division requires that an Action Plan be provided within 20 days of receipt of this report.** The Action Plan must describe corrective actions to be performed, responsible parties, and a schedule. The Action Plan may be submitted to HDOT Harbors by email to Randal.Leong@hawaii.gov or by mail to Mr. Randal Leong, Environmental Section, Harbors Division, 79 South Nimitz Highway, Honolulu, Hawaii 96813.

   Failure to do so may result in administrative fines or the termination of your revocable permit.

HAR-EE
1971.12

April 13, 2012

Mr. Marc Rubenstein
Paradise Cruise, Inc., RDH Transportation, Inc.,
and Royal Star
5 Sand Island Access Road, Box 121
Honolulu, Hawaii 96819

Dear Mr. Rubenstein:

Subject: Vehicle (Bus) Washing Conditional Approval Revocable Permit DOT-93-22

We have reviewed the information provided in your February 16, 2012 transmittal that included information pertaining to washing company vehicles on-site at KMR associated with the subject Revocable Permit. The Storm Water Pollution Prevention Plan (SWP3) Mobile Wash BMPs by J/R Environmental Co. dated January 30, 2012 have been reviewed.

Based on the information provided and the washing demonstration provided on March 14, 2012, we hereby grant approval of your washing activities for a period starting from the date of your letter and expiring at midnight on December 31, 2012, subject to the following conditions:

Condition 1 – All washing activities are to be performed as described in the tenant submittals referenced above.

Condition 2 – All activities must comply with Hawaii Revised Statutes § 342D-50(a), specifically, *"No person, including any public body, shall discharge any water pollutant into State waters, or cause or allow any water pollutant to enter state waters..."*.

Condition 3 – All activities must adhere to the Environmental Protect Agency (EPA) Stormwater BMP relating to Municipal Vehicle and Equipment Washing.

Condition 4 – Any enforcement actions and/or monetary fines resulting from non-compliance with the Hawaii Revised Statutes or EPA Stormwater BMPs will be the sole responsibility of the tenant initiating the rinsing activities and not the Harbors Division.

Condition 5 – This approval only applies to Paradise Cruise and Royal Star vehicles and only applies to its facilities at KMR as specified in the submitted map.

Condition 6 – Wash and disposal records must be available for review on site during your regular scheduled tenant inspection.

Condition 7 – This approval may be revoked at any time at the discretion of the Harbors Division.

Additionally, if you observe any illicit washing activities at KMR, please immediately report it to KMR Security at 628-1605 or the Honolulu Harbor Marine Traffic Controller at 587-2076.

If you have any questions, please contact Mr. Randal Leong of the Harbors Division Engineering Environmental Section at 587-1962.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

c: Mr. Mark Ambler, Weston Solutions

bc: DEP-P, HAR-PM, HAR-O

JG:lm

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:

HAR-PM
5519.12

April 30, 2012

Mr. Marc Rubenstein
Paradise Cruise, Inc., RDH Transportation, Inc.
5 Sand Island Access Road, Box 121
Honolulu, Hawaii 96819

Dear Mr. Rubenstein:

Subject: Aboveground Storage Tank – Violation of Revocable Permits DOT-93-22 and H-06-2530 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that your firm owns and operates at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one days from receipt of this letter to remove all ASTs from your premises.

Revocable Permits DOT 93-22 and H-06-2530 prohibit any above ground or underground storage tanks on your premises. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

HAR-EE
1789.12

January 23, 2012

Mr. Eugene Fontanilla
Quickmove, Inc.
P. O. Box 26
Aiea, Hawaii 96701

Dear Mr. Fontanilla:

Subject: 2011 Storm Water Compliance Inspection Results

Pursuant to requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) permits, site inspections of your facilities were conducted in 2011. We are forwarding a report documenting the findings of our inspections and any subsequent follow-up.

Based on the inspections, your facility was found to need improvements in the following areas:

1. The facility conducts hand washing outdoors without proper catchment or disposal procedures. Cease washing hands unless proper catchment and disposal is implemented.
2. Commercial vehicles and old equipment are leaking petroleum fluids on exterior pavement. Forklifts and other vehicles and mobile equipment stored outside must be monitored for leakage. If leaks are noted an appropriate drip pan or other spill control device must be used to contain chronic leaks. Such devices must be placed and monitored to ensure they do not collect rain water and overflow during storm events. Leakage and staining should be routinely cleaned from exterior surfaces. Absorbents placed in response to spills or leaks should be promptly cleaned from exterior surfaces and appropriately disposed.
3. Containers stored outside are open, leaking, or in poor condition and likely to fail. The contents must be transferred to proper containers or disposed in accordance with applicable regulations. Leakage and staining must be routinely cleaned from exterior surfaces. Absorbents placed in response to spills or leaks must be promptly cleaned from exterior surfaces and appropriately disposed.
4. The facility stores metal stock, engines, batteries, tires, scrap auto parts, painting equipment, and similar materials outdoors. Metal stock, engines, batteries, tires, and similar items that may be contaminated with heavy metals, petroleum products, or oily wastes must be kept indoors or secured under cover to prevent contact with rainfall.

5. The facility appears to store an excess of obsolete materials or wastes outdoors. Spent chemicals, batteries, equipment, paint wastes, and oily wastes must be collected and disposed in a timely fashion and at no time can be left outdoors uncovered where they can be contacted by rainfall.
6. Sediments have collected in drainage areas, swales, or storm drains. Sediments, debris, trash and oily wastes must be routinely cleaned from all storm water conveyances.
7. The facility needs to improve general housekeeping practices. Containers, open buckets, refuse and related items must be secured indoors or covered in areas where they cannot be contacted by rainfall.
8. The facility does not currently maintain logs of regular vehicle, forklift or equipment maintenance. Documenting periodic maintenance of mobile equipment is necessary to establish that the equipment is subject to proper maintenance, either on-site or at an off-site location, thus reducing the likelihood of chronic leaks contacting storm water.

Since there is no significant improvements from our 2010 inspection of your facility, Harbors Division requires that an Action Plan be provided within 20 days of receipt of this letter. The Action Plan must describe corrective actions to be performed, responsible parties, and a schedule. The Action Plan may be submitted to the Harbors Division by email to Randal.Leong@hawaii.gov or by mail to Mr. Randal Leong, Environmental Section, Engineering Section, Harbors Division, 79 South Nimitz Highway, Honolulu, Hawaii 96813.

Failure to respond in a timely fashion may result in administrative fines or the termination of your revocable permit.

We appreciate your kokua in working with us to meet the requirements of the Clean Water Act and to keep our ocean resources pollution-free to the best of our abilities.

