Survey Description	on							
Project Name:		Waterbody N	ame:		W	/aterbody ID:		Date:
Southeast Reliabili	ty	SAYLERS	CREEK		S	NOKUU1		7/24/2014
State:	County:	<u>.</u>	Company:		Crew I	Member Initials:	Phot	os:
Virginia	Nottoway		W&C		JS, V	M	100	-0213 TO 0215
Tract Number(s):	1		Nearest Mile	epost:		Associated We	etland ID(s)	:
12-001/002			222			NA		
Survey Type: (check one)	⊠Centerlir	ne □Re	-Route	□Access Road		□Other:		
Physical Attribute	es							
Stream Classification (check one)	Epheme	ral ⊡Int	ermittent	⊠Perennial				
Waterbody Type: (check one)	□River ⊠ S	tream 🗆 D	itch 🗆 C	anal 🗌 Other:				
OHWM Width: _ <u>10_</u> ft.	OHWM Indic (check all that app	ator: _{bly)}	⊠ Clear lir on bank	ne ⊠Shelvin	g	⊠Wrested vegetation	⊠Sco	uring ⊠Water staining
Height: ft. N/A□	⊠Bent, vegetati	matted, or miss ion	ing	ine ⊠Litter ar debris	ld	□Abrupt plant community cha	t ⊠So ange	oil characteristic change
Width of Waterbody -	Top of Width	of Waterbody	- Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of W	ater:
Bank to Top of Bank:	to Toe	e of Slope:		Water Edge:		((Approx.)	
<u>14_</u> ft.		<u>10</u> ft.			<u>7</u> ft.			<u>0.5</u> ft.
Sinuosity:	Water	r velocitv:		Bank height			Bank slope	
(check one)	(Approx	.) •		Right:			Ri	ght:
		<u>0.3</u> f	os	Left:	<u>4</u> ft.			<u>70</u> degrees Left:
⊠Meander	ing N/A□				_4_ft.			80 degrees
Qualitative Attrib	utes							
Water Appearance: (check one)	□No water ⊠	lClear □Tu	rbid □St or	neen ⊡Sui nisurface scu	face Im	□Algal □ mats	□Other:	
Substrate:	Bedrock 🛛 B	loulder 🖂 Col	oble 🖂 Grav	el 🛛 Sand 🛛	⊲ Silt/ o	clav 🗆 Organic	Other	
(check all that apply)								
	<u>NA</u> % <u>5</u> %	/o <u>10</u> %	<u>20</u> %	%	<u>5</u> %	<u>NA</u> %	<u>NA</u> %	
Width of Riparian Zon	e: Vegetativ (check all the	ve Layers: at apply)	⊠ Trees	:	Saplii	ngs/Shrubs:	⊠ Her	bs
<u>>100 ft</u> - N/A□	Avg. DBI (approx.)	H of Dominants	: <u>12</u> in.	-	<u>3</u> in.			
Dominant Bank Veget	ation (list):							
CHRISTMAS FER	N, TULIP POP	LAR, DOGW	OOD, WHI	FE OAK, AZALI	EA, Cl	HASMANTHI	UM, IROI	NWOOD
Aquatic Habitats (ex: s	submerged or emerge	ed aquatic vegetat	ion, overhanging	banks/roots, leaf pac	ks, large	e submerged wood,	riffles, deep	pools):
UNDERCUT BAN	KS, RIFFLE/PC	DOL COMPL	EX, BOULD	ERS, SOFT SA	ANDY	SEDIMENT,	CWD, O	VERHANGING VEG
Aquatic Organisms O	bserved (list):							
FISH, FROGS, HE	LLGRAMITES	, EPT						
T&E Species Observe NA	d (list):							
Disturbances (ex: lives	tock access, manure	e in waterbody, wa	ste discharge pip	es):				
LOGGING IN DOV	VNLINE RIPA	RIAN ZONE						
Tributary is: (check one)	⊠ Natural		Artificial, man-m	nade 🗆 Manipi	ulated			
Stream Quality ^a : (check one)	⊠ High		loderate	□ Low				

Waterbody ID:

SNOK001

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:

MODERATE TO LARGE PERENNIAL STREAM, GOOD AQUATIC LIFE DIVERSITY; TYPICAL PIEDMONT BOTTOMLAND HW COMMUNITY







Waterbody point snok001 facing northeast and downstream



Waterbody point snok001 facing southwest and upstream



Waterbody point snok001 facing east and across

Survey Description	n							
Project Name:		Waterbody Na	me:		w	aterbody ID:		Date:
Southeast Reliabilit	y	UNNAMED CREEK		Y TO ELLIS	S	NOK002		7/25/2014
State:	County:		Company:		Crew N	Member Initials:	Photos	
Virginia	Nottoway		W&C		JS, W	/M	100-0	233 TO 0235
Tract Number(s):			Nearest Mile	epost:		Associated Wet	land ID(s):	
12-002			223			WNOK002F		
Survey Type: (check one)	⊠Centerline	e □Re-	Route	□Access Road		□Other:		
Physical Attribute	s							
Stream Classification: (check one)		al ⊠Inte	rmittent	□Perennial				
Waterbody Type: (check one)]River ⊠ Str	ream 🗆 Dite	ch 🗆 C	anal 🗌 Other:	:			
OHWM Width:	OHWM Indica (check all that appl	tor: _{y)}	⊠ Clear lir	ne ⊡Shelvin	g	⊠Wrested	⊠Scourir	ng ⊠Water
<u>3</u> ft.			on bank		•	vegetation		staining
Height: ft. N/A□	⊠Bent, r vegetatio	natted, or missir on	ng ⊠Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plant community char	⊠Soil o nge	characteristic change
Width of Waterbody - 1 Bank to Top of Bank:	op of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to De	epth of Wate	er:
<u>_5 ft</u> .		<u>3_</u> ft.			<u>2</u> ft.	N	Δ □	<u>0.5</u> ft.
Sinuosity:	Water	velocity:		Bank height		Ba	ank slope	
(check one)	(Approx.)	,		Right:		_	Righ	t:
		<u>_0.1</u> _fp:	S	L oft-	<u>3_</u> ft.		Lei	60 degrees
⊠Meanderin	ng N/A□			Leit.	<u>3_</u> ft.		Lei	60 degrees
Qualitative Attribu	tes			•		·		
Water Appearance: (check one)	[]] No water ⊠0	Clear □Turt	oid ⊡Sh or	leen ⊡Sui i surface scu	rface um	□Algal □(mats	Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobl	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🛛 Organic	□ Other:	
% of Substrate:	<u>NA_% NA</u>	_% <u>NA</u>	<u>% 10</u> %	%	<u>5</u> %	<u> 5 </u> %	<u>NA</u> %	
Width of Riparian Zone	e: Vegetative	e Layers:			7 0 lin			
<u>>100 ft</u> . N/A□	(check all that Avg. DBH (approx.)	of Dominants:	⊠ Trees _ <u>12_</u> in.	: 2	⊴ Saplir <u>_3_</u> in.	ngs/Shrubs:		
Dominant Bank Vegeta CHRISTMAS FERN	tion (list):	AR, BLACK	OAK. WHI	E OAK, PAW	PAW.	SEDGES, JO	E PYE WE	FD
Aquatic Habitats (ex: su	ubmerged or emerge	d aquatic vegetatic	on. overhanging	banks/roots. leaf pac	ks. large	submerged wood. ri	ffles, deep poo	ls):
UNDERCUT BANK	S, POOLS, SC	OFT SANDY	SEDIMENT	, CWD, OVER	HANG	SING VEG		- /
Aquatic Organisms Ob	served (list):							
FROGS, WATER S	TRIDERS							
T&E Species Observed NA	l (list):							
Disturbances (ex: livesto	ock access, manure i	n waterbody, wast	e discharge pip	es):				
LOGGING IN UPLI	NE RIPARIAN	ZONE	9 - F F					
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manipi	ulated			
Stream Quality ^a : (check one)	⊠ High		oderate	□ 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:

SMALL INTERMITTENT STREAM WITH HEADWATER SEEPAGE WETLAND ADJACENT; SKIDDER CROSSING IN CORRIDOR





Waterbody point snok002 facing northeast and downstream



Waterbody point snok002 facing southwest and upstream



Waterbody point snok002 facing east and across

Survey Descriptio	n				<u> </u>			-
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:
Southeast Reliabilit	У	UNNAMED	TRIB TO E	LLIS CREEK	S	NOK003		7/25/2014
State:	County:		Company:		Crew N	Member Initials:	Photos	
Virginia	Nottoway		W&C		JS, W	/M	100-0	240 TO 0242
Tract Number(s):			Nearest Mile	epost:		Associated Wet	land ID(s):	
12-003			223			NA		
Survey Type: (check one)	⊠Centerline	e □Re-	Route	□Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)		al ⊠Inte	rmittent	□Perennial				
Waterbody Type: (check one)	∃River ⊠ Str	eam 🗆 Dite	ch 🗆 Ca	anal 🗌 Other:	:			
OHWM Width: <u>3</u> ft.	OHWM Indica (check all that appl	tor: _V)	⊠ Clear lir on bank	ne 🗆 Shelvin	g	⊠Wrested vegetation	⊠Scourir	ng ⊠Water staining
Height: ft. N/A□	⊠Bent, r vegetatio	natted, or missir n	ng ⊠Wrack li	ne ⊠Litter ar debris	nd	□Abrupt plant community char	⊠ Soil o nge	characteristic change
Width of Waterbody - ⁻ Bank to Top of Bank:	Top of Width to Toe	of Waterbody - of Slope:	Toe of Slope	Width of Waterbe Water Edge:	ody - W	ater Edge to De (A)	epth of Wate	er:
<u>8</u> ft.	-	<u>3_</u> ft.		N/A□	<u>2</u> ft.	N	/A□	<u>0.5</u> ft.
Sinuosity: (^{check one)} ⊡Straight ⊠Meanderi	Water (Approx.) ng N/A□	velocity: 0.1_fp:	S	Bank height Right: Left:	<u>7</u> ft. 4 ft.	B	ank slope Righ Let	t: <u>80</u> degrees ft: 60 degrees
Qualitative Attribu	ites							<u></u> aog.coo
Water Appearance: (check one)	[□] No water ⊠0	Clear 🗆 Turb	oid □Sh on	neen ⊡Sui i surface scu	rface um	□Algal □ mats	Other:	
Substrate: [(check all that apply) % of Substrate:	Bedrock 🗆 Bo	oulder ⊠ Cobl %10_%	ble ⊠ Grav	el ⊠ Sand _ <u>60 </u> %	⊠ Silt/ c <u>20_</u> %	lay □ Organic <u>NA</u> %	□ Other: %	
Width of Riparian Zono <u>>100_ft</u> - N/A□	e: Vegetative (check all that Avg. DBH (approx.)	e Layers: apply) of Dominants:	[⊠] Trees _ <u>12_</u> in.	: D	⊠ Saplir _ <u>3_</u> in.	ngs/Shrubs:	⊠ Herbs	
Dominant Bank Vegeta CHRISTMAS FERN	ation <i>(list)</i> : N, TULIP POPL	AR, CEDAR	, WHITE O	AK, SOURWO	OD, H	ICKORY, VIR	GINIA CRI	EEPER
Aquatic Habitats (ex: s UNDERCUT BANK	ubmerged or emerge (S, RIFFLE/PO	d aquatic vegetatic OL COMPLE	on, overhanging EXES, SOF	banks/roots, leaf pac T SANDY SED	ks, large	submerged wood, ri T, CWD, OVE	iffles, deep poo RHANGIN	ols): G VEG
Aquatic Organisms Ot FROGS, WATER S	o served (list): STRIDERS, CR	AYFISH,EPT	, FISH, DA	MSELFLIES				
T&E Species Observed	d (list):							
Disturbances (ex: livest	ock access, manure	n waterbody, wast	e discharge pipe	es):				
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗌 Manipi	ulated			
Stream Quality ^a : (check one)	⊠ High		oderate	□ 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:

SMALL INTERMITTENT STREAM WITH INCISED BANKS; DENSE BANK VEGETATION

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





Waterbody point snok003 facing northeast and downstream



Waterbody point snok003 facing southwest and upstream



Waterbody point snok003 facing east and across

Survey Description	n									
Project Name:		Waterbo	ody Nam	ne:		v	Vaterbody ID:		Date:	
Atlantic Coast Pipe	line	UNT to	Ellis C	Creek		S	SNOM011		9/13/2014	
State:	County:			Company:		Crew	Member Initials	:: F	Photos:	
Virginia	Nottoway	/		W&C		SG, E	ΞB		3276-3278, X U E)
Tract Number(s):			I	Nearest Mile	epost:		Associated W	etland	ID(s):	
12-006, 12-005				223.62			NA			
Survey Type: (check one)	⊠Cei	nterline	□Re-R	oute	□Access Road	ł	□Other:			
Physical Attribute	s									
Stream Classification:	M - .									
(cneck one)	⊠Epł	nemeral		nittent	Perennial					
Waterbody Type: (check one)	River	🛛 Stream			anal 🗆 Other					
ОНШМ	OHWM	Indicator:				•				
Width: <u>3</u> ft.	(check all t	hat apply)		☑ Clear lin on bank	ne ⊡Shelvir	ng	□Wrested vegetation	\boxtimes	Scouring ⊠Wat stainin	:er ng
Height:		Bent, matted, or	r missing	g ⊡Wrack li	ne ⊠Litter a	nd	□Abrupt plan	t	□Soil characteristic c	hange
<u>0.3_</u> ft. N/A□	ve	getation			debris		community ch	ange		
Width of Waterbody -	Top of	Vidth of Waterl	oody - T	oe of Slope	Width of Waterb	ody - V	Vater Edge to	Depth (of Water:	
валк то тор ог валк:	E I	o Toe of Slope			water Edge:			(Approx.)		
<u>4</u> ft.		<u>3</u> ft.				<u>1_</u> ft.		N/∆ □	<u>_0.1</u> ft.	
Sinuosity:		Vater velocitv:			N/A□ Bank height			Bank s	lope	
(check one)	(Approx.)			Right:				Right:	
		<u>0</u>	<u>.1_</u> fps		l oft-	<u>1_</u> ft.			<u>35</u> degrees	
⊠Meanderi	ing r	N/A□			Leit.	<u>2</u> ft.			<u>90</u> degrees	s
Qualitative Attribu	utes									
Water Appearance: (check one)	☐No water	⊠Clear	□Turbi	d ⊡Sh on	een ⊡Su surface so	irface :um	□Algal mats	□Other	:	
Substrate:	Bedrock	Boulder [Cobbl	e 🛛 Grave	el 🛛 Sand	Silt/ o	clay 🗆 Organic	; 🗆 C)ther:	
(check all that apply) % of Substrate:	NA %	NA %	15 %	35 %	5%	15 %	NA %	ΝΔ	0/_	
	<u>INA </u> /0	<u></u> /0	45_70	%	<u> </u>	15_70	<u> </u>		_70	
Width of Riparian Zon	e: Veg	etative Layers: k all that apply)		⊠ Trees		🛛 Sapli	nas/Shrubs:		Herbs	
<u>>100 ft</u> ·	Avg (appr	. DBH of Domi	nants:	<u>_10</u> in.		<u>1</u> in.				
Dominant Bank Veget	ation (list):	,								
RED MAPLE, WHI HONEYSUCKLE.J	TE OAK, F UNIPER.	RED OAK, T	ULIP T	REE , SW	EET GUM, HI	CKOR	RY, REDBUD	TREE	, CHRISTMAS FI	ERN, ,
Aquatic Habitats (ex: s	submerged or e	emerged aquatic v	egetation	, overhanging	banks/roots, leaf pa	cks, large	e submerged wood	, riffles, o	leep pools):	
UNDERCUT ROO	TS, SUBM	ERGED WC	OD, W	OODY DE	EBRIS					
Aquatic Organisms Ol	bserved (list):								
CRAYFISH										
T&E Species Observe	d (list):									
NA										
Disturbances (ex: livest	tock access, m	anure in waterboo	dy, waste	discharge pipe	es):					
(check one)	□ Na	tural	🗆 Arti	ficial, man-m	ade 🛛 🛛 Manip	oulated				
Stream Quality ^a : (check one)	🗆 Hię	gh	⊠ Moo	derate	□ 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:

FLOW IS TO THE NORTHEAST. STREAM CHARACTERISTICS ARE VARIABLE. HEADWATER BEGINS AS DENDRITIC DRAINAGES AT SOUTH SIDE OF ROW. STREAM BISECTED BY ROAD JUST SOUTH OF CENTERLINE- 12 INCH PLASTIC CULVERT IN PLACE. STREAM EXTENDS ONTO NEXT PARCEL TO SOUTHWEST. 12-005

MANY DRAINAGE SWALES (SOME DEEPLY INCISED) IN PARCEL; NONE MET CRITERIA FOR STREAM RESOURCE MAPPING.

