Linear Waterbody Data Sheet **Survey Description** Project Name: Waterbody Name: Date: ACP County/Parish: State: Photos: esi NIEIS VA Southamator Associated Wetland ID(s): Nearest Milepost: Tract Number(s): 25-001-A005, 25-601-A001, WSOP DO! 25-001- A003 Survey Type: (check one) □Centerfine ☑Re-Route ☐Access Road □Other: 72. Physical Attributes Stream Classification: Perennial (check one) □Ephemeral □Intermittent Waterbody Type: (check one) ☐ Other: ₩ Canal □River ☐ Stream ☐ Ditch OHWM OHWM Indicator: 🛛 Clear line Water staining (check all that apply) □Shelving □Wrested □Scouring Width: on bank vegetation Height: Litter and ☐ Bent, matted, or missing ☐ Wrack line ☐Abrupt plant ☐Soil characteristic change community change N/A□ Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Bank to Top of Bank: to Toe of Slope: Water Edge: N/A□ N/A 🗆 Sinuosity: Water velocity: Bank height Bank slope check one) (Approx.) Right: Straight degrees Left: □ Meandering degrees N/A□ Qualitative Attributes Water Appearance: Surface □No water (check one) □Clear □Turbid □Sheen □Algal ☐Other: \scum on surface mats 🎗 Sand X Silt/ clay ☐ Organic ☐ Other: Substrate: □ Bedrock □ Boulder □ Cobble □ Gravel (check all that apply) % of Substrate: Width of Riparian Zone: Vegetative Layers: Trees: Saplings/Shrubs: (check all that apply) ⊠ Herbs Avg. DBH of Dominants: NA N/A□ Dominant Bank Vegetation (list): Aquatic Organisms Observed (list): None observed T&E Species Observed (list): none observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): maintaines Tributary is: (check one) □ Natural Manipulated ☐ Artificial, man-made Stream Quality a: □ High (check one) □ Low Moderate

	Waterbod	y II	D;	
į	5501	7(þφ	2

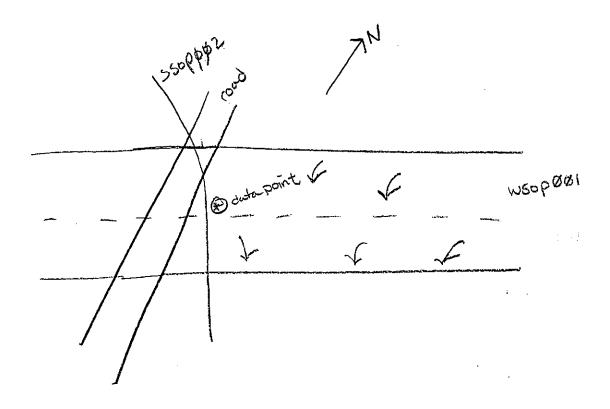
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssop002 facing south upstream.



Waterbody ssop002 facing north downstream.



Waterbody ssop002 facing east across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Project Name: Waterbody Name: ALP 100 40SE Crew Member Initials: State: County/Parish: Photos: LR,RT ESI Tract Number(s): 25-001-4066, Associated Wetland ID(s): Nearest Milepost: MSOD BO 25-001-2003 Survey Type: (check one) □ Centerline □Re-Route □Access Road □Other: Physical Attributes Stream Classification: Perennia! (check one) □ Ephemeral □Intermittent Waterbody Type: **☑** Canal (check one) ☐ Stream ☐ Ditch ☐ Other: □River OHWM OHWM Indicator: Clear line on bank Water staining □ Shelving Width: (check all that apply) □Wrested **ID**Scouring vegetation ft. Height: ☐Litter and □Bent, matted, or missing □Wrack line ☐Abrupt plant ☐Soil characteristic change vegetation debris community change N/A□ Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of Depth of Water: Bank to Top of Bank: to Toe of Slope: Water Edge: (Approx.) N/A 🗆 N/A□ Bank slope Bank height Sinuosity: Water velocity: Slow Approx) Right: Straight **∠1** fps degrees Left: □Meandering N/A□ degrees Qualitative Attributes Water Appearance: Algai mats (сћеск опе) □No water □ Clear □Turbid □Sheen □Surface □Other: on surface scum ☐ Bedrock ☐ Cobble X Sand Silt/ clay ☐ Organic ☐ Other: Substrate: ☐ Boulder (check all that apply) % of Substrate: Width of Riparian Zone: Vegetative Layers: (check all that apply) Trees: Saplings/Shrubs: ☑ Herbs >100 ft. -D in. Avg. DBH of Dominants: N/A 🗆 Dominant Bank Vegetation (list): Styraciflux, Pines taeda, Arundinaria Acer rubrum, Liquidambar Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Submerged wood Aquatic Organisms Observed (list): none observed T&E Species Observed (list): observed none Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): (ana) maintained Tributary is: (check one) ☐ Natural ☐ Artificial, man-made Manipulated Stream Quality *:

(check one)

□ High

☑ Moderate

□ Low

i	Waterbod	уI	D:
	550	ρ	<u> 100</u>

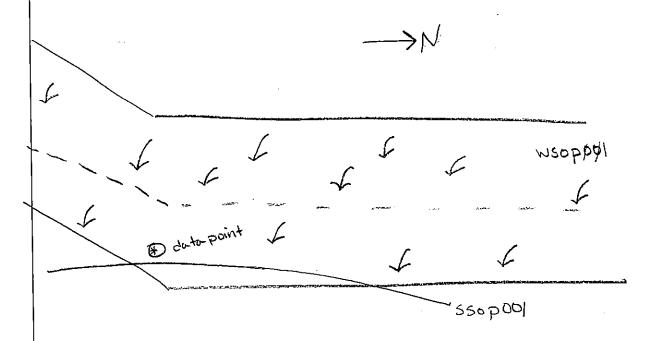
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; wafer color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

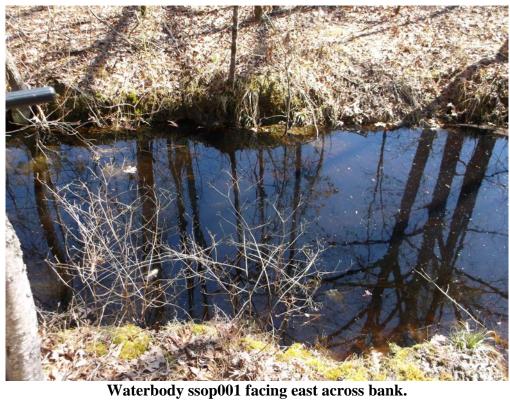




Waterbody ssop001 facing north upstream.



Waterbody ssop001 facing south downstream.



Linear Waterbody	/ Data Sheet		The state of the s					
Survey Description			<u> </u>	<u> </u>		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Project Name:		Waterbody Nai			i	terbody ID:	ر <u>د</u> ا	Date:
ACP "		42	to Mehe	Min Riva	> 3	550P/	10 3	412115
State:	County/Parish:		Company:		Crew M	ember Initials	: Photos:	
l VA I	Southam	<i>Notal</i>	EST		L	KIRT	Facing	NWISE, NE
Tract Number(s):			Nearest Milep	ost:	' - /	Associated W		
25001-A0	06		14	<u> </u>		WSOP	000	
Survey Type: (check one)	□ Centerline	: ⊠ (Re-1	Route	□Access Road	:	□Other:		
Physical Attributes Stream Classification:	ar jar egg itt i es.		n Politika (n. 1917) 1908 - Grand Gertal			n Prints		
(check one)	Ephemera	al □1ntei	rmittent	Perennial				
Waterbody Type: (check one) □	River □ Str	eam □ Dito	ch 🗏 Car	nal 🗆 Other	r:			
OHWM Width:ft.	OHWM Indica (check all that appl)		Clear line on bank	□Shelvir	ng	□Wrested vegetation	Scourin	g
Height: <u>Z</u> ft.	□ Bent, r vegetatio	matted, or missir on	ng □Wrack line	e □Litter a debris	ind	□Abrupt plan community c		haracteristic change
Width of Waterbody - To				Width of Waterb	ody - Wa	ater Edge to	Depth of Wate	r:
Bank to Top of Bank:	to Toe	of Slope:	\	Water Edge:	1		(Арргох.)	7
<u>8</u> ft.	_	ft.			<u> </u>	•	 N/A□	ft.
Sinuosity:	Water	velocity:	- 1	N/A□ Bank height			Bank slope	
(check one)	(Approx)			Right:	c		Righ	t:
Straight		<u> </u>	fps	_	<u> </u>	t.		75_ degrees
□Meanderin	g N/A□			Left:	<u>5_</u> f	t.	Lef	^{rt:} <u>45</u> _{degrees}
Qualitative Attribut	tes		•			* •		
Water Appearance:		o. \	Co					
(check one)	No water □	Clear XTur		_	urface cum	□Algal mats	□Other:	
	Bedrock 🗆 Be	oulder 🛘 Cob	ble ☐ Gravel	☐ Sand	Ä Silt/ cl	lay 🗆 Organi	ic 🗆 Other:	
(check all that apply) % of Substrate:	%	%	%	% %	100 9	4	% %	
			_~	····	·			
Width of Riparian Zone	: Vegetativ (check all tha	•	☐ Trees:		□ 0 ν			
N/A□ <u>>100 ft</u> .	li .	l of Dominants:		in.	— Sapiin	igs/Shrubs: _in.	Herbs NA i	n.
Dominant Bank Vegeta	tion (list): Qiga	ntea,	Saccha	rum g	jigar	Heum	, Rubi	us argutus
Aquatic Habitats (ex: su	ibmerged or emerge	ed aquatic vegetati	on, overhanging b	panks/roots, leaf pa	acks, large	submerged woo	od, riffles, deep poo	ols):
submerge,		.						<u> </u>
Aquatic Organisms Ob								
hone dos	served							
T&E Species Observed								
none ob	served							
Disturbances (ex: livesto	<u> </u>	in waterbody, was	ste discharge pipe	s):				
maintair	us ca	nal						
Tributary is: (check one)	□ Natural	□A	artificial, man-ma	ade Mani	ipulated			
Stream Quality *: (check one)	□ High	₩.	/loderate	Low				
	— rugu	/4 .\\	MACI GIE					

Wate	rbo	ody	ID):	
5	5	O	P	OD	3

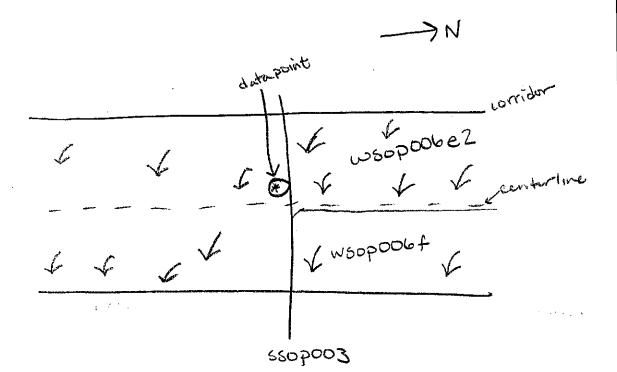
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssop003 facing southeast upstream.



Waterbody ssop003 facing northwest downstream.



Waterbody ssop003 facing northeast across bank.

Linear Waterbody Data Sheet Survey Description
Project Name: Waterbody ID: Waterbody Name: Date: 5500018 5/17/16 UNITED B MONTO ACP

		10110	ucknorn war	mo		01.116
State:	County/Parish:	Compa	any:	Orew Member Initia		,
VH	Southam	pton t	SI	LR, JB	, Wi	E, N, culvert
Tract Number(s):	000		t Milepost:	Associated	Wetland ID(s):	
25-00	1-BO31, 1	3029	16.4		NA	
Survey Type: (check one)	□Centerline	Re-Route	□Access Roa	d □Other:		
Physical Attribute						
Stream Classification (check one)	: □Ephemeral	Chinton Hont	[]December			
	—Epnemerai	ØIntermittent	□Perennial			
Waterbody Type: (check one)	□River ★ Stre	am 🗆 Ditch	□ Canal □ Othe	or:		,
ОНWМ	OHWM Indicate (check all that apply)	or:				
Width:ft.	(спеск ан таг арргу)	on ba	ear line □Shelvi ank	ng	□Scouring	□Water staining
Height:ft.	□Bent, m vegetation	atted, or missing \(\square\)	rack line Litter a	and □Abrupt pla		aracteristic change
N/A□ Width of Waterbody -	Top of Width of	Waterbody - Toe of S	Slope Width of Water	body - Water Edge to	Depth of Water:	
Bank to Top of Bank:			Water Edge:	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(Approx.)	
<u>6</u> ft.		2_ft.	-	ft.), <u>5</u> ft.
61			N/A□		N/A 🗆	
Sinuosity: (check one)	(Approx.)	elocity:	Bank height Right:		Bank slope Right:	
Straight		fps	Kight. –	3_ft.	Kight.	80 degrees
□Meander	ring N/A□		Left:	3 ft.	Left:	80 degrees
0 - 114 - 41 - 444 - 114				1986		uogiooo
Qualitative Attrib	utes					
(check one)	□No water ★CI	ear □Turbid	TO THE REAL PROPERTY AND ADDRESS OF THE PARTY	urface □Algal cum mats	□Other:	
	☐ Bedrock ☐ Bou	der 🗆 Cobble 🗆	Gravel Sand	Silt/ clay Organ	ic Other:	
(check all that apply) % of Substrate:	%	%%	<u>% 40 %</u>	60%	%%	
Width of Riparian Zon	TOTAL CONTRACTOR OF THE RESIDENCE OF THE		ento	s. In James State		
30 ft.	(check all that a	f Dominants:	Trees:	☐ Saplings/Shrubs:	A Herbs	
N/AL	(approx.)	Dominants.	in.	in.	NA in.	
Dominant Bank Veget	ation (list):	raciflua,	ALECTUR	rum Viti	is rotun	difolia
Aquatic Habitats (ex: s						
none						
Aquatic Organisms O	hserved (list):					
none	bserveu (list).					
T&E Species Observe	d (list):					
none						
Disturbances (ex: lives	tock access, manure in	waterbody, waste discharg	e pipes):			
colvert	at roa	d				
Tributary is: (check one)	□ Natural	Artificial, m	an-made ☐ Manip	pulated		
Stream Quality *:	П		=1			
(check one)	☐ High	Moderate	□ Low			

High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

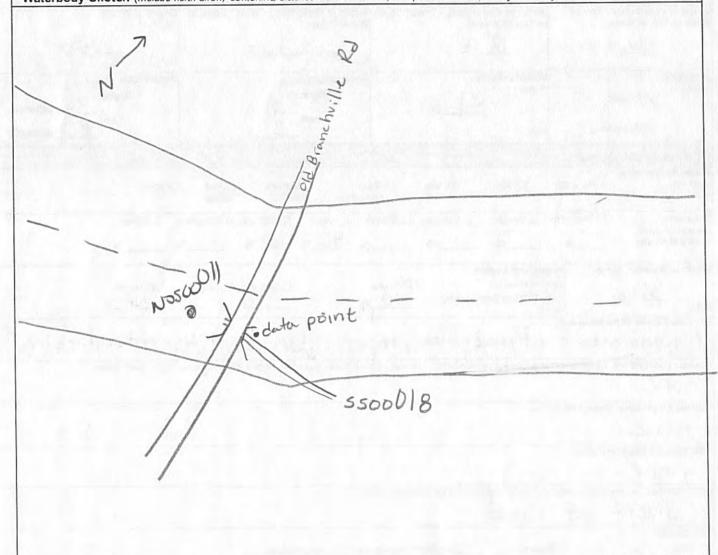
Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

colvert at road

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features)





Waterbody data point ssoo018 facing west upstream.



Waterbody data point ssoo018 facing east downstream.





Waterbody ssoo018 facing west upstream at culvert crossing.

Linear Waterbody Data Sheet Survey Description
Project Name: Waterbody Name: Date: Waterbody ID: 5/17/16 5500017 B. Warn S.

The second responsible to the contract		1340	moun 7	amp		3500-	Salaret artifications.	Tard of the sale	111110
State:	County/Parish:		Company:		1	lember Initia		otos:	
VH	South	amptor	E5	I	Lk	4, JB	199 11 199	N. S.	E
Tract Number(s):			Nearest Mile	ACM MEDICAL TRANSPORT OF THE PARTY OF THE PA		Associated \	Vetland ID(s):	FRANCISCO T
26-001-B	031, 803	12	11	0.5		W	50001	01	New years
Survey Type: (check one)	□Centerlin	e ⊈Re-F	Route	□Access Roa	ıd	□Other:	PARTORS	Parcel yes	Can according
Physical Attribute	S								
Stream Classification: (check one)	□Ephemer	al □Inter	mittent	Perennial		•			The second second
Waterbody Type:									
	□River Ø St	ream 🗆 Dito	ch □ Ca	nal 🗆 Othe	er:				
ОНWМ	OHWM Indica		П. С! !:	T Challi			□0-		[]10/-t
Width: 7_ft.	(спеск ан итак арри	"	☐ Clear line on bank	e □Shelvi	ng	□Wrested vegetation	⊔Sc	ouring	□Water staining
Height:ft.	Bent, vegetation	matted, or missin on	g Wrack lin	e □Litter a debris	and	□Abrupt pla community o		Soil charac	teristic change
Width of Waterbody - Bank to Top of Bank:		of Waterbody - of Slope:		Width of Water Water Edge:	body - W	ater Edge to	Depth of \	Water:	
10 ft.		5 .			3 ft			1	ft.
				V/A□ -		•	N/A□		
Sinuosity:		velocity:		Bank height			Bank slop	e	
(check one)	(Approx.)	41		Right:	2 1		1	Right: 5	O degrees
· u			os	Left:	7	•		Left:	
Meanderi	ng N/A□			<u> </u>	<u>Ø</u>			2	O degrees
Qualitative Attribu	ites								
(check one)	□No water	Clear □Turb		March 2 Day Division Company	urface cum	□Algal mats	□Other:		
a serious and a serious serious and a serious serious serious serious serious serious serious serious serious	☐ Bedrock ☐ Bo	oulder 🗆 Cobb	le 🗆 Grave	☐ Sand	Silt/ cl	ay 🗆 Organi	c 🗆 Othe	er:	1
(check all that apply) % of Substrate:	%	_%	%	% <u> </u> %	100%	/o	%	_%	
Width of Riparian Zone	e: Vegetativ	e Layers:	.,						
100 ft.	(check all that	of Dominants:	ATrees:			gs/Shrubs:)⊠ He		
N/A□	(approx.)	or Dominants:		n. 🦠		_in.	<u>Nr</u>	<u>4</u> in.	
Arundinar	ition (list):	intea.	ALEr	rubru	m.	smila	(VD	tund	ifolic
Aquatic Habitats (ex: s		AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		Angele de la company de la com			CONTRACTOR OF THE PARTY OF THE		10110
overhana		1							
Aquatic Organisms Of	CONTRACTOR NOTICE AND ADDRESS OF THE PARTY O	713		No.					
0	served (IISI).								
trogs									
T&E Species Observed	i (list):								
Disturbances (ex: livest	ock access, manure	in waterbody, waste	discharge pipes):					
flows the	rough P	owerlir	ie fo	W					1
Tributary is: (check one)	□ Natural	□ Art	ificial, man-ma	de 🔀 Manip	oulated				
Stream Quality *:									
(check one)	□ High	M Mo	derate	□ Low					

Waterbody ID:		
5500	0	17

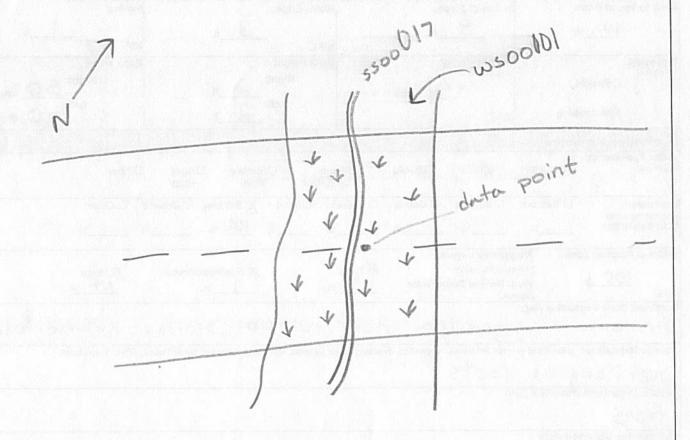
High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point locations, survey boundary, and IDs of associated features)





Waterbody data point ssoo017 facing north upstream.





Waterbody data point ssoo017 facing east across bank.

near Waterbody	Data Sheet					
rvey Description				hk/atash = du / D	In-t	
oject Name:		ody Name:		Waterbody ID:	Date:	SOUTTONE
TCV 15	ounty/Parish:	Tto Buckhon		SSOODI	Photos:	· Sept and
	Southampton		L	KR, CSM	N,S,V	V
act Number(s): 25-001-B	035	Nearest Milepo	ost:	Associated Wetl	and ID(s):	
irvey Type: leck one)	Centerline	□Re-Route	□Access Road	Other:		
nysical Attributes	(
ream Classification: eck one)	□Ephemeral	□Intermittent	Perennial		1940 - 6-10-10	
aterbody Type:	River 🗆 Stream	Ditch Can	al Other.			
HWM Width:ft.	OHWM Indicator: (check all that apply)	Clear line	□Shelving	□Wrested vegetation	□Scouring	□Water staining
Height:ft.	Bent, matted,	or missing DWrack line	e DLitter and debris	□ Abrupt plant community cha		cteristic change
Vidth of Waterbody - To Bank to Top of Bank:	op of Width of Wat	ft.	Water Edge:) _{ft.} (epth of Water:	5 _{ft.}
Sinuosity:	Water veloc		N/AD Bank height		I/A□ Bank slope	C-
Straight	(Approx.)	fps	Right: Left:	/ π. π.	Right:	80 degrees
Qualitative Attribu						
Water Appearance:	No water □Clear	Turbid 🗆 Sh	seen DSurfa		□Other:	
Substrate: [(check all that apply) % of Substrate:	□ Bedrock □ Boulde	r 🗆 Cobble 🗆 Grav	el & Sand &	Silt/ clay Organic	Other:	
Width of Riparian Zon	Vegetative Lar (check all that apply Avg. DEH of [(approx)) Tree	s:	Saplings/Shrubs:	Herbs Alain.	
Dominant Bank Vege Eupatorius	tation (list): m Capillifol	ium, Rubus a	argustus, D	icanthelium	1 acomi	natum
Aquatic Habitats rex:	1	uatic vegetation overhangin	g banks/roots leaf pac	ks Targe submerged woo	od riffies deep pools	i):
Aquatic Organisms	Observed (list):	identified	Small	fish		
T&E Species Obser	ved (list): observed					
Disturbances (ex. th.		waterbody waste discharge	prpesi:			
Tributary is:	□ Natural	★ Artificial, ma	n-made ☐ Man	ipulated		
Stream Quality ::	□ Hich	□ Moderate	* Low			

Waterbody ID:

* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

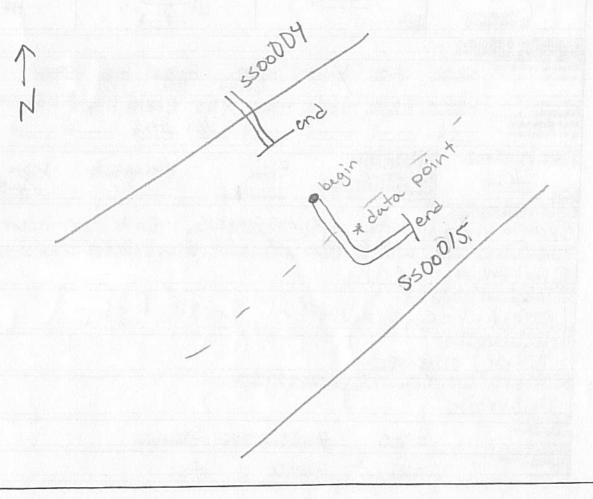
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor, minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

recent rain

Waterbody Sketch (Include north arrow, centerline distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssoo015 facing north upstream.

