Survey Descriptio	n								
Project Name:		Waterbody Na				aterbody ID:		Date	
Southeast Reliabilit	у	UNT Green	sville Creel	k	S	gra015		8/18	8/2014
State:	County:		Company:		Crew M	Member Initials	: P	hotos:	
Virginia	Greensville		NRG		GB, L	.E	:	3 photos	
Tract Number(s):	1		Nearest Mile	epost:		Associated W	etland I	ID(s):	
15-007			278.15-27	8.3		Wgra016			
Survey Type: (check one)	⊠Centerline	e □Re-	Route	□Access Road	1	□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					
ОНШМ	OHWM Indicat							o .	
Width: <u>3.0 ft</u> .	(check all that apply	()	⊠ Clear lir on bank	ne ⊡Shelvin	ıg	□Wrested vegetation		Scouring	□Water staining
Height:		natted, or missir	ng ⊡Wrack li		nd	□Abrupt plan		□Soil chara	cteristic change
<u>0.5</u> ft. N/A□	vegetatio	n		debris		community ch	ange		
Width of Waterbody - Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth c (Approx.)	of Water:	
•		•		Water Luge.			(********		4
<u>_3.0</u> ft.		<u>2.0</u> ft.			f	t.	N/A⊠		ft.
Sinuosity:		velocity:		Bank height			Bank sl	lope	
(check one)	(Approx.)			Right:	o = <i>(</i> ,			Right:	
C C		f	ips	Left:	<u>2.5_</u> ft.			Left:	5_degrees
Meanderi	ng N/A⊠			-	<u>2.5_</u> ft.			_9	0_degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	[⊴] No water □C	Clear 🗆 Turl			rface um	□Algal [mats	Other:	:	
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobl	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	□ O	ther:	
(check all that apply) % of Substrate:	%	%	%	% 40 %	60 %	%		%	
_				/0 40 /0	00_78	70		70	
Width of Riparian Zone	e: Vegetative (check all that		⊠ Trees	:	⊠ Saplir	ngs/Shrubs:	\boxtimes	Herbs	
<u>80 ft</u> - N/A□	Avg. DBH (approx.)	of Dominants:	<u>_12.0_</u> i		<u>1.25_</u> i	-			
Dominant Bank Vegeta	ation (list):								
Red maple, black g	um, sweetgum	, sweetbay, A	American h	olly, pepperbus	sh, blue	eberry, lady f	ⁱ ern, ci	innamon f	ern, chain fern
Aquatic Habitats (ex: s	ubmerged or emerged	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	cks, large	submerged wood	, riffles, d	leep pools):	
Overhanging banks									
Aquatic Organisms Ob	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure i	n waterbody, wast	te discharge pipe	es):					
Existing power line	ROW at origin								
Tributary is: (check one)	⊠ Natural		rtificial, man-m	nade 🛛 Manip	ulated				
Stream Quality ^a : (check one)	□ High	× M	oderate	□ Low					

Sgra015

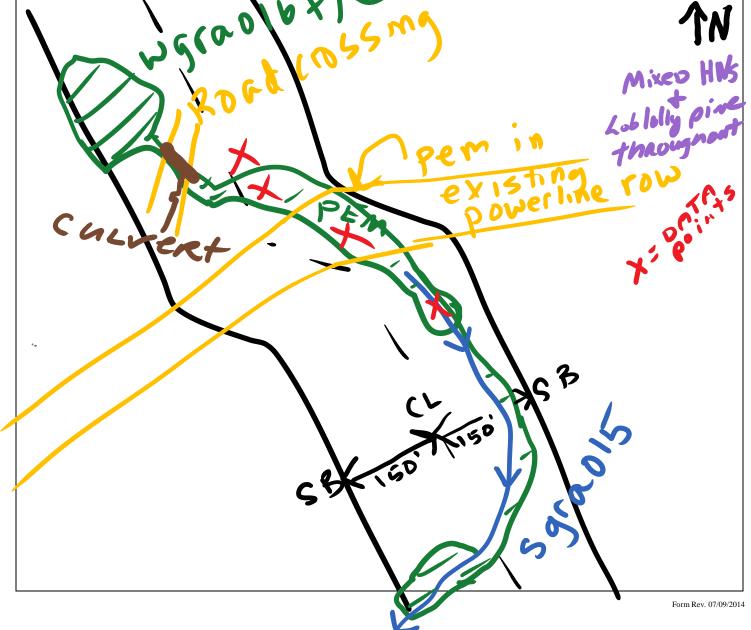
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

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

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

Notes:

Stream begins at edge of power line ROW within wetland wgra016; downstream continues out of corridor.