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



Form Rev. 07/09/201



Waterbody point snom011 facing East and across



Waterbody point snom011 facing Southwest and upstream



Waterbody point snom011 facing Northeast and downstream

Survey Description	on								
Project Name:		Waterbody N	ame:		w	aterbody ID:		Da	ate:
Southeast Reliabili	ty	ELLIS CRE	EK		S	NOK005		7/	26/2014
State:	County:		Company:		Crew I	Member Initials	:: F	Photos:	
Virginia	Nottoway		W&C		JS, W	/M		100-026	4 TO 0266
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
12-007/008			224			WNOK003			
Survey Type:									
	Centerin	e 🗆 Re	-Route						
Physical Attribute Stream Classification:	es								
(check one)	Ephemer	al ⊡Inte	ermittent	⊠Perennial					
Waterbody Type:									
(check one)	□River ⊠ St	ream 🛛 Di	tch 🗆 C	anal 🗆 Other:	:				
ОНШМ	OHWM Indica	ator:					_		
Width: 18 ft.	(cneck all that appl	<i>iy)</i>	Clear line on bank	ne ⊠Shelvin	g	⊠Wrested vegetation	\boxtimes	Scouring	⊠Water staining
Height:	⊠Bent	matted or miss	ing ⊠Wrack I	ine ⊠Litter ar	hd	□Abrunt nlan	ıt	Soil cha	aracteristic change
<u>1.5</u> ft.	vegetatio	on		debris	iu iu	community ch	ange		
Width of Waterbody -	Top of Width	of Waterbody	- Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth o	of Water:	
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:	-	-	(Approx.)		
<u>24_</u> ft.	_	<u>18</u> ft.		_	<u>7</u> ft.				<u>0.5_</u> ft.
Sinuccitur	Wator	volocity		N/A D			N/ALL Book o	lono	
(check one)	(Approx.)			Right:			Dalik S	Riaht:	
		<u>0.5</u> fp	os	L offer	<u>7_</u> ft.			1 of to	70 degrees
⊠Meander	ing N/A			Lent:	<u>7_</u> ft.			Left:	70 degrees
Qualitative Attrib	utes								
Water Appearance:									
(check one)	–No water ⊠	Clear ⊡Tu	rbid □St or	neen ⊡Sui n surface scu	rface um	□Algal mats	□Other	:	
Substrate:	Bedrock Bedrock	oulder 🗆 Col	oble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	ay 🗆 Organic	; □ C	other:	
% of Substrate:	<u>NA_% NA</u>	<u>% NA </u> %	% <u>10</u> %	<u>80</u> %	<u>10_</u> %	<u>NA</u> %	NA	_%	
Width of Riparian Zon	e: Vegetativ	e Layers:							
>100 ft	(check all tha	t apply)	⊠ Trees	: D	⊠ Saplir	ngs/Shrubs:	\boxtimes	Herbs	
<u>_>100 n</u> . N/A□	(approx.)	I OI DOIIIIIAIIIS	<u>_12_</u> in.	-	<u>3</u> in.				
Dominant Bank Veget	ation (list):								
CHRISTMAS FERI	N, RIVER BIRC	CH, HACKBE	RRY, IRON	WOOD, BLACK	K WAL	NUT, PAW I	PAW,	VA WILI	D RYE
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegetat	ion, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, c	deep pools):	
SOFT SANDY SEI	DIMENT, LWD,	, LEAF PAC	KS, OVERH	ANGING VEG					
Aquatic Organisms O	bserved (list):								
FISH, CRAYFISH,	FROGS, HELL	GRAMITES	, COLEOPT	ERANS, EPT,	CORE	BICULA			
T&E Species Observe	d (list):								
NA									
Disturbances (ex: lives	tock access, manure	in waterbody, was	ste discharge pip	es):					
NA									
Tributary is: (check one)	⊠ Natural		rtificial, man-m	nade 🗌 Manipi	ulated				
Stream Quality ^a : (check one)	⊠ High		loderate	□ 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:

ARGE PERENNIAL STREAM WITH ADJACENT FLOODPLAIN WETLANDS

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



Form Rev. 07/09/2014



Waterbody point snok005 facing northeast and downstream



Waterbody point snok005 facing southwest and upstream



Waterbody point snok005 facing west and across

Survey Descriptio	n										
Project Name:		Waterbody	Name	:			W	aterbody ID:		C	Date:
Southeast Reliabilit	y	UNNAME	D TR	RIB TO E	LLIS CRE	EEK	SI	NOK004		7	/26/2014
State:	County:		Co	ompany:			Crew N	lember Initials	:	Photos:	
Virginia	Nottoway		W	/&C			JS, W	M		100-024	43 TO 0245
Tract Number(s):			Ne	earest Mile	epost:			Associated W	etland	ID(s):	
12-008			22	24				NA			
Survey Type: (check one)	⊠Centerlir	ie 🗆	Re-Roi	ute	□Acces	s Road	l	□Other:			
Physical Attribute	S										
Stream Classification: (check one)	□Epheme	ral 🛛	Intermi	ttent	Peren	nial					
Waterbody Type: (check one)	∃River ⊠ S	tream 🗆	Ditch	□ Ca	anal 🗆	Other	:				
OHWM Width: _2_ft.	OHWM Indic (check all that ap)	ator: bly)		☑ Clear lir on bank	ie 🗆 🤅	Shelvin	g	⊠Wrested vegetation	×	Scouring	⊠Water staining
Height: ft. N/A□	⊠Bent, vegetat	matted, or mi on	issing	□Wrack li	ne ⊠l del	₋itter ar bris	nd	□Abrupt plan community ch	it iange	⊠Soil ch	aracteristic change
Width of Waterbody - ⁻ Bank to Top of Bank:	Fop of Width to Too	of Waterboo of Slope:	ly - Too	e of Slope	Width of V Water Edg	Vaterb ge:	ody - Wa	ater Edge to	Depth (Approx.)	of Water:	
<u>_6 ft</u> .		<u>2</u> ft.			N/A⊠		ft.		N/A⊠		ft.
Sinuosity: (check one) □Straight	Wate (Approx	velocity:			Bank heig Ri	ht ght:	۸ 6		Bank s	slope Right:	90 degrees
⊠Meanderi	ng N/A⊠		rps		ļ	Left:	<u>4</u> .tt.			Left:	<u>80</u> degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	[⊠] No water □	Clear 🗆	Turbid	□Sh	een	□Su	rface	□Algal	□Othe	r:	
Substrate:	Bedrock 🗆 P	oulder 🗆 (Cobble	on	surface	sci	um ⊠ Silt/ cl	mats		Other:	
(check all that apply) % of Substrate:	<u>NA_</u> % <u>NA_</u>	_% _N/	<u>4</u> %	<u> 5 </u> %	<u>_65_</u> %	, 	<u>30</u> %	<u>NA</u> %	NA	<u>~</u> %	
Width of Riparian Zone	e: Vegetativ	/e Layers:									
	(check all th Avg. DBI (approx.)	at apply) H of Dominar	nts:	⊠ Trees: _ <u>5_</u> in.	:	2	⊠ Saplin _2_in.	gs/Shrubs:	×	I Herbs	
Dominant Bank Vegeta CHRISTMAS FERN	ation <i>(list)</i> : N, CEDAR, BL	ACK CHE	RRY,	ULMUS	SP., QUE	ERCU	S SPP	., HONEYS	JCKL	E, VA W	/ILD RYE
Aquatic Habitats (ex: s STAGNANT POOL	ubmerged or emerg .S	ed aquatic vege	etation, c	overhanging	banks/roots,	leaf pac	ks, large	submerged wood	, riffles,	deep pools):
Aquatic Organisms Ot NA	oserved (list):										
T&E Species Observed	d (list):										
Disturbances (ex: livest FARMING- CORN/	ock access, manure HAY- IN RIPA	n waterbody, v	waste di IE	scharge pipe	es):						
Tributary is:											
(check one)	⊠ Natural		Artific	cial, man-m	ade 🗆	Manip	ulated				
(check one)	□ High	\triangleright	Mode	erate		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:

SMALL INTERMITTENT STREAM WITH AG LAND NEARBY; NO FLOW; STAGNANT POOL

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



Form Rev. 07/09/2014



Waterbody point snok004 facing north and downstream



Waterbody point snok004 facing south and upstream



Waterbody point snok004 facing west and across

Survey Descriptio	n							=			
Project Name:		Watert	body Na	me:			W	aterbody ID:		Ľ	Date:
Southeast Reliabilit	:y	UNNA	AMED	I RIB TO FI	LAT CRE	EK	S	NOKUU6		1	/28/2014
State:	County:			Company:			Crew N	lember Initials	S:	Photos:	
Virginia	Nottoway	y		W&C			JS, W	M		100-02	76 TO 0278
Tract Number(s):				Nearest Mile	epost:			Associated W	/etland	ID(s):	
12-010				225				WNOK005			
Survey Type: (check one)	⊠Cei	nterline	□Re-F	Route		s Road	l	□Other:			
Physical Attribute	S										
Stream Classification: (check one)	□Epl	hemeral	⊠Inter	mittent	□Peren	nial					
Waterbody Type: (check one)	River	⊠ Stream	Dite	ch 🗆 Ca	anal 🗆	Other	:				
OHWM Width: <u>3</u> ft.	OHWM (check all i	Indicator: that apply)		⊠ Clear lir on bank	ne 🗆	Shelvin	g	⊠Wrested vegetation	×	Scouring	⊠Water staining
Height: ft. N/A□	⊠ ve	Bent, matted, ogetation	or missin	ig ⊠Wrack li	ne ⊠ de	Litter ai bris	nd	□Abrupt plar community ch	nt nange	⊠Soil ch	aracteristic change
Width of Waterbody - ⁻ Bank to Top of Bank:	Fop of t	Width of Wate to Toe of Slop	rbody - ` e:	Toe of Slope	Width of V Water Edg	Vaterb ge:	ody - W	ater Edge to	Depth (Approx.)	of Water:	
<u>_6_</u> ft.		<u>3</u> ft.			N/A⊠		ft.		N/A⊠		ft.
Sinuosity: (check one) ⊡Straight	N (Water velocity (Approx.)	: fps		Bank heig Ri	jht ight:	_2_ft.		Bank ៖	slope Right:	60_degrees
⊠Meanderi	ng r	N/A⊠				Left:	<u>2</u> ft.			Left:	60 degrees
Qualitative Attribu	ites								1		
Water Appearance: (check one)	[⊠] No water	□Clear	□Turb	oid ⊡Sh on	een surface	⊡Su sci	rface um	□Algal mats	□Othe	r:	
Substrate:					el ⊠ Sai	nd I	⊠ Silt/ c	lay ⊠ Organio		Other:	
	<u>INA</u> /0	<u></u> /0	<u> </u>	0 <u>INA</u> /0	/	0 -	<u> </u>	70	<u></u>	<u>1</u> /0	
Width of Riparian Zono <u>>100 ft</u> . N/A□	e: Veg (chec Avg (appr	etative Layers ok all that apply) J. DBH of Dom rox.)	s: inants:	⊠ Trees _5_in.	:	2	⊠ Saplin _2_in.	igs/Shrubs:		I Herbs	
Dominant Bank Vegeta CHRISTMAS FERN	ation (list): N, REDBU	ID, BLACK	CHERF	RY,LOBLO	LLY PINE	E, TAG	g ald	ER, HONEY	SUC	KLE, BL	ACK HAW
Aquatic Habitats (ex: s NA	ubmerged or e	emerged aquatic	vegetatio	n, overhanging	banks/roots,	leaf pac	cks, large	submerged wood	l, riffles,	deep pools):
Aquatic Organisms Ob NA	oserved (list	t):									
T&E Species Observed	d (list):										
Disturbances (ex: livest	ock access, m TING, FO	nanure in waterbo REST REG	ody, waste ENERA	e discharge pipe ATION	es):						
Tributary is: (check one)	⊠ Na	atural		tificial, man-m	ade 🗆	Manip	ulated				
Stream Quality ^a : (check one)	🗆 Hię	gh	⊠ Mo	oderate		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:

SMALL HEADWATER INTERMITTENT STREAM WITH TIMBER/AG LAND NEARBY; NO FLOW AT DATA POINT; STREAM FLOWS FOR APPROXIMATELY 1000 FT EAST IN CORRIDOR BEFORE EXITING; SOME POOLS BELOW DATA POINT. OBSERVED FROGS, FISH, WATER STRIDERS, MOSQUITO LARVAE WITHIN SURVEYED ROW.

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



Form Rev. 07/09/2014



Waterbody point snok006 facing East and downstream



Waterbody point snok006 facing West and upstream



Waterbody point snok006 facing South and across

Survey Descriptio	n							
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:
Southeast Reliabilit	У	UNNAMED	TRIB TO F	LAT CREEK	S	NOK007	1	7/28/2014
State:	County:		Company:		Crew I	Member Initials:	Photos:	
Virginia	Nottoway		W&C		JS, W	/M	100-02	279 TO 0283
Tract Number(s):	·		Nearest Mile	epost:	•	Associated Wetlan	d ID(s):	
12-010			225			NA		
Survey Type: (check one)	⊠Centerline	e □Re-	Route	□Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)	Ephemera	al □Inte	rmittent	⊠Perennial				
Waterbody Type: (check one)	∃River ⊠ Str	eam 🗆 Dit	ch 🗆 C	anal 🗆 Other				
OHWM Width: <u>5</u> ft.	OHWM Indica (check all that apply	tor: //	⊠ Clear lir on bank	ne ⊠Shelving	g	⊠Wrested vegetation	⊠Scourin	g ⊠Water staining
Height: <u>2</u> ft.	⊠Bent, n vegetatio	natted, or missir	ng ⊠Wrack li	ne ⊠Litter ar debris	nd	□Abrupt plant community change	⊠Soil c	haracteristic change
N/A		- () M - (T (0)	Midth of Motorb	l 14	latar Edwa ta Davil		
Bank to Top of Bank:	to Toe	of Slope:	Toe of Slope	Water Edge:	bay - w	(Approx	n of wate	r:
<u>15_</u> ft.	-	<u>5</u> ft.			<u>3</u> ft.	N/A□]	<u>0.25</u> ft.
Sinuosity:	Water	velocity:		Bank height		Bank	slope	
(check one)	(Approx.)			Right:			Right	:
		<u>_0.1</u> fp:	5	Left:	<u>9</u> ft.		Lef	<u>80</u> degrees
Meanderi	ng N/A□				<u>9</u> ft.		-	80 degrees
Qualitative Attribu	ites							
(check one)	[□] No water ⊠0	Clear □Turb	oid □Sh on	neen ⊡Sur n surface scu	face Im	□Algal □Oth mats	er:	
Substrate:	Bedrock 🗆 Bo	ulder 🛛 Cobl	ole 🛛 Grav	el 🗆 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic 🛛	Other:	
(check all that apply) % of Substrate:	<u>10_% NA</u>	_% <u>15</u> %	<u> 35 </u> %	<u> 30 </u> %	<u>10_</u> %	<u>NA % N</u>	<u>A</u> %	
Width of Riparian Zone	e: Vegetative	e Lavers:						
	(check all that	apply)	⊠ Trees	: 🛛 🛛	Saplir	ngs/Shrubs:	⊠ Herbs	
<u>>100 ft</u> - N/A□	Avg. DBH (approx.)	of Dominants:	<u>12</u> in.	-	<u>3</u> in.			
Dominant Bank Vegeta	ation (list):							
CHRISTMAS FERM	I, CEDAR, TUL	IP POPLAR	, WHITE O	AK, DOGWOO	D, VA	WILD RYE, IRO	NWOOI)
Aquatic Habitats (ex: se	ubmerged or emerged	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood, riffles	, deep poo	s):
COBBLE-BEDROC	CK, POOLS, UN	NDERCUT B	ANKS, OVE	ERHANGING V	EGET	ATION		
Aquatic Organisms Ob	oserved (list):							
FISH, WATER STR	RIDERS, SNAK	ES, FROGS,	CRAYFISI	H, MAYFLIES				
T&E Species Observed	d (list):							
NA								
	ock access, manure i	n waterbody, w <mark>ast</mark> IANI ZON⊏	e discharge pipe	es):	_			
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	⊠ High		oderate	□ 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:

PERENNIAL STREAM WITH PAST LOGGING NEARBY; LOW FLOW AT DATA POINT; STREAM HABITAT IS GOOD

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





Waterbody point snok007 facing Northeast and downstream



Waterbody point snok007 facing Southwest and upstream



Waterbody point snok007 facing East and across

Linear Waterbod	y Data She	et							
Survey Description	า				ha				D =4-
Project Name:			me:		w	aterbody ID:		-	Date:
Southeast Reliability	/	FLAT CREE	n		5	NOKUU8			(/20/2014
State:	County:		Company:		Crew N	Member Initials	:: P	hotos:	
Virginia	Nottoway		W&C	JS, WM			-	100-02	89 TO 0294
Tract Number(s):			Nearest Mile	epost:		Associated W	etland I	D(s):	
12-010/ 12-011			225			WNOK006			
Survey Type: (check one)	⊠Centerli	ne □Re-I	Route	□Access Road		□Other:			
Physical Attributes	8								
Stream Classification:	— — .								
(cneck one)	Epheme	eral LInter	mittent	⊠Perennial					
Waterbody Type: (check one)	River 🛛 S	Stream 🗆 Dito	ch 🗆 Ca	anal 🛛 Other	:				
OHWM Width: _20_ft.	OHWM Indic (check all that ap	cator: oply)	⊠ Clear lir on bank	ne ⊠Shelvin	g	⊠Wrested vegetation	\boxtimes	Scouring	g ⊠Water staining
Height: _3_ft. N/A□	⊠ Bent vegetat	, matted, or missir tion	ig ⊠Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plar community ch	nt l nange	⊠Soil cł	naracteristic change
Width of Waterbody - T Bank to Top of Bank:	op of Widtl to To	h of Waterbody - e of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W	ater Edge to	Depth o (Approx.)	f Water	:
<u>_30_</u> ft.		<u>20</u> ft.		N/A□	<u>10_</u> ft.		N/A□	-	<u>0.5</u> ft.
Sinuosity:	Wate	r velocity:		Bank height			Bank sl	оре	
	(Appro			Right:	6 ft			Right	60 degrees
			5	Left:	<u> </u>	Left			<u>- 00</u> degrees
	ig N/A∟				<u>6_</u> ft.				60 degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water	⊠Clear □Turb	oid ⊡Sh on	leen ⊡Su I surface scu	rface um	□Algal mats	□Other:		
Substrate:	Bedrock 🗆 E	Boulder 🛛 Cobb	ole 🛛 Grave	el 🗆 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	: 🗆 01	ther:	
(check all that apply) % of Substrate:	<u>NA_% N/</u>	<u>a_%NA_</u> %	% <u>15</u> %	<u> 70 </u> %	<u>15_</u> %	<u>NA</u> %	NA	_%	
Width of Riparian Zone	: Vegetati	ve Layers:	Troop		2 Conlin	ac/Chruha		Llorbo	
<u>>100 ft</u> ·	Avg. DB	H of Dominants:	⊠ Trees: _ <u>12_</u> in.	: Ľ	⊴ Sapiir <u>_3_</u> in.	ngs/Shrubs:		Herbs	
Dominant Bank Vegeta	tion (list):								
PAW PAW, BOX EL	DER, SPICE	BUSH, HICKO	DRY, RIVEI	R BIRCH, VA V	VILD F	RYE, ASH			
Aquatic Habitats (ex: su	bmerged or emerg	ged aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, d	eep pools	5):
SOFT SANDY SED	IMENT, POC	DLS, UNDERC	UT BANKS	, OVERHANG	ING V	EGETATION	١		
Aquatic Organisms Ob	served (list):								
FISH, COLEOPTER	RANS, WATE	R STRIDERS,	MAYFLIE	S, CRAYFISH,	FROG	GS, ASIATIC	CLAM		
T&E Species Observed NA	(list):								
Disturbances (ex: livesto	ock access, manur	e in waterbody, wast	e discharge pipe	es):					
LOGGING IN UPLI	NE RIPARIAI	N WETLANDS							
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗌 Manip	ulated				
Stream Quality ^a : (check one)	⊠ High		oderate	□ 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:

LARGE PERENNIAL STREAM WITH PAST LOGGING NEARBY; GOOD FLOW AT DATA POINT; STREAM HABITAT IS GOOD; FLOATING LOG COMMUNITIES





Waterbody point snok008 facing South and downstream



Waterbody point snok008 facing North and upstream



Waterbody point snok008 facing West and across
Survey Descriptio	n							
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:
Southeast Reliabilit	ty	UNNAMED ⁻	TRIB TO F	LAT CREEK	S	NOK009		7/29/2014
State:	County:		Company:		Crew M	lember Initials:	Phote	os:
Virginia	Nottoway		W&C		JS, W	/M	100	-0276 TO 0278
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID(s)	:
12-012			226			WNOK008		
Survey Type: (check one)		e □Re-F	Route	□ Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)	⊠Ephemera	al 🗆 Inter	mittent	Perennial				
Waterbody Type:								
(check one)	□River ⊠ Str	eam 🗆 Dito	ch 🗆 Ca	anal 🗌 Other	:			
ОНШМ	OHWM Indica	tor:			-			
Width: _2_ft.	(check an that appr)	()	on bank		g	vegetation	⊔Scol	iring ⊠water staining
Height:	□Bent, n	natted, or missin	g ⊠Wrack li	ne ⊠Litter ar	nd	□Abrupt plant	□Sc	il characteristic change
<u>0.5_</u> n. N/A□	vegetatio	n		debris		community cha	ange	
Width of Waterbody -	Top of Width o	of Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of Wa	ater:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		C	Approx.)	
<u>5</u> ft.	-	<u>2</u> ft.			ft.	,		<u>ft.</u>
Sinuosity:	Water	velocity:		N/A⊠ Bank height			Rank slope	
(check one)	(Approx.)	velocity.		Right:			Ri	aht:
⊠Straight		fps			<u>5</u> ft.		-	degrees
□Meanderi	ng N/A⊠			Left:	<u>5</u> ft.		I	Left:
Qualitative Attribu	ites			1				
Water Appearance:		Naan 🗆 Tuub			4			
			on on	i surface sci	um	mats		
Substrate:	Bedrock 🛛 Bo	ulder 🗆 Cobb	ole 🗆 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🛛 Organic	□ Other:	
(check all that apply) % of Substrate:	<u>NA_% NA_</u>	% <u>NA</u> %	<u>NA</u> %	<u> 60 </u> %	<u>10_</u> %	<u> 30 </u> %	<u>NA</u> %	
Width of Riparian Zon	e: Vegetative	e Layers:						
400.4	(check all that	apply)	⊠ Trees	: D	⊠ Saplir	ngs/Shrubs:	⊠ Herl	OS
<u></u> N/A□	(approx.)	of Dominants:	<u>_12_</u> in.	-	<u>3</u> in.			
Dominant Bank Vegeta	ation (list):							
XMAS FERN, TULI	IP POPLAR, RE	ED MAPLE, L	OBLOLLY	PINE, CARYA	SP., I	HONEYSUC	KLE, PAW	/ PAW
Aquatic Habitats (ex: s	ubmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep p	pools):
NA								
Aquatic Organisms Of	oserved (list):							
NA								
T&E Species Observe	d (list):							
NA								
Disturbances (ex: livest	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
NA								
Tributary is: (check one)	⊠ Natural	□ Art	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality ^a : (check one)	🗆 High	⊠ Mo	oderate					

		Waterbody ID:						
		SNOK009						
a High Qu roots; w disturbar	^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							
Moderat function greenish	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 Qu channel turbid; o severe d	ality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural width on each side; lack of regeneration; filtering function severely compromised; banks unstable bvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish r isturbance from livestock or man.	vegetation less than 1/3 of the active (eroding); water color is muddy and novement; little to no aquatic habitat;						
Notes:								
SMALL H	EADWATER EPHEMERAL STREAM IN A SEMI-MATURE MIXED PINE-HW F	OREST : NO FLOW AT DATA						
POINT								
Waterbo	dy Sketch (Include north arrow, centerline, distance from centerline, data point location, survey bo	undary, and IDs of associated features)						
(1						
	-							
	75 50001-							
	U TOTEST							
	5							
	JEEPHJE							
/								
	\sim	R						
	41000							
V	WN012000							
	75 1 50(2)							
	•							
		1						
	· · / L	I						
`	· -							



Waterbody point snok009 facing South and downstream



Waterbody point snok009 facing North and upstream



Waterbody point snok009 facing East and across

Linear	Water	body	Data	Sheet
--------	-------	------	------	-------

Survey Descriptio	n								
Project Name:		Waterbody Na	ame:		N	/aterbody ID:		Date:	
Atlantic Coast Pipe	line	UNT TO LI	ITLE CREE	K	S	NOM007		9/11/2014	
State:	County:		Company:		Crew I	Member Initials	: P	hotos:	
Virginia	Nottoway		W&C		SG, E	B	3	3229-3231, X U D	
Tract Number(s):	·		Nearest Mile	epost:		Associated W	etland I	D(s):	
12-015			227.16			NA			
Survey Type: (check one)	⊠Centerlir	ne 🗆 Re	-Route	□Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	Epheme	ral □Inte	ermittent	⊠Perennial					
Waterbody Type	•								
(check one)	∃River ⊠ S	tream 🛛 Di	tch 🗆 Ca	anal 🗌 Other:					
ОНѠМ	OHWM Indic	ator:							
Width: <u>3</u> ft.	(check all that ap	oly)	☑ Clear lir on bank	ne ⊠Shelving	g	☐Wrested vegetation	\boxtimes S	Scouring ⊠Wate staining	r J
Height:	□Bent,	matted, or missi	ng □Wrack li	ne 🛛 Litter ar	nd	⊠Abrupt plan	t [☐Soil characteristic ch	ange
ft. N/A□	vegetat	ion	0	debris		community ch	lange		U
Width of Waterbody - Bank to Top of Bank:	Гор of Width to Toe	of Waterbody - e of Slope:	• Toe of Slope	Width of Waterbo Water Edge:	ody - W	ater Edge to	Depth o (Approx.)	f Water:	
10 ft.		3 ft.		1	.5 ft.			<u>0.3</u> ft.	
							N/A□		
Sinuosity:	Wate	r velocity:		Bank height			Bank sl	оре	
	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, 0.4 fp;		Right:	50 ft			90 degrees	
		<u>0.4_</u> ip:	5	Left:	<u></u>			Left:	
	ng N/A□			-	<u>3.5_</u> ft.			<u>60</u> degrees	
Qualitative Attribu	ites								
(check one)	[□] No water ⊠	Clear □Tu	rbid □Sh on	neen ⊡Sur n surface scu	rface um	□Algal [mats	□Other:		
Substrate:	Bedrock 🗆 E	Boulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ o	lay 🗆 Organic	: 🗆 Ot	her:	
(check all that apply) % of Substrate:	<u>5</u> % <u>NA</u>	<u>% _5</u> %	<u>40</u> %	<u>35</u> %	<u>15_</u> %	<u>NA</u> %	NA	%	
Width of Riparian Zone	e: Vegetativ	ve Layers:							
>100 ft.	(check all th	at apply) H of Dominants	⊠ Trees	: 2	⊠ Sapliı	ngs/Shrubs:	\boxtimes	Herbs	
N/A□	(approx.)	T OF DOMINANTS	<u>_10_</u> ln.	-	<u>_3 </u> in.				
Dominant Bank Vegeta SWEETGUM. RED	ation (list): OAK. BEECH	I. PAW-PAW	. IRONWOO	DD. SPICEBUS	H. CH	IRISTMAS F	ERN		
Aquatic Habitats (ex: s	ubmerged or emerg	, ed aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, de	eep pools):	
SMALL STRETCHES O	F RIFFLES, OVE	RHANGING BAI	NKS, SOME W	OODY DEBRIS, S	MALL	WATERFALL O	FF BEDF	ROCK	
Aquatic Organisms Ob	oserved (list):								
FISH, WATER STR	RIDERS								
T&E Species Observed	d (list):								
NA									
Disturbances (ex: livest NA	ock access, manure	in waterbody, was	te discharge pipe	es):					
Tributary is: (check one)	⊠ Natural	□ A	rtificial, man-m	ade 🗆 Manipu	ulated				
Stream Quality ^a : (check one)	⊠ High		loderate						

Waterbody ID: SNOM007

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:

FLOW IS TO THE EAST, TIES INTO PERRENIAL STREAM SNOM006.