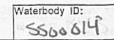


Waterbody ssoo015 facing south downstream.



Waterbody ssoo015 facing west across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: 21 Sept 2015 5500014 ACP ant to BuckhoRN Crew Member Initials: County/Parish: State: Southampton S, E, W LKR, CSM VA Nearest Milepost: Associated Wetland ID(s): Tract Number(s): 25-001-B035 None Survey Type: Centerline ☐Access Road □Other: (check one) □Re-Route Physical Attributes Stream Classification: (check one) □ Ephemeral □Intermittent Perennial Waterbody Type: Ditch ☐ Canal Other: ☐ Stream (check one) □River OHWM Indicator: (check all that apply) MWHO Www.vested Clear line on bank □Water ☐ Shelving ☐ Scouring Width: staining Height: □Litter and ☐ Abrupt plant ☐Soil characteristic change □Bent, matted, or missing □Wrack line community change debris N/A 🗆 Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: to Toe of Slope: Water Edge: ft. N/A 🗆 N/AD Bank slope Sinuosity: Bank height Water velocity: Арргох.) check one) Right: Right: Straight degrees Left: degrees □ Meandering N/AD Qualitative Attributes Water Appearance: □No water Turbid □Sheen □Surface □Algal Other: (check one) □ Clear on surface scum mats Silt clay Organic Other: ☐ Bedrock ☐ Boulder ☐ Cobble ☐ Sand Substrate: (check all that apply) 100% % of Substrate: Width of Riparian Zone: Vegetative Layers: Trees: ☐ Saplings/Shrubs: (check all that apply) Avg. DEH of Dominants: (approx) Dominant Bank Vegetation (list): Eupatorium capillifolium. Rubus argutus Hndropogon Les pedeza cuneata, Vivainica Aquatic Habitats (ex: submerged or emerged aquatic vegetation) overhanging banks(roots, leaf packs, large submerged wood, riffies, deep pools); emerged regetation Aquatic Organisms Observed (list): Small unidentified fish T&E Species Observed (list): None observ Disturbances fext threstock access manufe in waterbody waste discharge pipes): powerline easem Tributary is: ☐ Natural Anificial, man-made ☐ Manipulated (check one) Stream Quality 1: ☐ High (check one) ☐ Moderate

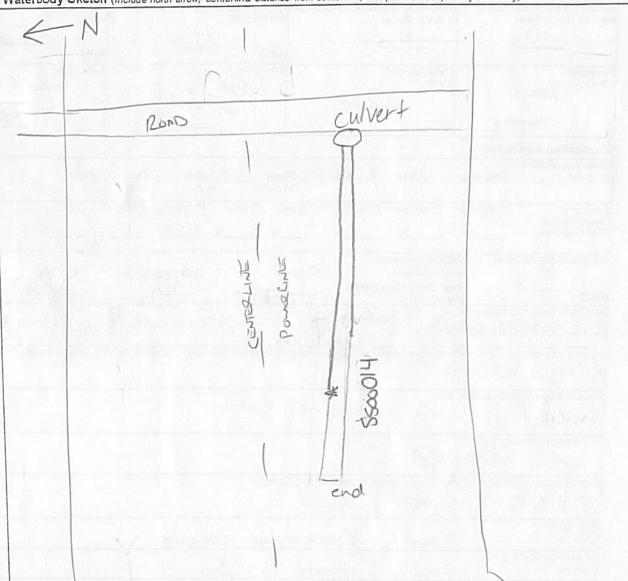


^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor, minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Waterbody Sketch (Include north arrow, centerline distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssoo014 facing east upstream.



Waterbody ssoo014 facing west downstream.



Waterbody ssoo014 facing south across bank.

Linear Waterbody Data Sheet

Survey Description	1								
Project Name:		Waterbody Nar	ne:		W	aterbody ID:		Date	:
Atlantic Coast Pipeli	ne	UNT to Tarra	ara Creek		ss	soa072		9/15	5/2015
State:	County:		Company:		Crew N	Member Initials	: P	hotos:	
Virginia	Southampton		NRG		GB, S	SA	3	3 photos	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland II	D(s):	
25-001-B043			18.6			wsoa071			
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□Access Road	l	□Other:			
Physical Attributes Stream Classification:	5								
(check one)	□Ephemera	ıl ⊠Inter	mittent	□Perennial					
Waterbody Type:									
	River Stre	eam 🗆 Dito	:h □ Ca	anal 🗆 Other:	:				
OHWM	OHWM Indicat								
Width: 2.0 ft.	(check all that apply)	⊠ Clear lin on bank	ne □Shelvin	g	□Wrested vegetation	⊠S.	Scouring	□Water staining
Height: 	□Bent, n vegetatio	natted, or missin n	g □Wrack li	ne □Litter ar debris	nd	□ Abrupt plan community ch		□Soil charad	cteristic change
Width of Waterbody - To	op of Width o	of Waterbody -	Toe of Slope	Width of Waterb	odv - W	ater Edge to	Depth o	f Water:	
Bank to Top of Bank:		of Slope:		Water Edge:	,		(Approx.)		
_ <u>3.0_f</u> t.	_	<u>1.5</u> ft.			<u>0.50_</u> ft.		N/A□	_0.12	<u>5_</u> ft.
Cinuacitus	Water	rologitur		N/A D					
Sinuosity: (check one)	(Approx.)	elocity:		Bank height Right:			Bank slo	Right:	
□Straight		_0.10_ fps	S		2.0_ft.			•	degrees
Moondorin		ipv	•	Left:				Left:	
⊠Meanderin	14/1.			-	<u>2.0_</u> ft.			_90)_degrees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water ⊠C	Clear □Turb	-	een □Sui surface scu		□Algal [mats	□Other:		
Substrate:	Bedrock □ Bo	ulder Cobb	le 🗆 Grave	el 🏿 Sand 🗓	⊠ Silt/ c	lay 🛭 Organic	□ Ot	her:	
(check all that apply) % of Substrate:						, ,			
	%			% <u>80</u> % _	<u>15</u> %	<u>5</u> %		%	
Width of Riparian Zone	: Vegetative (check all that		⊠ Trees:		☑ Sanlir	ngs/Shrubs:	M I	Herbs	
<u>ft</u> . N/A⊠	,	of Dominants:	<u>9.0</u> in.		<u>1.5_</u> in	_		10103	
Dominant Bank Vegeta	tion (list):								
River birch, America clearweed. Japanes	an holly, loblolly se honevsuckle	/ pine, red ma	aple, sweet	tgum, beautybe	erry, Ja	apanese stilt	grass,	Chinese p	orivet,
Aquatic Habitats (ex: su Leaf packs	bmerged or emerged	l aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, de	eep pools):	
•	1.00								
Aquatic Organisms Obs	served (list):								
frogs									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ck access, manure in	n waterbody, waste	discharge pipe	es):					
Livestock access, e.	xisting power le	one ROW							
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade 🗆 Manipi	ulated				
Stream Quality ^a : (check one)	☐ High	⊠ Mo	derate	□ Low					

Waterbody ssoa072	ID
ssoa072	

Form Rev. 07/09/2014

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Begins at head cut on edge of existing power line ROW, downstream continues out of corridor; flows through wetland wsoa071.

ProleEn data Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) PASTURE



Waterbody SSOA072 facing north upstream



Waterbody SSOA072 facing south downstream



Waterbody SSOA072 facing west across

Linear Waterbody Data Sheet

Survey Description	1							
Project Name:		Waterbody Nar	ne:		W	aterbody ID:		Date:
Atlantic Coast Pipeli	ne	UNT to Tarra	ara Creek		ss	soa071		9/14/2015
State:	County:		Company:		Crew N	lember Initials	Photo	s:
Virginia	Southampton		NRG		GB, S	SA	3 ph	otos
Tract Number(s):			Nearest Mile	post:		Associated W	etland ID(s):	
25-001-B043 Survey Type:			18.9			wsoa070		
(check one)	⊠Centerline	e □Re-F	Route	□Access Road		□Other:		
Physical Attributes	<u>; </u>							
Stream Classification: (check one)	⊠Ephemera	al □Inter	mittent	□Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	:h □ Ca	anal 🗆 Other	:			
OHWM Width: ft.	OHWM Indicat (check all that apply		⊠ Clear lin	e □Shelvin	g	□Wrested vegetation	⊠Scou	ing □Water staining
Height:	vegetatio			debris		□ Abrupt plant community ch		I characteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - Tof Slope:	Toe of Slope	Width of Waterbown	ody - W		Depth of Wa (Approx.)	ter:
ft.	_	4.0_ft.		_ N/A⊠	ft.		N/A⊠	ft.
Sinuosity: (check one)	Water (Approx.)	velocity: fps		Bank height Right: Left:	<u>3.5_</u> ft.		Bank slope Rig L	iht:80_ degrees eft:
⊠Meanderin	g N/A⊠			-	<u>4.0_</u> ft.			65 degrees
Qualitative Attribut	tes							
Water Appearance: (check one) ⊠	No water □0	Clear □Turb		een □Sui surface scu		□Algal [mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo	ulder Cobb	le □ Grave %	el ⊠ Sand □ _60_%	⊠ Silt/ c 30_%	lay ⊠ Organic	☐ Other:	,
Width of Riparian Zone	(check all that		[⊠] Trees: _ <u>8.0</u> _in.		⊠ Saplin _ <u>1.0</u> _in.	ngs/Shrubs:	⊠ Herb	s
Dominant Bank Vegeta	tion (list):							
Black walnut, sycam areenbriar, arape, el Aquatic Habitats (ex: su	<u>bonv spleenwo</u>	ort. ladv fern.	pokeweed.	<u>poison ivv.en</u>	<u>chante</u>	<u>r niahtshade</u>	<u>. winasten</u>	<u> </u>
none	briterged of emerged	a aqualic vegetaliol	ii, overnanging	oanks/100ts, lear pac	ks, large	submerged wood,	nines, deep p	0015).
Aquatic Organisms Obs	served (list):							
none								
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	discharge pipe	es):				
Existing power line I		•	•		due to	runoff.		
Tributary is: (check one)	□ Natural	⊠ Art	ificial, man-m	ade 🗆 Manip	ulated			
Stream Quality ^a : (check one)	☐ High	□ Мо	derate	⊠ Low				

Waterbody ssoa071	ID
ssoa071	

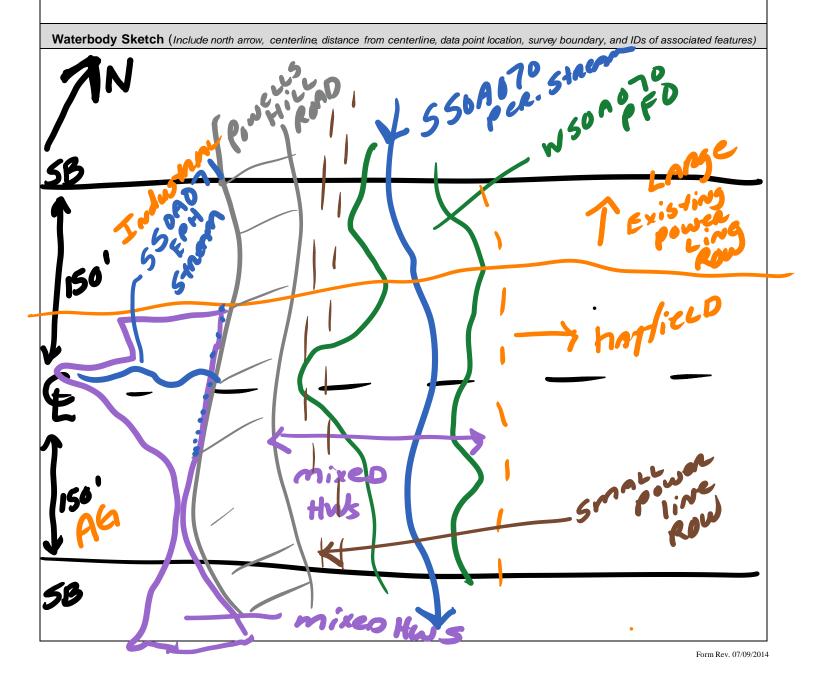
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Highly incised, small, ephemeral stream; unlikely channel would be present without excessive run off associated with industrial site and agricultural field; channel begins at wood boundary near centerline and ends near road where flow becomes diffuse erosional rill patterns.





Waterbody SSOA071 facing west upstream



Waterbody SSOA071 facing east downstream



Waterbody SSOA071 facing north across

Linear Waterbody Data Sheets

Survey Description	1								
Project Name:		Waterbody Nar	ne:		W	aterbody ID:			Date:
Atlantic Coast Pipeli	ne	UNT to Tarra	ra Creek		ss	soa070			9/14/2015
State:	County:	•	Company:		Crew N	Member Initials	: F	hotos:	
	Southampton		NRG		GB, S			3 phote	os
Tract Number(s):			Nearest Mile	post:		Associated W	etland	ID(s):	
25-001-B046			19.0			wsoa070			
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□ Access Road		□Other:			
Physical Attributes Stream Classification:	3								
(check one)	□Ephemera	ıl □Inter	mittent	⊠Perennial					
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	h □ Ca	anal 🗆 Other	:				
OHWM Width: ft.	OHWM Indicat (check all that apply		⊠ Clear lin	e ⊠Shelvin	g	□Wrested vegetation		Scouring	g □Water staining
Height: 1.5_ft. N/A□	□Bent, n vegetatio	natted, or missin	g □Wrack lii	ne ⊠Litter ar debris	nd	☐ Abrupt plan community ch		□Soil cl	haracteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - ⁻	Toe of Slope	Width of Waterbo	ody - W		Depth (of Water	-:
<u>9.0</u> ft.	_	<u>4.0</u> ft.			<u>3.0_</u> ft.		N/A□	_	<u>0.33</u> ft.
Sinuosity: (check one) □Straight	Water (Approx.)	/elocity: 0.40fp:	3	Bank height Right: Left:	<u>4.0_</u> ft.		Bank s	lope Right Left	70 degrees
⊠Meanderin	g N/A□			_	4.0_ft.				80 degrees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water ⊠C	Clear □Turb		een □Sui surface scu		□Algal [mats	□Other	:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo	ulder □ Cobb	le ⊠ Grave % <u>3</u> %	el ⊠ Sand □ _55_%	⊠ Silt/ c 35_%	elay ⊠ Organic	□ C	Other: %	
Width of Riparian Zone	: Vegetative (check all that				⊠ Saplir	ngs/Shrubs:	\boxtimes	Herbs	
_ <u>50_ft</u> - N/A□	Avg. DBH (approx.)	of Dominants:	<u>8.0</u> in.		_ <u>1.0</u> _in	_			
Dominant Bank Vegeta	tion (list):								
Willow oak, sycamo greenbriar, grape, n	<u>etted chain fer</u>	<u>n. ladv fern. t</u>	rumpet cre	<u>eper. poison iv</u>	V				
Aquatic Habitats (ex: su Overhanging roots,				banks/roots, leat pac	кs, ıarge	submerged wood	, rimes, c	зеер роог	s):
Aquatic Organisms Obs	served (list):								
Water striders, crayl	ish								
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	discharge pipe	es):					
Existing power line	ROW, parallels	road, refuse	in channe						
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade 🗆 Manipi	ulated				
Stream Quality ^a : (check one)	☐ High	⊠ Mo	derate	□ Low					

Waterbody ssoa070	ID:
ssoa070	

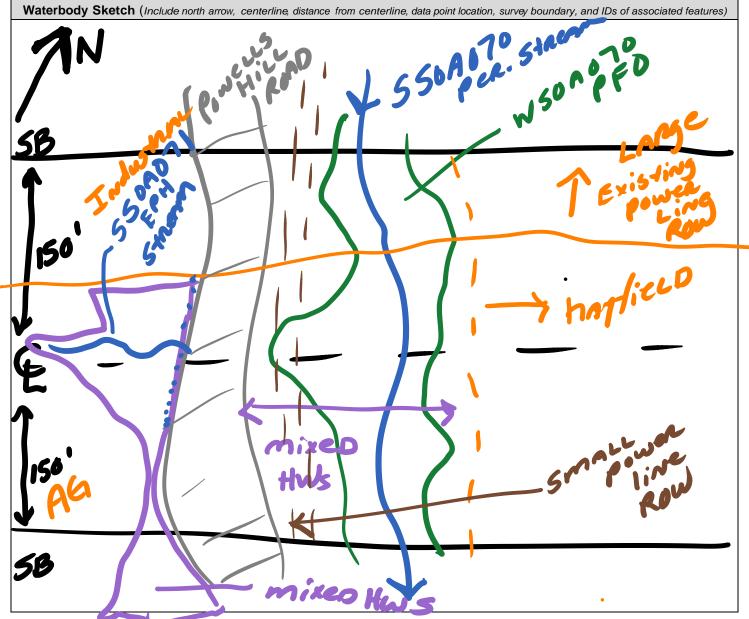
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Highly incised, small, perennial stream; flows through PFO wetland wsoa070; continues out of corridor in both directions.





Waterbody SSOA070 facing north upstream



Waterbody SSOA070 facing south downstream



Waterbody SSOA070 facing west across

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: ATTATA CREEK 5500005 of the Crew Member Initials: Photos: State: County/Parish: Company: Associated Wetland ID(s): Nearest Milepost: Tract Number(s): WSOODDA NA Survey Type: Centerline □Re-Route ☐Access Road Other: check one) Physical Attributes Stream Classification: Perennial (check one) □ Ephemeral □Intermittent Waterbody Type: Other: Stream ☐ Ditch ☐ Canal (check one) □River MWHO OHWM Indicator: (check all that apply) □Water ☐ Clear line ☐ Shelving □Wrested ☐ Scouring Width: staining on bank vegetation ☐Soil characteristic change □Litter and ☐ Abrupt plant Bent, matted, or missing DWrack line Height: vegetation debris community change N/AD Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Water Edge: Bank to Top of Bank: to Toe of Slope: 0 N/A 🗆 N/AD Bank slope Water velocity: Bank height Sinuosity: check one) (Approx.) Right: Straight degrees fps Left: degrees □Meandering N/AD Qualitative Attributes Water Appearance: □Sheen □ Surface □Algal Other: □Turbid □No water Clear (check one) on surface scum mats Other: Silt clay Organic ☐ Boulder □ Cobble Gravel Sand ☐ Bedrock Substrate: (check all that apply) % of Substrate: % % Vegetative Layers: Width of Riparian Zone: Saplings/Shrubs: Herbs Trees: (check all that apply) Avg. DBH of Dominants: a in Dominant Bank Vegetation (list): Leersia capensis, Persicaria sp. submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffies, deep pools): Aquatic Organisms Observed (list): T&E Species Observed (list): waterbody waste disonarge pipesi: Disturbances in estock access Tributary is: Artificial, man-made (check one) Natural Stream Quality :: □ High □ Low A Moderate (check one)

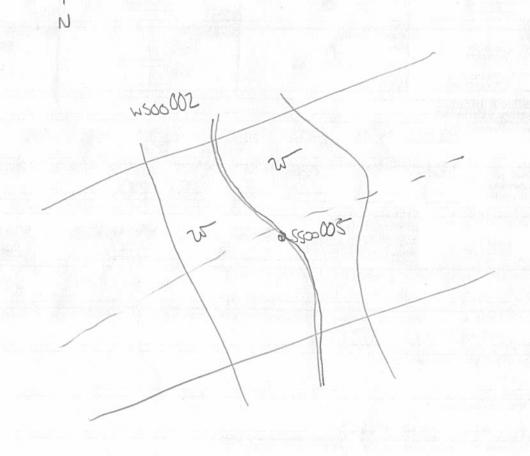
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssoo005 facing south upstream.



Waterbody ssoo005 facing north downstream.