Waterbody SGRA015 facing north upstream



Waterbody SGRA015 facing south downstream



Waterbody SGRA015 facing east across

Survey Description	on								
Project Name:		Waterbody Nan				aterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to Gree	nsville Cre	ek	S	grc103		1	1/13/2015
State:	County:		Company:		Crew M	Member Initials	: P	hotos:	
Virginia	Greensville		NRG		CR, S	SA	-	1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland I	D(s):	
15-012						Wgrc108			
Survey Type: (check one)		ne ⊠Re-R	oute	□Access Road		□Other:			
Physical Attribute	es								
Stream Classification: (check one)	Epheme	ral ⊠Interr	nittent	Perennial					
Waterbody Type:									
	□River ⊠ St	tream 🗆 Ditcl	n 🗆 Ca	anal 🗌 Other	:				
OHWM Width:	OHWM Indic		⊠ Clear lir	ne ⊡Shelvin	a	□Wrested		Scouring	□Water
<u>4</u> ft.	(-) /	on bank		y	vegetation		Scouring	staining
Height:		matted, or missing	g ⊡Wrack li		nd	□Abrupt plan		□Soil ch	aracteristic change
ft. N/A□	vegetati	ion		debris		community ch	ange		
Width of Waterbody - Bank to Top of Bank:		of Waterbody - T	oe of Slope	Width of Waterb Water Edge:	ody - W	ater Edge to	Depth o (Approx.)	of Water:	
Ballk to Top of Ballk.		e of Slope:		water Euge.			(Approx.)		
<u>8</u> ft.		<u>_1_</u> ft.		N/A□	<u>3</u> ft.		N/A□		<u>0.4</u> ft.
Sinuosity:	Water	r velocity:		Bank height			Bank sl	оре	
(check one)	(Approx	c.)		Right:				Right:	
		<u>_0.5_</u> fps		Left:	<u>2</u> ft.			Left:	<u>70</u> degrees
⊠Meander	ing N/A□				<u>2</u> ft.				80 degrees
Qualitative Attribu	utes								
Water Appearance: (check one)	□No water 区	IClear □Turbi			rface um	□Algal [mats	□Other:		
Substrate:	Bedrock B	Boulder 🗆 Cobbl	e 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic		ther:	
(check all that apply) % of Substrate:	% %	%	20. 9/	20.9/	50 %	%		%	
		—	<u>20</u> %	<u>30</u> %	<u> </u>	70		70	
Width of Riparian Zon	e: Vegetativ (check all that	ve Layers: at apply)	⊠ Trees:	-	🛛 Sanlir	ngs/Shrubs:		Herbs	
<u>30 ft</u> -	·	H of Dominants:	<u>_16_</u> in.		<u>_2_</u> in.	195/0111003.		TIELD3	
N/A□ Dominant Bank Veget									
White oak, souther stick, northern spic	n red oak, Am				tmas f	ern, Japanes	se hone	eysuck	le, devil's walking
Aquatic Habitats (ex: s None	submerged or emerge	ed aquatic vegetation	, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	, riffles, d	eep pools):
	beenved (list)								
Aquatic Organisms Ol None									
T&E Species Observe	d (list):								
None									
Disturbances (ex: livest Part of the stream			• • •						
				ight of way					
Tributary is: (check one)	⊠ Natural	□ Arti	ficial, man-m	ade 🛛 🗆 Manip	ulated				
Stream Quality ^a : (check one)	🗆 High	⊠ Mo	derate	□ Low					

Sgrc103

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:

Standing water is present in some pools throughout the stream but no flowing water was present at the time of survey



Waterbody SGRC103 facing southeast upstream



Waterbody SGRC103 facing southwest downstream



Waterbody SGRC103 facing south across

Survey Descriptio	n	-							
Project Name:		Waterbody Na				aterbody ID:		Dat	
Southeast Reliabilit	У	UNT to Mea	dows Brand	ch	sę	gra011		08 [,]	1614
State:	County:		Company:		Crew I	Member Initials:	Ph	otos:	
Virginia	Greensville		NRG		GB, L	E, SK	3	photos	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID	(s):	
15-014			279.65			none			
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 🗆 Dite	ch 🗆 Ca	anal 🛛 Other	:				
OHWM Width: <u>3_ft</u> .	OHWM Indica (check all that apply		⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	⊠So	couring	□Water staining
Height: 0.75 ft.	□Bent, r vegetatio	natted, or missir	ng ⊡Wrack li	ne □Litter ar debris	nd	□Abrupt plant community ch		Soil chara	acteristic change
N/A 🗆							ange		
Width of Waterbody - Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W	ater Edge to	Depth of (Approx.)	Water:	
ft.		<u>1.5_</u> ft.		_	<u>2</u> ft.			0.2	<u>25_</u> ft.
Cinuccitur	N/star	vele eiter		N/A 🗆			N/A 🗆		
Sinuosity: (check one)	(Approx.)	velocity:		Bank height Right:			Bank slo	pe Right:	
□Straight		<u>_0.5</u> fp:	S		<u>8_</u> ft.			<u> </u>	<u>30</u> degrees
⊠Meanderi	ng N/A 🗆			Left:	<u>7_</u> ft.			Left:	<u>′0</u> degrees
Qualitative Attribu	ites								
Water Appearance:									
(check one)	[□] No water ⊠0	Clear DTurk		neen ⊡Su n surface sci		□Algal [mats	□Other:		
Substrate:	Bedrock 🛛 Bo	oulder 🛛 Cobl	ole 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	Oth	er:	
% of Substrate:	%	%	<u>% 10</u> %	<u>45</u> %	<u>45_</u> %	%		_%	
Width of Riparian Zone	e: Vegetative	e Layers:							
	(check all that	11.37	⊠ Trees			ngs/Shrubs:	$\boxtimes H$	erbs	
<u>ft</u> . N/A⊠	(approx.)	of Dominants:	<u>8</u> in.	-	<u>2</u> in.				
Dominant Bank Vegeta			(1.2	
Southern sugar ma grass. Christmas fe Aquatic Habitats (ex: s	irn.					•			grape, panic
Over-hanging bank					ks, large	Submerged wood,	innes, dec	,p pooloj.	
Aquatic Organisms Ob	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure i	n waterbody, wast	e discharge pipe	es):					
Fill in channel for lo	ogging skid trail	crossing, red	cent clear c	ut					
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated				
Stream Quality ^a : (check one)	🗆 High	⊠ M	oderate	□ Low					