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





Waterbody point snom007 facing West and upstream



Waterbody point snom007 facing East and downstream



Waterbody point snom007 facing South and across

Survey De	scriptio	n											_	
Project Name	e:		N	aterboo	ly Nam	ne:			N	/aterbody ID:			Date:	
Atlantic Co	ast Pipel	ine	L	TTLE	CREE	ΞK			s	NOM006			9/11/201	14
State:		County:			(Company:			Crew I	Member Initials	5:	Photos:		
Virginia		Nottowa	ау			W&C			SG, E	B		3225-3	3227, X	UD
Tract Numbe	er(s):				1	Nearest Mile	epost:			Associated W	etland	ID(s):		
12-015						227.16				NA				
Survey Type (check one)	:	⊠C	enterline	[∃Re-R	oute		ccess Road	1	□Other:				
Physical A	Attribute	S												
Stream Class (check one)	sification:	E	phemeral	[Intern	nittent	⊠F	Perennial						
Waterbody T (check one)	`ype: □	River	⊠ Strea	m [Ditch	n □C	anal	Other	:					
OHWM Width		OHWN (check a	I Indicator	:		🛛 Clear li	ne	⊠Shelvin	a	□Wrested	Σ	Scouring	n 🕅	Water
<u>_1</u>	<u>10 ft.</u>					on bank			9	vegetation		20000	sta	aining
Height:	<u>l_</u> ft.	[v	∃Bent, ma regetation	tted, or r	nissing	g ⊡Wrack li	ine	⊠Litter a debris	nd	⊠Abrupt plar community ch	nt nange	□Soil cl	haracterist	tic change
Width of Wat	terbody - T	op of	Width of	Waterbo	odv - T	oe of Slope	Widt	h of Waterb	ody - W	ater Edge to	Depth	of Water	•	
Bank to Top	of Bank:		to Toe of	Slope:	, ,		Wate	r Edge:		J	(Approx.)		
	<u>20 </u> ft.		1(<u>)</u> ft.				4	<u>4.0ft</u> .			-	<u>0.4</u> ft.	
Sinuositur			Water vo	ocity			N/A	boight			N/ALL Bank	slong		
(check one)	Ctusialst		(Approx.)	ocity.			Dank	Right:			Dalik	Riaht	:	
L	」Straight			<u>0.4</u>	fps			L offi	<u>4.0 _</u> ft.			Loft	<u>70</u> degr	ees
Σ	Meanderir	ng	N/A□					Leit.	<u>6.0_</u> ft.			Len	. <u>90</u> deg	rees
Qualitative	e Attribu	tes	•											
Water Appea (check one)	arance:	No water	⊠Cle	ar [□Turbio	d ⊡Sh or	neen n surfa	⊡Su ce sci	rface	□Algal mats	□Othe	er:		
Substrate:	×	Bedrock		ler 🛛	Cobble	e 🗆 Grav	el D	⊲ Sand	□ Silt/ o		: □	Other:		
(check all that app	oly)			.0	00000						, <u> </u>			
	ite. <u>7</u>	<u>20 </u> %	<u>NA</u> %	_5	_%	<u>NA</u> %		<u>/5</u> %	<u>NA </u> %	<u>NA</u> %	<u>_N/</u>	<u>4</u> %		
Width of Rip	arian Zone	e: Ve	egetative L	ayers:				7	🛛 Sanlii	nge/Shruhe	5	7 Horbs		
<u>>1</u> N/A□	<u>100 ft</u> ∙	Av (ap	'g. DBH of	Domina	ants:	<u>10</u> in.	•		<u>3</u> in.	ngs/onrubs.	Ľ			
Dominant Ba	ank Vegeta	tion (list):												
SWEETGL	JM, RED	OAK, B	EECH, F	PAW-P	AW, I	RONWO	DD, S	PICEBUS	SH, CH	IRISTMAS F	ERN			
Aquatic Habi	itats (ex: su	ibmerged o	r emerged a	quatic ve	getation	, overhanging	banks/	roots, leaf pac	ks, large	submerged wood	l, riffles,	deep pool	s):	
SMALL STRE	TCHES O	F RIFFLES	S, OVERH	ANGING	BANK	KS, SOME W	/00D)	/ DEBRIS S	MALL F	POOLS				
Aquatic Orga	anisms Ob	served (li	st):											
FISH, FRO	GS, WA	TER ST	RIDERS											
T&E Species	Observed	(list):												
NA														
Disturbance: NA	s (ex: livesto	ock access,	manure in w	/aterbody	, waste	discharge pip	es):							
Tributary is: (check one)		× N	latural		□ Artif	ficial, man-m	nade	🗆 Manip	ulated					
Stream Qual (check one)	ity ^a :	⊠⊦	ligh			derate		□ Low						

Waterbody ID: SNOM006

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:

FLOW IS TO THE NORTH, STREAM SNOM007 TIES INTO STREAM APPROX 100 FT TO SOUTHWEST.





Waterbody point snom006 facing South and upstream



Waterbody point snom006 facing North and downstream



Waterbody point snom006 facing East and across

Survey Description					14/-4	anda a da a ID-	Deter
Atlantic Coast Pineli	A	INT to Little	me: Creek		SN	OM005	Date: 9/11/2014
State:	Country		Company		Crow Mo		Bhataa
Virginia	Nottoway		W&C SG				3221-3223, X U D
Tract Number(s):			Nearest Mile	epost:	A	ssociated Wetland	I ID(s):
12-016			227.3		N	A	
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□Access Road		∃Other:	
Physical Attributes							
Stream Classification: (check one)	⊠Ephemera	l ⊡Inter	mittent	Perennial			
Waterbody Type: (check one)	River 🛛 Stre	eam 🗆 Dito	ch □Ca	anal 🗌 Other:	:		
OHWM Width:	OHWM Indicat (check all that apply	tor:	Clear lir	ne 🗆 Shelving	g [Scouring Water
<u>1</u> tt.							staining
<u>0.3_</u> ft. N/A□	⊡Bent, n vegetatio	natted, or missin n	ig ∐Wrack li	ne ⊠Litter an debris	nd l	⊔Abrupt plant community change	☐ Soil characteristic change
Width of Waterbody - To Bank to Top of Bank:	op of Width of to Toe	of Waterbody - ⁻ of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - Wat	ter Edge to Depth	of Water:
<u>10</u> ft.	_	<u>1_</u> ft.			0ft.	N/A⊠	<u>0</u> ft.
Sinuosity:	Water	velocity:		N/A⊠ Bank height		Bank	slope
(check one)	(Approx.)	0.4		Right:	25 ft		Right:
⊠Meanderin		<u>0_</u> tps		Left:	<u>5.5 </u> n.		Left:
	B N/A⊠				<u>3.0_</u> ft.		<u>60</u> degrees
Qualitative Attribut	es						
(check one)	No water □C	Clear □Turb	oid ⊡Sh on	leen ⊡Sur surface scu	face ım	□Algal □Othe mats	ər:
Substrate:	Bedrock 🛛 Bo	ulder 🗆 Cobb	ole 🗆 Grave	el 🛛 Sand 🛛	⊠ Silt/ clay	y 🛛 Organic 🗌	Other:
% of Substrate: <u>N</u>	<u>A</u> % <u>NA</u> %	% <u>NA</u> %	<u>NA</u> %	<u>20</u> %	<u>55_</u> %	<u>25_% N/</u>	<u>A_</u> %
Width of Riparian Zone:	Vegetative	Layers:	_				
_>100 ft·	(check all that Avg. DBH	apply) of Dominants:	⊠ Trees 10 in	: 2	Saplings 3 in	s/Shrubs:	⊠ Herbs
N/A	(approx.)		<u>_10</u>	-	<u>o</u>		
LOBLOLLY PINE, S	WEETGUM, F	RED OAK, PA	W-PAW, I	RONWOOD, C	HRIST	MAS FERN	
Aquatic Habitats (ex: sub	merged or emerged	aquatic vegetation	n, overhanging	banks/roots, leaf pack	ks, large su	ubmerged wood, riffles,	deep pools):
NA							
Aquatic Organisms Obs NA	erved (list):						
T&E Species Observed	(list):						
NA							
Disturbances (ex: livestoc NA	k access, manure ir	n waterbody, waste	e discharge pipe	es):			
Tributary is: (check one)	⊠ Natural	□ Art	tificial, man-m	ade 🗆 Manipu	ulated		
Stream Quality ^a : (check one)	□ High	□ Mo	oderate	⊠ Low			

Waterbody ID:
SNOM005

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:

FLOW IS TO THE SOUTH-SOUTHWEST, TIES INTO A STREAM JUST OUTSIDE THE SOUTH ROW EDGE. MARGINAL FEATURE; EVIDENCE OF FLOW BARELY DISCERNABLE IN SOME REACHES, BUT PRESENT AT CENTERLINE AND BECOMING MORE DEFINED TO SOUTH. THE STREAM JUST OUTSIDE OF ROW MAY ENTER THE ROW TO THE EAST (UNABLE TO SURVEY TO EAST-PROPERTY OFF LIMITS).





Waterbody point snom005 facing Northeast and upstream



Waterbody point snom005 facing Southwest and downstream



Waterbody point snom005 facing Northwest and across

Linear Waterbod	y Data	a Sheet										
Survey Description	n		Waterbo	dy Nar	ne.			W	/aterbody ID:			Date [.]
Atlantic Coast Pipel	ine		UNT to	Little	Creek			s	noc100			10/1/2015
State:	County	:			Company:		Crew Member Initials			s: Photos:		
Virginia	Nottov	vay		NRG			CR, AS, SA 1-3					
Tract Number(s):					Nearest Mile	post:			Associated W	etlanc	I ID(s):	
12-016, 12-017					231							
Survey Type: (check one)	\boxtimes	Centerline)	□Re-F	Route	□Acc	ess Road	ł	□Other:			
Physical Attributes	s											
Stream Classification: (check one)	\boxtimes	Ephemera	al	□Inter	mittent	□Per	ennial					
Waterbody Type: (check one)	River	⊠ Str	eam	Ditc	:h □ Ca	anal	Other					
OHWM Width: _2_ft.	OHW (check	M Indicat all that apply	tor: /)		□ Clear lin on bank	e	□Shelvin	g	□Wrested vegetation		Scouring	g ⊟Water staining
Height: ft. N/A□		□Bent, n vegetatio	natted, or n	missin	g	ne l	⊠Litter a debris	nd	□ Abrupt plar community ch	nt nange	⊡Soil c	haracteristic change
Width of Waterbody - T Bank to Top of Bank:	op of	Width o to Toe	of Waterb of Slope:	ody -	Toe of Slope	Width o Water E	f Waterb	ody - W	ater Edge to	Depth (Approx	of Wate	r:
<u>_25</u> ft.		-	<u>0.5</u> ft.			N/A□	_	<u>0.1</u> ft.		N/A□		<u>0.1</u> ft.
Sinuosity:		Water	velocity:			Bank he	eight			Bank	slope	
Straight		(Approx.)	~)) fro			Right:	12 ft			Right	: 70 degrees
⊠Meanderir	na		<u>_0.z_</u> ips				Left:	<u> 12 </u> n. 10 ft		Left: 70 degrees		
								<u> </u>				<u>- 10 </u> dog1000
Qualitative Attribu	tes											
(check one)	[]] No wate	er □C	Clear	⊠Turb	id ⊡Sh on	een surface	⊡Su sc	urface um	□Algal mats	□Othe	er:	
Substrate:	Bedroc	k 🗆 Bo	ulder [Cobb	le 🛛 Grave	el 🛛 S	Sand	□ Silt/ c	ay 🛛 Organio		Other:	
(check all that apply) % of Substrate:	%		_%		<u>% 10</u> %	_60	_%		_% <u>30 %</u>		%	
Width of Riparian Zone): ((egetative	apply)		⊠ Trees:		[⊠ Saplir	nas/Shrubs:	D	⊲ Herbs	
<u>ft</u> . N/A⊠	A (4	vg. DBH	of Domir	nants:	<u>_8_</u> in.			_ <u>2_</u> in.	.go, e	-		
Dominant Bank Vegeta	tion (list):										
Tulip poplar, mocke fern	rnut hio	ckory, lo	blolly pi	ine, re	ed maple, w	vhite oa	ık, trum	pet cre	eeper, Japar	iese h	noneysu	uckle, Christmas
Aquatic Habitats (ex: su	Ibmerged	or emerged	d aquatic ve	egetatio	n, overhanging	banks/roo	ts, leaf pao	cks, large	submerged wood	l, riffles,	deep pool	s):
None												
Aquatic Organisms Ob	served ((list):										
None												
T&E Species Observed	l (list):											
				he woote	diacharga ains							
None	CK acces	s, manure i	n waterbod	iy, waste	e discharge pipe	es):						
Tributary is: (check one)	\boxtimes	Natural		□ Art	ificial, man-m	ade	🗆 Manip	ulated				
Stream Quality ^a : (check one)		High		⊠ Mc	oderate		□ Low					

Waterbody ID:

Snoc100

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 into snom005

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





Waterbody SNOC100 facing east upstream



Waterbody SNOC100 facing west downstream



Waterbody SNOC100 facing south across

Survey Descriptio	n	her						
				/	Wate	rbody ID:	Di	ate:
ATLANTIC COAST	PIPELINE		SI CREEP	`	SINC		9/	11/2014
State:	County:		Company:		Crew Men	nber Initials:	Photos:	
Virginia	Nottoway		W&C		WLM, R	MS	100-111	8 TO 1120
Tract Number(s):			Nearest Mile	epost:	As	sociated Wetlan	d ID(s):	
12-020 AND 12-02	1		228		VV	/NOL001		
Survey Type: (check one)	⊠Centerlin	e ⊡Re-I	Route	□Access Road		Other:		
Physical Attribute	s							
Stream Classification:								
	□Epnemer		rmittent	⊠ Perenniai				
(check one)	∃River ⊠ St	ream 🗆 Dito	ch 🗆 Ca	anal 🛛 🗆 Other:				
ОНШМ	OHWM Indica	ator:			~ 57	Mraatad		Matar
<u>4 ft.</u>		y)	on bank		y 🗵 Ve	egetation		staining
Height:	□Bent,	matted, or missir	ng ⊡Wrack li	ne ⊠Litter an	nd 🗆	Abrupt plant	⊠ Soil cha	racteristic change
ft. N/A□	vegetati	on		debris	CC	ommunity change		
Width of Waterbody - 1 Bank to Top of Bank:	Fop of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - Wate	r Edge to Dept	h of Water:	
		or slope.		Water Euge.		(19910.		0.0 #
<u>_/_</u> tt.		<u>4_</u> ft.		N/A□	<u>3</u> ft.	N/A]	<u>0.3</u> 11.
Sinuosity:	Water	velocity:		Bank height		Bank	slope	
	(Αρριολ.) 0.1 fps		Right:	3 ft.		Right:	30 degrees
⊠Meanderi		<u>_0.1_</u> ipe	2	Left:	<u> </u>		Left:	<u>20</u> dogroco
				· · ·	<u> </u>		-	
Water Appearance:	ites							
(check one)	[□] No water ⊠	Clear DTurk	oid ⊡Sh on	leen ⊡Sur surface scu	face □ ım	□Algal □Oth mats	er:	
Substrate:	Bedrock 🗆 B	oulder 🛛 Cobb	ole 🛛 Grave	el 🛛 Sand 🗌	□ Silt/ clay	🛛 Organic 🛛	Other:	
% of Substrate:	<u>5_% NA</u>	<u>% <u>5</u>%</u>	<u> 10 </u> %	<u>75</u> %	<u>NA_</u> %	<u> 5 </u> % <u> </u>	<u>IA_</u> %	
Width of Riparian Zone	e: Vegetativ	e Layers:						
. 100 #	(check all the	t apply)	[⊠] Trees	: 🗵	Saplings/	/Shrubs:	⊠ Herbs	
<u>>100 II</u> . N/A□	(approx.)	or Dominants.	<u>_12_</u> in.	-	<u>3</u> in.			
Dominant Bank Vegeta	ation (list):							
TULIP POPLAR, R	ED MAPLE, S	WEETGUM, E	BEECH, BL		JY FERN		1	
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetatio	n, overhanging	banks/roots, leaf pack	ks, large sub	merged wood, riffles	s, deep pools):	:
RIFFLE/POOL COI	MPLEXES, BE	DROCK SLIL	DES, UNDE	RCUIBANKS	, CPOM			
Aquatic Organisms Ob	oserved (list):							
CRATFISH,EPT								
T&E Species Observed	d (list):							
NA								
NA	оск access, manure	in waterbody, wast	e discharge pipe	es):				
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	⊠ High		oderate					
L								

Waterbody ID:
SNOL001

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.