Waterbody ssoo005 facing east across bank.

near Waterbody Data S	Sheet					
rvey Description				h1/	le.	40.
oject Name:	Waterbody Nar	Marie Company of the	The settlemone and final	Waterbody ID:	C/G Da	. 1
ACY	UNT to	arara	CREEK	SSOPU	00	9/17/19
ate: County/P	THE RESERVE OF THE PARTY OF THE	Company:	Crev	w Member Initials		CENE
VA SOU	thampton	ESI	-	<-1,5.1	MM'	at in
act Number(s):		Nearest Milepos	st:	Associated W	etland ID(s):	on onth
5-001-1054, 25-001	-B055	The second second	WA	WsopB	14	A West
Irvey Type:	enterline KRe-	Route [□Access Road	□Other:	a un pala de un pala de	altifica d
hysical Attributes	weeks with a town of the same					
ream Classification:	-b	mittent	Perennial			
	phemeral Dinte	muen	2 Cereminar			
aterbody Type: neck one) □River	Stream Dit	ch 🗆 Cana	I □ Other:		a	
	A Indicator: If that apply)	Clear line on bank	□Shelving	□Wrested vegetation	□Scouring	□Water staining
	Bent, matted, or missi vegetation	ng □Wrack line	□Litter and debris	□Abrupt plan		aracteristic change
Vidth of Waterbody - Top of	Width of Waterbody	- Toe of Slope W	idth of Waterbody ater Edge:	y - Water Edge to	Depth of Water:	
ank to Top of Bank:	to Toe of Slope:	Į,	rater Edge.	_	(P.PP. DAY)	ft.
ft.	ft.	N	MAN —	ft.	N/AID	
Sinuosity:	Water velocity:		ank height		Bank slope	
check one)	(Approx.)		Right: 2		Right	90 degrees
24		_fps	Left:	2	Left	90
Meandering	NAD			ft.		degrees
Qualitative Attributes		W				
Water Appearance: No water (check one)	er DClear DT	urbid 🗆 She	en □Surfa surface scum		□Other:	
Substrate: Bedroo	ck 🗆 Boulder 🗆 C	obble 🗆 Grave	Sand 🗆	Silt/ clay	nic Other:	
(check all that apply) % of Substrate: %	⁵%	%	% 100%	%	% %	
		70			The Table	
	Vegetative Layers: (check all that apply)	□ Trees		Saplings/Shrubs:	Herbs	
<u> </u>	Avg. DBH of Dominan			in.	N/A	n.
N/A D Dominant Bank Vegetation (li	(epprox.)	B. The Design	7 7 7 7		4 39	
Persicaria sagitt	atum, Eupati	rium capi	Hifolium, In	mpatiens ca	pensis	
Aquatic Habitats fext submerge	d or emerged aquatic vege	etation overhanging	banks/roots leaf pack	ks Targe submerged v	vood riffies deep po	ole);
Aquatic Organisms Observe	d (list):		200	1		
None						
T&E Species Observed (list):						
Disturbances ex: hvestock act	oess manure in waterbody	waste discharge bi	resi:		V.	
Tributary is:	Natural	☐ Artificial, man-	made 🗆 Mani	pulated		
Stream Quality ::	T Ulab	Moderate	= 1 cm			
UCDECK DDE1	High	A LANCETTE	1 011			

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

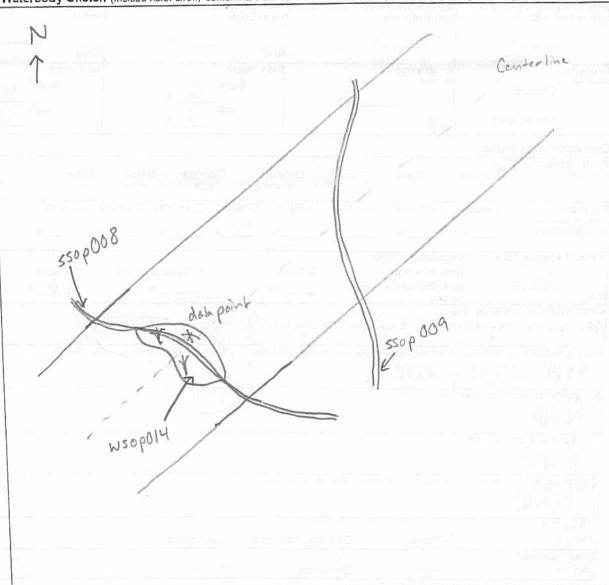
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor, minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Per U.S. Drought Monitor, this area under Abnormally Dry conditions at time of field evaluation.

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssop008 facing northwest upstream.



Waterbody ssop008 facing southeast downstream.



Waterbody ssop008 facing northeast across bank.

Linear Waterbody Data Sheet **Survey Description** Waterbody ID: Project Name: Waterbody Name: Date: arrara State: County/Parish: Company: Crew Member Initials: Photos: Tract Number(s): Nearest Milepost: Associated Wetland ID(s): 25-001-B055 Survey Type: ⊠Re-Route (check one) □ Centerline ☐Access Road □Other: Physical Attributes Stream Classification: (check one) □ Ephemeral □Intermittent Perennial Waterbody Type: (check one) M Stream ☐ Ditch Other: □River ☐ Canal онум OHWM Indicator: □Water ☐ Clear line □ Shelving □Wrested ☐ Scouring Width: vegetation on bank staining Bent, matted, or missing
Wrack line vegetation Height: ☐Litter and ☐ Abrupt plant Soil characteristic change debris community change N/A 🗆 Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to | Depth of Water: Bank to Top of Bank: Water Edge: (Approx.) to Toe of Slope: N/AM N/A Bank slope Sinuosity: Water velocity: Bank height (check one) (Approx.) Right: Right: □Straight degrees Left: Meandering N/AD degrees Qualitative Attributes Water Appearance: No water □Other: (check one) □ Clear □Turbid □Sheen □ Surface □Algal on surface scum mats ☐ Silt/ clay ☐ Organic Substrate: ☐ Bedrock ☐ Boulder ☐ Cobble ☐ Gravel Sand (check all that apply)
% of Substrate: Width of Riparian Zone: Vegetative Layers: Trees: Herbs (check all that apply) ☐ Saplings/Shrubs: Avg. DBH of Dominants: N/A 🗆 (approx.) Dominant Bank Vegetation (list): Eupatorium capillifolium, Phytolacca americana, Persicaria sagittata, Impatiens capensis Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Aquatic Organisms Observed (list): Mone T&E Species Observed (list): NOHE Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None Tributary is: Natural (check one) ☐ Artificial, man-made ☐ Manipulated Stream Quality :: (check one) ☐ High Moderate □ Low

Waterbody ID: SSOP 009

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

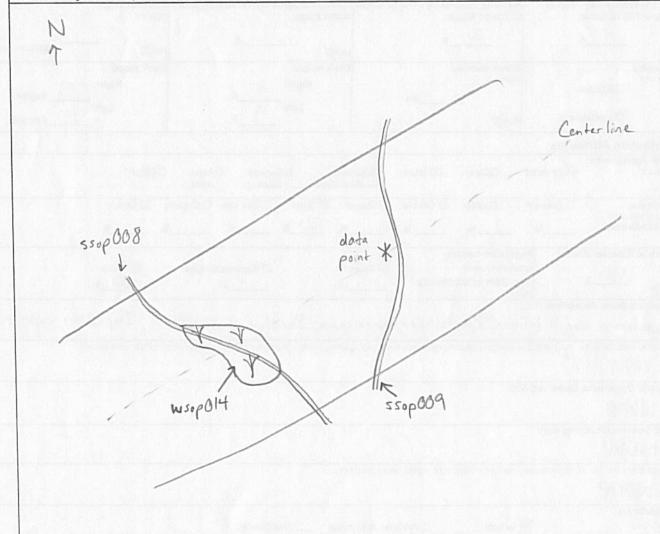
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Per U.S. Drought Monitor, this area under Abnormally Dry conditions at time of field evaluation.

Waterbody Sketch (Include north arrow, centerline distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssop009 facing north upstream.

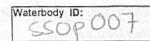


Waterbody ssop009 facing southwest downstream.



Waterbody ssop009 facing west across bank.

urvey Description				
roject Name:	Waterbody Name:	No color to the second	Waterbody ID:	Date:
ACP	4NT to Tar	vara Cecele	SSOP 001	09/16/15
tate: County/Parish	: Comp	cany:	rew Member Initials: PI	N, SE, E
act Number(s): 5-001-8057.1, 25-001-1 5-001-8057, 25-001-80	3057.2, Near	est Milepost:	Associated Wetland II WSoP 012	D(s):
urvey Type:	1,	□Access Road	□Other:	1001 1000 1000 1000 1000 1000 1000 100
hysical Attributes				
tream Classification: heck one) □Ephen	neral 🖸 Intermitter	nt □Perennial		A SAME AND A SAME
Vaterbody Type: theck one) □River □	Stream Ditch	☐ Canal ☐ Other:		
Width: 2 ft. OHWM Ind	apply)	Ćlear line ☐Shelving	□Wrested □	Scouring
	nt, matted, or missing bation	Wrack line	□Abrupt plant community change	Soil characteristic change
Vidth of Waterbody - Top of Wid	of Waterbody - Toe of Flore of Slope:ft.	of Slope Width of Waterbook Water Edge:	dy - Water Edge to (Approx.) ft. N/A	of Water:
check one) □Straight (Ap)	ater velocity: fps	Bank height Right: Left:	t. ft.	Right: 90 degrees Left: 90 degrees
Qualitative Attributes Water Appearance: (check one) □ No water Substrate: □ Bedrock □	Diclear □Turbid	□Sheen □Surform on surface scu	m mats	r: Other:
(check all that apply) % of Substrate:%	%	% 100%	%%	%
AD - (check	tative Layers: all that apply) DBH of Dominants: c)		Saplings/Shrubs:	KHerbs N/A_in.
Dominant Bank Vegetation (list): Persicaria sagitta	ita, Juneus	effusus, Euth.	amia caroliniana	
Aquatic Habitats (ex: submerged or en	merged aquatic vegetation, or			
Aquatic Organisms Observed (list)		77		
T&E Species Observed (list):				
Disturbances (ex: livestock access m Stream piped wi	anure in waterbody waste di	scharge pipes): e easement		
Tributary is:		sial, man-made ☐ Mani	pulated	
Stream Quality :	V			



High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

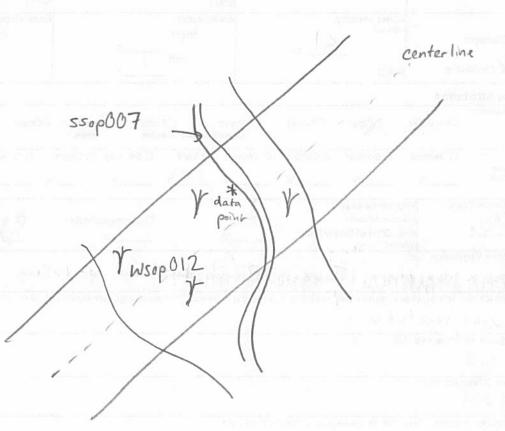
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

74





Waterbody ssop007 facing north upstream.



Waterbody ssop007 facing southeast downstream.



Waterbody ssop007 facing east across bank.

inear Waterbody D	ata Sheet				
rvey Description	Bon Jan Commence		5		D-4
oject Name:	Waterboo		nert tarel to the three to	Waterbody ID:	Date:
ACT	K and Mills after large and	INI to la	ware Casel	- SSOPOU	0 01/10/19
ate: Cou	unty/Parish:	Company:	Crev	w Member Initials:	Photos:
VA S	outhamplo	1 ES	TR	I.T.S.I	SNE
act Number(s):	The second secon	Nearest Mile	epost:	Associated Wet	land ID(s):
25-001-B062	ani nageregay kilant — na nageregay kilant	udi kabupatan kir Kabupatan	NA	WSOP (01
Irvey Type: neck one)	□Centerline	Re-Route	□Access Road	□Other:	Service and making the control of th
hysical Attributes					The second secon
ream Classification:	□Ephemeral	□Intermittent	Perennial		
/aterbody Type: heck one) □Riv	ver Stream	□ Ditch □ C	anal Other:		
HWM Width:ft.	OHWM Indicator: (check all that apply)	Clear li	ne Shelving	□Wrested vegetation	□Scouring □Water staining
Height: 3_ft.	Bent, matted, or vegetation	missing	ine □Litter and debris	□ Abrupt plant community cha	
Vidth of Waterbody - Top	of Width of Watert	ody - Toe of Slope	Width of Waterbody		Depth of Water:
lank to Top of Bank:	to Toe of Slope		Water Edge:	(4	Approx.)
ft.	6	Ħ.		ft.	ft.
·) A / - 4 1 i 4		N/A □		N/ALI Bank slope
inuosity:	Water velocity:	i	Bank height Right:		Right:
□Straight	100	fps	Kight. 5	ft.	degrees
Meandering			Left: 3	, ,	Left: 90 degrees
Nicaridening	N/A 🗆			ft.	uegiees
Qualitative Attribute	s				
Nater Appearance: check one)	o water □Clear	40.000	Sheen □Surfac		□Other:
Substrate:	Bedrock ☐ Boulder	☐ Cobble ☐ Gra	evel 🗵 Sand 🗆 S	Silt/ clay	Other:
check all that apply) % of Substrate:	%% .	%%	% <u>100</u> %	%%	
Width of Riparian Zone:	Vegetative Layers	:			
	(check all that apply)	Tre	es:	Saplings/Shrubs:	☐ Herbs
100 ft.	Avg. DBH of Dom	inants: 3	in.	in.	N/A in.
N/A□ Dominant Bank Vegetati	on (list):			100	
Persicaria sag	itata, Alnus	serrulat	a, Dichanthe	linm scope	erium
Aquatic Habitats (ex: sub			ng banks/roots, leaf packs	, large submerged woo	d, riffles deep pools):
Submerged ve	getation, de	ep pools			
Aquatic Organisms Obs	erved (list):		1	The V	3
Minhows					
T&E Species Observed	(list):			-87	
None	2 2				
Disturbances (ex: livestor	ck access, manure in water	odv waste discharge	pipes):		
NOW!	on access menuse in water	way, made decirely	F-F/-		
Tributary is:	Natural	☐ Artificial, ma	n-made 🗆 Manipu	lated	
Stream Quality ::	7				
(check one)	T High	Moderate			

Waterbody ID: 5500000

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Channel impacted by beaver activity Channel ends before exiting corridor

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

WSOPOl Beaver Impoundment ssop 006 data centerline



Waterbody ssop006 facing north upstream.



Waterbody ssop006 facing south downstream.



Waterbody ssop006 facing east across bank.

Linear Waterbody Data Sheet

Survey Description	1								
Project Name:		Waterbody Name	e:		W	aterbody ID:			Date:
Atlantic Coast Pipeli	ne	UNT to Meher	rin River		ss	soa074			9/18/2015
State:	County:	C	ompany:		Crew N	Member Initials	: F	Photos:	
	Southampton		IRG		GB, S			3 photo	OS
Tract Number(s):			learest Mile	post:		Associated W	etland I	ID(s):	
25-036-A001; 25-03	86-A002	2	21.3			wsoa076			
Survey Type: (check one)	⊠Centerline	⊠Re-Ro	oute	□Access Road	l	□Other:			
Physical Attributes Stream Classification:	3								
(check one)	Ephemera	ıl ⊠Interm	ittent	□Perennial					
Waterbody Type: (check one)	River ⊠ Str	eam Ditch	□ Ca	nal 🗆 Other	:				
OHWM Width: 6.0ft.	OHWM Indicat (check all that apply		□ Clear line on bank	e ⊠Shelvin	g	□Wrested vegetation	⊠:	Scouring	g □Water staining
Height: ft. N/A□	□Bent, n vegetatio	natted, or missing n	⊠Wrack lin	ne □Litter ar debris	nd	☐ Abrupt plan community ch		□Soil cl	haracteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - To		Width of Waterb Water Edge:	ody - W		Depth o	of Water	75
<u>9.0</u> ft.	_	<u>4.5</u> ft.			<u>2.5_</u> ft.		N/A□	_	<u>0.33</u> ft.
Sinuosity: (check one) □Straight	Water (Approx.)	velocity:		Bank height Right: Left:	3.0_ft.		Bank sl	lope Right Left	85 degrees
⊠Meanderin	ng N/A□			-	3.0_ft.				_70_ degrees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water ⊠C	Clear □Turbid			rface um	□Algal [mats	□Other:	:	
Substrate: (check all that apply) % of Substrate:	Bedrock □ Bo	ulder □ Cobble		l ⊠ Sand I % <u>85</u> % _	⊠ Silt/ c	elay ⊠ Organic	: □ 0 —	ther: %	
Width of Riparian Zone									
<u>90.0_ft</u> - N/A□	(check all that Avg. DBH (approx.)	apply) of Dominants:	⊠ Trees: _ <u>10.0</u> _in		⊠ Saplir _ <u>1.0</u> _in	ngs/Shrubs:		Herbs	
Dominant Bank Vegeta									
River birch, red map	et créeper, gra	pe, poison ivv.	Japanese	e stiltarass, iev	velwee	ed. cane. clea	arweed	d. nette	ed chain fern
Aquatic Habitats (ex: su Leaf packs, woody of				oanks/roots, leaf pac	cks, large	submerged wood	, riffles, c	leep pool	s):
Aquatic Organisms Ob	served (list):								
Water striders, crayl									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste o	discharge pipe	s):					
Heavy sediment inp	ut due to runo	f from agricult	ural fields,	crosses existi	ing po	wer line ROV	V		
Tributary is: (check one)	Natural	☐ Artifi	cial, man-ma	ade 🗆 Manip	ulated				
Stream Quality ^a : (check one)	☐ High	⊠ Mod	erate	☐ Low					

Waterbody ssoa074	ID
ssoa074	

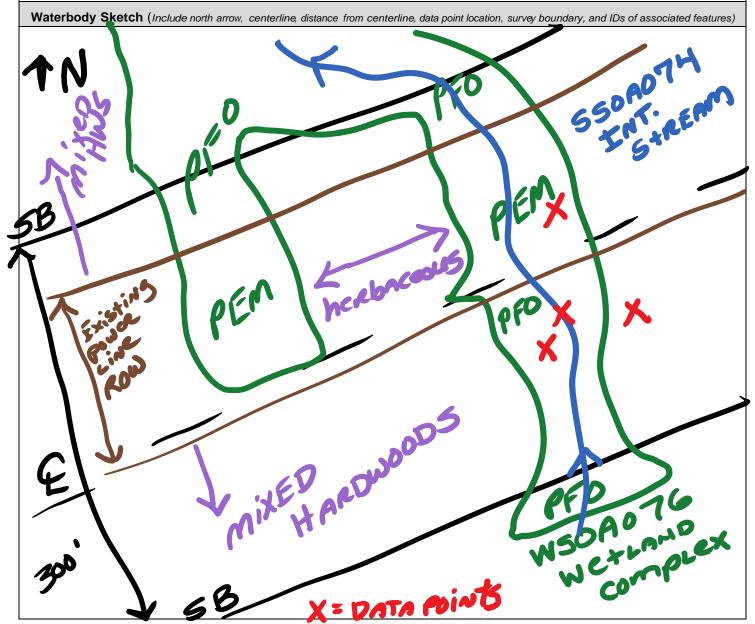
^a **High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Stream continues out of corridor in both directions; flows through wetland complex wsoa076; sediment input from agricultural fields and existing power line ROW is excessive.





Waterbody SSOA074 facing southeast upstream



Waterbody SSOA074 facing northwest downstream



Waterbody SSOA074 facing northeast across

Linear Waterbody Data Sheet

Survey Description	1						
Project Name:		Waterbody Name:		W	aterbody ID:		Date:
Atlantic Coast Pipeli	ne	UNT to Meherrin Rive	r	ss	soa073		9/17/2015
State:	County:	Company:		Crew N	lember Initials:	Photos	:
	Southampton	NRG		GB, S		3 pho	tos
Tract Number(s):		Nearest M	ilepost:		Associated We	tland ID(s):	
25-036-A002 Survey Type:		21.75			wsoa075		
(check one)	⊠Centerline	⊠Re-Route	□ Access Road	l	□Other:		
Physical Attributes Stream Classification:	3						
(check one)	□Ephemera	l ⊠Intermittent	□Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Ditch 🗆	Canal □ Other	:			
OHWM Width: ft.	OHWM Indicat (check all that apply		line □Shelvin	g	□Wrested vegetation	⊠Scourii	ng □Water staining
Height: ft. N/A□	□Bent, n vegetatio	natted, or missing □Wrack n	line □Litter ar debris	nd	☐ Abrupt plant community cha		characteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - Toe of Slop of Slope:	Width of Waterb Water Edge:	ody - W		epth of Wate	er:
_ <u>_15.0_</u> ft.	_	3.0_ft.		<u>2.0</u> ft.	N	/A□	<u>0.20</u> ft.
Sinuosity: (check one) □Straight ⊠Meanderin	(Approx.)	velocity: 0.15 fps	Left:	8.0_ft. 6.0_ft.	В	ank slope Righ Le	80 degrees
Qualitative Attribut	tos		-				_ <u></u>
Water Appearance:	163						
(check one)	No water ⊠C		Sheen □Sulon surface scu		□Algal □ mats	Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock	ulder Cobble Gra	avel ⊠ Sand [_% <u>80</u> % _		lay ⊠ Organic % <u>20</u> %	□ Other:%	
Width of Riparian Zone							
<u>ft</u> . N/A⊠	(check all that Avg. DBH (approx.)	apply) ⊠ Tree of Dominants:13.0		⊠ Saplin _ <u>1.5</u> _in.	gs/Shrubs:	⊠ Herbs	
Dominant Bank Vegeta	, ,						
creeper. Japanese h	nonevsuckle. J	ole, loblolly pine, black apanese stiltarass, are	<u>eenbrier. clearwe</u>	ed. ne	<u>etted chain fer</u>	n. wood ne	ettle. ladv fern
Leaf packs	bmerged or emerged	I aquatic vegetation, overhangir	ng banks/roots, leaf pac	cks, large	submerged wood, I	riffles, deep po	ols):
Aquatic Organisms Obs	served (list):						
none							
T&E Species Observed	(list):						
none							
Disturbances (ex: livesto	ck access, manure in	n waterbody, waste discharge p	ipes):				
Highly incised, seve	re down cuttin	g and bank failures du	e to excessive ru	un off f	rom agricultu	ral fields a	nd existing ROW
Tributary is: (check one)	Natural	☐ Artificial, man-	made 🗆 Manip	ulated			
Stream Quality ^a : (check one)	☐ High	☐ Moderate	⊠ Low				

Waterbody	ID
ssoa073	

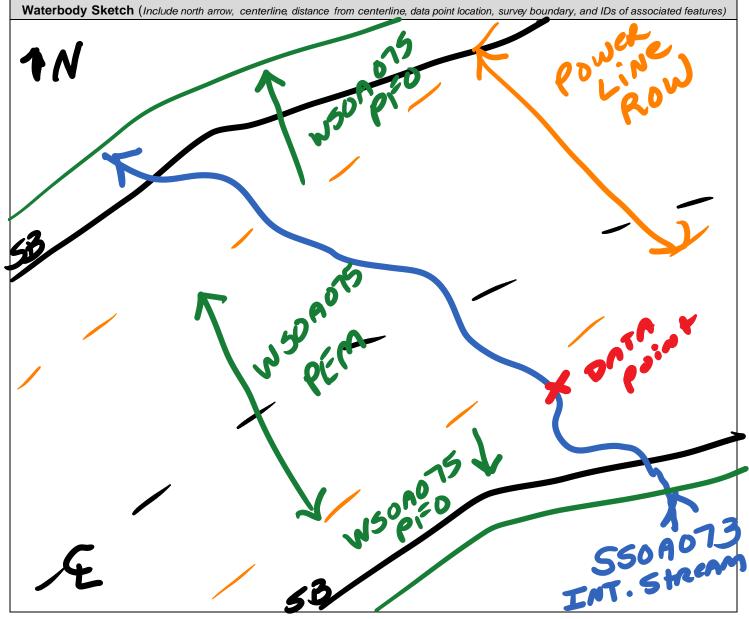
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Flows through wetland complex wsoa075; continues out of corridor in both directions. The severe down cutting and numerous bank failures make this a very low quality feature.