sgra011

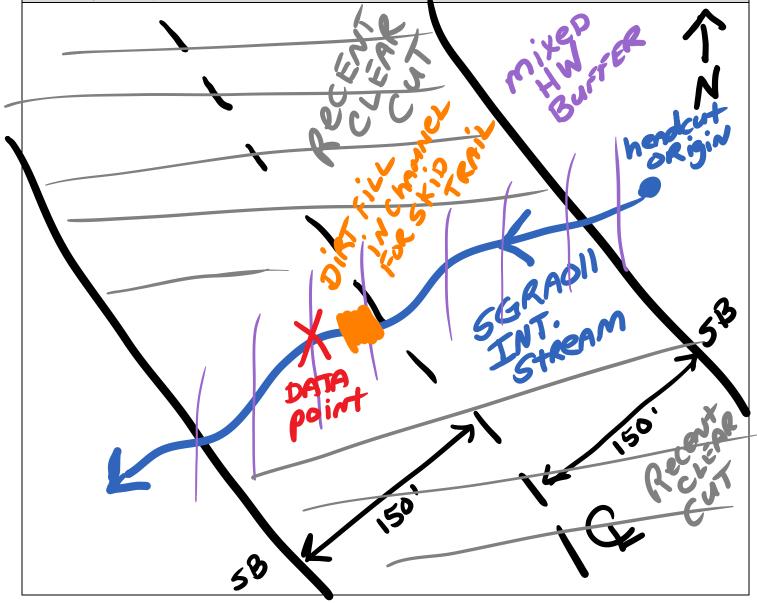
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Int stream in clear cut. Continues out corridor in both direction





Waterbody SGRA011 facing east upstream



Waterbody SGRA011 facing west downstream



Waterbody SGRA011 facing south across

Survey Descriptio	n						- Fra				_
Project Name:		Waterbo	-					/aterbody ID:			Date:
Southeast Reliabilit	У	UNT to	Meherr	in River			S	gra012			081614
State:	County:			Company:			Crew I	Member Initials	:	Photos:	
Virginia	Greensville	9		NRG			GB, L	E, SK		3	
Tract Number(s):			I	Nearest Mile	epost:			Associated W	etland	ID(s):	
15-014			1	279.9				wgra013f			
Survey Type: (check one)	⊠Cente	erline	□Re-R	oute	□Aco	cess Road		□Other:			
Physical Attribute	s										
Stream Classification: (check one)	Ephe	meral	⊠Intern	nittent	□Pe	rennial					
Waterbody Type:	_p										
	∃River ⊠	Stream	□ Ditch	n 🗆 Ca	anal	□ Other:					
онwм	OHWM In								E.	30 ·	
Width: <u>3 f</u> t.	(check all that	αρριγ)		☑ Clear lin on bank	ie	Shelving	g	☐Wrested vegetation	×	Scouring	g □Water staining
Height:		ent, matted, or	missing	l ⊠Wrack li		Litter ar	nd	□Abrupt plan		□Soil cl	naracteristic change
<u>0.75_</u> ft. N/A□	vege	tation				debris		community ch	ange		
Width of Waterbody - 1 Bank to Top of Bank:		dth of Waterl Toe of Slope		oe of Slope	Width o Water I		ody - W		Depth (Approx.)	of Water	:
	to	Toe of Slope			Water	U			(Approx.)		0.05 (
<u>_5_</u> ft.		<u>3</u> ft.			N/A□	-	<u>3_</u> ft.		N/A□	-	<u>0.25</u> ft.
Sinuosity:		ater velocity:			Bank h	eight			Bank s	slope	
(check one)	(Ap	orox.)				Right:	0.4			Right	
			<u>0.5 </u> fps			Left:	<u>2</u> ft.			Left	<u>85</u> degrees
Meanderi	ng N/A	\					<u>2_</u> ft.				85 degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	No water	⊠Clear	□Turbi		een surface	⊡ Sur scu		□Algal mats	□Othe	r:	
	Bedrock	Boulder		e 🛛 Grave		Sand D	⊠ Silt/ c	clay 🗆 Organic	: 🗆 (Other:	
(check all that apply) % of Substrate:	%	%0	%	<u>20</u> %	55	%	<u>25</u> %	_%		%	
Width of Riparian Zone	e: Veget	ative Layers:									
<u>75</u> ft-		ll that apply) DBH of Domi	nants:	⊠ Trees: _ <u>10 i</u> n.	:		Saplir <u>1.5</u> in	ngs/Shrubs:	\geq	Herbs	
N/A 🗆 Deminent Benk Verete	(approx.)		<u>_10</u>			<u></u>	-			
Dominant Bank Vegeta Beech, America ho	. ,	olar, red ma	ple, la	dy fern, sv	veet gu	um, river	birch,	, sycamore, A	Ameri	can elm	n, spice bush
Aquatic Habitats (ex: si	ubmerged or em	erged aquatic v	egetation	, overhanging	banks/roo	ots, leaf pacl	ks, large	submerged wood	, riffles,	deep pool	5):
Gravel substrate, lir											
Aquatic Organisms Ob	served (list):										
frogs											
T&E Species Observed	l (list):										
na											
Disturbances (ex: livest	ock access, mar	ure in waterboo	dy, waste	discharge pipe	es):						
Middle of clear cut	but with a fo	prested ripa	arian b	uffer							
Tributary is: (check one)	⊠ Natu	ral	🗆 Arti	ficial, man-m	ade	🗆 Manipu	ulated				
Stream Quality ^a : (check one)	□ High		⊠ Moo	derate		□ Low					