Form Rev. 07/09/2014



Waterbody point snol001 facing West and upstream



Waterbody point snol001 facing East and downstream



Waterbody point snol001 facing South and across

Survey Description	n	1			I			
Project Name:			me:		Wa	aterbody ID:		Date:
Atlantic Coast Pipeline		UNITOWE	STCREEP	ζ.	Sr	101002		9/11/2014
State:	County:		Company:		Crew M	lember Initials	: Pł	notos:
Virginia	Nottoway		W&C		RS, W	/M	1	00-1131 to 1133
Tract Number(s):			Nearest Mile	epost:		Associated W	etland IE	D(s):
12-021 AND 12-020						NA		
(check one)	⊠Centerline	e □Re-F	Route	□Access Road		□Other:		
Physical Attribute	s							
Stream Classification: (check one)	⊠Ephemera	al 🗆 Inter	mittent	Perennial				
Waterbody Type: (check one)	□River ⊠ Str	ream 🗆 Dito	sh □C	anal 🗌 Other	:			
OHWM Width: 3 ft	OHWM Indica (check all that appl	ator: _{ly)}	□ Clear lir on bank	ne 🗆 Shelvin	g	⊠Wrested vegetation	⊠S	couring □Water staining
Height: 0.5_ft.	□Bent, r vegetatio	matted, or missin on	g □Wrack li	ne □Litter ar debris	nd	☐ Abrupt plan community ch	t ⊵ ange	Soil characteristic change
Width of Waterbody -	Top of Width	of Waterbody -	Toe of Slope	Width of Waterb	ody - Wa	ater Edge to	Depth of	Water:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		1	(Approx.)	
<u>_10_</u> ft.	-	<u>3</u> ft.			ft		N/A⊠	ft.
Sinuosity:	Water	velocity:		Bank height			Bank slo	ope
(check one)	(Approx.))		Right:	25 ft			Right:
Meander		I	05	Left:	<u>2.0</u> .			Left:
	N/AX				<u></u> π.			<u></u>
Qualitative Attribu	utes							
(check one)	[⊠] No water □0	Clear DTurb	id ⊡Sh on	leen ⊡Sui surface scu	rface um	□Algal [mats	□Other:	
Substrate:	Bedrock 🛛 Bo	oulder 🗆 Cobb	le 🗆 Grav	el 🛛 Sand 🛛	⊠ Silt/ cl	ay 🗆 Organic	🗆 Otl	her:
% of Substrate:	<u>NA_% NA</u>	<u>% NA</u> %	<u>NA</u> %	<u> 10 </u> %	<u>90_</u> %	<u>NA</u> %	NA	%
Width of Riparian Zon	e: Vegetativ	e Lavers:						
. 100 #	(check all that	t apply)	⊠ Trees	: D	⊠ Saplin	gs/Shrubs:		Herbs
<u>>100 n</u> . N/A□	(approx.)	or Dominants.	<u>_12_</u> in.	-	_ <u>2_</u> in.			
Dominant Bank Veget	ation (list):							
Oak, nickory, popla	ir, tern, noneys	UCKIE						
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large :	submerged wood,	, riffles, de	eep pools):
Aquatic Organisms O	oserved (list):							
	- ///							
T&E Species Observe	d (<i>list)</i> :							
Disturbances (ex: lives	tock access, manure i	in waterbody, waste	e discharge pipe	es):				
NA								
Tributary is: (check one)	⊠ Natural	□ Art	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality ^a :								

	Waterbody ID:
	Snol002
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; dividual disturbance by livestock or man.	side; banks stable and protected by verse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active of function or riparian vegetation only moderately compromised; banks moderately unstable; water color is clour greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by live	channel width on each side; filtering dy, submerged objects covered with stock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural very channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable of turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish more severe disturbance from livestock or man.	egetation less than 1/3 of the active (eroding); water color is muddy and ovement; little to no aquatic habitat;
Notes:	
Small headwater ephemeral	
	
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey bound	ndary, and IDs of associated features)
	J
	Sr.
\sim $1/\sim$	
	$\backslash \uparrow$
	(
16	
C n (I)	
51100	
	•
	,



Waterbody point snol002 facing North and upstream



Waterbody point snol002 facing South and downstream



Waterbody point snol002 facing East and across

Survey Description	n				10/	at a site a site JD.		
		Waterbody Nar	NE: CREEK		SN		a a	/11/2014
State:	Countyr		Company		Crow M	lombor Initials:	Photos:	
Virginia	Nottoway		W&C		WLM,	RMS	100-113	34 TO 1136
Tract Number(s):			Nearest Mile	epost:		Associated Wetla	nd ID(s):	
12-021			228			NA		
Survey Type: (check one)		Re-F	Route	□ Access Road		□Other:		
Physical Attribute	S							
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	tor: /)	⊠ Clear lin	le ⊠Shelvin	g	□Wrested	□Scouring	□Water staining
<u>4</u> .tt. Height: <u>2</u> .ft.	□Bent, n vegetatio	natted, or missin n	g ⊠Wrack li	ne ⊠Litter an debris	nd	Abrupt plant	⊠ Soil cha	aracteristic change
N/A 🗆 Width of Wotorbody - T				Width of Wotorb	adv. Ma	ator Edge to Dog	th of Woton	
Bank to Top of Bank:	to Toe	of Slope:	loe of Slope	Water Edge:	bay - wa	(Appr	rox.)	
<u>_12_</u> ft.	-	<u>4</u> ft.			ft.	N/A	\boxtimes	<u>ft.</u>
Sinuosity: (check one)	Water	velocity:		Bank height		Ban	ik slope	
Straight		fr	S	Right:	<u>6_</u> ft.		Right:	70 degrees
⊠Meanderir	ng N/A⊠			Left:	6_ ft.		Left:	80 degrees
Qualitative Attribu	tes							
Water Appearance:								
	No water	Jear 🗆 l'urb	id ⊔Sh on	een ⊡Sur surface scu	tace Im	⊔Algal ⊔Ot mats	ther:	
Substrate: (check all that apply)	Bedrock 🛛 Bo	ulder 🛛 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ cla	ay 🗆 Organic 🛛	Other:	
% of Substrate:	<u>5 % 10 </u> %	% <u>5</u> %	<u> 5 </u> %	45_%	<u>30_</u> %	<u>NA %</u>	<u>NA_</u> %	
Width of Riparian Zone	e: Vegetative	e Layers:	M -	5				
<u>>100 ft</u> ·	Avg. DBH	of Dominants:	□ I rees: 10 in.		⊴ Sapiin _3 in.	gs/Shrubs:		
N/A Dominant Bank Vegeta	(approx.)							
PINE, TULIP POPL	AR, CEDAR, S	SYACMORE,	BEECH, R	ED MAPLE, CH	HRISTI	MAS FERN, CH	HELONE	
Aquatic Habitats (ex: su NA	ubmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pacł	ks, large s	submerged wood, riffle	es, deep pools)	:
Aquatic Organisms Ob	served (list):							
NA								
T&E Species Observed	(list):							
NA								
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade 🔄 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	□ High		derate	⊠ Low				

Waterbody ID:
SNOL003

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.



Form Rev. 07/09/2014



Waterbody point snol003 facing Southwest and upstream



Waterbody point snol003 facing Northeast and downstream



Waterbody point snol003 facing North and across

Survey Descriptio	n				Matar	h e du ID-	Deter
ATI ANTIC COAST				16: ST ORFEK		1005	Date: 0/11/2014
				X			5/11/2014
State: Virginia	County: Nottoway		Company: W&C		WLM, RN	NS	Photos: 100-1140 TO 1142
Tract Number(s):			Nearest Mile	epost:	Ass	sociated Wetland	ID(s):
12-021			228		NA	Ą	
Survey Type: (check one)	⊠Centerline	e ⊡Re-F	Route	□Access Road		Other:	
Physical Attribute	5						
Stream Classification: (check one)		al ⊡Inter	mittent	⊠Perennial			
Waterbody Type: (check one)	River ⊠ Str	ream 🗆 Dito	ch □ Ca	anal 🛛 Other:			
OHWM Width:	OHWM Indica (check all that appl	itor: y)	⊠ Clear lir	ne ⊠Shelving	g ⊠\ vec	Wrested	Scouring DWater
<u>-3</u> n. Height: 1 ft.	□Bent, ı vegetatio	matted, or missin	g ⊠Wrack li	ne □Litter an debris	id □/	Abrupt plant	Soil characteristic change
N/A 🗆	Vegetatio						
Width of Waterbody - 1 Bank to Top of Bank:	op of Width to Toe	of Waterbody - of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - Water	Edge to Depth (Approx.)	of Water:
<u>_10_</u> ft.	-	<u>3</u> ft.		N/A□	<u>2</u> ft.	N/A 🗆	<u>0.2</u> ft.
Sinuosity:	Water	velocity:		Bank height		Bank s	lope
	(Approx.)	0.1 fra		Right:	⊿ ft		Right:
Meanderi		<u>_0.1_</u> ips	i	Left:	<u> </u>		Left:
	N/A⊔			<u> </u>	<u>4_</u> 1l.		<u> </u>
Qualitative Attribu	ites						
(check one)	No water ⊠	Clear DTurb	oid ⊡Sh on	leen ⊡Sur surface scu	face □. ım	Algal □Other mats	:
Substrate:	Bedrock 🗆 Bo	oulder 🛛 Cobb	ole 🛛 Grave	el 🛛 Sand 🗌	□ Silt/ clay	⊠ Organic □ C	Other:
(check all that apply) % of Substrate:	<u>NA_% NA</u>	<u>% 10</u> %	_25_%	<u> 60 </u> %	<u>NA_</u> %	<u>5</u> % <u>NA</u>	<u> </u> %
Width of Riparian Zone	e: Vegetativ	e Layers:					
<u>>100 ft</u> ·	(check all tha Avg. DBH (approx.)	t apply) of Dominants:	⊠ Trees _ <u>16_</u> in.	: 🗵	I Saplings/S _ <u>3_</u> in.	Shrubs: 🛛 🖂	Herbs
Dominant Bank Vegeta	ation (list):						
SYCAMORE, PINU	S, BEECH, RE	ED MAPLE, N	. RED OA	K, SPICEBUSH	I, CHRIST	MAS FERN, A	THYRIUM
Aquatic Habitats (ex: su SOFT SAND/MUC)	ubmerged or emerge K, RIFFLES, S	d aquatic vegetatio	n, overhanging 5, CPOM	banks/roots, leaf pack	ks, large subm	nerged wood, riffles, o	deep pools):
Aquatic Organisms Ob	served (list):						
EPT							
T&E Species Observed	(list):						
Disturbances (av. livest	ock access manura	in waterbody, west	a dischargo ning	ae)•			
NA	ook access, manure	m waterbouy, waste	e uisonarge pipe				
Tributary is: (check one)	⊠ Natural		tificial, man-m	ade 🗌 Manipu	ulated		
Stream Quality ^a : (check one)	⊠ High		oderate	□ Low			

Waterbody ID:
SNOL005

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:	
HIGH QUALITY HEADWATER PERENNIAL STREAM	
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated	features)
	,
- 50'- - 56'-	
5N0	



Waterbody point snol005 facing Southwest and upstream



Waterbody point snol005 facing Northeast and downstream



Waterbody point snol005 facing East and across
Survey Descripti	on	-1			1			1
			me:		W	aterbody ID:		Date:
ATLANTIC COAS	I PIPELINE	WEST CREI	=n		51	NOL004		9/11/2014
State:	County:		Company:		Crew N	lember Initials:	Photos	:
Virginia	Nottoway		W&C		WLM,	RMS	100-1	137 TO 1139
Tract Number(s):			Nearest Mile	epost:		Associated We	tland ID(s):	
12-021			228			NA		
Survey Type: (check one)	⊠Centerlin	e ⊡Re-I	Route	□Access Road		□Other:		
Physical Attribut	es							
Stream Classification (check one)	l: □Epheme	ral □Inter	mittent	⊠Perennial				
Waterbody Type: (check one)	□River ⊠ St	ream 🗆 Dite	ch □ Ca	anal 🛛 Other:				
онwм	OHWM Indic	ator:						
Width: _6_ft.	(check all that app	oly)	⊠ Clear lir on bank	ne ⊠Shelving	g	⊠Wrested vegetation	□Scourir	ng ⊟Water staining
Height: ft. N/A□	□Bent, vegetati	matted, or missin on	g ⊠Wrack li	ne ⊠Litter an debris	nd	□ Abrupt plant community cha	⊠ Soil o nge	characteristic change
Width of Waterbody -	Top of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - Wa	ater Edge to	epth of Wate	er:
	to loe	_6_ ft.		water Edge:	_3_ ft.	(*	φρισχ.)	<u>0.5</u> ft.
				N/A 🗆		N	I/A 🗆	
(check one)	(Approx	velocity:		Bank neight Right:		E	ank siope Righ	t:
		<u>8_</u> fps		L off:	<u>4_</u> ft.		Lo	<u>75</u> degrees
⊠Meande	ring N/A□			Leit.	<u>3_</u> ft.		Le	<u>75</u> degrees
Qualitative Attrib	utes							
Water Appearance: (check one)	□No water 🛛	Clear DTurk	oid □Sh	leen ⊡Sur	face	□Algal □	Other:	
Cult advantas			on	surface scu		mats	C Oth a m	
(check all that apply)		ouider 🖾 Cobr	ble 🖾 Grave	el 🖾 Sand L		lay 🗆 Organic	□ Other:	
% of Substrate:	<u>NA %</u> <u>NA</u>	<u>% 10</u> %	<u> 30 </u> %	<u> 60 </u> % <u> </u>	<u>NA </u> %	<u>NA</u> %	<u>NA</u> %	
Width of Riparian Zor	ne: Vegetativ	e Layers:	⊠ ∓	-		na (Oh muh au		
<u>>100 ft</u> ·	Avg. DBH	l of Dominants:	≊ i rees 14 in.		Sapiin 3 in.	gs/Shrubs:		
N/A□ Dominant Bank Vege	(approx.)			-				
PINE, TULIP POP	LAR, N. RED C	DAK, BEECH,	PAW PAW	, SPICEBUSH,	, CHRI	ISTMAS FER	N	
Aquatic Habitats (ex:	submerged or emerge	ed aquatic vegetatio	n, overhanging	banks/roots, leaf pack	ks, large	submerged wood,	riffles, deep poo	ols):
SOFT SANDY SE	DIMENT, RIFF	LES, SMALL	POOLS, CI	POM, LWD				
Aquatic Organisms C	bserved (list):							
FISH, CRAYFISH,	, EPT, HELLGR	AMMITES						
T&E Species Observe	ed (list):							
NA								
Disturbances (ex: live: NA	stock access, manure	in waterbody, wast	e discharge pipe	es):				
Tributary is:								
(check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗌 Manipu	ulated			
Stream Quality ^a : (check one)	🛛 High		oderate	□ Low				

Γ	Waterbody ID:
\$	SNOL004

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:

HIGH QUALITY PERENNIAL STREAM





Waterbody point snol004 facing North and upstream



Waterbody point snol004 facing South and downstream



Waterbody point snol004 facing East and across

Survey Description					10/-	taskaska ID:	Deter
ATLANTIC COAST F			ne: ST CREEk	4	SN		9/11/2014
State:				`			
Virginia N	Nottoway		Company: W&C		WLM, I	RMS	100-1145 TO 1148
Tract Number(s):			Nearest Mile	epost:	4	Associated Wetla	and ID(s):
12-022			228		I	NA	
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□ Access Road		□Other:	
Physical Attributes							
Stream Classification: (check one)	⊠Ephemera	I □Inter	mittent	Perennial			
Waterbody Type: (check one)	River 🛛 Stre	eam 🗆 Ditc	h 🗆 Ca	anal 🗌 Other:	:		
OHWM Width:	OHWM Indicat (check all that apply	or:	□ Clear lir on bank	e 🗆 Shelving	g	□Wrested vegetation	⊠Scouring ⊟Water staining
Height: ft.	□Bent, n vegetatio	natted, or missin	g ⊠Wrack li	ne ⊠Litter ar debris	nd	Abrupt plant	Soil characteristic change
N/A 🗆							
Bank to Top of Bank:	to Toe	of Waterbody - 1 of Slope:	foe of Slope	Width of Waterbo	ody - Wa	ter Edge to De	pth of Water: prox.)
<u>_8 f</u> t.	-	<u>2_</u> ft.			ft.	N/A	ft.
Sinuosity:	Water	velocity:		Bank height		Ba	nk slope
Straight	(Approx.)	fr		Right:	6 ft		Right: 70 degrees
		ŀ	15	Left:	<u> </u>		Left:
	N/A				<u>9</u> 11.		<u>_65</u> degrees
Qualitative Attribute	es						
(check one)	No water □C	Clear □Turb	id □Sh on	een 🗆 Sur surface scu	rface um	□Algal □C mats	ther:
Substrate:	Bedrock 🛛 Bo	ulder 🛛 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ cla	y 🗆 Organic	□ Other:
% of Substrate: <u>N</u>	<u>4_% NA 9</u>	% <u>2</u> %	2_%	<u>36</u> %	<u>60 </u> %	<u>NA_</u> %	<u>NA_</u> %
Width of Riparian Zone:		Layers:	× -			/OL	
<u>>100 ft</u> ·	Avg. DBH	of Dominants:	[™] Trees: <u>12_</u> in.	: 2	⊴ Sapling _ <u>3_</u> in.	s/Shrubs:	⊠ Herbs
Dominant Bank Vegetati	on (list):						
BLACK OAK, TULIP	POPLAR, WI	HITE OAK, BI	ACKGUM	,CHRISTMAS	FERN,	BEECH	
Aquatic Habitats (ex: sub	merged or emerged	l aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large si	ubmerged wood, riff	les, deep pools):
	erved (IISt):						
	(P. A)						
NA	list):						
Disturbances (ex: livestoc	k access, manure ir	n waterbody, waste	e discharge pipe	es):			
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade 🗆 Manipu	ulated		
Stream Quality ^a : (check one)	🗆 High	□ Mo	derate	⊠ Low			