Waterbody SSOA073 facing east upstream



Waterbody SSOA073 facing west downstream



Waterbody SSOA073 facing south across

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: 10/13/15 UNI ACP Crew Member Initials: Photos: State: County/Parish: SW, NE VA Southampton Associated Wetland ID(s): Nearest Milepost: Tract Number(s): Survey Type: ☐Re-Route (check one) □ Centerline ☐Access Road □Other: Physical Attributes Stream Classification: (check one) **Ephemeral** □Intermittent □ Perennial Waterbody Type: (check one) □River ☑ Stream ☐ Ditch ☐ Canal Other: OHWM OHWM Indicator: □ Scouring □Water □ Shelving □Wrested □ Clear line Width: vegetation staining on bank Height: Bent, matted, or missing Wrack line ☐Litter and ☐Abrupt plant ☐Soil characteristic change community change debris N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Approx.) Bank to Top of Bank: to Toe of Slope: Water Edge: N/AD N/AD Bank height Bank slope Water velocity: Sinuosity: Approx.) □ Straight fps Meandering degrees NAM Qualitative Attributes Water Appearance: No water □Other: (check one) □ Clear □Turbid □Sheen □ Surface □Algal on surface scum Silt/ clay
Organic ☐ Boulder ☐ Cobble ☑ Sand ☐ Bedrock Substrate: (check all that apply) % of Substrate: Width of Riparian Zone: Vegetative Layers: Trees: Herbs
 (check all that apply) ■ Saplings/Shrubs: Avg. DBH of Dominants: Dominant Bank Vegetation (list): Liviodendron tulipifera Ligustrum Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Aquatic Organisms Observed (list): T&E Species Observed (list): NIA Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): none noted Tributary is: Natural (check one) ☐ Artificial, man-made ☐ Manipulated Stream Quality *:

☐ High

Moderate

☐ Low

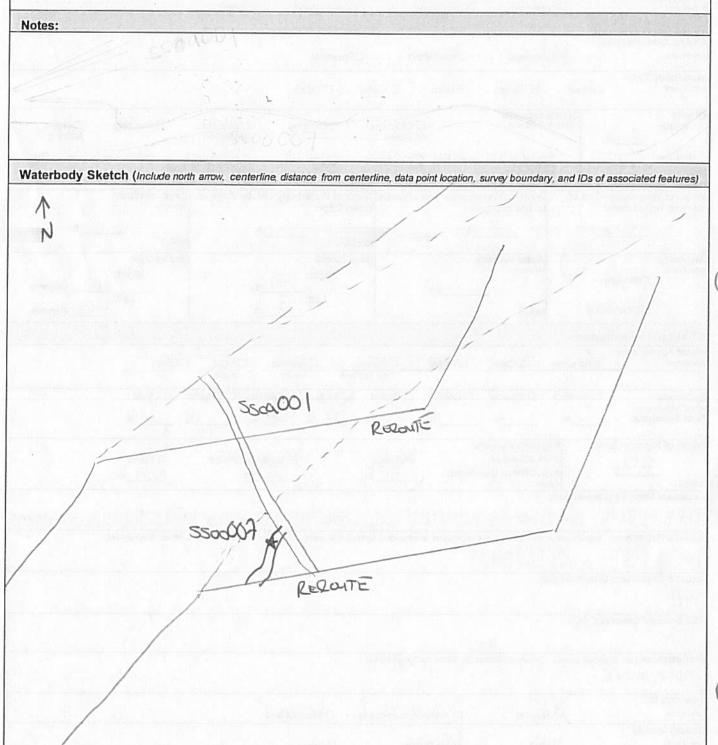
(check one)

Waterbo	ody	ID:		-
SS	00)(00	

a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.





Waterbody ssoo007 facing southwest upstream.



Waterbody ssoo007 facing northeast downstream.



Waterbody ssoo007 facing southeast across bank.

Linear Waterbody Data Sheet

Survey Description	1							
Project Name:		Waterbody Nan	ne:		W	aterbody ID:		Date:
Atlantic Coast Pipeli	ne	UNT to Dard	len Pond		S	SOA001		9/23/2014
State:	County:		Company:		Crew N	lember Initials	: Pho	tos:
<u> </u>	Southampton		NRG		GB, T		•	hotos
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s	s):
25-053			22.0			WSOA006		
Survey Type: (check one)	⊠Centerline	□Re-R	loute	□Access Road		□Other:		
Physical Attributes Stream Classification:	3							
(check one)	Ephemera	ıl □Interi	mittent	⊠Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Ditc	h □ Ca	anal 🗆 Other	:			
OHWM Width: 6.0_ft.	OHWM Indicat (check all that apply		⊠ Clear lin	ne □Shelvin	9	□Wrested vegetation	⊠Sco	ouring □Water staining
Height:	vegetatio		-	debris	-	□ Abrupt plan community ch	ange	oil characteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - 1 of Slope:	Toe of Slope	Width of Waterbo	ody - W		Depth of W (Approx.)	Vater:
<u>12.0_</u> ft.	_	<u>4.0</u> ft.			<u>4.5_</u> ft.		N/A□	<u>0.75</u> ft.
Sinuosity: (check one) ⊠Straight	Water (Approx.)	velocity:	3	Bank height Right: Left:	<u>5.0</u> _ft.		Bank slope R	e kight: <u>75_</u> degrees Left:
□Meanderin	g N/A□			_	<u>5.0_</u> ft.			_80_ degrees
Qualitative Attribut	tes							
Water Appearance: (check one)	No water □C	Clear □Turbi		een □Sui surface scu		□Algal [mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo			el ⊠ Sand □ % <u>20</u> % _	⊠ Silt/ c <u>70_</u> %	lay ⊠ Organic	Other	r: _%
Width of Riparian Zone 125 ft N/A□	(check all that		⊠ Trees: _12.0_ir		⊠ Saplin _ <u>2.0</u> _in.	ngs/Shrubs:	⊠ He	rbs
Dominant Bank Vegeta Sweetgum, river bird	, ,	yellow poplar	, American	holly, Chinese	privet	t, Japanese I	noneysuc	ckle, stilt grass, grape
Aquatic Habitats (ex: su Pools, wrack piles	bmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, deep	pools):
Aquatic Organisms Obs	served (list):							
T&E Species Observed none	(list):							
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	discharge pipe	es):				
sediment load	lectively logge	d to east – bu	ıffers are m	ninimal; Ag on	other s	sides of logge	ed areas;	; highly incised; heavy
Tributary is: (check one)	⊠ Natural	□ Arti	ificial, man-m	ade 🗆 Manipi	ulated			
Stream Quality ^a : (check one)	☐ High	□ Мо	derate	⊠ Low				

Waterbody ID: SSOA001

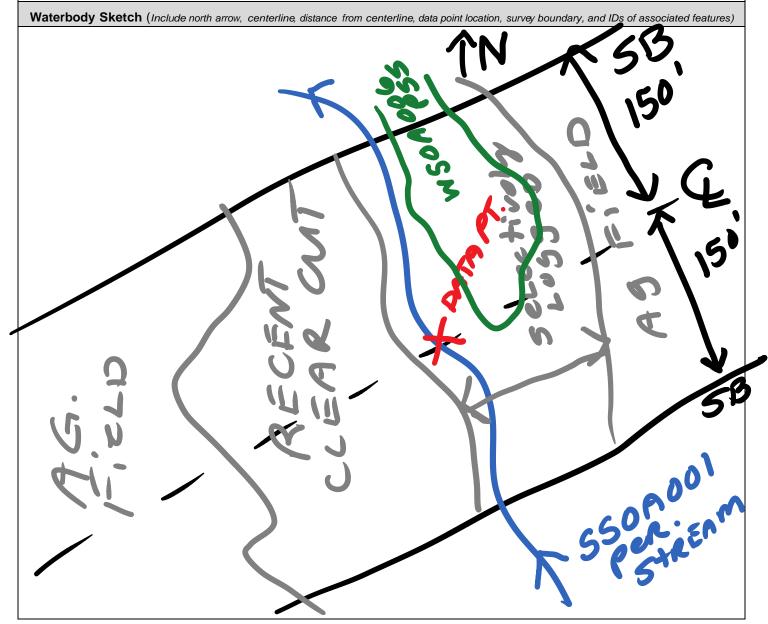
^a **High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Continues out in both directions, iron oxidation sheen on water surface, stream is highly incised and has lowered water table in riparian zone eliminating probable past wetland abutting stream; PSS wetland wsoa006 is above floodplain in concave side slope below a slope break, this wetland is not directly connected to stream.





SSOA001 facing south upstream



SSOA001 facing north downstream



SSOA001 facing east across

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: 5500002 Crew Member Initials: Photos: County/Parish: Company: State: Associated Wetland ID(s): Tract Number(s): Nearest Milepost: W50000 207-Survey Type: Re-Route □ Centerline □Other: (check one) □Access Road Physical Attributes Stream Classification: (check one) Perennial □ Ephemeral □Intermittent Waterbody Type: Stream (check one) □River ☐ Ditch □ Canal ☐ Other: OHWM OHWM Indicator: □Water Clear line □ Shelving □Wrested □ Scouring Width: vegetation staining on bank ft. Height: ☐Bent, matted, or missing ☐Wrack line ☐Litter and ☐ Abrupt plant Soil characteristic change 0.1 community change vegetation debris N/A 🗆 Width of Waterbody - Top of Bank to Top of Bank: Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Water Edge: to Toe of Slope: N/A 🗆 N/A Bank slope Sinuosity: Bank height Water velocity: (Approx.) (check one) Right: □Straight degrees fps Left: Meandering degrees N/A 🗆 Qualitative Attributes Water Appearance: □No water **I**Clear □Algal □Other: □Turbid □Sheen □ Surface (check one) on surface scum ☐ Bedrock □ Boulder ☐ Cobble ☐ Sand ☐ Silt/ clay ☐ Organic ☐ Other: Substrate: (check all that apply)
% of Substrate: % % Width of Riparian Zone: Vegetative Layers: Herbs Trees: Saplings/Shrubs: (check all that apply) NA in Avg. DBH of Dominants: 10 in. N/A 🗆 Dominant Bank Vegetation (list): Arundinaria gigantea Maula ODONA Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Aquatic Organisms Observed (list): FVOO T&E Species Observed (list): Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Tributary is: ☐ Natural (check one) ☐ Artificial, man-made □ Manipulated Stream Quality *:

☐ High

☐ Moderate

☐ Low

(check one)

Waterbody ID:	5	^	n
CCAM	11	11	4
2000	1	U	6

* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.
Notes:
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features
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Waterbody ssoo008 facing southwest upstream.





Waterbody ssoo008 facing southeast across bank.

near Waterbody Data Sh	eet					
rvey Description				Materiadula	Date:	N. C.
oject Name:	Waterbody Na		0 1	Waterbody ID:		_
ALP	UNTTO	o DARDEN	POND	5500011	12/17/15	
ate: County/Paris	ampton	ESI	Cre	w Member Initials:	Photos: SIE,W	
act Number(s): 25-055- A0	04	Nearest Milepost:	24.5	Associated Wetle	D - 10	
urvey Type:	STATE OF THE STATE OF THE STATE OF	Route DA	ccess Road	□Other:	Electrical area dua	
hysical Attributes	elline Dike-	Notice	CCCSO TOUG	Deller.		
ream Classification:	meral 🗆 Inte	ermittent QF	Perennial		39345	
/aterbody Type: heck one)	Stream 🗆 Di	tch Canal	☐ Other:			
HWM OHWM In (check all the		Clear line on bank	□Shelving	□Wrested vegetation	□Scouring □Water staining	
Height: ft. Veg	sent, matted, or miss letation	ing DWrack line	□Litter and debris	□ Abrupt plant community char	☐Soil characteristic cha	inge
Vidth of Waterbody - Top of M		- Toe of Slope Wid	th of Waterbod	y - Water Edge to D	epth of Water:	
Bank to Top of Bank: to	Toe of Slope:	Wat	er Edge:		D.5 ft.	
ft.	ft.	N/A		ft. N	<u></u>	
	Vater velocity:		k height	E	lank slope	18
check one) ☐Straight	Approx.)	for	Right:	ft.	Right: 95 dea	rees
W .,		_fps	Left:		Left: 97	
Meandering	V/AD			ft.		rees
Qualitative Attributes						
Water Appearance: (check one) □No water	Sclear DT	urbid DSheen	The state of the s		□Other:	
Substrate: Bedrock (check all that apply) % of Substrate: %	□ Boulder □ C	obble Gravel	30 %	Silt clay Organic		
Width of Riparian Zone: Ve	getative Layers:	,		- 1. 11 AV		1000
	eck all that apply) g. DBH of Dominar	Trees:		Saplings/Shrubs:	⊠ Herbs N-1 in.	
N/AD Tep	prox)	nts: <u>5</u> in.		in.	NT III.	
Dominant Bank Vegetation (list):			1 1 200	odendan I	27-2-15	
Ilex opaca, L	1905mom	simense	01 1111	bendion T	olipitera	
Aquatic Habitats (ex: submerged o			nks/roots, leaf pac	ks large submerged woo	d niffles deep pools):	
overhanging k	oun Ks/roc	DTS				
Aquatic Organisms Observed (
T&E Species Observed (list):	-ved					
Disturbances /ex: fivestock acces		waste disonarce pipes);			
hone obsi		411				
	Natural	☐ Artificial, man-ma	ede 🗆 Man	ipulated		
Stream Quality *: (check one)	3 High	Moderate	□ Low			

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:	ang think in any th
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MANUEL ESTRACOUNTE MANUELLES COMPAGNICES POR SONOTARÍ	
Waterbody Sketch (Include north arrow, centerline distance from centerline, data point loc	ration, survey boundary, and IDs of associated features
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SAGRUPAÑ TI DESEN YORDSHOA ZI	



Waterbody ssoo011 facing east upstream.



Waterbody ssoo011 facing west downstream.



Waterbody ssoo011 facing south across bank.

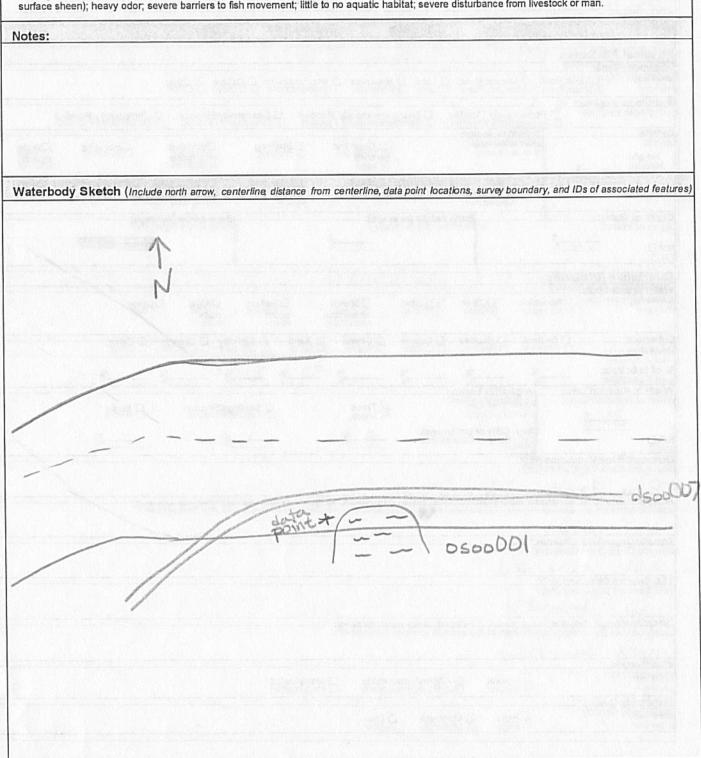
Open Waterbody Data Sheet Survey Description Waterbody ID: Waterbody Name: Project Name: 050000 12/17/15 UNNAMED Crew Member Initials: Photos: Company: SE ESI Associated Wetland ID(s): Nearest Milepost: Tract Number(s): 25-055-ADD Survey Type: **D**Centerline ☐Re-Route ☐Access Road □Other: (check one) Physical Attributes Waterbody Type: Stock Pond □ Natural Pond □ Lake □ Reservoir □ Impoundment □ Oxbow □ Other: (check one) Hydrologic Regime: ☐ Semipermanently Flooded ☐ Seasonally Flooded ☐ Temporarily Flooded Permanently Flooded онум OHWM Indicator: Clear line □Shelving □Wrested □ Scouring □Water staining vegetation Height: on bank Bent, matted, or missing DWrack ☐Litter and □ Abrupt plant □ Soil characteristic change debris community change Depth of Water: Bank height (average): Bank slope (average): degrees N/A 🗆 Qualitative Attributes Water Appearance: (check one) □No water Clear □Turbid □Sheen □ Surface □Algal □Other: mats on surface scum ☐ Gravel ☑ Sand ☐ Silt/ clay ☐ Organic ☐ Other: ☐ Cobble ☐ Boulder Substrate: (check all that apply) % of Substrate: Vegetative Layers: Width of Riparian Zone: (check all that apply) ☐ Herbs 8 in. Avg. DBH of Dominants: N/A 🗆 Dominant Bank Vegetation (list): Aquatic Habitats (ex. submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffies, deep pools, etc.): packs Aquatic Organisms Observed (list): observed none T&E Species Observed (list): none observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): none observed Waterbody is: (check one) □ Natural Artificial, man-made □ Manipulated Waterbody Quality :: (check one) ☐ High Moderate □ Low

Waterbody	ID:
050	000

High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or bank vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.





Waterbody osoo001 facing south.



Waterbody osoo001 facing southeast.



Waterbody osoo001 facing southeast.

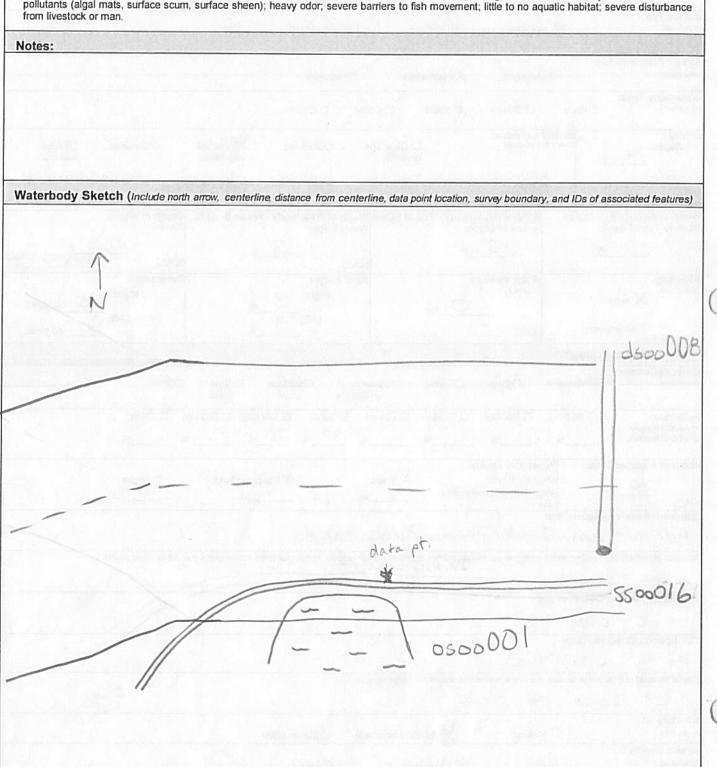
Linear Waterbody Data Sheet **Survey Description** Waterbody Name: Waterbody ID: Project Name: 12/17/15 5500016 Crew Member Initials: Photos: County/Parish: State: NEISE, NW Southamp TON Associated Wetland ID(s): Nearest Milepost: Tract Number(s): 25-055-A004 NA Survey Type: Centerline □Re-Route □Other: (check one) ☐Access Road Physical Attributes Stream Classification: (check one) **▲**Intermittent □ Perennial □ Ephemeral Waterbody Type: Ditch ☐ Other: (check one) □River ☐ Stream ☐ Canal OHWM **OHWM Indicator:** Wrested □Water ☐ Clear line □ Shelving □ Scouring Width: staining vegetation on bank Height: ☐Abrupt plant ☐Soil characteristic change ☐Bent, matted, or missing ☐Wrack line □Litter and community change vegetation debris Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Water Edge: Bank to Top of Bank: to Toe of Slope: N/A 🗆 N/A 🗆 Bank slope Water velocity: Bank height Sinuosity: (Approx.) (check one) Right: Straight degrees Left: □Meandering degrees **Qualitative Attributes** Water Appearance: **∆**Clear □Other: □No water □Algal □Turbid □Sheen □ Surface (check one) on surface scum mats Silt/ clay
Organic ☐ Bedrock ☐ Boulder ☐ Cobble ☐ Sand Substrate: (check all that apply) 70 % % of Substrate: % Width of Riparian Zone: Vegetative Layers: Trees: Saplings/Shrubs: ☐ Herbs (check all that apply) Avg. DBH of Dominants: in. Dominant Bank Vegetation (list): Acer rubrum, Ilex opaca, Pinus taeda Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): none observed Aquatic Organisms Observed (list): poserver none T&E Species Observed (list): none phserve Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): ditch beside aa. Tributary is: (check one) ☐ Natural Artificial, man-made ☐ Manipulated Stream Quality *: Low (check one) ☐ High ☐ Moderate

Waterbody ID:
5500 016

* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.





Waterbody ssoo016 facing northwest upstream.



Waterbody ssoo016 facing southeast downstream.