sgra012

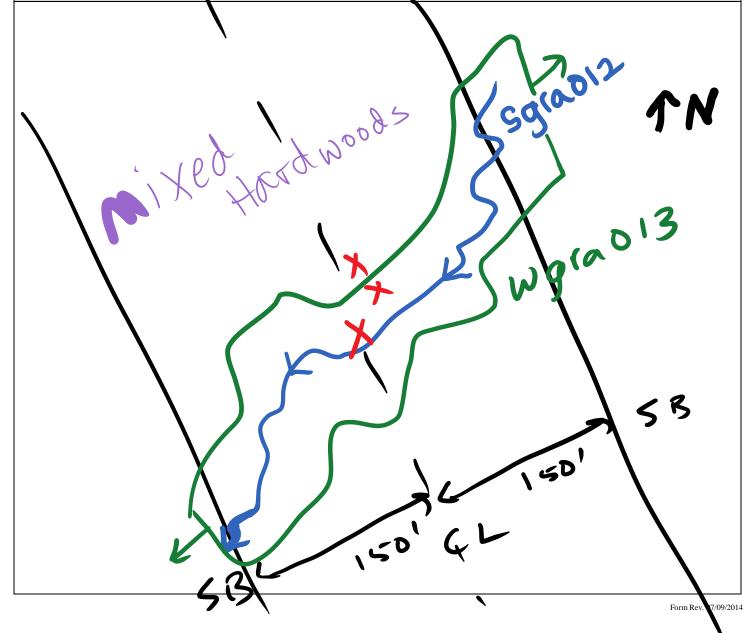
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

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

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

Notes:

Continues out corridor both directions, associated wetland wgra013 buffers stream





Waterbody SGRA012 facing northeast upstream



Waterbody SGRA012 facing southwest downstream



Waterbody SGRA012 facing southeast across

Survey Descriptio	n										
Project Name:		Waterbo	dy Nam	e:				aterbody ID:			Date:
Southeast Reliabilit		UNT to	Meherri	n River				gra013			081614
State:	County:		C	company:			Crew N	Member Initials	:	Photos:	
Virginia	Greensville		Ν	IRG			GB, L	.E, SK		3	
Tract Number(s):	•		Ν	learest Mile	epost:			Associated W	etland	ID(s):	
15-014			2	80.2				wgra014f			
Survey Type: (check one)	⊠Centerl	ine	□Re-Rc	oute	□Acc	ess Road		Other:			
Physical Attribute	s										
Stream Classification: (check one)	Ephem	eral	⊠Interm	ittent	□Per	ennial					
Waterbody Type:											
	River ⊠ S	Stream	Ditch	□ Ca	anal	□ Other:					
ОНѠМ	OHWM Indi								_		
Width: <u>3</u> ft.	(check all that a	(עוקס		☑ Clear lin on bank	ie	Shelving	9	□Wrested vegetation		Scouring	g ⊟Water staining
Height:	□Ben	t, matted, or	missing	□Wrack li	ne	⊠Litter an	d	□Abrupt plan	t	□Soil cl	naracteristic change
<u>0.5</u> ft. N/A□	vegeta	tion	0			debris		community ch	ange		C C
Width of Waterbody - 1 Bank to Top of Bank:				pe of Slope			ody - W	ater Edge to	Depth (Approx.)	of Water	:
Balik to Top of Balik.	to 10	e of Slope:			Water E	zage:			(Approx.)		
<u>_7_</u> ft.		<u>3</u> ft.			N/A□	-	<u>2</u> ft.		N/A□		<u>0.0833_</u> ft.
Sinuosity:	Wate	er velocity:			Bank h	eiaht			Banks	slope	
(check one)	(Appro					Right:				Right	:
		0.	<u>.25 </u> fps			Left:	<u>3</u> ft.			Left	60 degrees
⊠Meanderii	ng N/A						<u>4</u> ft.			Len	<u>85</u> degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	No water	⊠Clear	□Turbid	-	een surface	⊡Sur scu		□Algal mats	□Othe	r:	
Substrate:	Bedrock	Boulder 🗵		e 🛛 Grave	el 🛛 🤅	Sand D	⊴ Silt/ c	lay 🛛 Organic	: 🗆 (Other:	
(check all that apply) % of Substrate:	%	% 1	5_%	30 %	15	0/	30%	10%		%	
			_ 70	_ <u>30</u> %	10	/0 _	<u>30</u> %	<u> 10</u> %		70	
Width of Riparian Zone	e: Vegetat (check all t	ive Layers: hat apply)		⊠ Trees:			Saplir	ngs/Shrubs:		I Herbs	
<u>25 ft</u> ·	Avg. DE	BH of Domin	ants:	<u>_10 in.</u>			<u>2 in.</u>	.go, ea.e.			
N/A Dominant Bank Vegeta	,										
Beech, America hol hickory, grape, ches	lly, tulip popla	ar, Christm	nas fer	n, sweet g	gum, ir	on wood	l, red l	buckeye, sou	utherr	n sugar	maple, bitternut
Aquatic Habitats (ex: st		ged aquatic ve	egetation,	overhanging	banks/roc	ots, leaf pacl	ks, large	submerged wood	, riffles,	deep pool	s):
Gravel substrate, po	ools, debris										
Aquatic Organisms Ob	served (list):										
frogs											
T&E Species Observed	l (list):										
na											
Disturbances (ex: liveste	ock access, manu	e in waterbod	y, waste o	lischarge pipe	es):						
Middle of clear but	with forested	riparian b	uffer								
Tributary is: (check one)	⊠ Natura	I	□ Artifi	cial, man-m	ade	🗆 Manipu	ulated				
Stream Quality ^a : (check one)	🗆 High		⊠ Mod	erate		□ Low					