If you have any questions, please contact Mr. Randal Leong of our Harbors Division Engineering Environmental Section at 587-1962 or Mr. Eric Leong of our Harbors Division Property Management Section at 587-1943.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Att.
bc: DEP-P, HAR-PM, HAR-O, HAR
RL:lm

R/S 12-0711

'12 FEB 22 A10

Quick Move, Inc.
P.O. Box 26, Aiea, Hawaii 96701
Telephone: (808) 422-9999 / Fax (808) 422-9998

HARBORS DIVISION

Moving with Quality Service "

To: Randal Leong
Hawaii Department of Transportation Harbors Division
79 S. Nimitz Highway
Honolulu, Hawaii 96813

'12 FEB 21 P1:53
HARBORS DIVISION

From: Eugene Fontanilla
Phone: 808-422-9999
Fax: 808-422-9998

Date: February 12, 2012

Subject: 2011 Storm Water Compliance Action Plan

'12 FEB 23 P1:23
ENGINEERING SP
DEPT OF TRANSPORTATION
HARBORS DIVISION

As per our conversation, here is our Action Plan describing correction actions to be performed, responsible parties involved, and a schedule for completion.

Based on the inspections, improvements needed in the following areas:

1 Cease washing hands unless proper catchment and disposal implemented.

No hand washing will be performed on-site. Hose has been removed.
Completion Date: DONE

2 If leaks are noted an appropriate drip pan or other spill control device must be used.
Devices must be monitored to ensure not to collect rain water and overflow.
Leakage and staining must be routinely cleaned from exterior surfaces.
Absorbents used for spills and leaks must be promptly cleaned and appropriately disposed.

All equipment serviced on-site will have a "drop cloth" placed underneath prior to work being performed. Also, all used absorbents & spill control devices will be disposed of promptly.
Completion Date: 30 DAYS

3 Contents of containers outside that are open, leaking or in poor condition - must be transferred to proper containers or appropriately disposed.
Leakage and staining must be routinely cleaned from exterior surfaces.
Absorbents used for spills and leaks must be promptly cleaned and appropriately disposed.

All fluids will be placed in proper containers and stored under cover or appropriately disposed.
Work areas will be cleaned and used absorbents will be disposed of promptly.
Completion Date: 30 DAYS

R|S 12-0711

'12 FEB 22 A10:50

4 Metal stock, engines, batteries, tires and similar items must be kept indoors or secured under cover to prevent contact with rainfall.

All metal stock, engines, batteries, tires and similar items on-site will be stored indoors or placed under cover to prevent contact from rainfall. **Completion Date: 30 DAYS**

5 Spent chemicals, batteries, paint wastes and oily wastes must be collected and disposed of in a timely fashion and at no time left uncovered where they can be contacted by rainfall.

All spent chemicals, batteries, paint wastes and oily wastes will be placed in proper containers and stored under cover or appropriately disposed. **Completion Date: 30 DAYS**

6 Sediments, debris, trash and oily wastes must be routinely cleaned from all storm water conveyances.

Storm water conveyances will be monitored and routinely cleaned so as to ensure that no sediments, debris, trash or oily wastes collect in them. **Completion Date: 30 DAYS**

7 All containers, open buckets, refuse and related items must be secured indoors or covered in areas where they cannot be contacted by rainfall.

All containers, open buckets, refuse and related items will be placed in proper containers and stored under cover or appropriately disposed. **Completion Date: 30 DAYS**

Thank you very much!

Eugene Fontanilla

HAR-EE
1790.12

January 23, 2012

Mr. Michael Rossman
Marine Petroleum Corporation and Fuelman, Inc.
P. O. Box 29249
Honolulu, Hawaii 96820

Dear Mr. Rossman:

Subject: 2011 Storm Water Compliance Inspection Results

Pursuant to requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) permits, site inspections of your facilities were conducted in 2011. We are forwarding a report documenting the findings of our inspections and any subsequent follow-up.

Based on the inspections, your facility was found to need improvements in the following areas:

1. The facility is suspected of conducting washing outdoors due to the presence of a hose with spray nozzle and puddles on a sunny day. Release of detergents, solids, and other pollutants in wash and rinse water from mop clean-up and from hand washing, steam-cleaning, etc. of commercial stock, equipment, vehicles and other items is prohibited on exterior surfaces including docks, pavement, and vegetation. Outdoor washing is only permitted if all wash and rinse water is contained, collected and disposed through the sanitary sewer, residual solids or sludges are disposed with the solid waste, and a specific Best Management Practice has been approved for the activity by HDOT Harbors. All washing must be discontinued until washing procedures are submitted to Harbors and approved.

2. Secondary containment is not provided for bulk aboveground fuel storage tanks and fuel handling areas, including transfer hoses stored on the truck. All aboveground tanks containing petroleum products or hazardous materials should be equipped with secondary containment to collect chronic leaks and spills. Associated loading, off-loading, dispensing, and fueling areas should also be equipped with secondary containment to capture a spill and prevent pollutants from flowing to storm drains.

3. The facility has storage capacity of petroleum products in excess of 1,320 gallons but does not have a written Spill Prevention, Control and Countermeasures (SPCC) Plan. A SPCC is required for a capacity to store greater than 1,320 gallons of petroleum with the potential to discharge to surface water.

4. The facility stores some old batteries outdoors on the pavement. Spent chemicals, batteries, equipment, paint wastes, and oily wastes should be collected and disposed in a timely fashion and at no time should be left outdoors uncovered where they can be contacted by rainfall.

5. Facility personnel have not attended HDOT Annual Storm Water Training. A representative of the company must attend annually the Storm Water training provided by HDOT Harbors. Storm water best management practices (BMPs) discussed during the HDOT Harbors training should be shared with facility employees. Records of attendance and the training performed should be kept.

Harbors Division requires that an Action Plan be provided within 20 days of receipt of this report. The Action Plan must describe corrective actions to be performed, responsible parties, and a schedule. The Action Plan may be submitted to HDOT Harbors by email to Randal.Leong@hawaii.gov or by mail to Mr. Randal Leong, Environmental Section, Engineering Branch, Harbors Division, 79 South Nimitz Highway. Honolulu, Hawaii 96813.

Failure to do so may result in administrative fines or the termination of your revocable permit.

We appreciate your kokua in working with us to meet the requirements of the Clean Water Act and to keep our ocean resources pollution-free to the best of our abilities.

If you have any questions, please contact Mr. Randal Leong of our Harbors Division Engineering Environmental Section at 587-1962 or Mr. Eric Leong of our Harbors Division Property Management Section at 587-1943.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Att.

bc: DEP-P, HAR-PM, HAR-O, HAR

RL:lm

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:

HAR-PM
5519.12

April 30, 2012

Mr. Marc Rubenstein
Paradise Cruise, Inc., RDH Transportation, Inc.
5 Sand Island Access Road, Box 121
Honolulu, Hawaii 96819

Dear Mr. Rubenstein:

Subject: Aboveground Storage Tank – Violation of Revocable Permits DOT-93-22 and H-06-2530 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that your firm owns and operates at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one days from receipt of this letter to remove all ASTs from your premises.