Waterbody ssoo016 facing southwest across bank.

Linear Waterbody Data Sheet	Mark Fall Resident State (Company of the Company of			e et all vertices al 16 e 18 million 2000 deservir responsable de l'estate de l'estate de l'estate de l'estate		
Survey Description	Service and the service					
Project Name:	Waterbody Name:	A Astron	Waterbody ID:	Date:		
ACP	MNI	to Mill Swam	P S5000	10/14/15		
State: County/Parish:		npany:	Crew Member Initials	: Photos:		
VA Southan	npton	ESI	K.M. S.I	SW, N, SE		
Tract Number(s):	1,000,000	rest Milepost:	Associated W	etland ID(s):		
25-055- A	010	44		NA		
Survey Type:	\.		□Other:			
Physical Attributes						
Stream Classification: (check one)	I Intermitte	ent				
Waterbody Type:						
(check one) □River □Str	eam Ditch	☐ Canal ☐ Other:				
Width: OHWM Indicate (check all that apply		Clear line ☐Shelving n bank	g □Wrested vegetation	□Scouring □Water staining		
Height: O-1 ft. Bent, n vegetatio	natted, or missing in	Wrack line	d			
Width of Waterbody - Top of Bank to Top of Bank: Width of	of Waterbody - Toe	of Slope Width of Waterbo	ody - Water Edge to	Depth of Water: (Approx.)		
0	of Stope:	water Edge:		<0. ft.		
ft	ft.	N/A□	ft.	π.		
Sinuosity: Water	relocity:	Bank height		Bank slope		
(check one) (Approx.)	1	Right:	6	Right: 45		
Lottaight	fps	Left:	ft.	Left: Oth		
□Meandering N/A□			Ψ_ft.	degrees		
Qualitative Attributes			71-58-51-5			
Water Appearance:	1	CH 18	Clarine to the PURE SECURITY AND A CHARLES AND THE ADDRESS AND A			
(check one) □ No water □ C	Clear □Turbid	□Sheen □Sur on surface scu		□Other:		
Substrate: ☐ Bedrock ☐ Bo	ulder Cobble	☐ Gravel ☐ Sand ☐	Silt/ clay Organic	Other:		
(check all that apply) % of Substrate:%%%%%%% _						
Width of Riparian Zone: Vegetative	Lavoras					
Width of Riparian Zone: Vegetative (check all that		Trees:	Saplings/Shrubs:	Herbs		
	of Dominants:		2in.	MA in.		
N/A (approx.) Dominant Bank Vegetation (list):			Niccost Pains	Vimineum		
Liquidambar styragiffua Aper rubrum Eupatonium capilliblium.						
Aquatic Habitats (ex: submerged or emerged	aquatic vegetation, over	erhanging banks/roots, leaf pack	ks, large submerged wood	, riffles, deep pools):		
	woody de	bhis overha	nging veg	etation		
Aquatic Organisms Observed (list):			U			
NA						
T&E Species Observed (list):	1000			h 20		
Disturbances (ex: livestock access, manure in	n waterbody, waste disc	harge pipes):				
Tributary is:						
(check one)	☐ Artificia	I, man-made	ılated			
Stream Quality *: (check one)	☐ Modera	te Low				

Waterbody	ID:	
5500	0	10

* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

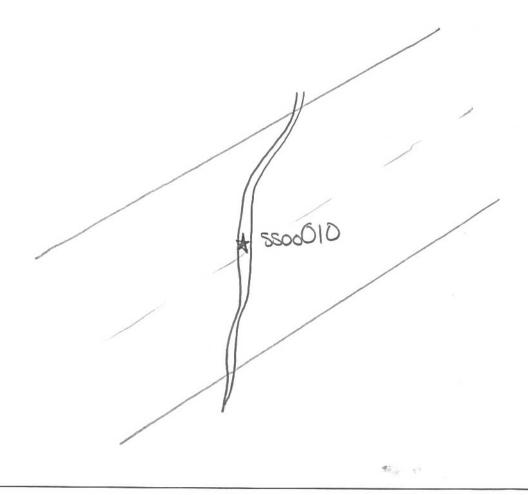
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)







Waterbody ssoo010 facing southwest upstream.



Waterbody ssoo010 facing north downstream.



Waterbody ssoo010 facing southeast across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: UNT to Mill Swamp 5500009 ACP Company: Crew Member Initials: County/Parish: State: KM S.I Southampton Nearest Milepost: Associated Wetland ID(s): Tract Number(s): 25-055-ANI 26.2 Survey Type: (check one) □ Centerline Re-Route ☐Access Road ☐Other: Physical Attributes Stream Classification: Intermittent (check one) □ Ephemeral □ Perennial Waterbody Type: ☐ Stream (check one) □River □ Ditch □ Canal ☐ Other: OHWM Indicator: OHWM □Wrested Scouring □Water Clear line □ Shelving Width: staining vegetation on bank Height: ☐Soil characteristic change ☐Bent, matted, or missing ☐Wrack line ☐Litter and □ Abrupt plant vegetation debris community change N/A 🗆 Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to to Toe of Slope: Water Edge: Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: to Toe of Slope: N/A N/A 🗆 Water velocity: Bank height Bank slope Sinuosity: (check one) (Approx.) Right: □Straight degrees Meandering degrees N/A□ Qualitative Attributes Water Appearance: (check one) □No water Clear □Turbid □Sheen □Surface □Algal ☐Other: mats on surface scum ☐ Bedrock ☐ Cobble Sand Silt/ clay ☐ Organic Substrate: □ Boulder (check all that apply)
% of Substrate: Width of Riparian Zone: Vegetative Layers: ☐ Herbs Trees: Saplings/Shrubs: (check all that apply) Avg. DBH of Dominants: 0 N/AIT Dominant Bank Vegetation (list): Liquidambar styraciffue, Accr nub hum, Liriodendron tuliphfera Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): roots Aquatic Organisms Observed (list): KOG-T&E Species Observed (list): Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): NIA Tributary is: (check one) □ Natural ☐ Artificial, man-made Manipulated Stream Quality *:

(check one)

☐ High

□ Moderate

Low

Waterbody	ID:	
con	MO	C
1100	V	

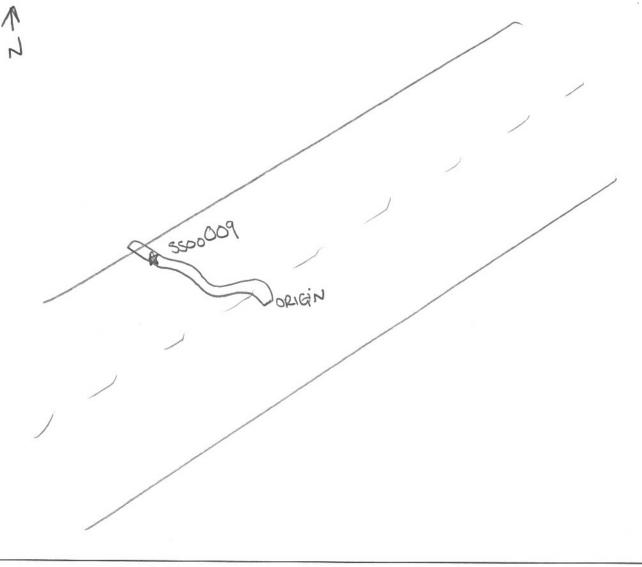
* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)





Waterbody ssoo009 facing southeast upstream.



Waterbody ssoo009 facing northwest downstream.



Waterbody ssoo009 facing northeast across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: 10/12/15 5500006 4NT to Nottoway River County/Parish: Crew Member Initials: Photos: Company: State: KWM IDS Southampton SW, NE NW Associated Wetland ID(s): Tract Number(s): Nearest Milepost: 25-062 NA WSOL OO Survey Type: ⊠Re-Route □Other: □ Centerline ☐Access Road (check one) Physical Attributes Stream Classification: (check one) □ Ephemeral ⊠ntermittent □Perennial Waterbody Type: Stream ☐ Canal □ Other: (check one) □River ☐ Ditch OHWM OHWM Indicator: □Water Clear line Shelving **W**rested □ Scouring Width: vegetation staining on bank Height: ⊠Bent, matted, or missing ⊠Wrack line □Abrupt plant Soil characteristic change □Litter and vegetation debris community change Depth of Water: Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of Bank to Top of Bank: Water Edge: to Toe of Slope: 0,1 # 5 2 N/A N/A 🗆 Bank slope Sinuosity: Water velocity: Bank height (Approx.) (check one) Right: □ Straight degrees Meandering degrees N/A Qualitative Attributes Water Appearance: **ZClear** □Algal □Other: □No water □Turbid □Sheen □ Surface (check one) on surface scum mats ☐ Silt/ clay ☐ Organic ☐ Sand ☐ Other: Substrate: □ Bedrock ☐ Boulder ☐ Cobble □ Gravel (check all that apply)
% of Substrate: % Width of Riparian Zone: Vegetative Layers: Trees: Saplings/Shrubs: Herbs (check all that apply) (D in. Avg. DBH of Dominants: N/A Dominant Bank Vegetation (list): Chasmanthium laxum Liquidambar styraci. Plua, Ilex opaca, Microstegium vimineum, Athyrium asplenioida Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Intermittent pools, roots, leaf packs Aquatic Organisms Observed (list): Frog T&E Species Observed (list): none Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Ditch from agricultural field flows into upper end. Tributary is: ☐ Natural (check one) ☐ Artificial, man-made Manipulated Stream Quality *: (check one) ☐ High ☐ Moderate Low

Waterbody	ID:
5500	006

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

WSCOOC

WSOLOOG WSOLOOG NIEW CENTERLINE



Waterbody ssoo006 facing southwest upstream.



Waterbody ssoo006 facing northeast downstream.



Waterbody ssoo006 facing northwest across bank.

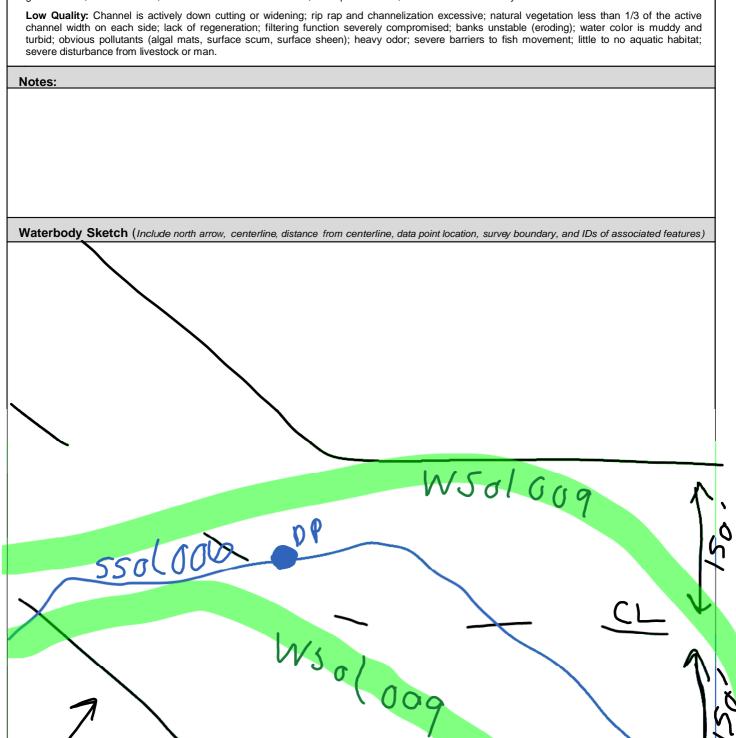
Linear Waterbody Data Sheet

Survey Description								
Project Name:		Vaterbody Nan	ne:		W	aterbody ID:		Date:
Southeast Reliability	·	Jnnamed Tri	butary to N	lottoway River	ss	sol006		8/15/2014
State:	County:		Company:		Crew N	lember Initials	: Photos:	
	South Hamptor		W & C		RS, J			13 - 0016
Tract Number(s):			Nearest Mile	post:		Associated W	etland ID(s):	
25-061, 25-062, 25-064			26			wsol006f ar	nd wsol006e	
Survey Type: (check one)	⊠Centerline	□Re-R	loute	□Access Road		□Other:		
Physical Attributes	i							
Stream Classification: (check one)	⊠Ephemeral	□Inter	mittent	□Perennial				
Waterbody Type:	River ⊠ Strea	am 🗆 Ditc	h □ Ca	anal 🗆 Other:	:			
ОНШМ	OHWM Indicate							
Width:	(check all that apply)		☐ Clear lin on bank	e □Shelvin	g	⊠Wrested vegetation	□Scouring	g □Water staining
Height: 	⊠Bent, mavegetation	atted, or missing	g □Wrack lir	ne ⊠Litter an debris	nd	□ Abrupt plan community ch		naracteristic change
Width of Waterbody - To	pof Width of	Waterbody - 1	oe of Slope	Width of Waterbo	odv - W	ater Edge to	Depth of Water	:
Bank to Top of Bank:	to Toe o		ос от оторо	Water Edge:	,	g	(Approx.)	
<u>4_</u> ft.	1	ft.		 N/A⊠	ft		 N/A⊠	ft.
Sinuosity:	Water ve	elocity:		Bank height			Bank slope	
(check one) ⊠Straight	(Approx.)	•		Right:			Right	:
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		fp	s	Left:	<u>2.5</u> ft.		l of	_60_ degrees
□Meanderin	g N/A⊠				<u>2.0</u> ft.		Left	_80_ degrees
Qualitative Attribut	es							
Water Appearance:								
	No water □Cl	ear □Turbi	-	een □Sur surface scu		□Algal [mats	□Other:	
	Bedrock ☐ Bou	lder Cobb	le 🗆 Grave	el ⊠ Sand 🏻	⊠ Silt/ c	lay 🗆 Organic		
(check all that apply) % of Substrate:	%	_%	%9	% <u>20</u> % _	<u>70_</u> %	%	<u>10</u> %	
Width of Riparian Zone:	Vegetative	Layers:						
<u>>150 ft</u>	(check all that a	oply) f Dominants:	⊠ Trees: _8_in.		☑ Saplin _2_in.	ngs/Shrubs:	⊠ Herbs	
N/A□ Dominant Bank Vegetat	(approx.)							
American holly, mus	. ,	oirch, ferns,	microstegiu	ım, moss				
Aquatic Habitats (ex: sub	omerged or emerged	aquatic vegetation	n, overhanging b	oanks/roots, leaf pack	ks, large	submerged wood,	, riffles, deep pools	s):
		Leaf pa	cks, woody d	ebris				
Aquatic Organisms Obs	erved (list):							
Crayfish burro	ow, dragon fly							
T&E Species Observed	(list):							
none								
Disturbances (ex: livestoo	ck access, manure in	waterbody, waste	discharge pipe	s):				
Flows through power in some places		•	•	,	d sedin	nents dissipa	ating stream	into wetland areas
Tributary is: (check one)		□ Arti	ificial, man-ma	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	☐ High	□ Mo	derate	⊠ Low				

Waterbody	ID
8001022	

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.





Waterbody point ssol006 facing West and upstream



Waterbody point ssol006 facing East and downstream



Waterbody point ssol006 facing South and across

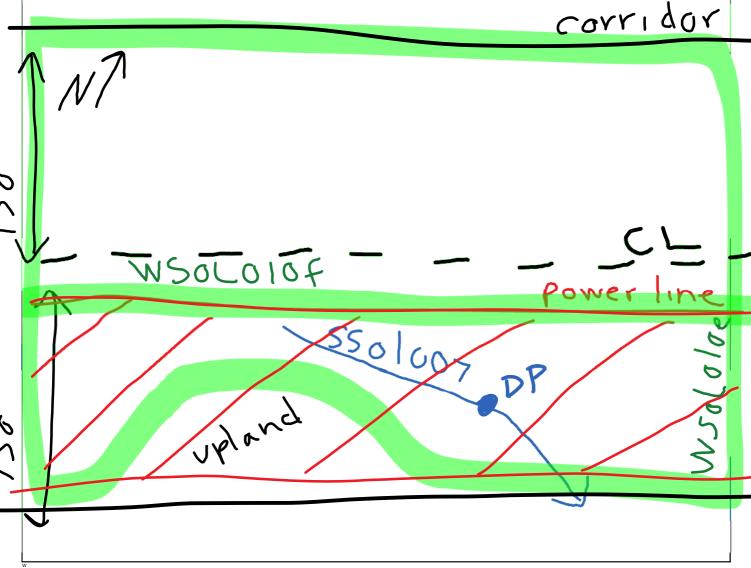
Survey Description	1							
Project Name:		Waterbody Nai	me:		W	aterbody ID:		Date:
Atlantic Coast Pipeli	ine	UNT to Notto	oway Creek		ss	sol007		8/16/2014
State:	County:		Company:		Crew N	Member Initials:	Pho	otos:
ŭ	Southampton		W & C		RS, J			61-4923 to 4925
Tract Number(s):			Nearest Mile	post:		Associated W	etland ID((s):
25-064 Survey Type:			26			wsol010		
(check one)	⊠Centerline	□Re-F	Route	□ Access Road		□Other:		
Physical Attributes	<u> </u>							
Stream Classification: (check one)	⊠Ephemera	ıl □Inter	mittent	□Perennial				
Waterbody Type: (check one)	River ⊠ Stre	eam 🗆 Dito	ch □ Ca	anal 🗆 Other	:			
OHWM Width:	OHWM Indicat (check all that apply		☐ Clear lin	e □Shelvin	g	⊠Wrested vegetation	⊠So	couring
Height: ft. N/A□	⊠Bent, n vegetatio	natted, or missin n	g □Wrack lir	ne □Litter ar debris	nd	☐ Abrupt plant community ch		Soil characteristic change
Width of Waterbody - To			Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of	Water:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:			(Approx.)	
<u>1.25_</u> ft.	_	<u>0.5</u> ft.			<u>1.25</u> ft.		N/A□	<u>0.25</u> ft.
Sinuosity: (check one)	Water (Approx.)	velocity:		Bank height			Bank slop	ре
⊠ Straight	(Αρρίολ.)	_0_fps		Right:	0.25 ft			Right: _80_degrees
□ Moon dorin	.	Left:						Left:
□Meanderin	9 N/A□				<u>0.25</u> ft			<u>85</u> degrees
Qualitative Attribut	tes							
Water Appearance: (check one)	No water ⊠C	Clear □Turb		een □Sui surface scu		□Algal [mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo		ole □ Grave		⊠ Silt/ c 	elay □ Organic %		
Width of Riparian Zone	(check all that	apply)	□ Trees	: [□ Saplir	ngs/Shrubs:	⊠ H	erbs
<u>>150 ft</u> ⋅ N/A□	Avg. DBH	of Dominants:		_in		_in.		
Dominant Bank Vegetar Grass, switch cane,								
Aquatic Habitats (ex: su	bmerged or emerged	d aquatic vegetation	n, overhanging l Overhanging	·	ks, large	submerged wood,	riffles, dee	p pools):
Aquatic Organisms Obs	served (list):							
Box turtle								
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ck access, manure ir	n waterbody, waste	e discharge pipe	s):				
Powerline ROW								
Tributary is: (check one)	⊠ Natural	□ Art	tificial, man-ma	ade 🗆 Manipu	ulated			
Stream Quality a: (check one)	☐ High	□ Mc	oderate	⊠ Low				

W	aterbody	ID
ادد	:01007	

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:





Waterbody data point ssol007 facing west upstream



Waterbody data point ssol007 facing east downstream



Waterbody point ssol007 facing North and across

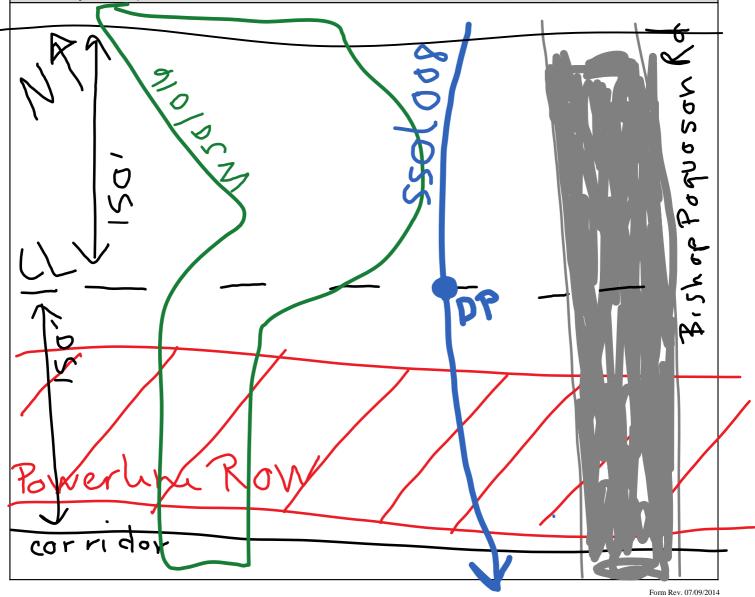
Survey Description	1							
Project Name:		Waterbody Nar	ne:		w	aterbody ID:		Date:
Southeast Reliability	1	UNT to Notto	way River		ss	sol008		8/19/2014
State:	County:	•	Company:		Crew N	lember Initials:	Photos	s:
Virginia	Southampton		W & C		RS, V			0656 to 0658
Tract Number(s):			Nearest Mile	post:		Associated We	etland ID(s):	
25-066			27			wsol015		
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□Access Roa	ıd	□Other:		
Physical Attributes Stream Classification:	S							
(check one)	□Ephemera	ıl ⊠Inter	mittent	□Perennial				
Waterbody Type: (check one)	River ☐ Stre	eam ⊠ Ditc	h □ Ca	anal 🗆 Othe	er:			
OHWM	OHWM Indicat	or:						
Width: 4_ft.	(check all that apply	·)	☐ Clear lin on bank	e □Shelvi	ng	⊠Wrested vegetation	⊠Scour	ing □Water staining
Height: 1.5_ft. N/A□	□Bent, n vegetatio	natted, or missin n	g □Wrack liı	ne ⊠Littera debris	and	☐ Abrupt plant community cha		characteristic change
Width of Waterbody - To			Toe of Slope	Width of Water	body - W	ater Edge to	Depth of Wat	er:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		((Approx.)	
_ <u>6_</u> ft.	-	<u>2</u> ft.		 N/A⊠	f		N/A⊠	ft.
Sinuosity:		velocity:		Bank height		E	Bank slope	
(check one) ⊠ Straight	(Approx.)			Right:			Rig	
		fp	S	Left:	<u>1.5</u> ft.		Le	_ <u>70_</u> degrees
□Meanderin	g N/A⊠				<u>2</u> ft.			_55_ degrees
Qualitative Attribut	es							
Water Appearance:	N	. == .			,		704	
(check one)	No water □C	Clear □Turb			urface cum	□Algal □ mats	□Other:	
	Bedrock ☐ Bo	ulder 🗆 Cobb	le 🗆 Grave	el 🗆 Sand	⊠ Silt/ c	lay 🗆 Organic	☐ Other:	
(check all that apply) % of Substrate:	%	%	.%	%%	<u>100</u> %	%	%	
Width of Riparian Zone	: Vegetative	Layers:						
_5 ft	(check all that	apply) of Dominants:	⊠ Trees: _8_in.		Saplir _1_in.	ngs/Shrubs:	⊠ Herbs	3
N/A 🗆	(approx.)							
Dominant Bank Vegetar River birch, smilax, s		maple, willow	w, nepalese	e browntop, w	ild rye			
Aquatic Habitats (ex: su	bmerged or emerged	I aquatic vegetation	n, overhanging	panks/roots, leaf pa	icks, large	submerged wood,	riffles, deep po	ols):
	Leaf packs, overh	nanging vegetation	on					
Aquatic Organisms Obs	served (list):							
Crayfish burre	ows, turtle							
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ck access, manure ir	n waterbody, waste	discharge pipe	s):				
Roadside drainage	ditch							
Tributary is:	□ Natural	☐ Art	ificial, man-m	ade 🗵 Mani	pulated			
Stream Quality ^a : (check one)	☐ High		derate	⊠ Low				