sgra013

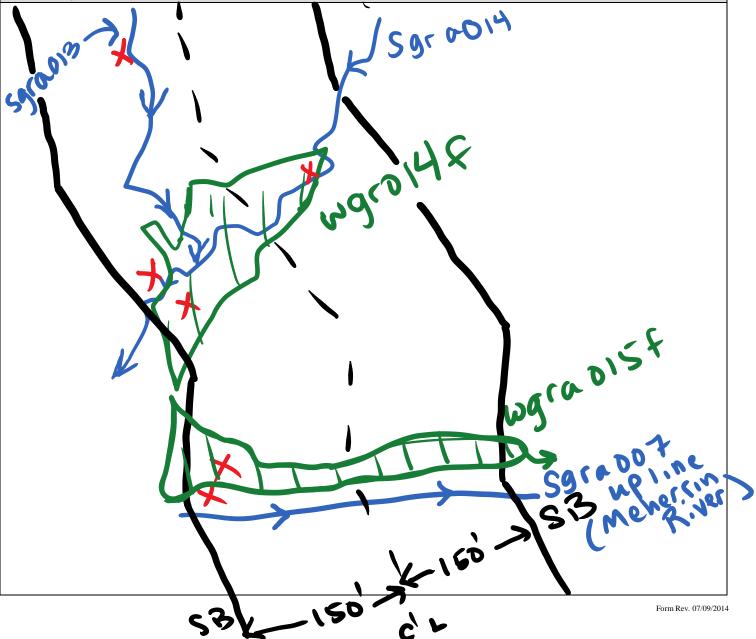
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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 to sgra014





Waterbody SGRA013 facing north upstream



Waterbody SGRA013 facing south downstream



Waterbody SGRA013 facing west across

Survey Descript	ion											
Project Name:			Vaterbo	•					Vaterbody ID:			Date:
Southeast Reliab	ility	L	JNT to	Meherri	in River			s	gra014			081614
State:	County:			0	Company:			Crew	Member Initials	5:	Photos:	
Virginia	Greens	ville		1	NRG			GB, l	LE, SK		3	
Tract Number(s):				1	Nearest Mile	epost:			Associated W			
15-014				2	280.2				Wgra014f, wg	jrau151		
Survey Type: (check one)	⊠C	enterline	[□Re-R	oute	□A	ccess Road	ł	□Other:			
Physical Attribu	tes											
Stream Classificatio (check one)		phemeral	[⊠Intern	nittent	□P	erennial					
Waterbody Type: (check one)	□River	⊠ Strea	am	Ditch	n □C	anal	□ Other					
ОНШМ	ОНМИ	V Indicato	r.									
Width:		all that apply)			Clear lin on bank	ne	□Shelvin	ıg	⊠Wrested vegetation		Scouring	g □Water staining
Height: 0.5_ft.		□Bent, ma vegetation	atted, or	missing	⊠Wrack li	ine	□Litter a debris	nd	⊠Abrupt plar community ch		□Soil c	haracteristic change
N/A		0							,	0		
Width of Waterbody Bank to Top of Bank	- Top of	Width of to Toe of		ody - T	oe of Slope		of Waterb	ody - V	Vater Edge to	Depth (Approx	of Water	1
<u>_6_</u> ft.		4	ft.			N/A□	-	<u>2</u> ft.		N/A□	_	<u>.0833 ft</u> .
Sinuosity:		Water ve	locity:			-	height			Bank	slope	
(check one)	t	(Approx.)					Right:				Right	
			0.	<u>25 </u> fps			Left:	<u>1.5</u> ft.			Left	45 degrees
⊠Meand	ering	N/A□						<u>2</u> ft.			2011	<u>70</u> degrees
Qualitative Attril	outes											
Water Appearance: (check one)	□No water	⊠Cle	ear [□Turbio		neen n surfac		rface um	□Algal mats	□Othe	er:	
Substrate:	Bedrock	🗆 🗆 Boul	der 🗆	Cobble				⊠ Silt/ o		<u> </u>	Other:	
(check all that apply)									, ,			
% of Substrate:	%		_% _%	D	<u>25</u> %	5	<u>0</u> %	<u>25</u> %	_%		%	
Width of Riparian Zo		egetative L			Traca		P		ngo/Chruhou	5	Zularba	
<u>25 ft</u> ·	Â	/g. DBH of		ants:	☑ Trees _10 in.	-		⊠ Sapir _ <u>2_</u> in.	ngs/Shrubs:	Ł	I Herbs	
N/A 🗆 Dominant Bank Vag		oprox.)					•					
Dominant Bank Veg Sourwood, iron w buckeve. Christm Aquatic Habitats (ex:	ood, ches as fern, ar	tnut oak, rape. Jar	banese	hone	vsuckle. t	ulip tr	ee	-	-			ly, panic grass, rec
debris	oubinorgou o	, energed e		gotation	, ovonianging	bariko, r		, large		, 11100,		•
Aquatic Organisms	Observed (li	ist): na										
T&E Species Observ	ved (list):											
na	. /											
Disturbances (ex: live	estock access.	. manure in v	waterbod	v. waste	discharge pip	es):						
Middle of clear cu					5-14	,						
Tributary is: (check one)		Natural		□ Artif	ficial, man-m	nade	□ Manip	ulated				
Stream Quality ^a : (check one)		High		⊠ Moo			□ Low					