Revocable Permits DOT 93-22 and H-06-2530 prohibit any above ground or underground storage tanks on your premises. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:

HAR-PM
5516.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

April 30, 2012

Mr. Michael Rossman
Fuelman, Inc.
P.O. Box 29249
Honolulu, Hawaii 96820

Dear Mr. Rossman:

Subject: Aboveground Storage Tank – Violation of Revocable Permit DOT 94-52 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that you own and operate at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one days from receipt of this letter to remove all ASTs from your premises.

Revocable Permit DOT-94-52 prohibits any above ground or underground storage tanks on your premises. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:

HAR-PM
5517.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

April 30, 2012

Mr. Gordon Okumura, President
Hawaii Transfer Company, Ltd.
P.O. Box 665
Pearl City, Hawaii 96782

Dear Mr. Okumura:

Subject: Aboveground Storage Tank – Violation of Revocable Permit H-09-2654 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that Hawaii Transfer Company, Ltd owns and operates at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one days from receipt of this letter to remove all ASTs from your premises.

Revocable Permit H-09-2654 prohibits all hazardous material on your premises without the written consent of the State. The AST contains hazardous materials and permission was never granted for its use. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:

HAR-PM
5514.12

April 30, 2012

Mr. Kevin Akana
Akana Trucking, Inc.
209 Hao Street.
Honolulu, Hawaii 96821

Dear Mr. Akana:

Subject: Aboveground Storage Tank – Violation of Revocable Permits DOT 94-64 and H-10-2674 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that Akana Trucking, Inc. owns and operates at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one (21) days from receipt of this letter to remove all ASTs from your premises.

Revocable Permits DOT 94-64 and H-10-2674 prohibit any above ground or underground storage tanks on your premises. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:

HAR-PM
5515.12

April 30, 2012

Ms. Jane Onaga
Amazon Construction, Inc.
5 Sand Island Access Road, #139
Honolulu, Hawaii 96819

Dear Ms. Onaga:

Subject: Aboveground Storage Tank – Violation of Revocable Permit DOT 96-136 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that Amazon Construction, Inc. owns and operates at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one (21) days from receipt of this letter to remove all ASTs from your premises.

Revocable Permit DOT 96-136 prohibits any above ground or underground storage tanks on your premises. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:

HAR-PM
5518.12

April 30, 2012

Mr. Alan Meier
Hi-Tec Roofing, Inc.
5 Sand Island Access Road, Box 157
Honolulu, Hawaii 96819

Dear Mr. Meier:

Subject: Aboveground Storage Tank – Violation of Revocable Permit DOT-94-59 at Former Kapalama Military Reservation, Honolulu Harbor

It has been brought to our attention that Hi-Tec Roofing, Inc. owns and operates at least one above ground storage tank (AST) on your rented premises. This is to advise you that you have twenty-one days from receipt of this letter to remove all ASTs from your premises.

Revocable Permit DOT 94-59 prohibits any above ground or underground storage tanks on your premises. Furthermore, the Harbors Division will be commencing a Phase 2 Environmental Site Assessment of the entire Kapalama Military Reservation shortly. The area of the existing AST will be a focus of the site assessment investigation so its removal is mandatory.

We appreciate your cooperation with this directive. Failure to comply will result in the revocation of your permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

HAR-EE
2004.12

May 3, 2012

Mr. Marshall Joy
Jem's Enterprises, LLC
dba Hawaiian Ice Company
1125 North Nimitz Highway
Honolulu, Hawaii 96817

Dear Mr. Joy:

Subject: Environmental Compliance Inspection Results

We are forwarding a report documenting the findings of the 2011 Storm Water Compliance Inspection for your facility. This inspection was performed in accordance with the requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) permits.

We are pleased to inform you that your facility was found to be satisfactory in meeting the minimum storm water compliance requirements. Please take the time to review the report and, if there are any, incorporate any suggestions provided to improving best management practices at your facility. The report also includes a risk ranking based on the type of operations conducted at your facility. The risk ranking will be used to determine the frequency of future inspections of your facility.

Also, please ensure that all of your employees are trained in storm water pollution prevention awareness. Educational materials were provided with the tenant self-inspection surveys sent to you earlier. If you require more materials, please contact us.

During the inspection, it was discovered that as part of your current operation you manage an 8,500-pound Aboveground Storage Tank (AST) containing Anhydrous Ammonia. Please be advised that this AST system is subject to the Hawaii Emergency Planning and Community Right-to-Know Act (HEPCRA) requirements. Under these requirements, you are required to submit a Tier Two Emergency and Hazardous Chemical Inventory Report. If you have questions regarding HEPCRA, please contact Ms. Sharon Leonida with the HDOH Hazard Evaluation and Emergency Response (HEER) Office at 586-4249.

We appreciate your cooperation in working with us to meet the requirements of the Clean Water Act and HEPCRA and to keep our ocean resources pollution-free to the best of our abilities.

If you have any questions or require further information, please contact Mr. Randal Leong of our Harbors Division Engineering Environment Section at 587-1962, or Mr. Calvert Chun of our Harbors Division Property Management Section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Enc.

c: Mr. Mark Ambler, Weston Solutions, Inc.

bc: DEP-P, HAR, HAR-S, HAR-PM, HAR-O

JG:lm

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
FORD N. FUCHIGAMI

RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:

HAR-PM
5524.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

May 11, 2012

Rec'd

Eugene Fontanilla

5/11/12
Date

Mr. Eugene Fontanilla
Quick Move, Inc.
P.O. Box 26
Aiea, Hawaii 96701

Dear Mr. Fontanilla:

Subject: NOTICE OF TERMINATION – Revocable Permit No. H-98-162

By letter, dated January 23, 2012, you were informed of the results of an environmental site inspection of the premises under Revocable Permit No. H-98-162 to ensure compliance with all applicable stormwater discharge regulations. You thereupon provided an Action Plan, dated February 12, 2012, to address corrective actions to be performed and a schedule by which corrections were expected to be made. On April 27, 2012, a follow-up inspection was made to determine if corrective actions were undertaken. The following conditions were noted in the recent inspection:

1. At the makai corner of the property, attached to the adjacent building, there is what appears to be a type of electrical junction box (unknown, if power or communications). This area is encumbered with an array of tools, cleaning supplies, and unmarked or improperly marked containers of unknown liquids.

2. In this immediate area, there are numerous large accumulations of unidentifiable items. Most of the consolidated items are covered with tarpaulins. Identifiable items include portable gasoline containers, stacks of discarded tires, and other combustible debris.

3. One of the storage areas is adjoined to another work area by a narrow path between an inoperable van and stacks of consolidated items. Observed in this area, at the time of the visit, were four feral cats. The narrow path was littered with obvious signs of cat feces.