Waterbody	ID:
ssol008	

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:





Waterbody point ssol008 facing north and upstream



Waterbody point ssol008 facing south and downstream



Waterbody point ssol008 facing east and across

Linear Waterbody Data Sheet Survey Description Waterbody Name: Project Name: Waterbody ID: Date: 7/29/15 5500000l LINT to Nottonia RIVER Crew Member Initials: State: County/Parish: Photos: Southampton KWM, DBB S, N, E FSI Tract Number(s): Nearest Milepost: Associated Wetland ID(s): (Access Rd 290) 25-066 ~79.4 none Survey Type: (check one) □ Centerline □Re-Route X Access Road □Other: Physical Attributes Stream Classification: (check one) □ Ephemeral Intermittent □Perennial Waterbody Type: (check one) Other: □River □ Ditch ☐ Canal OHWM OHWM Indicator: Clear line Scouring (check all that apply) □ Shelving □W rested ⊠W ater Width: vegetation on bank staining _ft. Height: □Bent, matted, or missing Www.rack line Litter and Soil characteristic change Abrupt plant debris community change vegetation N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of Depth of Water: Bank to Top of Bank: Water Edge: to Toe of Slope: ഗ N/AX N/AX Bank height Sinuosity: Water velocity: Bank slope (check one) (Approx.) Right: Right: ⊠Straight degrees fps Left: □ Meandering degrees Qualitative Attributes Water Appearance: No water (check one) □Clear □Turbid □Sheen □Surface □Algal □Other: on surface scum mats Substrate: ☐ Bedrock ☐ Boulder ☐ Cobble **⊠** Gravel X Sand (check all that apply) 55 % of Substrate: % Width of Riparian Zone: Vegetative Layers: (check all that apply) Trees: Saplings/Shrubs: M Herbs Avg. DBH of Dominants: NA in: 8 (approx.) Dominant Bank Vegetation (list): Pinus taeda, Acer rubrum, Alnus serrulatz, Lonicera, japonia Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): intermittent water and pools Aquatic Organisms Observed (list): none T&E Species Observed (list): none Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): channelization, sediment input, dumping Tributary is: (check one) □ Natural Manipulated ☐ Artificial, man-made Stream Quality a: 🔀 Low

(check one)

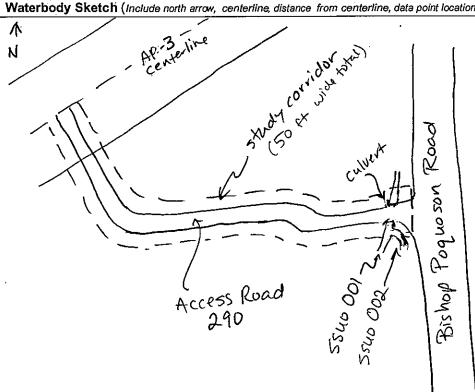
□ High

☐ Moderate

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:



Environmental Field Surveys Waterbody Photo Page



Waterbody ssoo001 facing south upstream.



Waterbody ssoo001 facing north downstream.

Environmental Field Surveys Waterbody Photo Page



Waterbody ssoo001 facing east across bank.

Survey Description	1								
Project Name:		Waterbody Nan	ne:		W	aterbody ID:			Date:
Atlantic Coast Pipeli	ne	UNT to Notto	way River		ss	ssoa006			12/2/2014
State:	County:		Company:		Crew N	dember Initials:	Ph	otos:	
_	Southampton		NRG		GB, R			PHO	TOS
Tract Number(s):			Nearest Mile	post:		Associated Wo	etland ID)(s):	
25-079			29.8			none			
Survey Type: (check one)	⊠Centerline	□Re-R	loute	□ Access Road		□Other:			
Physical Attributes Stream Classification:	3								
(check one)	□Ephemera	ıl ⊠Interi	mittent	□Perennial					
Waterbody Type: (check one)	River □ Str	eam 🗵 Ditc	h □ Ca	anal 🗆 Other:	:				
OHWM Width: ft.	OHWM Indicat (check all that apply		☐ Clear lin	e □Shelvin	g	⊠Wrested vegetation	□So	couring	g ⊠Water staining
Height:	□Bent, n vegetatio	natted, or missing n	g □Wrack liı	ne □Litter ar debris	nd	⊠ Abrupt plant community cha		Soil cl	haracteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - 7 of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W		Depth of (Approx.)	Water	·:
<u>5.0_</u> ft.	_	<u>1.0</u> ft.		 N/A⊠	f		N/A⊠	_	ft.
Sinuosity: (check one) ⊠Straight	Water (Approx.)	/elocity : fp	os	Bank height Right: Left:	<u>5.0</u> ft.	I	Bank slo	pe Right Left	75 degrees
□Meanderir	ng N/A⊠				<u>5.0_</u> ft.				75 degrees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water □C	clear □Turb		een □Sui surface scu		□Algal □ mats	□Other:		
Substrate: (check all that apply) % of Substrate:	Bedrock □ Bo			el ⊠ Sand □ % <u>35</u> % _	⊠ Silt/ c 55_%	lay ⊠ Organic	□ Oth	ner: %	
Width of Riparian Zone	(check all that	-	□ Trees	: [_in	∃ Saplir	ngs/Shrubs: in.	⊠⊦	Herbs	
N/A⊠ Dominant Bank Vegeta	(approx.)								
Japanese honeysud		ldenrod, dog	fennel, cur	ly dock, foxtail	, soft r	ush, blackbe	rry		
Aquatic Habitats (ex: su	bmerged or emerged	I aquatic vegetation	n, overhanging l	banks/roots, leaf pac	ks, large	submerged wood,	riffles, de	ep pool	s):
Emergent vegetatio									,
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ck access, manure in	n waterbody, waste	discharge pipe	es):					
Agriculture, culvert									
Tributary is: (check one)	□ Natural	⊠ Art	ificial, man-ma	ade 🗆 Manipı	ulated				
Stream Quality ^a : (check one)	☐ High	□ Мо	derate	⊠ Low					

Waterbody ID: ssoa006

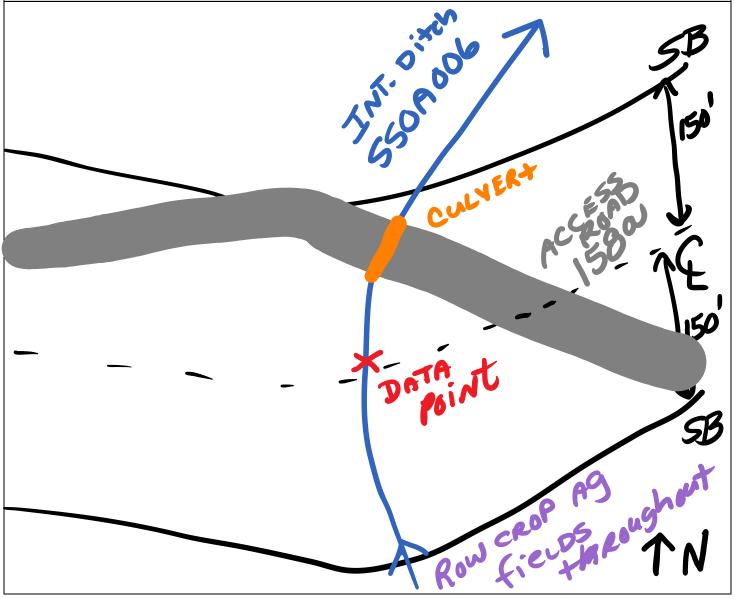
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Feature continues out of corridor in both directions; culvert crossing for access road 158a within VNG lateral corridor; input from drain tiles evident.





Waterbody SSOA006 facing southwest upstream



Waterbody SSOA006 facing northeast downstream



Waterbody SSOA006 facing east across

Survey Description	1								
Project Name:		Waterbody Nam	ne:		W	aterbody ID:			Date:
Atlantic Coast Pipeli	ne	Nottoway River			ss	ssoa007			12/3/2014
State:	County:		Company:		Crew N	Member Initials	: Р	hotos:	
_	Southampton		NRG		GB, F			3 phot	os
Tract Number(s):			Nearest Mile	-		Associated W	etland I	D(s):	
25-081; access road	d 66b	,	30.5 – 30.8	85 		wsoa019			
Survey Type: (check one)	□Centerline	□Re-R	oute	⊠Access Road		□Other:			
Physical Attributes Stream Classification:	3								
(check one)	□Ephemera	ıl □Intern	nittent	⊠Perennial					
Waterbody Type: (check one)	River □ Str	eam 🗆 Ditch	n 🗆 Ca	anal 🗆 Other	:				
OHWM Width: 160 ft.	OHWM Indicat (check all that apply		⊠ Clear lin on bank	e □Shelvin	g	□Wrested vegetation		Scouring	g □Water staining
Height: ft. N/A□	□Bent, n vegetatio	natted, or missing n	y ⊠Wrack lii	ne □Litter ar debris	nd	☐Abrupt plant community ch		□Soil c	haracteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - T of Slope:	oe of Slope	Width of Waterb Water Edge:	ody - W		Depth o	of Wate	r:
_ <u>175_</u> ft.	_	<u>110</u> ft.		 N/A□	<u>150_</u> ft.		N/A□		<u>9.0</u> ft.
Sinuosity: (check one) ☐Straight	Water (Approx.)	velocity: 		Bank height Right: Left:	<u>15.0_</u> ft		Bank sl	ope Right Left	85 degrees
⊠Meanderin	g N/A□			_	<u>12.0_</u> ft				35 degrees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water □C	Clear □Turbi		een □Su surface sc		□Algal □ mats	⊠Other:	black	water - organics
Substrate: (check all that apply) % of Substrate:	Bedrock			el ⊠ Sand □ % <u>25</u> % _	⊠ Silt/ c _ <u>75_</u> %	elay □ Organic %		ther: %	
Width of Riparian Zone	(check all that	apply)	⊠ Trees:		⊠ Saplir	ngs/Shrubs:	\boxtimes	Herbs	
	Avg. DBH (approx.)	of Dominants:	<u>_13.0</u> _ir	^{).} -	_1.25_i	n.			
Dominant Bank Vegeta	tion (list):								
Willow oak, water oa wood oats, broom s	edae.					·		•	
Aquatic Habitats (ex: su Overhanging roots a				banks/roots, leaf pac	ks, large	submerged wood,	, riffles, d	leep pool	(s):
Aquatic Organisms Obs	served (list):								
fish									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	discharge pipe	es):					
Selective logging, a									
Tributary is: (check one)	Natural	☐ Artii	ficial, man-m	ade □ Manip	ulated				
Stream Quality ^a : (check one)	☐ High	⊠ Mod	derate	□ Low					

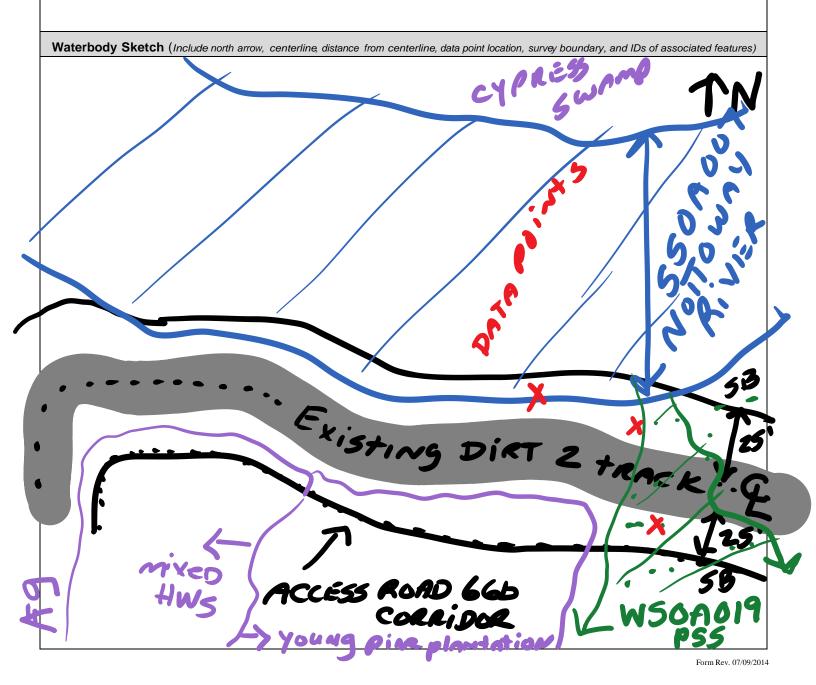
Waterbody	ID:
ssoa007	

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Upline extent (south bank) only taken along access road 66b; down line side of river is located in a tract for which permission has not been requested and is far outside of access road corridor.





Waterbody SSOA007 facing west upstream



Waterbody SSOA007 facing east downstream



Waterbody SSOA007 facing north across

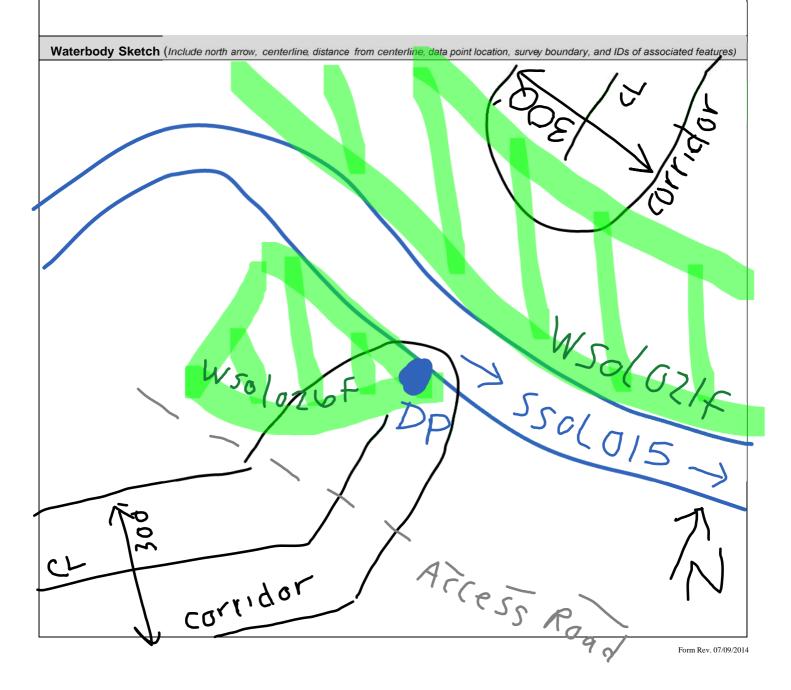
Survey Description								
Project Name:		aterbody Nam				aterbody ID:		Date:
Southeast Reliability	'	lottoway Rive	er		SS	sol015		8/26/2014
State:	County:	C	Company:		Crew N	Member Initials	: Pho	tos:
· ·	Southampton	-	Voodard 8		RS, V			0-0929 to 0931
Tract Number(s):			learest Mile	post:		Associated W	•	•
25-081		3	31			wsol026f ar	nd wsol02	21†
Survey Type: (check one)	⊠Centerline	□Re-Ro	oute	□ Access Roa	nd	□Other:		
Physical Attributes Stream Classification:								
(check one)	□Ephemeral	□Interm	nittent	⊠Perennial				
Waterbody Type: (check one)	River □ Strea	ım 🗆 Ditch	□ Са	nal 🗆 Othe	er:			
OHWM Width:	OHWM Indicato (check all that apply)	r:	⊠ Clear line	e ⊠Shelvi	ing	□Wrested vegetation	⊠Sco	uring ⊠Water staining
Height:	⊠Bent, ma vegetation	tted, or missing	□Wrack lir	ne □Litter a debris	and	⊠Abrupt plan community ch		oil characteristic change
Width of Waterbody - To Bank to Top of Bank:	op of Width of to Toe of			Width of Water Water Edge:	body - W	ater Edge to	Depth of W	/ater:
_>200_ft.	> <u>75</u>	•		N/A	_ <u>155_</u> ft.		N/A□	<u>>10</u> ft.
Sinuosity: (check one) ☐Straight	Water ve (Approx.)	locity:		Bank height Right: Left:	_ <u>10_</u> ft.			ight: 45_ degrees Left:
⊠Meanderin	9 N/A□			Loit.	<u>15</u> ft.			70 degrees
Qualitative Attribut	es							
Water Appearance: (check one)	No water ⊠Cle	ear □Turbio	_		urface cum	□Algal mats	□Other:	
(check all that apply)	Bedrock ☐ Boul	der 🗆 Cobble	e □ Grave	l □ Sand NA %	⊠ Silt/ c	lay ⊠ Organio	C ☐ Other	r:
			<u>INA</u> 70	<u>INA</u> 70	<u>90</u> %	<u>10</u> 70	<u>INA</u> 70	
Width of Riparian Zone: _>150 ft N/A□	(check all that ap		⊠ Trees: _12_in.		⊠ Saplir _3_in.	ngs/Shrubs:	⊠ He	rbs
Dominant Bank Vegetat	ion (list):							
Cypress, elm, red m	aple, ash, lizard	tail, sedges,	, ferns, gra	isses				
Aquatic Habitats (ex: sul	bmerged or emerged a	quatic vegetation,	overhanging b	oanks/roots, leaf pa	acks, large	submerged wood	I, riffles, deep	pools):
Submerged and em	ergent vegetation	n, leaf packs	s, deep po	ols, submerg	ed large	e woody deb	ris	
Aquatic Organisms Obs	served (list):							
Mud turtle, minnows	, frogs, crickets,	dragonflies						
T&E Species Observed	(list):							
none				,				
Disturbances (ex: liveston Nearby access road		vaterbody, waste o	discharge pipe	s):				
Tributary is: (check one)	⊠ Natural	☐ Artifi	icial, man-ma	ade □ Mani	pulated			
Stream Quality ^a : (check one)	⊠ High	□ Mod	erate	□ Low				

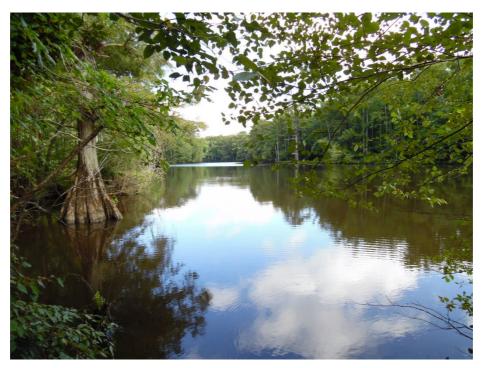
Waterbody	ID
ssol015	

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:





Waterbody data point ssol015 facing north, upstream



Waterbody data point ssol015 facing south, downstream



Waterbody data point ssol015 facing across

Survey Description Project Name:		Waterbody Na	mai		har	torbody ID		ID-4
Southeast Reliability		UNT TO NOTTOWAY RIVER				aterbody ID: ol009		Date: 8/22/2014
State:	County:		Company:		Crew M	ember Initials	s: Photos	
 Virginia	Southampton		W&C		WLM,	RS		761 TO 0763
Tract Number(s):	1		Nearest Mile	epost:		Associated W		
05-085			31		i	NA		
Survey Type: (check one)	⊠ Centerline	e □Re-F	Route	□Access Road	d	□Other:		
Physical Attributes								
Stream Classification:	□Ephemera	al ⊠Inter	mittent	□Perennial				
Waterbody Type:	River Str	eam ⊠ Dito	h 🗆 Ca	anal □ Othe	î:			
OHWM	OHWM Indica	tor						
Width:5_ft.	(check all that apply	<i>(</i>)	☐ Clear lir on bank	ne □Shelvir	ng	□Wrested vegetation	□Scourin	g □Water staining
Height:	⊠Bent, r vegetatio	natted, or missin	g □Wrack li	ne ⊠Litter a debris	nd	⊠Abrupt plar community ch		haracteristic change
N/A □ Width of Waterbody - To	n of Midth	of \8/atoub od	Too of Claus	Width of Waterb	ander 184a	- 	D4h -514/-4-	
Bank to Top of Bank:		of Slope:	oe or Siope	Water Edge:	ody - wa	iter Eage to	Depth of Wate (Approx.)	r:
<u>_7_</u> ft.	-	<u>5_</u> ft.		N/A□	<u>5</u> ft.		N/A□	_1_ft.
Sinuosity: (check one)	Water (Approx.)	velocity:		Bank height			Bank slope	
⊠ Straight	(Арріох.)	fr	se.	Right:	_4_ft.		Righ	t: _ <u>85_</u> degrees
□Meandering	N/A⊠	'\	15	Left:			Lef	t:
Qualitative Attribute	a sa a sa sa sa sa		inguare en e		_4_ft.			85 degrees
Water Appearance:								<u> </u>
(check one) □h	lo water □C	Clear ⊠Turb			rface um	□Algal mats	□Other:	
Substrate:	Bedrock ☐ Bo	ulder 🗆 Cobb	le 🗆 Grave	el 🛭 Sand	⊠ Silt/ cla	ay 🛭 Organio	Other:	
01 80 8 1 1	<u>NA</u> <u>NA</u> °	% <u>NA</u> %	<u>NA</u> %	_50_%	<u>25_</u> %	<u>25</u> %	<u>NA</u> %	
Width of Riparian Zone:	Vegetative	•						
_>100_ft⋅	(check all that	apply) of Dominants:	☐ Trees			js/Shrubs:		
N/A 🗆	(approx.)	or bommants.	_NA_in.	-	_1_in. 			
Dominant Bank Vegetati RUBUS, GIANT CAN		D, WINGED S	SUMAC, B	LACK WILLOV	V, RED	MAPLE		
Aquatic Habitats (ex: sub							. riffles, deep pool	s):
SOFT MUCKY/SAND						,	, , , , , ,	,
Aquatic Organisms Obse	erved (list):							
FROGS								
T&E Species Observed (list):	•						
NA								
Disturbances (ex: livestock				s):				
	J. O I LAINIE	D VEOLAROSIF		W				
Tributary is: (check one)	□ Natural	⊠ Arti	ficial, man-ma	ade 🗆 Manip	ulated			
Stream Quality a:								