sgra014

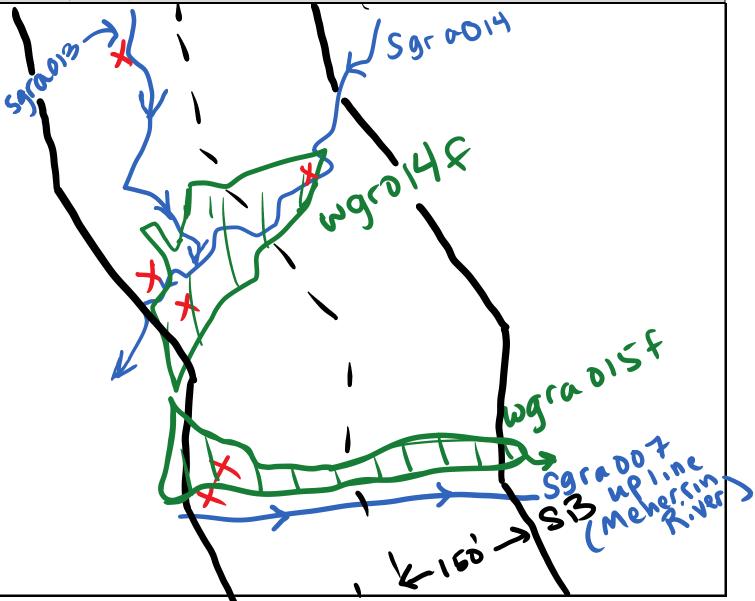
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

_oses stream characteristics and runs into wgra015f just out of corridor. Connected to sgra007





Waterbody SGRA014 facing north upstream



Waterbody SGRA014 facing south downstream



Waterbody SGRA014 facing west across

Survey Description	า								
Project Name:		Waterbody Na	me: Meherrin	River		/aterbody ID:			Date:
Southeast Reliability	/				S	gra007			081414
State:	County:	•	Company:		Crew I	Member Initials	:	Photos:	
Virginia	Greensville		NRG		GB,L	E,SK		3	
Tract Number(s):	I		Nearest Mile	epost:		Associated W	etland	ID(s):	
15-015			280.35			wgra008; w	gra01	5	
Survey Type: (check one)	⊠Centerline	□Re-	Route	□ Access Road		□Other:			
Physical Attributes	5								
Stream Classification: (check one)	Ephemera	al ⊡Inte	rmittent	⊠Perennial					
Waterbody Type:									
(check one)	River 🗆 Str	eam 🗆 Dite	ch 🗆 Ca	anal 🗌 Other:					
OHWM Width: 115 ft.	OHWM Indicat (check all that apply		⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation		Scouring	g ⊟Water staining
Height:	⊠Bent n	natted, or missir	og ⊠Wrack li	ne 🗆 Litter ar	hd	⊠Abrupt plan	+		naracteristic change
ft. N/A□	vegetatio	n	0	debris		community ch	lange		C C
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W	ater Edge to	Depth (Approx.)	of Water	:
•		•			440 44				9 ft.
<u>_120</u> ft.		<u>80_</u> ft.		N/A□	<u>110_</u> ft.		N/A□		<u></u> n.
Sinuosity:		velocity:		Bank height			Bank s	slope	
(check one)	(Approx.)	- /		Right:	14 ft.			Right	90 degrees
		<u>5_</u> fps	i	Left:	<u>14</u> 11.			Left	
	lg N/A□				<u>15</u> ft.				<u>90</u> degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water □C	Clear ⊠Turb		neen ⊡Sui n surface scu		□Algal mats	□Othe	r:	
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobl	ole 🗆 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🛛 Organic	: 🗆 (Other:	
(check all that apply) % of Substrate:	%	%	_%	% <u>45</u> %	<u>45 </u> %	<u>10</u> %		%	
Width of Riparian Zone									
300 ft-	(check all that	apply) of Dominants:	⊠ Trees		•	ngs/Shrubs:	\boxtimes	Herbs	
N/A 🗆	(approx.)	or Dominantoi	<u>_16_</u> in.	-	<u>2</u> in.				
Dominant Bank Vegeta	. ,	_							
Red elm, green ash Japanese Honevsua Aquatic Habitats (ex: su	ckle, spice bus	h. winaed ste	em. violet	•					
Overhanging roots a					no, large	easineigea neea	,,		-)-
Aquatic Organisms Ob	served (list):								
Needle-nose gar, ur	nidentified frog								
T&E Species Observed	(list):								
na									
Disturbances (ex: livesto	ck access, manure i	n waterbody, wast	e discharge pipe	es):					
Clear cut on upline	side								
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated				
Stream Quality ^a : (check one)	□ High	⊠ M	oderate	□ Low					

Sgra007

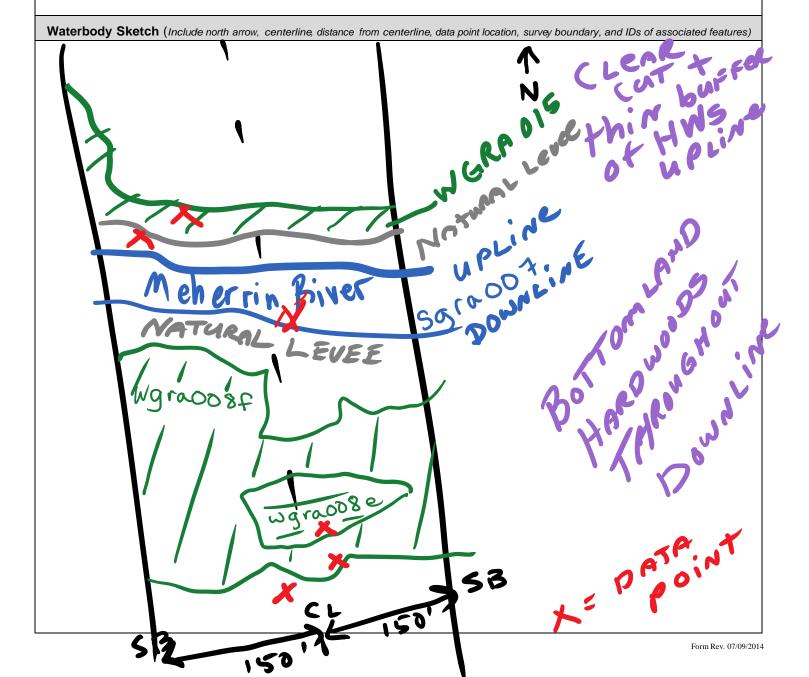
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Wgra008 is in Meherrin river floodplain on down line side, wgra015 parallels the natural levee on the up line side. River continues out of corridor in both directions