4. At another corner of the compound in this area is a metal storage rack about 25 feet high. On the top level, there are a large accumulation of pipes and other kinds of metal stock. At the middle level, there is an abandoned electric golf cart. It is estimated that the total weight of the middle and top levels is 1000 pounds. The total assembly is listing

approximately 6 feet by 10 feet out over the top of an adjacent security fence. The top rail of the security fence is supporting the storage rack. The lower level of the rack is filled with scrap lumber and other combustible debris. There is a mechanical device with a hydraulic piston covered with combustible debris. This is a potential source of a petroleum-based liquid.

5. Next to this area is a trailer van. Under this van is a large accumulation of discarded tires.

6. An aggressive, vicious dog temporarily hindered our entry into the interior of the compound. Please remove the dog.

7. One section of the compound has a vehicle that appears to be under repair. The work area is cluttered with extension cords, hoses, tools, and various industrial chemicals (i.e. grease, paints, and other petroleum compounds). The asphalt in this area shows obvious signs of stains and leaks from petroleum-based compounds. There is a gasoline-powered generator being used that does not have leak or drip protection.

8. Nearby is an automobile engine lying on the ground without leak or drip protection.

9. The next section of the compound is separated by a security fence with an open gate. In this area are an inoperable truck, an inoperable fork truck, and other inoperable engines. All of these items are in an advanced state of disassembly. Various chemical compounds, tools, and vehicle parts litter the area. Most items are covered with petroleum-based grime.

10. The ground in this immediate area is covered with oil-stained dirt and absorbent compound. This area is not covered.

11. Scattered throughout this area are numerous containers of Hazardous Material (HM). Most containers are rusted, damaged, or otherwise unserviceable. Most of these items could be reasonably argued to be Hazardous Waste (HW).

12. The inoperable truck has two lead-acid batteries still attached to the vehicle.

13. There are numerous compressed gas cylinders in this area. The cylinders are not properly secured or protected. The color markings on the cylinders are faded making identification of the contents practically impossible.

14. The interior of the trailer van was briefly observed and photo-documented. Just beyond the front entry door is a refrigerator. It is unknown if it is connected to electrical power. The overall appearance of the interior indicates that the van is being used for living quarters. The telltale stench of the interior of the van would suggest a condition with poor sanitation.

15. Outside of the Tenant's property and parked next to the security fence are two inoperable, and partially disassembled trucks with body parts lying on the ground. It is unknown if these items belong to Quick Move, Inc., or not.

Paragraph No. 12, Waste, Strip and Nuisance; Maintenance of your permit requires that the permittee shall maintain the premises in a strictly clean, neat, safe, orderly and sanitary condition, free of waste, rubbish and debris and shall provide for the safe and sanitary handling and disposal of all trash, garbage and refuse from the premises.

Paragraph No. 18, Compliance with Laws of your permit requires that the permittee shall comply with all laws, ordinances and rules and regulations of all governmental agencies, applicable to the premises or relating to and affecting any business or other commercial activity conducted on the premises.

The inspection noted the deplorable overall condition of the property, apparent violations of the Clean Water Act and National Pollutant Discharge Elimination System (NPDES) regulations as well as numerous safety concerns. Due to your failure to implement your Action Plan and continued disregard and failure to undertake the necessary corrective actions, you are in breach of Paragraphs No. 12 and 18 noted above.

In addition to the foregoing breaches, your account no.500064 is also delinquent with a balance outstanding of $17,782.96 as of April 5, 2012. You are therefore also in breach of Paragraph No. 8 of your permit which requires the permittee to pay the monthly rental on the first of each and every month without notice or demand.

Paragraph No. 21, Termination and Revocation of your permit provides that the permit may be terminated by the State in the event the permittee fails to pay rental when due or for breaches of any of the terms and conditions. Accordingly, due to the multiple breaches referenced above, please be informed that Revocable Permit No. H-98-162 will be terminated, effective May 24, 2012. Termination will not relieve you of your financial obligations to clear your outstanding indebtedness as well as your responsibilities to clean and restore the premises. The State reserves all of its rights, both under the permit as well as under applicable laws, to pursue any and all remedies in addition to termination of the permit to recoup the delinquent rent, as well as any and all charges related to the clean-up and restoration of the property. The State shall also seek the recovery of any and all environmental fines and penalties imposed upon the premises caused by your use of the premises under the permit.

Please remove all your personal property, belongings and debris from the premises by May 24, 2012. Any items left on the premises after May 24, 2012 shall be deemed to be an abandonment, and the State will accomplish its disposal by its own employees or by an independent contractor and assess you for all of the costs thereof.

If you have any questions, please call Mr. Calvert Chun, Property Management Supervisor, at 587-1944.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

HAR-EE
2120.12

May 21, 2012

Mr. Ty Pryne
Ty Pryne dba H.B.N.
742 Queen Street, No.301
Honolulu, Hawaii 96813

Dear Mr. Pryne,

Subject: Environmental Compliance Inspection Results

We are forwarding a report documenting the findings of the 2011 Storm Water Compliance Inspection for your facility. This inspection was performed in accordance with the requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) permits.

We are pleased to inform you that your facility was found to be satisfactory in meeting the minimum storm water compliance requirements. However, we have some concerns with other observations made at the premises which are enumerated in this letter below. Please take the time to review the enclosed report and incorporate the suggestions provided to improve best management practices at your facility. The enclosed report also includes a risk ranking based on the type of operations conducted at your facility. The risk ranking is used to determine the frequency of future inspections of your facility.

Also, please ensure that all of your employees are trained in storm water pollution prevention awareness. Educational materials were provided with the tenant self-inspection surveys sent to you earlier. If you require more materials, please contact us or visit our web site at http://hawaii.gov/dot/harbors/library/storm-management-plan.

During the inspection, we noticed several other areas that warrant your immediate attention and remedial efforts to maintain compliance with additional environmental and safety requirements. Please note the following areas:

1. Numerous containers of Hazardous Material (HM) are stored throughout the property. The containers are not stored in a flammable cabinet in a central location, and no chemical inventory is available. Please be advised that all the HM must be removed from

the property as this situation is in direct violation of the terms and conditions of your revocable permit.

2. Two 20' containers are stacked atop each other, and the upper container is used as an office. Permanent wooden stairs were constructed to access the upper area. The stairs and upper landing do not have a railing system. This situation presents a fall hazard. Before the stairs were constructed, detailed drawings of the stairs were not provided to Harbors Division for review and approval. Immediately prepare drawings and specifications of the stairs and submit for review and approval. Install a railing system immediately.

3. Please be advised that a building permit may be required for the stairs. Check with the City and County Building Department for guidance on this issue.

4. Stored on the property is an inoperable vehicle that is not owned by your company. The vehicle fluids and battery have not been removed. Verify the status of the vehicle's registration and take appropriate action.

We appreciate your cooperation in working with us to meet the requirements of the Clean Water Act and other environmental and safety requirements to keep our ocean resources pollution-free to the best of our abilities.