	SNOL006				
á	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected b roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; r disturbance by livestock or man.	by no			
	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 are 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.	ve nd at;			

Waterbody ID:

Notes:

DRY EPHEMERAL STREAM; INCISED CHANNEL

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of as	ociated features)
FIOW SNOLOOG	
ADP	
5/6	

Form Rev. 07/09/2014



Waterbody point snol006 facing North and upstream



Waterbody point snol006 facing South and downstream



Waterbody point snol006 facing East and across

Survey Descriptio	n						
Project Name:		Waterbody Nar	ne:	_	Waterbody ID:	Date	e:
Atlantic Coast Pipel	line	UNT TO WE	ST CREEK	K	Snol007	9/1	1/2014
State:	County:		Company:		Crew Member Initials	: Photos:	
Virginia	Nottoway		W&C		RS, WM	100-1154	to 1156
Tract Number(s):			Nearest Mile	epost:	Associated W	etland ID(s):	
12-026 AND 12-024	4		228		Wnol002 ar	nd wnol003	
Survey Type: (check one)		Re-F	Route	□Access Road	□Other:		
Physical Attribute	s						
Stream Classification: (check one)	Ephemera	al ⊡Inter	mittent	⊠Perennial			
Waterbody Type:							
(check one)	River Str	eam 🗌 Ditc	h 🗆 Ca	anal 🗌 Other:			
онwм	OHWM Indicat	tor:					
<u>2</u> ft.	(check all that apply	<i>''</i>	on bank		vegetation	Scouring	staining
Height:	⊠Bent, n	natted, or missin	g	ne 🛛 Litter ar	nd 🛛 🗆 Abrupt plan	t Soil chara	cteristic change
ft. N/A□	vegetatio	n		debris	community ch	ange	
Width of Waterbody - T Bank to Top of Bank:	op of Width of to Toe	of Waterbody - 1	Foe of Slope	Width of Waterbo	ody - Water Edge to	Depth of Water:	
Bank to Top of Bank.	10 100	or slope.		Water Euge.			4 G
<u>_12_ft</u> .	-	<u>2</u> ft.		N/A□	<u>1.5_</u> ft.	<u>0.</u> N/A□	<u>1 </u> ft.
Sinuosity:	Water	velocity:		Bank height		Bank slope	
(check one)	(Approx.)			Right:	E #	Right:	0 degrees
		<u>_1_</u> tps		Left:	<u> </u>	 Left:	<u>o</u> degrees
	ng N/A□				<u>3.5_</u> ft.		0_degrees
Qualitative Attribu	ites						
(check one)	No water ⊠C	Clear □Turb	id ⊡Sh on	een ⊡Sur surface scu	face □Algal ım mats	□Other:	
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ clay ⊠ Organic	Other:	
% of Substrate:	<u>NA % NA </u>	% <u>NA</u> %	<u> 10 </u> %	<u> 60 </u> %	<u>NA_% 30_%</u>	<u>NA %</u>	
Width of Riparian Zone	e: Vegetative	Lavers:					
400 ((check all that	apply)	[⊠] Trees		Saplings/Shrubs:	⊠ Herbs	
<u>>100 ft</u> · N/A□	avg. DBH (approx.)	of Dominants:	<u>12</u> in.	-	<u>_2_</u> in.		
Dominant Bank Vegeta	tion (list):						
White oak, red map	le, beech, popl	ar, fern, smila	ax				
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large submerged wood	, riffles, deep pools):	
Small pools, riffles,	leaf packs, ove	erhanging bar	nks				
Aquatic Organisms Ob	served (list):						
Frog, dragonfly							
T&E Species Observed	(list):						
NA							
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	discharge pipe	es):			
NA							
Tributary is:	Noture!	□ A4	ificial man	odo 🗆 Moria:	lated		
Stream Quality a:			inciai, man-m		ulateu		
(check one)	🛛 High		derate	□ Low			

	Waterbody ID:
	Snol007
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths or roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types availa disturbance by livestock or man.	n each side; banks stable and protected by ble; diverse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the a function or riparian vegetation only moderately compromised; banks moderately unstable; water color greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance	active channel width on each side; filtering is cloudy, submerged objects covered with by livestock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; na channel width on each side; lack of regeneration; filtering function severely compromised; banks uns turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to severe disturbance from livestock or man.	tural vegetation less than 1/3 of the active stable (eroding); water color is muddy and fish movement; little to no aquatic habitat;
Notes:	
nall headwater perennial with adjacent seepage wetlands	
Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, surv	rey boundary, and IDs of associated features)
	' \
IN D	
<i>P</i> . <i>S</i>	
5h	
150 . 165	



Waterbody point snol007 facing South and downstream



Waterbody point snol007 facing North and upstream



Waterbody point snol007 facing East and across

Survey Description							
Project Name:	Waterbody Name	e: RFFK		Wa	aterbody ID:		Date:
Atlantic Coast Pipeline				SN	NOL008		9/11/2014
State: County:	C	ompany:		Crew M	lember Initials:	Photos	2
Virginia Nottoway	M	/&C		RS, W	'M		3
Tract Number(s):	N	earest Mile	post:		Associated We	etland ID(s):	
12-026	2:	28			NA		
Survey Type: (check one)	line	ute	□Access Road	ľ	□Other:		
Physical Attributes							
Stream Classification: (check one)	neral 🗆 Intermi	ittent	⊠Perennial				
Waterbody Type:							
(check one)	Stream 🗆 Ditch	□ Ca	anal 🗆 Other:				
OHWM OHWM Ind	icator:		- ⊠Chabia	-			
width:ft.	арыу)	on bank	e 🛛 Sneiving	g	vegetation		staining
Height:	nt, matted, or missing	□Wrack lir	ne ⊠Litter an	nd	□ Abrupt plant	⊠ Soil o	characteristic change
N/A□tt. veget	ation		debris		community cha	ange	
Width of Waterbody - Top of Wid	th of Waterbody - To	e of Slope	Width of Waterbo	ody - Wa	ater Edge to	Depth of Wate	er:
	de di Siope.		water Euge.		(*	(pp/0x.)	
<u>_8 ft.</u>	<u>4_</u> ft.		N/A□	<u>3_</u> ft.		N/A□	<u>0.2</u> ft.
Sinuosity: Wat	er velocity:		Bank height		E	Bank slope	
(Check one) (App.	rox.)		Right:			Righ	t:
	<u>_0.1</u> fps		Left:	<u>4_</u> ft.		Let	<u>35</u> degrees ft:
⊠Meandering N/A				<u>4_</u> ft.		-	<u>30</u> degrees
Qualitative Attributes							
(check one)	⊠Clear □Turbid	□Sh on	een ⊡Sur surface scu	face Im	□Algal □ mats	□Other:	
Substrate: Bedrock	Boulder	⊠ Grave	el 🛛 Sand 🛛	⊠ Silt/ cla	ay 🛛 Organic	□ Other:	
% of Substrate: <u>10</u> % <u>N</u>	<u>A_% NA_%</u>	<u> 10 </u> %	<u>70</u> %	<u>5</u> %	<u> 5 </u> %	<u>NA</u> %	
Width of Riparian Zone: Vegeta	tive Layers:						
(check all	that apply)	[⊠] Trees:	\boxtimes	Sapling	gs/Shrubs:	⊠ Herbs	
<u>>100 π</u> · Ανg. D N/A (approx.)	BH of Dominants:	<u>12</u> in.	-	<u>3</u> in.			
Dominant Bank Vegetation (list):							
BEECH, HICKORY, TULIP POI	PLAR, ELM, CHR	ISTMAS I	ERN, ATHYR	IUM			
Aquatic Habitats (ex: submerged or eme	rged aquatic vegetation,	overhanging I	oanks/roots, leaf pack	ks, large s	submerged wood,	riffles, deep poo	ls):
NA							
Aquatic Organisms Observed (list):							
NA							
T&E Species Observed (list):							
NA							
Disturbances (ex: livestock access, manu	ire in waterbody, waste d	ischarge pipe	s):				
NA							
Tributary is: (check one)	al 🗆 Artific	cial, man-ma	ade 🔤 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	□ Mode	erate	□ Low				

	Naterbody ID: SNOI 008
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each si roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; dive disturbance by livestock or man.	de; banks stable and protected by rse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active ch function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by lives	annel width on each side; filtering /, submerged objects covered with .ock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural veg channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eturbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish mov severe disturbance from livestock or man.	etation less than 1/3 of the active roding); water color is muddy and ement; little to no aquatic habitat;
Notes:	
GOOD QUALITY STREAM WUTH SEEPY STREAMBANKS	
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey bound	ary, and IDs of associated features)
-150'-1-150'	- N
SNOL608	

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Form Rev. 07/09/2014



Waterbody point snol008 facing North and upstream



Waterbody point snol008 facing South and downstream



Waterbody point snol008 facing West and across

Survey Description	n	her					
Project Name:		Waterbody Na	ne:		w	aterbody ID:	Date:
Southeast Reliability	y 			ĸ	5	NOK021	8/22/2014
State:	County:		Company:		Crew N	lember Initials:	Photos:
Virginia	Nottoway		W&C		JS,BC	3	106-5011 TO 5013
Tract Number(s):			Nearest Mile	epost:		Associated Wet	land ID(s):
12-027			229			WNOK017	
Survey Type: (check one)		e □Re-F	Route	□Access Road		□Other:	
Physical Attributes	S						
Stream Classification: (check one)	Ephemera	al ⊠Inter	mittent	Perennial			
Waterbody Type: (check one)	River 🛛 Str	eam 🗆 Dito	:h □ Ca	anal 🗌 Other:	:		
OHWM Width: _4_ft.	OHWM Indica (check all that apply	tor: /)	⊠ Clear lir on bank	ne ⊠Shelving	g	□Wrested vegetation	□Scouring ⊠Water staining
Height: <u>0.5_</u> ft. N/A□	⊠Bent, r vegetatio	natted, or missin n	g □Wrack li	ne ⊠Litter an debris	nd	□ Abrupt plant community char	□Soil characteristic change nge
Width of Waterbody - T	op of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to D	epth of Water:
<u>6</u> ft.	to loe	of Slope: _4ft.		water Edge: 	<u>3_</u> ft.	(A) N	ft.
Sinuosity:	Water	velocity:		Bank height		B	ank slope
(check one)	(Approx.)			Right:	2 #		Right:
Maandarir		<u>_0.1_</u> tps	i	Left:	<u></u> n.		Left:
				· ·	<u>2</u> ft.		<u>80</u> degrees
Qualitative Attribu	tes						
(check one)	No water	Clear ⊠Turb	id ⊠Sh on	leen ⊡Sur surface scu	face Im	□Algal □ mats	Other:
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobb	le 🗆 Grave	el 🗆 Sand 🛛	⊠ Silt/ c	lay 🛛 Organic	□ Other:
% of Substrate:	<u>NA % NA </u>	% <u>NA</u> %	<u>NA_</u> %	<u>NA_% 1</u>	<u>00 </u> %	<u>NA</u> %	<u>NA</u> %
Width of Riparian Zone	: Vegetative	E Layers:					
100 #	(check all that	apply)	⊠ Trees	: 🛛 🛛	Saplin	igs/Shrubs:	⊠ Herbs
<u> </u>	(approx.)	or Dominants.	<u>_15_</u> in.	-	<u>2</u> in.		
Dominant Bank Vegeta CHRISTMAS FERN	tion <i>(list)</i> : I, MOSS, MUL	TIFLORA RO	SE				
Aquatic Habitats (ex: su	Ibmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pack	ks, large	submerged wood, ri	ffles, deep pools):
NA							
Aquatic Organisms Ob	served (list):						
CRAYFISH							
T&E Species Observed NA	(list):						
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pipe	es):			
MODIFIED CHANN	EL						
Tributary is: (check one)	□ Natural	□ Art	ificial, man-m	ade 🛛 Manipu	ulated		
Stream Quality ^a : (check one)	□ High	□ Mo	oderate	⊠ Low			

Waterbody ID:
SNOK021

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:

INTERMITTENT STREAM THAT HAS BEEN PARTALLY DITCHED THROUGH WETLAND WNOK017. FLOWS INTO



6000 HOPE RD



Waterbody point snok021 facing Northwest and upstream



Waterbody point snok021 facing Southeast and downstream



Waterbody point snok021 facing North and across

Survey Descriptio	n							
Project Name:		Waterbody Na	me:		w	aterbody ID:		Date:
Southeast Reliabilit	у	WEST CREE	ΞK		S	NOK020		8/22/2014
State:	County:		Company:		Crew N	lember Initials:	Photos	5:
Virginia	Nottoway		W&C		JS,BC	G	106-5	5008 TO 5010
Tract Number(s):	•		Nearest Mile	epost:		Associated W	etland ID(s):	
12-027			229			NA		
Survey Type: (check one)	Centerline	e □Re-F	Route	□ Access Road		□Other:		
Physical Attribute	s							
Stream Classification: (check one)	Ephemera	al 🗆 Inter	mittent	⊠Perennial				
Waterbody Type:								
(check one)	River ⊠ Str	ream 🗆 Dito	ch □Ca	anal 🛛 Other	:			
OHWM	OHWM Indica	tor:	⊠ Clear lin	So Sholvin	a		⊠ Soouri	ng 🗆 Water
<u>10 ft.</u>	(onoon an anac app)	*/	on bank		g	vegetation		staining
Height: ft. N/A□	⊠Bent, r vegetatio	matted, or missin on	g □Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plant community ch	t □Soil ange	characteristic change
Width of Waterbody - T	op of Width	of Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of Wat	er:
Ballk to Top of Ballk.	10 100	of Slope.		water Euge.			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
<u>15 ft</u> .	-	<u>10</u> ft.		N/A□	<u>6</u> ft.	1	N/A□	<u>0.5</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank slope	
(check one)	(Approx.)			Right:	<u>с</u> 4		Rigl	ht:
		<u>_1_</u> tps		Left:	<u> </u>		Le	eft:
Meanderi	ng N/A□				<u>6</u> ft.			80 degrees
Qualitative Attribu	tes							
Water Appearance:	Ne water 🕅							
			on on	i surface sci	um	mats		
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🗆 Organic	□ Other:	
% of Substrate:	<u>NA_% _NA_</u>	% <u>NA</u> %	<u>40_</u> %	<u> 60 </u> % <u> </u>	<u>VA_</u> %	<u>NA</u> %	<u>NA</u> %	
Width of Riparian Zone	e: Vegetative	e Layers:						
50 ft.	(check all that	of Dominants	⊠ Trees	:	⊠ Saplin	ngs/Shrubs:	⊠ Herbs	
N/A 🗆	(approx.)		<u>_15</u> _IN.	-	<u>_2_</u> in.			
Dominant Bank Vegeta ELM.RED MAPLE.	ition (list): RIVER BIRCH.	SMILAX.GRA	SSES.FE	RNS				
Aquatic Habitate (ov: or	ibmorgod or omorgo	d aquatic vogatatio	n overbanging	hanks/roots loof noo	ke largo	cubmorgod wood	riffles doop po	
UNDERCUT BANK	S, RIFFLE/PO		X, SOFT S	SANDY SEDIM	ENT, C	CWD, OVERI	HANGING	VEG, ROOTMATS
Aquatic Organisms Ob	served (list):							
FISH, FROGS, WA	TER STRIDER	S,WHIRLYG	IG BEETLE	ES				
T&E Species Observed	(list):							
NA								
	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
Tributary is: (check one)	⊠ Natural		tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality ^a : (check one)	□ High	⊠ Mo	oderate	□ Low				