Waterbody	ID:
9001022	

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

AG DITCH WITH LITTLE TO NO FLOW (STAGNANT); POOR AQUATIC HABITAT

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)

Ag fireld

SSOLOOPI

FLOW

AGFIELD



Waterbody point ssol009 facing South and downstream



Waterbody point ssol009 facing North and upstream



Waterbody point ssol009 facing West and across

Linear Waterbody Data Sheet Survey Description Project Name: Waterbody Name: Waterbody ID: Date: 8/22/2014 UNT TO NOTTOWAY RIVER ssol010 Southeast Reliability State: Crew Member Initials: Photos: County: Company: 100-0764 TO 0766 Virginia Southampton W&C WLM, RS Associated Wetland ID(s): Tract Number(s): Nearest Milepost: 05-085/087 31 NA Survey Type: (check one) ⊠Centerline □Re-Route □Access Road □Other: Physical Attributes
Stream Classification:

(check one)	□Ę	phemeral	⊠Intermi	ttent	□Perennial				
Waterbody Type: (check one)	□River	☐ Stream	⊠ Ditch	□ Ca	anal 🗆 Othe	er:			
OHWM Width: <u>4</u> ft.		M Indicator: all that apply)		☐ Clear lin on bank	e □Shelv		□Wrested vegetation	□Scouring	□Water staining
Height: _1_ft. N/A□		⊠Bent, matted, vegetation	or missing	□Wrack lir	ne ⊠Litter debris		⊠Abrupt plar community cl		aracteristic change
Width of Waterbody Bank to Top of Bank		Width of Wat to Toe of Slo		e of Slope	Width of Water Water Edge:	body - Wa	ter Edge to	Depth of Water: (Approx.)	
<u>_6_ft</u> .		_4_ft.			N/A□	_3_ft.		N/A□	<u>0.7_</u> ft.
Sinuosity: (check one) ⊠Straight		Water velocit (Approx.) — N/A⊠	ty: fps		Bank height Right: Left:	3_ft. 3_ft.		Bank slope Right: Left:	_70_ degrees _70_ degrees
Qualitative Attrib	outes				Maria da Mari		maa egif		
Water Appearance: (check one)	□No water	r □Clear	⊠Turbid	□Sh on		urface cum	□Algal mats	□Other:	
Substrate: (check all that apply) % of Substrate:	□ Bedrock	□ Boulder <u>NA</u> %	☐ Cobble	□ Grave	el ⊠ Sand _50_%	⊠ Silt/ cla	y ⊠ Organi _25_%	c □ Other: _NA_%	
Width of Riparian Zo <u>>100 ft</u> · N/A□ Dominant Bank Vege	(c) A : (a)	egetative Layer heck all that apply) vg. DBH of Dor oprox.) :		□ Trees _NA_in.	•	⊠ Sapling _1_in.	s/Shrubs:	⊠ Herbs	
RUBUS, GIANT C	CANE, RA	GWEED, CA	ATTAIL, W	/INGED S	SUMAC, BLA	CK WILL	OW, JOE	PYE WEED	
Aquatic Habitats (ex: SOFT MUCKY/S/	-	• •				icks, large si	ubmerged wood	d, riffles, deep pools)	:
Aquatic Organisms (FROGS	Observed (/	ist):							
T&E Species Observ	ed (list):							u distribu	
NA									
NA Disturbances (ex: live FARMING/ROW		•	•		es):				
Disturbances (ex: live	CROPS F	•	ONGSIDI			pulated			

Waterbody	ID
ssol010	

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

AG DITCH WITH LITTLE TO NO FLOW (STAGNANT); POOR AQUATIC HABITAT



Waterbody point ssol010 facing North and upstream



Waterbody point ssol010 facing South and downstream



Waterbody point ssol010 facing West and across

Lilleal Waterbo	uy Data	JIIEEL								
Survey Description	on									
Project Name: Southeast Reliabili	Waterbody Name: UNT TO NOTTOWAY RIVER			Waterbody ID: ssoi011			Date: 8/22/2014			
State:	County:		I	Company:		Crew I	Member Initials	s: Photos	<u> </u>	
 Virginia			V	' '			/LM, RS		100-0767 TO 0769	
Tract Number(s):		<u>'</u>	1	learest Mile	post:		Associated V	/etland ID(s):		
05-088				31			NA			
Survey Type: (check one)	⊠c	enterline	□Re-Ro	oute	□Access Roa	ad	□Other:			
Physical Attribute										
Stream Classification (check one)		phemeral	⊠Interm	nittent	□Perennial					
Waterbody Type: (check one)	□River	☐ Stream	⊠ Ditch	ı □ Ca	anal 🗆 Oth	er:				
OHWM Width: _10_ft.		M Indicator: all that apply)		☐ Clear lin	e □Shelv	ing	□Wrested vegetation	□Scourir	ng □Water staining	
Height: _ <u>1_</u> ft. N/A□		⊠Bent, matted, or vegetation	missing	□Wrack lii	ne ⊠Litter debris	and	⊠Abrupt plar community cl		characteristic change	
Width of Waterbody - Bank to Top of Bank:		Width of Waterl to Toe of Slope		pe of Slope	Width of Water Water Edge:	rbody - W	ater Edge to	Depth of Wate (Approx.)	er:	
<u>12</u> ft.		10ft.		N/A□		<u>6</u> ft.		N/A□	ft.	
Sinuosity: (check one)		Water velocity:			Bank height			Bank slope		
⊠Straight			fps		Right:			Righ	Right: 70 degrees	
□Meandei	rina	N/A⊠	ips	•	Left:	 _3_ft.		Le		
		IN/AØ	tang ng n		San Horas Na Se	II.	afa dan sadas sa Mbara	Aur Seer dan Sister (uegrees	
Qualitative Attrib Water Appearance:	utes									
(check one)	□No water	□Clear	⊠Turbio			Surface scum	□Algal mats	□Other:		
	☐ Bedrock	☐ Boulder 〔	Cobble	e □ Grave	el 🛭 Sand	⊠ Silt/ o	clay 🛭 Organi	c		
(check all that apply) % of Substrate:	<u>NA_</u> %	<u>NA</u> %	<u>NA_</u> %	<u>NA</u> %	<u>40</u> %	<u>25</u> %	<u>35</u> %	<u>NA</u> %		
Width of Riparian Zor	(ch	egetative Layers:		□ Trees:		⊠ Sapliı	ngs/Shrubs:	⊠ Herbs		
<u>>100 ft</u> ⋅ N/A□		rg. DBH of Domin oprox.)	nants:	_ <u>6</u> _in.		<u>_1</u> _in.				
Dominant Bank Veget										
PINE, SYCAMORE	E, RUBU	S, RAGWEED	, SWE	ETGUM, V	VATER OAK	, SMAR	TWEED, PO	DISON IVY		
Aquatic Habitats (ex:	submerged o	r emerged aquatic v	egetation,	overhanging	banks/roots, leaf p	acks, large	submerged wood	l, riffles, deep poo	ols):	
SOFT MUCKY/SA	NDY SU	BSTRATE, O\	/ERHA	NGING V	EGETATION					
Aquatic Organisms O NA	bserved (li	st):								
T&E Species Observe	ed (list):									
NA										
Disturbances (ex: lives	stock access,	manure in waterboo	dy, waste	discharge pipe	es):					
CULVERT CROSS	SING OF	DITCH WITH	N COF	RRIDOR						
Tributary is: (check one)	1 🗆	Natural	⊠ Artif	icial, man-m	ade 🗆 Man	ipulated				
Stream Quality ^a : (check one)	□ H	ligh	☐ Mod	lerate	⊠ Low					

Waterbody	ID:
ssol011	

Form Rev. 07/09/2014

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

AG DITCH WITH LITTLE TO NO FLOW (STAGNANT); POOR AQUATIC HABITAT



Waterbody point ssol011 facing North and upstream



Waterbody point ssol011 facing South and downstream



Waterbody point ssol011 facing East and across

Survey Description	1							
Project Name:		Waterbody Nar				aterbody ID:		Date:
Atlantic Coast Pipeli	ne	UNT to Notto	way River		S	SOC006		4/17/2015
State:	County:	•	Company:		Crew N	Member Initials:	Photo	os:
_	Southampton		NRG		CR, S			C006_001-003
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s):	
25-089			34.5			WSOC013		
Survey Type: (check one)	□Centerline	e ⊠Re-F	Route	□Access Road		□Other:		
Physical Attributes	3							
Stream Classification: (check one)	□Ephemera	al □Inter	mittent	⊠Perennial				
Waterbody Type: (check one)	River □ Str	eam ⊠ Dito	ch 🗆 Ca	anal 🗆 Other:	:			
OHWM Width: 22_ft.	OHWM Indicat (check all that apply		⊠ Clear lin on bank	e □Shelvin	g	□Wrested vegetation	□Scou	ring □Water staining
Height: 2 ft. N/A□	vegetatio			debris	-	☐ Abrupt plant community ch		il characteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W		Depth of Wa (Approx.)	ter:
_ <u>30_</u> ft.	_	<u>5_</u> ft.		 N/A□	<u>20</u> _ft.	I	N/A□	<u>1.5</u> ft.
Sinuosity: (check one) ⊠Straight	(Approx.)	velocity:1_fps		Bank height Right: Left:	<u>10_</u> ft.		_	ght:
□Meanderin	19 N/A□			-	<u>10_</u> ft.			70 degrees
Qualitative Attribut	tes							
Water Appearance: (check one)	No water □C	Clear □Turb		een □Sui surface scu		⊠Algal [mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo	oulder Cobb		el ⊠ Sand □ % <u>80</u> % _	⊠ Silt/ c 20_%	lay □ Organic%	☐ Other:	6
Width of Riparian Zone 30 ft N/A□	(check all that	•	[⊠] Trees: _ <u>12</u> _in.		⊠ Saplin _2_in.	ngs/Shrubs:	⊠ Herb	s
Dominant Bank Vegeta								
American beech, red	d maple, musc	lewood, ame	rican holly,	giant cane				
Aquatic Habitats (ex: su	bmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep p	ools):
Riffles and pools, le								
Aquatic Organisms Obs Minnows	served (list):							
T&E Species Observed	(list):							
None								
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	e discharge pipe	es):				
Stream appears to r	eceive some r	nutrient discha	arge as a re	esult of the nea	arby pu	ılp mill		
Tributary is:	☐ Natural	⊠ Art	tificial, man-ma	ade □ Manipı	ulated			
Stream Quality ^a : (check one)	☐ High	⊠ Mc	oderate	□ Low				

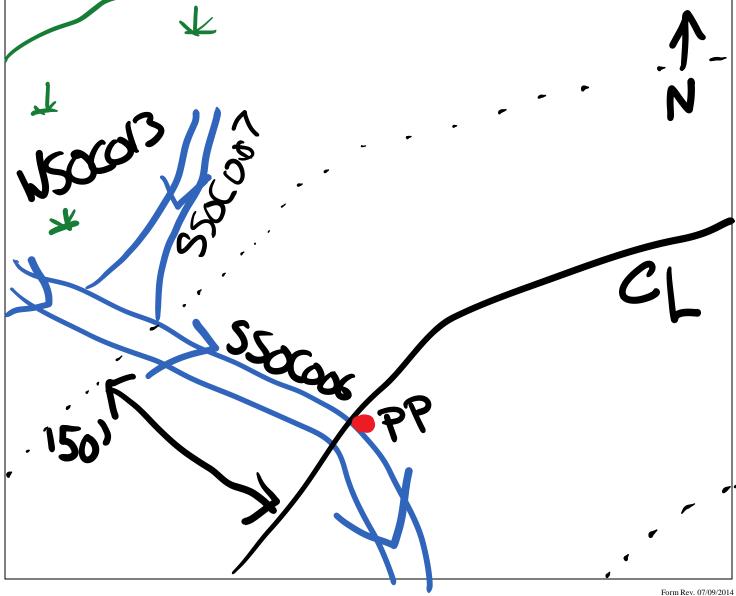
Waterbody	ID:
SSOC006	

High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:





Waterbody SSOC006 facing northwest upstream



Waterbody SSOC006 facing southeast downstream



Waterbody SSOC006 facing southwest across

Survey Description	1								
Project Name:		Waterbody Nar				aterbody ID:		Date:	
Atlantic Coast Pipeli	ne	UNT to Notto	way River		S	SOC008		4/16/2	.015
State:	County:		Company:		Crew N	Member Initials	: Ph	otos:	
_	Southampton		NRG		CR, S			SOC008_0	01-003
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID	(s):	
25-089			34.6			None			
Survey Type: (check one)	□Centerline	e ⊠Re-R	Route	□Access Road	l	□Other:			
Physical Attributes	3								
Stream Classification: (check one)	Ephemera	al ⊠Inter	mittent	□Perennial					
Waterbody Type: (check one)	River □ Str	eam ⊠ Ditc	h □ Ca	anal 🗆 Other	•				
OHWM Width:	OHWM Indicat (check all that apply		⊠ Clear lin	e □Shelvin	g	□Wrested vegetation	□Sc		□Water staining
Height: 1.5 ft. N/A□	□Bent, n vegetatio	natted, or missing n	g □Wrack lii	ne □Litter ar debris	nd	☐ Abrupt plan community ch		Soil characte	ristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - 7	Toe of Slope	Width of Waterbo	ody - W		Depth of (Approx.)	Water:	
_ <u>20_</u> ft.	_	ft.		 N/A□	_4_ft.		N/A□	<u>0.5</u> f	t.
Sinuosity: (check one) ☐Straight	Water (Approx.)	velocity: 0.5fps		Bank height Right: Left:	_7_ft.		Bank slo _l	Right:	degrees
⊠Meanderin	g N/A□				<u>6</u> ft.			_60_	degrees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water ⊠C	Clear □Turb		een □Sui surface scu		□Algal [mats	□Other:		
Substrate: (check all that apply) % of Substrate:	Bedrock DBo			el ⊠ Sand □ % <u>50</u> % _	⊠ Silt/ c 30_%	elay ⊠ Organic	Oth	er: %	
Width of Riparian Zone 10 ft⋅ N/A□	(check all that	•	⊠ Trees: _ <u>12</u> _in.		⊠ Saplin _2_in.	ngs/Shrubs:	⊠H	erbs	
Dominant Bank Vegeta	tion (list):								
American holly, red	maple, muscle	wood, japane	ese honeys	uckle					
Aquatic Habitats (ex: su	bmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, dee	ep pools):	
Pools and riffles, ov	erhanging root	s, downed wo	oody debris	3					
Aquatic Organisms Obs	served (list):								
None									
T&E Species Observed	(list):								
None									
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	discharge pipe	es):					
None									
Tributary is: (check one)	□ Natural	⊠ Art	ificial, man-m	ade □ Manip	ulated				
Stream Quality ^a : (check one)	☐ High	⊠ Mo	derate	☐ Low					

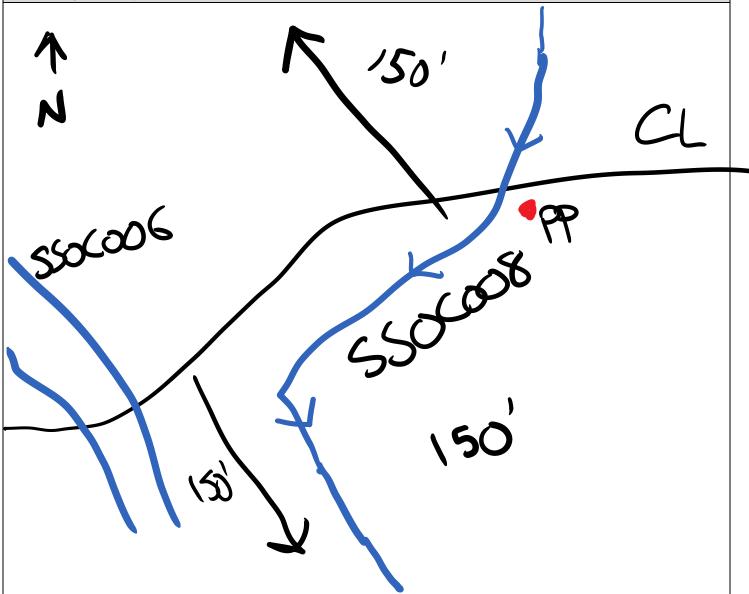
Waterbody	ID:
SSOC008	

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.







Waterbody SSOC008 facing northeast upstream



Waterbody SSOC008 facing southwest downstream



Waterbody SSOC008 facing southeast across

Survey Description	1							-	
Project Name:		Waterbody Nar				aterbody ID:		Date:	
Atlantic Coast Pipeli	ine	UNT to Notto	way River		S	SOC009		4/16/20	15
State:	County:		Company:		Crew N	lember Initials	: Pho	otos:	
_	Southampton		NRG		CR, S			SOC009_00	1-003
Tract Number(s):			Nearest Mile	post:		Associated W	etland ID((s):	
25-090			34.95			None			
Survey Type: (check one)	□Centerline	e ⊠Re-F	Route	□Access Road	<u> </u>	□Other:			
Physical Attributes Stream Classification:	5								
(check one)	Ephemera	al ⊠Inter	mittent	□Perennial					
Waterbody Type: (check one)	River Str	eam ⊠ Dito	h □ Ca	anal 🗆 Other	:				
OHWM Width:	OHWM Indica (check all that apply		⊠ Clear lin	e □Shelvin	g	□Wrested vegetation	□Sc		Water
Height: 2 ft. N/A□	□Bent, n vegetatio	natted, or missin	g □Wrack lii	ne □Litter ar debris	nd	☐ Abrupt plan community ch		Soil characteris	tic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth of (Approx.)	Water:	
_ <u>8</u> ft.		<u>2</u> ft.			_4_ft.		N/A□	<u>1.5_</u> ft.	
Sinuosity: (check one) ⊠Straight	(Approx.)	velocity: 0.5fps		Bank height Right: Left:	_4_ft.		Bank sloր	oe Right: 70_ de Left:	egrees
□Meanderin	ng N/A□				<u>3</u> _ft.			<u>70</u> de	grees
Qualitative Attribut	tes								
Water Appearance: (check one)	No water ⊠0	Clear □Turb		een □Su surface sc		□Algal [mats	□Other:		
Substrate: (check all that apply) % of Substrate:	Bedrock	oulder □ Cobb %		el ⊠ Sand □ % <u>80</u> % _	⊠ Silt/ c 20_%	lay □ Organic		er: _%	
Width of Riparian Zone	(check all that Avg. DBH	-	□ Trees	: [_in	□ Saplin	ngs/Shrubs: in.	⊠ He	erbs	
N/A⊠ Dominant Bank Vegeta	(approx.)		<u> </u>						
Wheat, cotton, poi s		5							
Aquatic Habitats (ex: su	bmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, dee	p pools):	
None									
Aquatic Organisms Obs	served (list):								
None									
T&E Species Observed	(list):								
None									
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	discharge pipe	es):					
Stream is located in	between two	active agricul	tural fields						
Tributary is: (check one)	□ Natural	⊠ Art	ificial, man-m	ade □ Manip	ulated				
Stream Quality ^a : (check one)	☐ High	⊠ Mo	derate	□ Low					

Waterbody	ID:
SSOC009	

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Agricultural Field Wheat 50009 Agricultulal Field (Lotton)



Waterbody SSOC009 facing north upstream



Waterbody SSOC009 facing south downstream



Waterbody SSOC009 facing west across

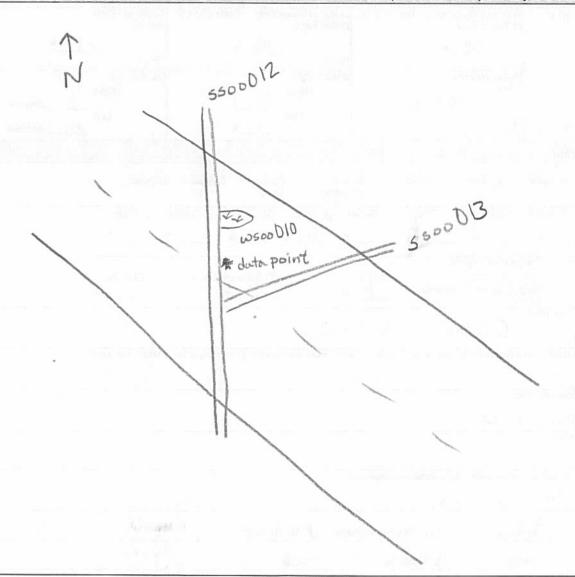
Linear Waterbody Data Sh	ieet			
Survey Description				16-1
Project Name:	Waterbody Na		Waterbody ID:	Date:
ACP	4NT to	Nothoway River	5500 012	1/6/16
State: County/Paris	sh:	Company:	Crew Member Initials:	Photos: Facing
VA Sout	hampton	EST	LRIRI	N.5, W
Tract Number(s):	Regional Processor Burgo	Nearest Milepost:	Associated Wetlar	
25-091		34.6	WSOO	010
Survey Type: (check one)	erline □Re-l	Route □Access Road	□Other:	
Physical Attributes				
Stream Classification:		A	H SE SEA DEBAR VIOLENCE	
(check one)	meral Inte	mittent \(\overline{\Omega}\) Perennial		
Waterbody Type: (check one) □River □	☐ Stream ☐ Dito	ch ဤ Canal □ Other	:	
OHWM In		V		Dialetee
Width: (check all that	t apply)	☐ Clear line ☐ Shelvin on bank	g	☐ Scouring ☐ Water staining
	ent, matted, or missir etation	g □Wrack line □Litter at debris	nd	☐Soil characteristic change
Width of Waterbody - Top of Wi	dth of Waterbody -	Toe of Slope Width of Waterb	ody - Water Edge to Dept	th of Water:
Section of the sectio	Toe of Slope:	Water Edge:	(Appro	N 1
20 ft.	15_ft.	_	15_ft.	ft.
Slave-16.	-tlesitus	N/A□ Bank height	N/A!	k slope
(check one) (As	ater velocity:	Right:	l Dani	Right:
Straight	_ < 1 _f	ps _	<u> </u>	80 degrees
□ Meandering N/	Α□	Left:	4 ft.	Left: 80 degrees
Qualitative Attributes Water Appearance:				
(check one)	Clear □Turt		rface □Algal □Otl um mats	ner:
Substrate: Bedrock	□ Boulder □ Cobl	ole □ Gravel ☒ Sand	Silt/ clay Organic	Other:
(check all that apply) % of Substrate: %	%	% % 30%	70 % %	%
		70		The second
/aback	tative Layers:	ATrees:	Saplings/Shrubs:	□ Herbs
5 D	DBH of Dominants:	in.	2 in.	in.
N/A□ (approx Dominant Bank Vegetation (list):	.)			
Quercus sp.	Smilax r	otundifolia		
Aquatic Habitats (ex: submerged or en	nerged aquatic vegetation	on, overhanging banks/roots, leaf page	cks, large submerged wood, riffle	es, deep pools):
leaf packs			2	
Aquatic Organisms Observed (list):				
none observ	ed			
T&E Species Observed (list):		955 955		
none observe	d			
Disturbances (ex: livestock access, ma	nure in waterbody, wast	e discharge pipes):		
adjulent to a	g. field		11	
Tributary is:	urol 🗆 A	tificial man made. M Manie	ulated	
(check one)	.,	tificial, man-made Manip	uiateu	
(check one)	h ⊠M	oderate		

* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:



Environmental Field Surveys Waterbody Photo Page



Waterbody ssoo012 facing north upstream.