If you have any questions or require further information, please contact Mr. Randal Leong of our Harbors Division Engineering Environmental Section at 587-1962, or Mr. Calvert Chun of our Harbors Division Property Management Section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Enc.

c: Weston Solutions

bc: DEP-P, HAR-PM, HAR-S, HAR-O

JG:jmo/lm

MAY 22 2012

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:

HAR-PM
5528.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

May 22, 2012

Received

Richard Kong

5/22/12
Date

Mr. Richard Kong, President
Kong Enterprises, Inc.
P.O. Box 5187
Kaneohe, Hawaii 96744

Dear Mr. Kong:

Subject: LETTER OF TERMINATION AND NOTICE TO VACATE
Account No. 300242
Revocable Permit No. H-07-2579
Keehi Industrial Area, Vicinity of Pier 60, Honolulu, Island of Oahu
Permittee: Kong Enterprises, Inc.

As of May 18, 2012, Kong Enterprises' outstanding, delinquent and unpaid amount owed to the Harbors Division, under Account No. 300242, has increased to a total balance of $16,179.84, under Revocable Permit No. H-07-2579 ("RP #H-07-2579"), which balance includes the rental charges of $4,044.96 per month for the months from February to May 2012.

In accordance with Term and Condition No. 19 of RP #H-07-2579, relating to Termination and Revocation, we hereby demand that Kong Enterprises remit payment in full in the amount of $16,179.84 by Certified or Cashier's Check, payable to the Harbors Division, not later than 4:30 p.m. on Tuesday, May 29, 2012 (no less than five [5] business days after the date of this letter of termination and notice to vacate), at 79 S. Nimitz Highway, Honolulu, Hawaii 96813.

If Kong Enterprises fails to remit payment in full by 4:30 p.m. on Tuesday, May 29, 2012, in the amount of $16,179.84, by Certified or Cashier's Check, payable to the Harbors Division, RP #H-07-2579 will be terminated as of May 29, 2012, for nonpayment of the outstanding charges. You are also hereby notified that a report on Kong Enterprises' delinquency will be submitted to the Department of the Attorney General for collection of monies owed to the Harbors Division and the commencement of other legal proceedings.

Upon the termination of RP #H-07-2579 on May 29, 2012, Kong Enterprises must: (a) totally vacate the Premises demised under said revocable permit in the Keehi Industrial area; and, (b) remove all trade fixtures, inventory, equipment, supplies, and all other personal property from the Premises demised under said revocable permit not later than 4:30 p.m. on Tuesday, May 29, 2012. A notice barring access to the subject Premises will be posted.

Further, the passing of 4:30 p.m. on Tuesday, May 29, 2012, and Kong Enterprises' failure to: (1) totally vacate the subject Premises; and, (2) remove all trade fixtures, inventory, equipment, supplies, and all other personal property from the subject Premises, may result in the Director of Transportation, State of Hawaii, his agents and/or representatives entering upon the Premises and removing and disposing of, at Kong Enterprises' sole risk and expense, all remaining trade fixtures, inventory, equipment, supplies, and all other personal property from the Premises.

No further notices relating to this letter of termination and notice to vacate will be forthcoming.

Liquidated damages may also be assessed pursuant to the covenants, terms and conditions of Kong Enterprises' revocable permit.

Lastly, and in accordance with Section 171-13, Hawaii Revised Statutes, this termination action means that Kong Enterprises will be ineligible to purchase or lease public lands, or to be granted a license, permit or easement covering public lands for a term of five (5) years from and after the date of any termination action involving a previous sale, lease, license, permit, or easement covering public lands cancelled or terminated for failure to satisfy the covenants, terms and conditions thereof.

Any termination action does not relieve Kong Enterprises from its responsibility for the full payment of all outstanding charges as of May 29, 2012.

Also, please be informed that final executions of the other two revocable permits described below were held in abeyance until the above mentioned delinquency was resolved.

Fees for Revocable Permit No. H-12-2716 for 9,067 square feet (former Poysky yard lot) in the Keehi Industrial area was paid 3 months in advance $4,896.18 ($1,632.06 per month) for March, April, May 2012. A $4,896.18 payment for June, July, and August 2012 is due and must be paid by June 1, 2012, by Certified or Cashier's Check.

Fees for Revocable Permit No. H-12-2717 for 2,040 square feet (former Harbor House yard lot) in the Kapalama Military Reservation was paid 3 months in advance $1,774.80 ($510.00 rent per month and $81.60 CAM per month) for March, April, May 2012. A $1,774.80 payment for June, July, and August 2012 is due and must be paid by June 1, 2012, by Certified or Cashier's Check.

However, both of these permits contain the condition that states "PERMITTEE acknowledges that a default in the terms and conditions under ANY ONE of the PERMITTEE's Revocable Permits, shall be deemed a default under ALL of the PERMITTEE's revocable permits and the State may take action against the debtor collectively with respect to ALL of PERMITTEE's revocable permits arising from a default under ANY ONE of the PERMITTEE's revocable permits."

Therefore, if you must vacate your original permit area, then you must also vacate these additional 2 revocable permit areas, as well.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:
HAR-PM
5533.12

May 30, 2012

Mr. James Sakata
Erik Builders, Inc.
50-CC Sand Island Access Road
Honolulu, Hawaii 96819

Subject: Environmental Assessment of Permitted Property at Keehi Industrial Lots, Kalihi-Kai, Oahu, Tax Map Key No. 1st/1-2-23:66P; Revocable Permit Nos. H-97-1984 and H-98-2092

Dear Mr. Sakata:

On May 21, 2012, State of Hawaii Department of Transportation Harbors Division personnel made a site visit to the permitted premises of Erik Builders, Inc. The reason for the visit was to observe and document conditions and comments made during an earlier site visit conducted by our environmental consultants, Weston Solutions, on November 22, 2011, and to observe and document Tenant compliance efforts in regard to the Terms and Conditions of Revocable Permit Nos. H-97-1984 and H-98-2092. Conducting the inspection was Mr. Jim Galariada, CSP, Environmental Health Specialist IV of Harbors Division, Engineering Environmental Section. Enclosed is the inspection report from Weston Solutions. The following conditions exist:

1. Throughout your permitted premises are numerous containers of various types of Hazardous Materials (HM). These containers of HM are improperly stored and managed.

2. A flammable cabinet is located in the general vicinity of the middle of the main building. The contents of this cabinet were not inspected during the site visit.

3. Paints and other flammable liquids are placed or stored directly in front of an energized electrical panel box. The panel box is not readily accessible in the event of an emergency.

4. On the ground throughout the work area are obvious signs of spills, stains, and accumulations of petroleum-based products.

5. Throughout your permitted premises are numerous improvements of substantial construction and utility. After review of our files on Erik Builders, Inc., no written request of any kind was ever submitted to Harbors Division for permission to construct these improvements.