Waterbody SGRA007 facing west upstream



Waterbody SGRA007 facing east downstream



Waterbody SGRA007 facing north across

Survey Description	on							
Project Name:		Waterbody Na				/aterbody ID:		Date:
Atlantic Coast Pipe	eline	UNT to Meh	errin River		S	GRC001		12/15/2014
State:	County:		Company:		Crew I	Member Initials:	Photos:	
Virginia	Greensville		NRG		CR, A	4S	SGRC	001_001-003
Tract Number(s):			Nearest Mile	epost:	1	Associated Wetla	and ID(s):	
15-015						WGRC001		
Survey Type: (check one)		e □Re-I	Route	⊠Access Road	1	□Other:		
Physical Attribute	es							
Stream Classification (check one)		ol ⊠Inter	rmittent	Perennial				
. ,	Ephemera							
Waterbody Type: (check one)	□River ⊠ Str	ream 🗆 Dito	ch 🗆 Ca	anal 🛛 🗆 Other	:			
OHWM Width:	OHWM Indica (check all that appl		⊠ Clear lir	ne 🗆 Shelvin	g	□Wrested	□Scourin	
<u>4</u> ft.			on bank			vegetation		staining
Height: ft.	□Bent, r vegetatio	matted, or missin	ng □Wrack li	ne DLitter ar debris	nd	Abrupt plant community chang		haracteristic change
N/A□ Width of Waterbody -	Top of Milde		Tee of Clane	Width of Waterb	adv. M	latar Edge to Der	th of Moto	
Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Water Edge:	oay - w		oth of Wate	r.
_10_ft.		_3_ ft.			_3_ ft.			<u>_0.2_</u> ft.
				N/A□		N/A		
Sinuosity: (check one)	Water (Approx.)	velocity:		Bank height		Bar	nk slope	
□Straight		_0.3_ fps	5	Right:	<u>0.8_</u> ft.		Right	<u>40</u> degrees
⊠Meande	ring N/A□	<u></u> .,		Left:	<u>3_</u> ft.		Lef	t: 60_degrees
								dog:000
Qualitative Attrib Water Appearance:	utes							
(check one)	□No water ⊠0	Clear 🗆 Turk			rface um	□Algal □O mats	ther:	
	Bedrock Bo	oulder 🗆 Cobb	ole 🗆 Grave	el 🗆 Sand 🛛	⊠ Silt/ c	clay 🛛 Organic	Other:	
(check all that apply) % of Substrate:	%	%	%	% %	80_%	20 %	%	
Width of Riparian Zor	ne: Vegetativ							
	(check all that		⊠ Trees	: [☐ Saplir	ngs/Shrubs:	⊠ Herbs	
<u>ft</u> .	Avg. DBH (approx.)	of Dominants:	<u>6</u> in.	-		_in.		
N/A⊠ Dominant Bank Vege	,							
Three-way sedge,	. ,	ysuckle, syca	amore, rive	r birch				
Aquatic Habitats (ex:	submerged or emerge	d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood, riffl	les, deep poo	ls):
None								
Aquatic Organisms O	bserved (list):							
None								
T&E Species Observe	ed (list):							
None								
Disturbances (ex: lives	stock access, manure i	in waterbody, waste	e discharge pipe	es):				
Stream runs throug	gh a culvert und	ler a logging	road with th	ne corridor				
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality ^a : (check one)	□ High	⊠ Mo	oderate	□ Low				

Waterbody ID: SGRC001

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:

1 × tourty	4 105
SGRCOO PP-JU-JU-JU-JU-JU-JU-JU-JU-JU-JU-JU-JU-JU-	
X Woncos	Form Rev. 07/09/2014