Waterbody ssoo012 facing south downstream.

Environmental Field Surveys Waterbody Photo Page



Waterbody ssoo012 facing west across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Waterbody Name: Project Name: 5500013 116116 Crew Member Initials: County/Parish: State: LR, RT Southampton Nearest Milepost: Associated Wetland ID(s): Tract Number(s): 25-09 NA Survey Type: Centerline ☐Access Road ☐Other: □Re-Route (check one) Physical Attributes Stream Classification: (check one) □ Ephemeral □Intermittent Waterbody Type: (check one) Ditch ☐ Other: □River ☐ Stream □ Canal OHWM OHWM Indicator: Clear line □ Shelving □Wrested □ Scouring □Water Width: vegetation staining on bank ☐Soil characteristic change Height: □Bent, matted, or missing Wwrack line □Litter and ☐ Abrupt plant community change debris Depth of Water: Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of to Toe of Slope: Water Edge: Bank to Top of Bank: 5 N/A 🗆 N/A 🗆 Bank height Bank slope Sinuosity: Water velocity: (Approx.) (check one) Right: **Straight** □Meandering degrees N/A 🗆 Qualitative Attributes Water Appearance: Clear ☐Other: □Turbid □Sheen □Surface □Algal □No water (check one) on surface scum mats Silt/ clay
Organic Sand □ Bedrock ☐ Boulder ☐ Cobble Substrate: (check all that apply) % of Substrate: % Width of Riparian Zone: Vegetative Layers: A Trees: (check all that apply) ☐ Herbs Avg. DBH of Dominants: Dominant Bank Vegetation (list): styracifiva, Ilex opaca Liquidambar Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf packs, overhanging roots/banks Aquatic Organisms Observed (list): none observed T&E Species Observed (list): observed none Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): adjacent Tributary is: ☐ Natural (check one) Artificial, man-made □ Manipulated Stream Quality *:

☐ High

Moderate Moderate

☐ Low

(check one)

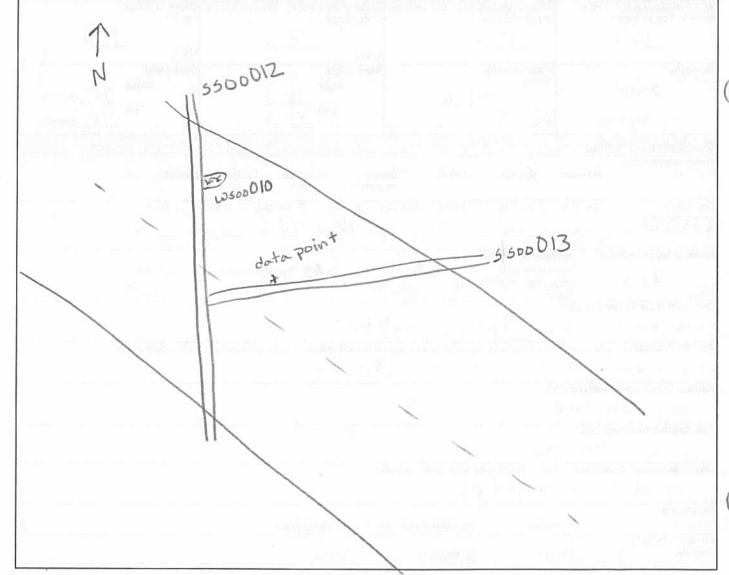
* High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Ditch with stream function - perennial, meandering thalweg formation.



Environmental Field Surveys Waterbody Photo Page



Waterbody ssoo013 facing west upstream.



Waterbody ssoo013 facing east downstream.

Environmental Field Surveys Waterbody Photo Page



Waterbody ssoo013 facing north across bank.

Survey Description Project Name:		Waterbody Na			lva.	otashadu ID.		ln	
Southeast Reliability		UNT to Notto			1	aterbody ID: sol012		Date: 8/23/2014	
State: Co	ounty:	<u></u>	Company:		Crew N	nember Initials	s: Photos:		
Virginia So	outhampton		w&c		WLM,	, RS	100-0	797 TO 0799	
Tract Number(s):			Nearest Mile	post:	1	Associated Wetland ID(s):			
25-092			33			wsol023			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road		□Other:			
Physical Attributes Stream Classification:									
(check one)	□Ephemera	al ⊠Inter	mittent	□Perennial					
Waterbody Type: (check one) □Riv	/er □ Str	eam ⊠ Dito	h □ Ca	anal □ Other:					
OHWM Width: _4_ft.	OHWM Indicat (check all that apply		⊠ Clear lin	e □Shelvin	g	□Wrested vegetation	□Scourin	g ⊠Water staining	
Height: ft. N/A□	⊠Bent, n vegetatio	natted, or missin n	g □Wrack lii	ne ⊠Litter ar debris	nd	□Abrupt plar		haracteristic change	
Width of Waterbody - Top	of Width o	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Wate	r:	
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:			(Approx.)		
<u>5</u> ft.	-	<u>4</u> _ft.		_ N/A□	_4ft.		l N/A□	<u>0.75</u> ft.	
Sinuosity:		velocity:		Bank height		.,,	Bank slope		
(check one) ⊠Straight	(Approx.)			Right:			Right		
		fr	os	Left:	_3_ft.		Lef	<u>80</u> degrees t:	
□Meandering	N/A⊠			ł .	<u>3</u> ft.			80 degrees	
Qualitative Attributes									
Water Appearance: (check one) □No	water □C	Clear ⊠Turb		een ⊠Sur surface scu		□Algal mats	□Other:		
	edrock 🗆 Bo	ulder 🗌 Cobb	le 🗆 Grave	el 🗵 Sand 🛭	⊠ Silt/ c	lay ⊠ Organio	c ☐ Other:		
(check all that apply) % of Substrate: NA	% <u>NA</u> 9	% <u>NA</u> %	<u>NA</u> %	<u>35</u> % _	<u>35_</u> %	<u>30</u> %	<u>NA</u> %		
Width of Riparian Zone:	Vegetative	Layers:	117 - 44.00	**************************************					
<u>>100_ft</u> ⋅ N/A□	(check all that Avg. DBH (approx.)	apply) of Dominants:	□ Trees		ß Saplin _2_in.	gs/Shrubs:	⊠ Herbs		
Dominant Bank Vegetation									
RED MAPLE, SWEET	GUM, SWEI	ETBAY, SWI	CHGRAS:	S, GIANT CAN	E, AM	ERICAN BL	JRN, POISO	N IVY	
Aquatic Habitats (ex: subme	erged or emerged	l aquatic vegetation	n, overhanging l	oanks/roots, leaf pack	ks, large	submerged wood	l, riffles, deep pool	s):	
CPOM, LWD, SOFT S	ANDY/MUC	KY SUBSTR	ATE						
Aquatic Organisms Obser	ved (list):								
FROGS									
T&E Species Observed (lis	t):								
NA									
Disturbances (ex: livestock a CLEARCUT TIMBER I		n waterbody, waste	discharge pipe	s):					
Tributary is: (check one)	☐ Natural	⊠ Arti	ficial, man-ma	ade 🗆 Manipu	ulated				
Stream Quality ^a : (check one)	☐ High	□ Мо	derate	⊠ Low					

Waterbody	ID:
ssol012	

Form Rev. 07/09/2014

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

MAN-MADE DITCH THROUGH CLEARCUT; POOR AQUATIC HABITAT; DITCH MAY NOT CONNECT TO OTHER LINEAR FEATURES BASED ON AERIAL OBSERVATION; DITCH STARTS AT CORRIDOR EDGE



Waterbody data point ssol012 facing north, upgradient



Waterbody data point ssol012 facing south, upgradient



Waterbody data point ssol012 facing across

	, =							
Survey Description		haz-controller bloom			1.0	atanka kulo		Data
Project Name:		Waterbody Nar		DIV/ED		aterbody ID:		Date:
Southeast Reliability		UNT TO BLA		RRIVER		SOL013		8/25/2014
State:	County:		Company:		Crew N	lember Initials:	Ph	otos:
Virginia	Southampton		W&C		WLM,			00-0922 TO 0925
Tract Number(s):			Nearest Mile	post:		Associated We	etland ID	(s):
25-095			35			NA		
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□ Access Road	I	□Other:		
Physical Attributes	s							
Stream Classification: (check one)	□Ephemera	ıl □Inter	mittent	⊠Perennial				
Waterbody Type:	River □ Stre	eam ⊠ Ditc	h □ Ca	anal 🗆 Other	:			
OHWM	OHWM Indicat							
Width: 16_ft.	(check all that apply	<i>'</i>)		e ⊠Shelvin	g	□Wrested vegetation	□So	couring ⊠Water staining
Height: 3_ft. N/A□	⊠Bent, n vegetatio	natted, or missin n	g □Wrack lir	ne ⊠Litter ar debris	nd	⊠ Abrupt plant community cha		Soil characteristic change
Width of Waterbody - T				Width of Waterb	ody - W		Depth of	Water:
Bank to Top of Bank:	to roe	of Slope:		Water Edge:		(/	Approx.)	
_20_ft.	_	<u>16_</u> ft.		N/A□	_ <u>15</u> ft.	1	N/A□	<u>2</u> ft.
Sinuosity: (check one)	Water v (Approx.)	velocity:		Bank height		E	Bank slop	
⊠Straight	()	_ fp	ne	Right:	_7ft.			Right: 80 degrees
□Meanderir	ng N/A⊠	'\	,5	Left:	 7ft.			Left: 80 degrees
	14/12							uegrees
Qualitative Attribu Water Appearance:	ites							
	[□] No water □C	Clear ⊠Turb	-	een □Su surface sc		□Algal ⊠ mats	Other: D	DUCKWEED COVER
	☐ Bedrock ☐ Bo	ulder Cobb	le 🗆 Grave	el 🛛 Sand	⊠ Silt/ c	lay 🛭 Organic	☐ Oth	er:
(check all that apply) % of Substrate:	<u>NA</u> % <u>NA</u> 9	% <u>NA</u> %	<u>NA</u> %	<u>20</u> %	40_%	<u>40</u> %	<u>NA %</u>	, 0
Width of Riparian Zone		-	_					
<u>ft</u> ⋅ N/A□		apply) of Dominants:	□ Trees	: [_in	□ Saplin _	ngs/Shrubs: _in.	□Н	erbs
Dominant Bank Vegeta	(approx.)							
GIANT CANE, LOB								
Aquatic Habitats (ex: su					ks, large	submerged wood,	riffles, dee	ep pools):
SOFT SANDY/MUC	CKY SUBSTRA	TE, OVERH	ANGING VI	EG, LWD				
Aquatic Organisms Ob	served (list):							
DRAGONFLIES, TU	JRTLES, FRO	GS						
T&E Species Observed	l (list):							
NA								
Disturbances (ex: livesto	ock access, manure in	n waterbody, waste	discharge pipe	es):				
NA								
Tributary is: (check one)	□ Natural	⊠ Art	ificial, man-ma	ade 🗆 Manip	ulated			
Stream Quality ^a : (check one)	☐ High	□ Mo	derate	⊠ Low				
	<u> </u>							

Waterbody	ID
SSOL013	

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

VERY LARGE, DEEP DRAINAGE DITCH; FEATURE HAS EFFECTIVELY DRAINED POTENTIAL ADJACENT WETLANDS: TO WIDE FOR CREW TO CROSS SAFELY



Waterbody data point ssol013 facing north, downgradient



Waterbody data point ssol013 facing south, upgradient



Waterbody data point ssol013 facing across

Survey Description) 1							
Project Name:		Waterbody Nar				aterbody ID:		Date:
Southeast Reliability	/	UNT TO BLA	CKWATE	RRIVER	SS	sol014		8/25/2014
State:	County:		Company:		Crew I	Member Initials	: Pho	otos:
Virginia	Southampton		W&C		WLM	, RS	10	0-0926 TO 0928
Tract Number(s):			Nearest Mile	post:		Associated W	etland ID(s):
25-096			35			NA		
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Roa	d	□Other:		
Physical Attributes Stream Classification:	3							
(check one)	□Ephemera	al ⊠Inter	mittent	□Perennial				
Waterbody Type: (check one)	River □ Str	eam ⊠ Dito	h □ Ca	anal 🗆 Othe	er:			
OHWM Width:	OHWM Indication (check all that apply		☐ Clear lin	e □Shelvi	ng	□Wrested vegetation	□Sc	ouring ⊠Water staining
Height: ft. N/A□	□Bent, n vegetatio	natted, or missin n	g □Wrack lir	ne ⊠Litter a debris	and	⊠ Abrupt plan community ch		Soil characteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - 7 of Slope:		Width of Water Water Edge:	body - W	ater Edge to	Depth of \((Approx.)	Water:
_ <u>4</u> ft.		<u>3_</u> ft.		N/A□	_ <u>0.5_</u> ft.		N/A□	<u>0.1</u> ft.
Sinuosity: (check one) ⊠Straight	Water (Approx.)	velocity:		Bank height Right: Left:	<u>3_</u> ft.		Bank slop	oe Right: <u>80</u> degrees Left:
□Meanderin	N/A⊠			2011.	_3_ft.			80 degrees
Qualitative Attribut	tes							
Water Appearance: (check one)	No water □C	Clear ⊠Turb	-		urface cum	⊠Algal mats	□Other:	
	Bedrock ☐ Bo	ulder Cobb	le 🗆 Grave	el 🗆 Sand	⊠ Silt/ c	lay 🛭 Organic	: 🗆 Othe	er:
(check all that apply) % of Substrate:	<u>NA </u> %	% <u>NA</u> %	<u>NA</u> %	<u>NA</u> %	<u>95</u> %	<u>5</u> %	<u>NA</u> %	
Width of Riparian Zone	: Vegetative	Layers:						
_>100 ft· N/A□	(check all that Avg. DBH (approx.)	apply) of Dominants:	□ Trees _ <u>NA</u> _in.		□ Saplir <u>NA</u> in	ngs/Shrubs:	⊠ H	erbs
Dominant Bank Vegeta SETARIA, ASIATIC		R, CHICKWEE	ED, BUTTC	NWEED, SM	ARTW	EED, CATTA	AIL, HOF	RSEWEED
Aquatic Habitats (ex: su STAGNANT POOLS		d aquatic vegetation	n, overhanging l	oanks/roots, leaf pa	icks, large	submerged wood	, riffles, dee	p pools):
Aquatic Organisms Obs	served (list):							
FROGS, DRAGONF	FLIES							
T&E Species Observed NA	(list):							
Disturbances (ex: liveston AGRICULTURE	ck access, manure i	n waterbody, waste	discharge pipe	s):				
Tributary is:	□ Natural	⊠ Art	ificial, man-ma	ade 🗆 Mani	pulated			
Stream Quality ^a : (check one)	☐ High	□ Mo	derate	⊠ Low				

Waterbody	ID
ssol014	

^a **High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.

Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

AGRICULTURAL DITCH IN PLANTED COTTON FIELD: POOR AQUATIC HABITAT



Waterbody data point ssol014 facing north, upgradient



Waterbody data point ssol014 facing south, downgradient



Waterbody data point ssol014 facing across

Survey Description	1								
Project Name:		Waterbody Nai	ne:		W	aterbody ID:		Date:	
Atlantic Coast Pipeli	ne Blackwater River			ssoa010			12/6/2014		
State:	County:		Company:		Crew N	lember Initials	: Phot	os:	
, and the second	Southampton		NRG		GB, R			hotos	
Tract Number(s):			Nearest Mile	-		Associated W	•		
25-107; 26-001, cou Suffolk Survey Type:	ınty line South	ampton,	37.0 –VNG	E Lateral		wsoa024; d delineated	own line	wetland yet to	be
(check one)	⊠Centerline	Re-F	Route	□ Access Road	I	□Other:			
Physical Attributes Stream Classification:	3								
(check one)	Ephemera	al □Inter	mittent	⊠Perennial					
Waterbody Type: (check one)	River □ Str	eam □ Dito	ch □ Ca	anal 🗆 Other	:				
OHWM Width: ft.	OHWM Indica (check all that apply		⊠ Clear lin on bank	e □Shelvin	g	□Wrested vegetation	□Sco	uring ⊠Wat stainir	
Height:	□Bent, n vegetatio	natted, or missin n	g □Wrack lin	ne □Litter ai debris	nd	☐ Abrupt plan community ch		oil characteristic c	hange
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - ' of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth of W (Approx.)	ater:	
<u>195.0</u> ft.	_	_145.0ft.		1 N/A□	1 <u>80.0</u> ft		N/A□	<u>8.0</u> ft.	
Sinuosity: (check one) ☐Straight	Water (Approx.)	velocity:	s	Bank height Right: Left:	<u>4.0_</u> ft.			ight: 65_ degree Left:	es
⊠Meanderir	ng N/A□				3.0_ft.				es
Qualitative Attribut	tes								
Water Appearance: (check one)	No water □0	Clear □Turb			rface um	□Algal l mats	⊠Other: or (ganics, black v	water
Substrate: (check all that apply) % of Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobb		el ⊠ Sand □ % <u>15</u> % _	⊠ Silt/ cl 80_%	ay ⊠ Organic <u>5</u> %		: %	
Width of Riparian Zone 2000.0 ft N/A□	(check all that		⊠ Trees: _13.0_ir		⊠ Saplin _ <u>1.0</u> _in.	gs/Shrubs:	⊠ Her	bs	
Dominant Bank Vegeta	tion (list):								
Baldcypress, water bearded sedge, pan	ic grass, cane	•		_		•	•		e, grape
Aquatic Habitats (ex: su Coarse woody debr					cks, large	submerged wood	, riffles, deep	pools):	
Aquatic Organisms Ob	served (list):								
Fish, beaver lodge									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	e discharge pipe	es):					
Refuse brought in w	ith flow		·						
Tributary is: (check one)	Natural	□ Ari	tificial, man-ma	ade 🗆 Manip	ulated				
Stream Quality ^a : (check one)	□ High	⊠ Mo	oderate	□ Low					

Waterbody ID: ssoa010

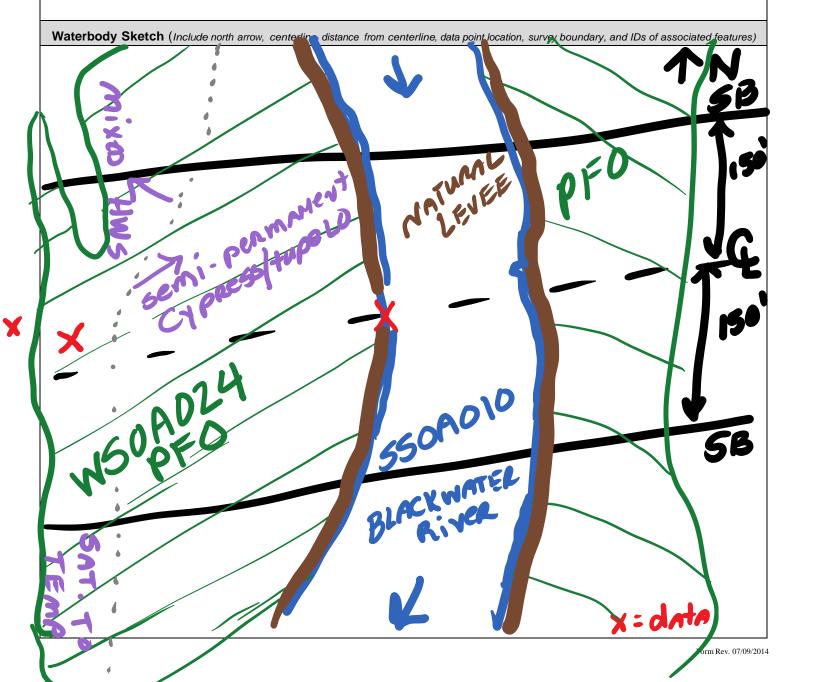
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Notes:

Blackwater River, continues out of corridor in both directions. Large wetlands on both sides in floodplain abutting natural levees, semi-permanently flooded with bald cypress and water tupelo as dominants.





Waterbody SSOA010 facing southeast downstream



Waterbody SSOA010 facing northeast upstream



Waterbody SSOA010 facing east across