6. General housekeeping throughout needs to be improved. Many of the work areas have recognizable hazardous conditions.

The above-mentioned conditions are in many cases in direct violation of the Terms and Conditions of the Revocable Permit for this property.

This letter serves notice that the PERMITTEE shall immediately effect the following Corrective Actions:

1. Remove all Hazardous Materials and suspected Hazardous Waste from the permitted premises. Remove the flammable storage cabinet.

2. Remove all unserviceable batteries from the permitted premises.

3. Remove all containers, including all 55-gallon drums that previously contained regulated substances from the permitted premises.

4. Remove the makeshift supporting brackets and shelving from above the storeroom door in the general vicinity of the middle of the main building on the permitted premises.

5. Housekeeping throughout the permitted premises is deplorable and unacceptable. Excess and unserviceable building materials and general debris create safety concerns for Slips/Trips/Falls, and can provide harbor for vermin. Restore the entire permitted premises to an aesthetically pleasing appearance.

6. Replace the jerry-rigged wiring, and repair all defective electrical devices throughout all structures. Provide evidence to Harbors Division that a licensed electrician is hired to perform the repairs and improvements. Provide to Harbors Division a detailed list of itemized electrical repairs. All electrical devices, fittings, and appurtenances shall meet or exceed the guidelines and standards as recommended by the National Electrical Manufacturers Association (NEMA). Alternate measures are to completely disconnect the service to this panel box and render all outgoing circuits completely inoperable.

7. Cease washing vehicles and equipment anywhere on the permitted premises.

8. All wash water used for personal cleansing shall be contained and disposed of at a permitted sanitary sewer.

9. Effectively clean all areas with visible petroleum hydrocarbon stains.

10. The stockpile of excavated soil shall remain in place while the following actions are addressed:

    a. Completely cover the soil stockpile with a tarpaulin or other durable covering. Surround the base of the stockpile with substantial silt barriers to prevent soil and silt migration during a rain event.
    b. Prepare a soil-sampling plan and submit to Harbors Division for review and ultimate acceptance by Hawaii Department of Health (HDOH).
    c. After the soil-sampling plan is accepted by HDOH, collect soil samples and analyze for potential contaminants.
    d. Provide laboratory analytical results to Harbors Division, Engineering Environmental Section for review and acceptance.
    e. Excavate all soil in the general area where paintbrushes were previously cleaned and where painting rinsate was disposed of into stockpiled soil.
    f. If lab results reveal that the soil is contaminated with regulated chemical constituents, please containerize all excavated soil.
    g. Properly dispose of all excavated soil at a certified facility. Provide all disposal records and associated documentation to Harbors Division for review and verification.

11. The Permittee shall comply with all applicable OSHA regulations regarding workplace safety throughout the permitted premises, in that:

    Each employer

    (1) Shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
    (2) Shall comply with occupational safety and health standards promulgated under this Act.

    Reference: OSH Act of 1970, Section 5 – Duties. (a.k.a. The General Duty Clause)

Failure to complete the above-mentioned Corrective Actions 1 to 11 within 20 days of the date of this letter will result in further adverse administrative action, and/or revocation of your Revocable Permit. Your immediate attention in this matter is appreciated.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Enc.

c: Weston Solutions (Mr. Mark Ambler)

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

IN REPLY REFER TO:

HAR-PM
5531.12

May 30, 2012

Mr. Daniel Kahler
Kumu Corporation
50-K Sand Island Access Road
Honolulu, Hawaii 96819

With copy to:
Mr. Daniel Kahler
Kumu Corporation
91-1057 Kumimi Street
Ewa Beach, Hawaii 96706

Subject: Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, Hawaii, Tax Map Key No. 1-2-23:73P; Revocable Permit No. H-97-1995

Dear Mr. Kahler:

On March 1, 2012, State of Hawaii Department of Transportation Harbors Division (Harbors Division) personnel made a visit to the premises used by Kumu Corporation permitted under Revocable Permit No. H-97-1995 (Revocable Permit). The reason for the visit was to observe and document conditions and comments made during an earlier site visit conducted on November 30, 2011, by our Environmental Consultants, Weston Solutions. Also present during that visit was Mr. Jim Galariada, CSP, Environmental Health Specialist IV with Harbors Division, Engineering Environmental Section. Enclosed is the inspection report from Weston Solutions. The following conditions exist at the permitted premises:

1. Throughout your permitted premises, there are numerous containers stored, with contents of various types of Hazardous Materials (HM). These containers of HM are improperly stored and improperly managed, and in most cases, haphazardly strewn about the work area on the permitted premises.

2. It was noted that automotive parts and other mechanical appurtenances are sold as part of your normal business operation. (Are these used parts that are covered with grease or other debris that could be characterized as HM? If so, please clearly indicate and state this issue in this section.)

3. At the corner of the permitted premises, in an enclosed area, and partially obstructed from view, is an abandoned van. The van appears to be partially disassembled, inoperable, and in a generally poor state of repair. (Is this derelict van leaking any fluids, or is there any evidence of such fluid leaks? If so, please clearly indicate and state this situation in this section.) Strewn about this enclosed area is a large accumulation of debris, discarded automotive parts, and improperly discarded containers of HM. The general condition of housekeeping in this area is deplorable and in violation of the provisions of the Revocable Permit.

4. The unimproved access lane to this area originally was designed for two lanes. The original outbound lane, opposite from your permitted premises, is now completely blocked by a large accumulation of discarded vehicles, discarded tires, discarded automotive appurtenances, improperly discarded containers of HM, and other kinds of debris. Currently there is only one lane available for passage. Please understand that this current condition prevents the ready and unobstructed access by emergency vehicles should there be a need to access this area for emergency response situations. This condition presents a very serious public safety issue. (Can these discarded materials be a source of contamination of the premises caused by Hazardous Materials? If so, please clearly indicate and state this situation in this section.)

   Additionally, we observed that you allow available workspace within the permitted premises to be rented out to other business enterprises that are not associated with Kumu Corporation, in a legally defined business relationship that operates as part of your normal business operation. This arrangement suggests, or actually constitutes, a sublease arrangement, which is not authorized under the provisions of the Revocable Permit.

   You have stated in the past this accumulation of debris does not belong to your business, and is not a by-product of your normal business operation, and that you are not responsible for this condition. Considering the type of normal business operations that Kumu Corporation is engaged in, and the general condition of your work areas, it could be reasonably argued with prudent judgment that this debris originated from your permitted premises.

5. Throughout your permitted premises are numerous structures of substantial construction and utility. After review of our files on Kumu Corporation, no written request of any kind was ever submitted to Harbors Division, Engineering Branch, for permission to construct these improvements.

The above-mentioned conditions are in many cases in direct violation of the Terms and Conditions of the Revocable Permit for this property.