GUUD HOPE RO

Form Rev. 07/09/2014



Waterbody point snok020 facing West and upstream



Waterbody point snok020 facing East and downstream



Waterbody point snok020 facing Northwest and across

Survey Description	1	1							
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:	
Southeast Reliability		UNITOWE	ST CREEP	< C	S	NOK022		8/22/2014	
State:	County:		Company:		Crew N	lember Initials:	: Pł	notos:	
Virginia	Nottoway		W&C		JS,BC	G	1	06-5014 TO 5016	
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID	0(s):	
12-027 Summer Tem er			229			WINOKUTA			
(check one)		e □Re-F	Route	□ Access Road		□Other:			
Physical Attributes	i								
Stream Classification: (check one)	Ephemera	al ⊠Inter	mittent	Perennial					
Waterbody Type:									
(check one)	River 🛛 Str	eam 🗆 Dito	ch □Ca	anal 🛛 🗆 Other:					
OHWM Width:	OHWM Indicat (check all that apply	tor: /)	⊠ Clear lir on bank	ne ⊠Shelving	g	⊠Wrested vegetation	□S	couring □Water staining	
Height:	□Bent n	natted or missin	a ⊡Wrack li	ne ⊠Litter an	d	□ Abrunt plant	•	Soil characteristic chance	20
<u>0.2</u> ft.	vegetatio	n		debris	iu	community cha	ange		Je
Width of Waterbody - To Bank to Top of Bank:	op of Width of	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of	Water:	
Ballk to Top of Ballk.	10 100	or Stope.		Water Euge.			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	04 #	
<u>ft</u> .	-	<u>10_</u> ft.		N/A□ -	<u> </u>	1	N/A□	<u> </u>	
Sinuosity:	Water	velocity:		Bank height		I	Bank slo	ре	
(check one)	(Approx.)	0.4 (Right:	6 #			Right:	
	_	<u>_0.1_</u> tps	5	Left:	<u> </u>			Left:	
	9 N/A 🗆			· · · ·	<u>6</u> ft.			40_degrees	
Qualitative Attribut	es								
(check one)	No water □C	Clear ⊠Turb	oid ⊠Sh on	een ⊡Sur surface scu	face Im	□Algal [mats	□Other:		
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobb	ole 🗆 Grave	el 🛛 Sand 🛛	∃ Silt/ c	lay 🛛 Organic	□ Oth	ner:	
% of Substrate: <u>N</u>	<u>A_% _NA_</u>	% <u>NA</u> %	<u>NA</u> %	<u> 80 </u> %	<u>NA_</u> %	<u> 20 </u> %	<u>NA</u>	%	
Width of Riparian Zone:	Vegetative	Eayers:							
0.ft	(check all that	apply)	⊠ Trees	: 🛛 🛛	Saplin	ngs/Shrubs:	×F	lerbs	
<u> </u>	(approx.)	or Dominants.	_ <u>12</u> _in.	-	<u>_2_</u> ın.				
Dominant Bank Vegetat CAREX. ELM.SPICE	ion (list): EBUSH. SWEI	ETGUM							
Aquatic Habitats (ex. sub	, merged or emerged	aquatic vegetation	n overhanging	banks/roots_leaf.pack	s large	submerged wood	riffles de	ep pools):	
COARSE WOODY I	DEBRIS		n, eremanging	24	io, iai go	outino.gou noou,		op poolo)1	
Aquatic Organisms Obs	erved (list):								
NA									
T&E Species Observed	(list):								
NA									
Disturbances (ex: livestoo	ck access, manure i	n waterbody, waste	e discharge pipe	es):					
CULVERTED UNDE	R GOOD HO	PE ROAD, D	UMPING N	IOTED ON UPI	LINE S	SIDE OF RO	AD.		
Tributary is: (check one)	□ Natural	□ Art	tificial, man-m	ade 🛛 Manipu	ulated				
Stream Quality ^a : (check one)	□ High		oderate	⊠ Low					

^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

SNOK022

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:

disturbance by livestock or man.

SMALL INTERMITTENT STREAM, VERY LITTLE FLOWING WATER, PROMINENT HUMAN LITTER IN CHANNEL, CULVERTED UNDER GOOD HOPE ROAD Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) Snok 02 0 シロノノ GODHOFE RD 0 snok 022 Contorine Form Rev. 07/09/2014



Waterbody point snok022 facing Southeast and upstream



Waterbody point snok022 facing Northwest and downstream



Waterbody point snok022 facing West and across

Survey Description	n	her						1= .
Project Name:		Waterbody Na	me:		w	aterbody ID:		Date:
Southeast Reliability	y 			ĸ	5	NOK024		8/22/2014
State:	County:		Company:		Crew N	lember Initials:	Photos	:
Virginia	Nottoway		W&C		JS,BC	3	106-5	5030 TO 5032
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID(s):	
12-027			229			NA		
Survey Type: (check one)		e □Re-	Route	□Access Road		□Other:		
Physical Attributes	S							
Stream Classification: (check one)	⊠Ephemera	al □Inte	rmittent	Perennial				
Waterbody Type: (check one)	River 🛛 Str	ream 🗆 Dit	ch 🗆 Ca	anal 🗌 Other:				
онwм	OHWM Indica	ator:						
Width:ft.	(check all that appl	ly)	⊠ Clear lir on bank	ne ⊡Shelving	g	☐Wrested vegetation	□Scouri	ng ⊠Water staining
Height:	□Bent, r	matted, or missir	ng ⊡Wrack li	ne 🗆 Litter an	nd	□ Abrupt plant	□Soil	characteristic change
<u>0.5_</u> ft. N/A□	vegetatio	n		debris		community cha	ange	
Width of Waterbody - T Bank to Top of Bank:	op of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Wat	er:
5 4		o. 4		Trator Lagor	0.4	,	,	0 ft
<u></u> n.	-	<u> </u>		N/A⊠	<u>_0</u> n.	٦	N/A⊠	<u></u> n.
Sinuosity:	Water (Approx	velocity:		Bank height		E	Bank slope	
Straight	(, , , , , , , , , , , , , , , , , , ,	, 0 fps		Right:	3 ft.		Rig	nt: 80 degrees
□Meanderir		<u> </u>		Left:	3 #		Le	eft:
Qualitativo Attribu				· · · · ·	<u> </u>			
Water Appearance:	163							
(check one)	No water	Clear □Turl	oid ⊠Sh on	leen ⊡Sur surface scu	face Im	□Algal □ mats	Other:	
	Bedrock 🗆 Bo	oulder 🗆 Cobl	ble 🛛 Grave	el 🛛 Sand 🛛	∃ Silt/ c	lay 🛛 Organic	□ Other:	
% of Substrate: <u></u>	<u>NA_% NA</u>	<u>% NA</u> %	<u>20_</u> %	<u>40</u> % <u>N</u>	<u>1A </u> %	<u>40</u> %	<u>NA</u> %	
Width of Riparian Zone	: Vegetativ	e Layers:						
100 ft.	(check all that	t apply)	⊠ Trees	: 🛛 🛛	⊠ Saplin	ngs/Shrubs:	⊠ Herbs	
N/A []	(approx.)	or Dominantor	_ <u>12_</u> in.	-	<u>_2_</u> in.			
Dominant Bank Vegeta CHRISTMAS FERN	ition (<i>list</i>): I, MOSS, CAR	EX SP.						
Aquatic Habitats (ex: su	Ibmerged or emerge	d aquatic vegetatio	on, overhanging	banks/roots, leaf pacl	ks, large	submerged wood,	riffles, deep po	ols):
NA								
Aquatic Organisms Ob	served (list):							
NA								
T&E Species Observed	(list):	-				-		
NA								
Disturbances (ex: livesto	ock access, manure i	in waterbody, wast	e discharge pipe	es):				
Tributary is:								
(check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗌 Manipu	ulated			
Stream Quality ^a : (check one)	🗆 High		oderate	⊠ Low				

	Waterbody ID:
	SNOK024
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types avail disturbance by livestock or man.	on each side; banks stable and protected by ilable; diverse and stable aquatic habitat; no
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the function or riparian vegetation only moderately compromised; banks moderately unstable; water cold greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance	e active channel width on each side; filtering or is cloudy, submerged objects covered with ce by livestock or man.
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; r channel width on each side; lack of regeneration; filtering function severely compromised; banks u turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to severe disturbance from livestock or man.	natural vegetation less than 1/3 of the active nstable (eroding); water color is muddy and o fish movement; little to no aquatic habitat;
Notes:	
ERY SHORT SECTION OF EPHEMERAL STREAM THAT FLOWS INTO STREAM	I SNOK023.
Naterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, su	rvey boundary, and IDs of associated features)
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12041 20	++ \N
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FORFIER UPLI	
TORUST 2 D	
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FOR ELTEN UDIA	
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Waterbody point snok024 facing West and upstream



Waterbody point snok024 facing East and downstream



Waterbody point snok024 facing South and across

Survey Description	n							1
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:
Southeast Reliability	Ý	UNT TO WEST	CREEK		S	NOK023		8/22/2014
State:	County:	•	Company:		Crew N	Member Initials:	Photos:	
Virginia	Nottoway		W&C		JS,BC	3	106-50	027 TO 5029
Tract Number(s):			Nearest Mile	epost:		Associated Wetla	and ID(s):	
12-027			229			NA		
Survey Type: (check one)		e □Re-F	Route	□ Access Road		□Other:		
Physical Attributes	5							
Stream Classification: (check one)	Ephemera	al ⊠Inter	mittent	Perennial				
Waterbody Type:								
(check one)	River Str	eam 🗆 Dito	ch □Ca	anal 🛛 🗆 Other:				
OHWM Width:	OHWM Indicat (check all that apply	tor: /)	⊠ Clear lir	ne ⊠Shelving	g	⊠Wrested	⊠Scourin	g ⊠Water
<u>3</u> tt.			OFFDATIK			vegetation		Stairning
Height: ft. N/A□	⊠Bent, n vegetatio	natted, or missin n	ig ⊠Wrack li	ne ⊠Litter an debris	nd	⊠Abrupt plant community chang	⊡Soil c je	haracteristic change
Width of Waterbody - T	op of Width of	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to Dep	oth of Wate	r:
Bank to Top of Bank:	to loe	of Slope:		water Edge:		(App	nox.)	
<u>_8 ft</u> .		<u>3_</u> ft.			<u>1</u> ft.	N/A		<u>0.1</u> ft.
Sinuosity:	Water	velocity:		Bank height		Bar	nk slope	
(check one)	(Approx.)			Right:			Right	t:
		<u>_0.1_</u> fps	6	l eft	<u>4</u> ft.		Lef	<u>110</u> degrees
⊠Meanderir	ng N/A□				<u>3</u> ft.		201	<u>110</u> degrees
Qualitative Attribu	tes					·		
Water Appearance:							thory	
			on on	surface scu	im	mats	ther:	
Substrate:	Bedrock 🗆 Bo	ulder 🛛 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🛛 Organic	Other:	
% of Substrate: <u>N</u>	<u>NA_% _NA_</u>	% <u>10</u> %	<u>40_</u> %	<u>40</u> % <u>N</u>	<u>1A </u> %	<u> 10 </u> %	<u>NA </u> %	
Width of Riparian Zone	: Vegetative	Eayers:						
100 #	(check all that	apply)	☑ Trees	: 🛛 🖂	Saplin	ngs/Shrubs:	⊠ Herbs	
<u>100 n</u> . N/A□	(approx.)	or Dominants:	_ <u>12_</u> in.	-	<u>2</u> in.			
Dominant Bank Vegeta	tion (list):							
CHRISTMAS FERN	I, MOSS, CAR	EX SP.						
Aquatic Habitats (ex: su	Ibmerged or emerged	d aquatic vegetatio	n, overhanging	banks/roots, leaf pacl	ks, large	submerged wood, riffl	es, deep poo	s):
RIFFLE/POOL CON	/IPLEX, UNDE	RCUT BANK	S, LEAF P	ACK, CWD				
Aquatic Organisms Ob	served (list):							
CRAYFISH, CADDI	SFLY, MAYFL	Y						
T&E Species Observed	(list):							
NA								
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
NA								
Tributary is: (check one)	⊠ Natural	□ Ari	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	⊠ High		oderate	□ Low				

			Waterbody ID: SNOK023
 High Quality: Natural of roots; water color is cle disturbance by livestock 	channel, natural vegetation extends at least one ear to tea-colored; no barriers to fish movemer cor man.	e or two active channel widths on each nt; many fish cover types available; div	side; banks stable and protected by verse and stable aquatic habitat; no
Moderate Quality: Alte function or riparian veg greenish film; moderate	ered channel evidenced by rip-rap; natural veg etation only moderately compromised; banks m odor; minor barriers to fish movement; fair aqua	etation extends 1/3-1/2 of the active on noderately unstable; water color is clour tic habitat; minimum disturbance by live	hannel width on each side; filtering dy, submerged objects covered with stock or man.
Low Quality: Channel channel width on each turbid; obvious pollutan severe disturbance from	is actively down cutting or widening; rip rap a side; lack of regeneration; filtering function se ts (algal mats, surface scum, surface sheen); n livestock or man.	nd channelization excessive; natural ve everely compromised; banks unstable (heavy odor; severe barriers to fish mo	egetation less than 1/3 of the active eroding); water color is muddy and ovement; little to no aquatic habitat;
Notes:			
MALL INTERMITEN IME OF SURVEY.	T STREAM IN FORESTED LANDSC	APE. GOOD SINUOSITY. LO	N FLOW AND VOLUME AT
Waterbody Sketch	Include north arrow, centerline, distance from ce	enterline, data point location, survey bour	ndary, and IDs of associated features)
150	f+	' · 50 ft	N'
•	FORESTED	UPLAN	\) 2
5 SNOKO	23-0	DP	- × 1
			てにと
, Į	このえん(エモク	UPLAND	5 5 7 7
		Ł	Form Rev. 07/09/20



Waterbody point snok023 facing South and upstream



Waterbody point snok023 facing North and downstream



Waterbody point snok023 facing East and across
Survey Description	n	h						1=
Project Name:		Waterbody Name:				Naterbody ID:		Date:
Southeast Reliability	y 	UNI TO LITTLE WEST CREEK			5	5NOK020a		8/22/2014
State:	County:		Company:		Crew N	lember Initials:	Photos:	
Virginia	Nottoway		W&C		JS,BC	3	106-50	036 TO 5038
Tract Number(s):			Nearest Mile	epost:		Associated We	tland ID(s):	
12-027			229			NA		
Survey Type: (check one)		e ⊡Re-F	Route	□Access Road		□Other:		
Physical Attributes	S							
Stream Classification: (check one)	⊠Ephemera	al 🗆 Inter	mittent	Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	sh □ Ca	anal 🗌 Other:				
OHWM Width:	OHWM Indica (check all that apply	tor: _{v)}	⊠ Clear lin	ne 🗆 Shelving	g	Wrested	⊠Scourin	g ⊠Water
<u>3</u> tt.								staining
Height: ft. N/A□	⊔Bent, r vegetatio	natted, or missin n	ig ⊠Wrack li	ne ⊠Litter an debris	nd	□Abrupt plant community cha	⊡Soil c inge	haracteristic change
Width of Waterbody - T Bank to Top of Bank:	op of Width	of Waterbody - of Slope:	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	epth of Wate	r:
20 ft	10 100	4 ft			0.#	·		0 ft
<u></u> n.	-	<u>4</u> 11.		N/A⊠	<u> </u>	N	I/A⊠	<u></u>
Sinuosity: (check one)	Water	velocity:		Bank height		B	ank slope	
□Straight		0 fps		Right:	<u>8</u> ft.		Right	t: <u>70</u> degrees
⊠Meanderir	ng N/A⊠			Left:	6 ft		Lef	t: 60 degrees
Qualitative Attribu	tes			· ·				<u></u> acg.coc
Water Appearance:								
(check one)	No water □0	Clear 🗆 Turb	oid ⊡Sh on	leen □Sur I surface scu	face Im	□Algal □ mats	Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🛛 Organic	□ Other:	
% of Substrate:	<u>NA % NA </u>	% <u>NA</u> %	<u>20_</u> %	<u>20</u> % <u>N</u>	<u>1A </u> %	<u> 60 </u> %	<u>NA</u> %	
Width of Riparian Zone	: Vegetative	e Layers:						
100 ft-	(check all that	apply)	⊠ Trees	: 🛛 🛛	⊠ Saplin	ngs/Shrubs:	⊠ Herbs	
N/A 🗆	(approx.)		<u>_14</u> _111.	-	<u></u>			
Dominant Bank Vegeta CHRISTMAS FERN	ition (list): I, TULIP POPL	AR, SWEET	GUM, RED	D MAPLE, MOS	SS			
Aquatic Habitats (ex: su	Ibmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pack	ks, large	submerged wood, r	iffles, deep pool	s):
NA								
Aquatic Organisms Ob	served (list):							
T&E Species Observed	(list):							
NA Disturbances (n watasha du uu d	diasharra "					
NA	оск access, manure i	n waterbody, waste	e aischarge pipe	es):				
Tributary is: (check one)	⊠ Natural	□ Art	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	□ High		oderate	⊠ Low				

Waterbody ID:
SNOK026a

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:

EPHEMERAL STREAM WITH SIGNS OF TORRENT. LOW QUALITY STREAM DUE TO LACK OF AQUATIC HABITATS. PORTION OF LONGER REACH.