This letter serves notice that the PERMITTEE shall immediately effect the following corrective actions:

1. Remove in the proper manner, in accordance with EPA regulations, all Hazardous Materials and all suspected Hazardous Waste from the permitted premises.

2. Remove in the proper manner, in accordance with applicable City & County of Honolulu Ordinances and in accordance with applicable Hawaii Revised Statutes, the derelict vehicle that is presently stored on the permitted premises, and remove and thoroughly clean this immediate area of all debris.

3. Remove in the proper manner, in accordance with applicable City & County of Honolulu Ordinances and in accordance with applicable Hawaii Revised Statutes, the large accumulation of discarded vehicles, discarded tires, discarded automotive appurtenances, improperly discarded containers of HM, and other kinds of debris from the unimproved access lane directly adjacent to the permitted premises.

4. Cease and terminate any and all sub-leasing activities and evict all unauthorized Tenants and businesses from the permitted premises that are not in a legally defined business relationship that operates as part of your normal business operation.

5. Remove all structures and improvements from the permitted premises that were constructed without obtaining authorization for their construction from the Harbors Division.

6. Arrange for a qualified Environmental Services firm to conduct the appropriate tests including obtaining soil samples to determine if any contamination from Hazardous Materials is present on the permitted premises.

In addition to the foregoing breaches, your account with the Harbors Division Customer Account No.1009380 is delinquent as of May 17, 2012, with a balance outstanding of $11,298.17.

Paragraph No. 19, Termination and Revocation of your permit provides that the State may terminate your permit upon five (5) calendar days written notice in the event the permittee fails to pay the rental when due or otherwise breaches any of the terms and conditions.

Accordingly, due to the multiple breaches referenced above, please be informed that by **June 11, 2012**, the rental delinquency must be cured and the six corrective actions described above must be completed and satisfactorily resolved; otherwise, Revocable Permit No. H-97-1995 will be terminated.

Termination of Revocable Permit No. H-97-1995 **will not** relieve you of your financial obligations to clear your outstanding indebtedness, **nor will it relieve** you of your responsibilities to properly clean-up any and all Hazardous Materials and any contamination present on the premises caused by such Hazardous Materials and to properly restore the premises. The State reserves all of its rights, both under the permit as well as under applicable laws, to pursue any and all remedies in addition to termination of the permit to recoup the delinquent rent, as well as any and all charges related to the clean-up and restoration of the property. The State shall also seek the recovery of any and all environmental fines and penalties imposed upon the premises caused by your use of the premises under the permit.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Enc.

c: Weston Solutions (Mr. Mark Ambler)

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:

HAR-PM
5532.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

May 30, 2012

Mr. Mervyn Lee, Esq.
Attorney for the Family of the late Richard M. Masuda
169 S. Kukui Street, Suite 202
Honolulu, Hawaii 96813

With a copy to:
Richard K. Masuda Masonry
833 Ekoa Place
Honolulu, Hawaii 96821

Subject: Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, Hawaii, Tax Map Key No. 1-2-23:74P; Revocable Permit No. H-97-1987

Dear Mr. Lee:

Please convey to the Richard K. Masuda family our condolences at the passing away last year of Mr. Masuda. Also, please share our apologies for the delay in responding to your letter, dated August 11, 2011.

Due to Mr. Masuda's passing, we feel that the appropriate action would be to close-out and terminate the permit to the Richard K. Masuda Masonry (Masuda Masonry). Concurrently, Mr. Alan Shintani may submit an application for the premises which will be evaluated separately.

While we do not wish to appear insensitive, there are serious environmental matters related to the permitted property. Before the Masuda Masonry permit can be closed out, these environmental matters will need to be addressed.

On April 25, 2012, State of Hawaii Department of Transportation Harbors Division (Harbors Division) personnel made a visit to the premises used by Masuda Masonry, permitted under Revocable Permit No. H-97-1987. The purpose of the visit was to observe and document the environmental conditions that exist at this location. Present during the visit were Mr. Jim Galariada, Environmental Health Specialist, Harbors Division, Engineering Environmental Section, and Mr. Joseph Weidenbach, Environmental Consultant with Weston Solutions.

Enclosed is the inspection report from Weston Solutions. The following conditions exist at the permitted premises:

1. Throughout the premises there are numerous containers of improperly and haphazardly stored Hazardous Materials (HM). In this situation, it is impossible to ensure the chemical compatibility of the contents of each container.

2. Most of the containers of HM are in generally poor condition and unserviceable. Containers are rusted, damaged, have missing or indiscernible labels, and contents are leaking to the ground.

3. A wooden shed is used for the storage of a large quantity of unknown HM. The shed is not marked with any type of warning signs. In the event of a fire, fire suppression equipment is not available.

4. Combustible debris is strewn throughout the premises, and in many areas co-mingled with unidentified HM.

5. Two gasoline-powered cement mixers are stored without cover. It is unknown if the engines still contain any fluids. These machines are stored without drip pans.

6. An abandoned pleasure boat is stored on the premises. The boat appears to be inoperable and in a partial state of disrepair.

7. There are instances where HM is stored with general building material. The physical configuration of these storage areas are unstable and present a hazardous condition for workers responding to the premises.

8. A front-end loader, belonging to Alan Shintani, Inc., is parked on the premises. The **equipment is parked without drip pans.**

9. A makeshift latrine and shower was constructed on the site without the prior written approval of the Harbors Division. The wastewater drains to an unknown location.

The above-mentioned conditions are in many cases in direct violation of the Terms and Conditions of the Revocable Permit for this property.

We ask that the PERMITTEE immediately effect the following corrective actions:

1. Remove the pleasure boat from the permitted premises. Remove the two cement mixers from the permitted premises. Remove the front-end loader belonging to Alan Shintani, Inc., from the permitted premises.

2. Remove all scrap metal, scrap lumber, and other combustible material from the permitted premises.

3. Remove in the proper manner, in accordance with EPA regulations, all Hazardous Materials and suspected Hazardous Waste from the permitted premises.

4. Provide for and accomplish the reorganization of all useable building material into a useable storage configuration that will be stored in such a way as to preclude any recognized hazardous conditions.

5. Clear the permitted premises of all overgrown vegetation and unsightly brush to render the premises in a pleasantly aesthetic appearance.

6. Arrange for and conduct soil sampling to determine if any hazardous contaminates are present on the permitted premises.

7. Immediately cease using the makeshift latrine and shower unless it can be established that the system is connected to a septic system permitted by the Hawaii Department of Health. If the latrine is not connected to a permitted septic system, immediately disconnect the water supply to this structure. Cap the water supply line, or render the service valve inoperable, and remove the structure from the permitted premises.

We ask that the corrective actions 1 to 7 above be completed by June 18, 2012. Your immediate attention in this matter is appreciated.