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Waterbody point snok026a facing Southeast and upstream



Waterbody point snok026a facing Northwest and downstream



Waterbody point snok026a facing South and across

Survey Description	n							-
Project Name:	Waterbody Name:				aterbody ID:		Date:	
Southeast Reliability	UNI TO LITTLE WEST CREEK			S	SNOK0260		8/22/2014	
State:	County:		Company:		Crew N	lember Initials	Photo	s:
Virginia	Nottoway		W&C		JS,BC	G	106-	5039 TO 5041
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s):	
12-027			229			NA		
Check one)		e □Re-F	Route	□ Access Road		□Other:		
Physical Attribute	s							
Stream Classification: (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	tor: /)	⊠ Clear lir	ne ⊠Shelving	g	⊠Wrested	⊠Scour	ing ⊠Water
<u> </u>			on bank			vegetation		staining
Height: ft. N/A□	□Bent, r vegetatio	natted, or missin n	g ⊠Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plant community ch	t ⊡Soi ange	l characteristic change
Width of Waterbody - T	op of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Wa	ter:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:			(Approx.)	
<u>12 ft</u> .	-	<u>5_</u> ft.		N/A □	<u>2</u> ft.		N/A 🖂	<u>0.1</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank slope	
(check one)	(Approx.)	-		Right:			Rig	ht:
		<u>_0.1_</u> fps	;	Left:	<u>4</u> ft.		L	<u>70</u> degrees eft:
Meanderin	ng N/A□				<u>8</u> ft.			<u>90</u> degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water ⊠0	Clear □Turb	id □Sh on	neen ⊡Sur i surface scu	rface um	□Algal [mats	□Other:	
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🛛 Organic	□ Other:	
(check all that apply) % of Substrate:	<u>NA_% NA_</u>	% <u>NA</u> %	<u>45_</u> %	<u>45</u> % <u>N</u>	<u>\A</u> %	<u> 10 </u> %	<u>NA</u> %	
Width of Riparian Zone	e: Vegetative	e Layers:						
100 ft	(check all that	apply)	⊠ Trees	: 🛛 🛛	⊠ Saplin	ngs/Shrubs:	⊠ Herb	S
<u>100 π</u> . N/A□	(approx.)	or Dominants.	<u>_14_</u> in.	-	<u>2</u> in.			
Dominant Bank Vegeta CHRISTMAS FERN	ntion (list): I, TULIP POPL	AR, SWEET	GUM, RED	D MAPLE, MOS	SS			
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks. large	submerged wood.	riffles, deep po	pols):
RIFFLE/POOL, LEA	AF PACK, CWI	D, UNDERCL	JT BANKS,	PLUNGE POC	DL	outino.gou noou,		
Aquatic Organisms Ob	served (list):							
FROGS, CRAYFISI	4							
T&E Species Observed	l (list):							
NA								
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
NA								
Tributary is: (check one)	□ Natural	□ Art	tificial, man-m	ade 🛛 Manipu	ulated			
Stream Quality ^a : (check one)	🗆 High	⊠ Mc	oderate	□ Low				

Waterbody ID:
SNOK026b

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; I 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:

INTERMITTENT STREAM PORTION. OLD DAM PRESENT DOWN STREAM OF CONFLUENCE WITH SNOK025. INTERMITTENT PORTION STARTS AT HEADCUT AND SPRING SEEP.





Waterbody point snok026b facing Southeast and upstream



Waterbody point snok026b facing Northwest and downstream



Waterbody point snok026b facing West and across



Waterbody point snok026b old dam facing Northwest

Survey Description	n	h						
Project Name:						Waterbody ID:		Date:
	y la í			n				0/22/2014
State:	County:		Company:			Nember Initials:	Phot	
Virginia	Nottoway				JS,BC	ز ۱۹۰۰	106	-5033 TO 5035
12-027			229	post:		NA	etiand ID(S)	
Survey Type:			Pouto					
Bhysical Attributor			Coule					
Stream Classification: (check one)	S ⊠Ephemera	al 🗆 Inter	mittent	Perennial				
Waterbody Type: (check one)]River ⊠ Str	eam 🗆 Dito	:h □ Ca	anal 🗌 Other:	:			
OHWM Width: _ <u>3_f</u> t.	OHWM Indica (check all that apply	tor: _{v)}	⊠ Clear lir on bank	ne 🗆 Shelving	g	□Wrested vegetation	⊠Scou	uring ⊠Water staining
Height: <u>1</u> ft. N/A□	□Bent, r vegetatic	natted, or missin n	g ⊠Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plant community cha	t ⊡So ange	oil characteristic change
Width of Waterbody - T Bank to Top of Bank:	op of Width to Toe	of Waterbody - ⁻ of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W	ater Edge to	Depth of W (Approx.)	ater:
<u>15 ft</u> .	-	<u>4</u> ft.		N/A⊠	<u>0</u> ft.	1	N/A⊠	<u>0</u> ft.
Sinuosity:	Water	velocity:		Bank height		I	Bank slope	
	(Approx.)	0 fps		Right:	10 ft.		Ri	ght: _80_ degrees
⊠Meanderir		po		Left:	10 ft		l	Left: 80 degrees
Qualitative Attribu	tos				<u>10</u> 10.			<u></u> dogrooo
Water Appearance:								
(check one)	No water □0	Clear 🗆 Turb	id ⊡Sh on	een 🗆 Sur surface scu	face Im	□Algal [mats	∃Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🛛 Organic	□ Other:	
% of Substrate:	<u>NA_% NA_</u>	% <u>NA</u> %	<u>40_</u> %	<u>40</u> % <u>N</u>	<u>VA </u> %	<u>20</u> %	<u>NA</u> %	
Width of Riparian Zone	: Vegetative	e Layers:	_					
<u>_100_ft</u> - N/A□	(check all that Avg. DBH (approx.)	of Dominants:	⊠ Trees _ <u>14</u> _in.	: D	⊴ Saplin _2_in.	ngs/Shrubs:	⊠ Her	DS
Dominant Bank Vegeta	tion (list):							
CHRISTMAS FERN	I, TULIP POPL	AR, SWEET	GUM, MO	SS				
Aquatic Habitats (ex: su NA	Ibmerged or emerge	d aquatic vegetation	n, overhanging	banks/roots, leaf pacl	ks, large	submerged wood,	riffles, deep	pools):
Aquatic Organisms Ob	served (list):							
NA								
T&E Species Observed	(list):							
NA								
Disturbances (ex: livesto NA	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
Tributary is:					1			
Stream Quality a ·	⊠ Natural	□ Art	iticial, man-m	ade 🗆 Manipu	ulated			
(check one)	□ High		oderate	⊠ Low				

		Waterbody ID:
		SNOK025
a	High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each s roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; div	side; banks stable and protected by erse and stable aquatic habitat; no

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:

disturbance by livestock or man.

EPHEMERAL STREAM WITH SIGNS OF TORRENT. LOW QUALITY STREAM DUE TO LACK OF AQUATIC HABITATS.





Waterbody point snok025 facing South and upstream



Waterbody point snok025 facing North and downstream



Waterbody point snok025 facing East and across

Survey Description	n	h						1=
Project Name:		Waterbody Name:				Naterbody ID:		Date:
Southeast Reliability	y 	UNI TO LITTLE WEST CREEK			5	5NOK020a		8/22/2014
State:	County:		Company:		Crew N	lember Initials:	Photos:	
Virginia	Nottoway		W&C		JS,BC	3	106-50	036 TO 5038
Tract Number(s):			Nearest Mile	epost:		Associated We	tland ID(s):	
12-027			229			NA		
Survey Type: (check one)		e ⊡Re-F	Route	□Access Road		□Other:		
Physical Attributes	S							
Stream Classification: (check one)	⊠Ephemera	al 🗆 Inter	mittent	Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	sh □ Ca	anal 🗌 Other:				
OHWM Width:	OHWM Indica (check all that apply	tor: _{v)}	⊠ Clear lin	ne 🗆 Shelving	g	Wrested	⊠Scourin	g ⊠Water
<u>3</u> tt.								staining
Height: ft. N/A□	⊔Bent, r vegetatio	natted, or missin n	ig ⊠Wrack li	ne ⊠Litter an debris	nd	□Abrupt plant community cha	⊡Soil c inge	haracteristic change
Width of Waterbody - T Bank to Top of Bank:	op of Width	of Waterbody - of Slope:	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	epth of Wate	r:
20 ft	10 100	4 ft			0.#	·		0 ft
<u></u> n.	-	<u>4</u> 11.		N/A⊠	<u> </u>	N	I/A⊠	<u></u>
Sinuosity: (check one)	Water	velocity:		Bank height		B	ank slope	
□Straight		0 fps		Right:	<u>8</u> ft.		Right	t: <u>70</u> degrees
⊠Meanderir	ng N/A⊠			Left:	6 ft		Lef	t: 60 degrees
Qualitative Attribu	tes			· ·				<u></u> acg.coc
Water Appearance:								
(check one)	No water □0	Clear 🗆 Turb	oid ⊡Sh on	leen □Sur I surface scu	face Im	□Algal □ mats	Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🛛 Organic	□ Other:	
% of Substrate:	<u>NA % NA </u>	% <u>NA</u> %	<u>20_</u> %	<u>20</u> % <u>N</u>	<u>1A </u> %	<u> 60 </u> %	<u>NA</u> %	
Width of Riparian Zone	: Vegetative	e Layers:						
100 ft-	(check all that	apply)	⊠ Trees	: 🛛 🛛	⊠ Saplin	ngs/Shrubs:	⊠ Herbs	
N/A 🗆	(approx.)		<u>_14</u> _111.	-	<u></u>			
Dominant Bank Vegeta CHRISTMAS FERN	ition (list): I, TULIP POPL	AR, SWEET	GUM, RED	D MAPLE, MOS	SS			
Aquatic Habitats (ex: su	Ibmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pack	ks, large	submerged wood, r	iffles, deep pool	s):
NA								
Aquatic Organisms Ob	served (list):							
T&E Species Observed	(list):							
NA Disturbances (n watasha du uu d	diasharra "					
NA	оск access, manure i	n waterbody, waste	e aischarge pipe	es):				
Tributary is: (check one)	⊠ Natural	□ Art	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	□ High		oderate	⊠ Low				

Waterbody ID:
SNOK026a

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:

EPHEMERAL STREAM WITH SIGNS OF TORRENT. LOW QUALITY STREAM DUE TO LACK OF AQUATIC HABITATS. PORTION OF LONGER REACH.



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Waterbody point snok026a facing Southeast and upstream



Waterbody point snok026a facing Northwest and downstream



Waterbody point snok026a facing South and across

Survey Description	n							-
Project Name:	Waterbody Name:				aterbody ID:		Date:	
Southeast Reliability	UNI TO LITTLE WEST CREEK			S	SNOK0260		8/22/2014	
State:	County:		Company:		Crew N	lember Initials	Photo	s:
Virginia	Nottoway		W&C		JS,BC	G	106-	5039 TO 5041
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s):	
12-027			229			NA		
Check one)		e □Re-F	Route	□ Access Road		□Other:		
Physical Attribute	s							
Stream Classification: (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	tor: /)	⊠ Clear lir	ne ⊠Shelving	g	⊠Wrested	⊠Scour	ing ⊠Water
<u> </u>			on bank			vegetation		staining
Height: ft. N/A□	□Bent, r vegetatio	natted, or missin n	g ⊠Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plant community ch	t ⊡Soi ange	l characteristic change
Width of Waterbody - T	op of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Wa	ter:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:			(Approx.)	
<u>12 ft</u> .	-	<u>5_</u> ft.		N/A □	<u>2</u> ft.		N/A 🖂	<u>0.1</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank slope	
(check one)	(Approx.)	-		Right:			Rig	ht:
		<u>_0.1_</u> fps	;	Left:	<u>4</u> ft.		L	<u>70</u> degrees eft:
Meanderin	ng N/A□				<u>8</u> ft.			<u>90</u> degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water ⊠0	Clear □Turb	id □Sh on	neen ⊡Sur i surface scu	rface um	□Algal [mats	□Other:	
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	□ Silt/ c	lay 🛛 Organic	□ Other:	
(check all that apply) % of Substrate:	<u>NA_% NA_</u>	% <u>NA</u> %	<u>45_</u> %	<u>45</u> % <u>N</u>	<u>VA </u> %	<u> 10 </u> %	<u>NA</u> %	
Width of Riparian Zone	e: Vegetative	e Layers:						
100 ft	(check all that	apply)	⊠ Trees	: 🛛 🛛	⊠ Saplin	ngs/Shrubs:	⊠ Herb	S
<u>100 π</u> . N/A□	(approx.)	or Dominants.	<u>_14_</u> in.	-	<u>2</u> in.			
Dominant Bank Vegeta CHRISTMAS FERN	ntion (list): I, TULIP POPL	AR, SWEET	GUM, RED	D MAPLE, MOS	SS			
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks. large	submerged wood.	riffles, deep po	pols):
RIFFLE/POOL, LEA	AF PACK, CWI	D, UNDERCL	JT BANKS,	PLUNGE POC	DL	outino.gou noou,		
Aquatic Organisms Ob	served (list):							
FROGS, CRAYFISI	4							
T&E Species Observed	l (list):							
NA								
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
NA								
Tributary is: (check one)	□ Natural	□ Art	tificial, man-m	ade 🛛 Manipu	ulated			
Stream Quality ^a : (check one)	🗆 High	⊠ Mc	oderate	□ Low				

Waterbody ID:
SNOK026b

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; I 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:

INTERMITTENT STREAM PORTION. OLD DAM PRESENT DOWN STREAM OF CONFLUENCE WITH SNOK025. INTERMITTENT PORTION STARTS AT HEADCUT AND SPRING SEEP.





Waterbody point snok026b facing Southeast and upstream



Waterbody point snok026b facing Northwest and downstream