If you have any questions, please call Mr. Calvert Chun of our Property Management section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Enc.

c: Weston Solutions (Mr. Mark Ambler)

HAR-EE

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:
HAR-PM
5535.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

June 5, 2012

Mr. Norman Ishikawa and Mrs. Dolores Ishikawa
dba Norman's Tractor Service
PO Box 2280
Ewa Beach, Hawaii 96706

Subject: Environmental Assessment of Permitted Property at Keehi Industrial Lots, Honolulu, Oahu, Tax Map Key No.1-2-23-36; Revocable Permit No. H-97-1988

Dear Mr. and Mrs. Ishikawa:

On November 21, 2011, a site visit was made to the permitted premises of Norman's Tractor Service. The reason for the visit was to observe and document environmental compliance efforts in regard to all applicable storm water discharge regulations required by the Hawaii Department of Health; and to observe and document Tenant compliance efforts in regard to the Terms and Conditions of the Revocable Permit. Conducting the inspection was Mr. Joseph Weidenbach, of Weston Solutions, environmental consultants for Hawaii Department of Transportation, Harbors Division, Engineering Environmental Section. Enclosed is the inspection report from Weston Solutions. The following conditions exist:

1. Throughout your permitted premises are numerous containers of various types of Hazardous Materials (HM). These containers of HM are improperly stored and managed.

2. Two 1000-gallon Above Ground Storage tanks (AST) are used in the normal course of your business operations. The AST are improperly installed and managed according to prevailing industry standards. The AST contains an HM – Diesel.

3. Throughout your permitted premises are numerous structures of substantial construction and utility. After review of our files on Norman's Tractor service, no written request of any kind was ever submitted to Harbors Division, Engineering Branch for permission to construct these improvements.

4. General housekeeping throughout needs to be improved. Many of the work areas have recognizable hazardous conditions.

The above-mentioned conditions are in many cases in direct violation of the Terms and Conditions of the Revocable Permit for this property.

The PERMITTEE shall immediately affect the following Corrective Actions:

1. Remove all Hazardous Materials and suspected Hazardous Waste from the permitted premises.

2. Remove the AST and all associated systems and appurtenances.

3. Remove all structures and improvements from the permitted premises.

4. Arrange for and conduct soil sampling to determine if any hazardous contaminates are present on the permitted premises.

5. The Permittee shall comply with all applicable OSHA regulations regarding workplace safety, in that:

   (a) Each employer --

   (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

   (2) shall comply with occupational safety and health standards promulgated under this Act.

   Reference: OSH Act of 1970, Section 5 – Duties. (a.k.a. The General Duty Clause)

Failure to complete the above-mentioned Corrective Actions 1 to 5 within 20 days of the date of this letter will result in further adverse administrative action, and/or revocation of your Revocable Permit. Your immediate attention in this matter is appreciated.

If you have any questions, please call Mr. Calvert Chun of our Property Management Section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division'
Enc.

c: Weston Solutions (Mr. Ambler)

bc: HAR-S, HAR-EE, HAR-O

CC:wh/br

HAR-EE

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:
HAR-PM
5539.12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 So. Nimitz Highway, Honolulu, Hawaii 96813

June 5, 2012

Mr. Lincoln Timothy Saito dba Kokua Recycle
1059 12th Avenue, #B
Honolulu, Hawaii 96816

Subject: Environmental Assessment of Permitted Property at Keehi Industrial Lots, Kalihi-Kai, Honolulu, Oahu, Tax Map Key No. 1st/1-2-23: 47; Governor's Executive Order No. 3708, Revocable Permit No. H-07-2577

Dear Mr. Saito:

On May 31, 2012, a visit was made to the permitted premises of Kokua Recycle. The reason for the visit was to observe and document Tenant compliance efforts in regard to the Terms and Conditions of the Revocable Permit. Conducting the inspection was Mr. Jim Galariada, CSP, Environmental Health Specialist IV of Harbors Division, Engineering Environmental Section, and Mr. Calvert Chun, Property Management Supervisor, Harbors Division, Property Management Section. Enclosed is the inspection report from Weston Solutions. The following conditions exist:

1. Throughout your permitted premises are numerous containers of various types of Hazardous Materials (HM). These containers of HM are improperly stored and managed. Many of the containers are severely damaged, and the contents cannot be determined. Some of the discarded containers are placed in rubbish receptacles that suggests improper disposal.

2. On the ground throughout the work area are obvious signs of spills, stains, and accumulations of petroleum-based products.

3. Discarded tires are strewn throughout the permitted premises.

4. Two automotive lead-acid batteries are placed on the ground without containment or cover of any kind.

5. Throughout your permitted premises are numerous improvements of substantial construction and utility. One makeshift structure seems to be used as a recreation room. After review of our files on Kokua Recycle, no written request of any kind was ever submitted to Harbors Division for permission to construct these improvements.

6. General housekeeping throughout the permitted premises needs to be improved. Many of the work areas have recognizable hazardous conditions such as several extension cords strewn about the work area.

7. Large accumulations of excess building material and other types of combustible material are stored throughout the permitted premises. Adequate fire suppression equipment is not readily available at or near the sources of combustion.

8. Two forklifts are stored on the permitted premises. The forklifts are in a state of partial disassembly and inoperable, and are leaking petroleum-bases fluid on to the ground.

9. A derelict van is stored on the permitted premise. It is used for storage of various kinds of discarded items and other debris.

10. A derelict moped is stored on the permitted premises. It is unknown if the fluids or battery have been removed.

The above-mentioned conditions are in direct violation of the Terms and Conditions of the Revocable Permit for this property. The PERMITTEE shall immediately affect the following Corrective Actions:

1. Remove all Hazardous Materials and suspected Hazardous Waste from the permitted premises.

2. Remove all unserviceable vehicles and equipment from the permitted premises.

3. Remove the makeshift structure that is used as a recreation room.

4. Housekeeping throughout the permitted premises is deplorable and unacceptable. Excess and unserviceable building materials and combustible debris creates safety concerns for fire hazards, and can provide harbor for vermin. Remove all debris and restore the entire permitted premises to an aesthetically pleasing appearance.

5. Effectively clean all areas with visible stains from petroleum-based products.

6. The Permittee shall comply with all applicable OSHA regulations regarding workplace safety throughout the permitted premises, in that:

   (a) Each employer --

   (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

Reference: OSH Act of 1970, Section 5 – Duties. (a.k.a. The General Duty Clause)

Failure to complete the above-mentioned Corrective Actions 1 to 6 within 20 days of the date of this letter will result in further adverse administrative action, and/or revocation of your Revocable Permit. Your immediate attention in this matter is appreciated.

If you have any questions, please call Mr. Calvert Chun of our Property Management Section at 587-1944.

Sincerely,

RANDY GRUNE
Deputy Director, Department of Transportation
Harbors Division

Enc.

c: Weston Solutions (Mr. Mark Ambler)

bc: HAR-S, HAR-EE, HAR-O

CC:wh/br