Waterbody SGRC001 facing west upstream



Waterbody SGRC001 facing east downstream



Waterbody SGRC001 facing north across

Survey Descriptio	n								
Project Name:		Waterbody Na				/aterbody ID:			te:
Southeast Reliabilit	-	UNT to Me		r		gra008			14/2014
State: Virginia	County: Greensville		Company: NRG			Member Initials _E, SK		°hotos: 3 photos	
Tract Number(s):	Oreensville		Nearest Mile	anost.	00, 1	Associated W		•	
15-015			280.7	-post.		Wgra009	cuantu	D(3).	
Survey Type: (check one)		e □Re-	Route	□ Access Road		□Other:			
Physical Attribute	c								
Stream Classification: (check one)	Ephemera	al 🛛 Inte	rmittent	Perennial					
Waterbody Type:	•								
	River ⊠ Str	eam 🗆 Dit	ch 🗆 Ca	anal 🗌 Other	:				
OHWM Width: <u>9.0</u> ft.	OHWM Indica (check all that apply		⊠ Clear lir on bank	ne ⊡Shelvin	g	□Wrested vegetation	\boxtimes	Scouring	□Water staining
Height: ft. N/A□	□Bent, r vegetatio	natted, or missir	ng ⊡Wrack li	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		□Soil chai	acteristic change
Width of Waterbody - 1	op of Width	of Waterbody -	Toe of Slope	Width of Waterb	odv - W	ater Edge to	Depth o	of Water:	
Bank to Top of Bank:		of Slope:		Water Edge:			(Approx.)		
<u>_12.0</u> ft.	-	<u>_6.0_</u> ft.			f	ít.	N/A⊠		ft.
Sinuosity:		velocity:		Bank height			Bank s	lope	
(check one)	(Approx.)			Right:				Right:	76 1
_		f	ps	Left:	<u>3.0_</u> ft.			Left:	75 degrees
Meanderi	ng N/A⊠				<u>3.0_</u> ft.				80 degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	³ No water □0	Clear 🗆 Turl		neen ⊡Sui n surface sci		□Algal [mats	□Other:	:	
	Bedrock 🗆 Bo	oulder 🛛 Cob	ble 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	0 🗆)ther:	
(check all that apply) % of Substrate:	%	<u>% 3</u> %	<u> 7 </u> %	<u> 30 </u> %	<u>60 </u> %	%		%	
Width of Riparian Zone	e: Vegetative	E Layers:							
<u>100 ft</u> -	(check all that Avg. DBH		⊠ Trees _ <u>13.0_</u> i		⊠ Saplir _ <u>1.5_</u> in	ngs/Shrubs:	\boxtimes	Herbs	
N/A Dominant Bank Vegeta	(approx.)								
Red maple, ironwoo	. ,	olly, river bird	ch, sweetgu	ım, sweetbay, s	spiceb	oush, lady fer	n, Jap	anese st	ilt grass
Aquatic Habitats (ex: se	ubmerged or emerged	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, d	deep pools):	
Small pools, leaf pa	· · ·	es							
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	l (list):								
none									
Disturbances (ex: livest	ock access, manure i	n waterbody, wast	e discharge pipe	es):					
none									
Tributary is: (check one)	⊠ Natural	□ Aı	rtificial, man-m	nade 🗆 Manip	ulated				
Stream Quality ^a : (check one)	🗆 High	M	oderate	□ Low					

Waterbody ID: Sgra008

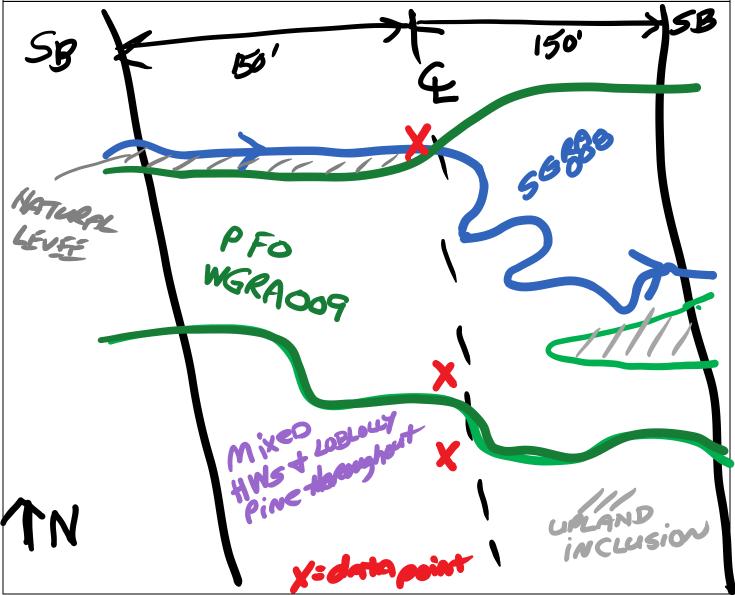
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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; continues out of corridor in both directions; flows through wetland wgra009; shown as a NHD intermittent steam line.





Waterbody SGRA008 facing west upstream



Waterbody SGRA008 facing east downstream



Waterbody SGRA008 facing south across

Linear Waterbody	y Data Sheet			and a superior of the local	Sand Standard Street	de la composition de la	
Survey Description							
Project Name:	ANY MARKED	Waterbody Na			Waterbody ID:		Date:
ACP		UNTTO	Mehe	rrin River	Saroo	03	6-7-16
State:	County/Parish:		Company:	1101400-	Crew Member Initia		The set of
VA	Greensui	lle	ESI		WV,5B	w,	NE. NW
Tract Number(s):			Nearest Mile	epost:	Associated	Wetland ID(s):	
15-015	and server the	and the second	287	ang parkage and	r	onc	te denne sol
Survey Type: (check one)	Centerline	DRe-F	Route	□Access Road	□Other:		A Martin Stewart
Physical Attributes	i						
Stream Classification: (check one)	□Ephemera	I ⊡Inter	mittent	Perennial			
Waterbody Type: (check one)	River Stre	eam 🗆 Dito	h 🗆 Ca	anal 🗆 Other:			•
OHWM Width: 4	OHWM Indicat (check all that apply,		Clear lir on bank	ne 🗆 Shelving	g ⊡Wrested vegetation	□Scourin	g 🗹 Water staining
Height:ft.	□Bent, m vegetation	atted, or missing	g 🗹 Wrack li	ne Litter an debris	d □Abrupt pla community c		haracteristic change
Width of Waterbody - To			Toe of Slope		ody - Water Edge to	Depth of Wate	r:
Bank to Top of Bank: ft.	to Toe c	of Slope: 2_ft.		Water Edge:	ft.	(Approx.)	<u>ft.</u>
Silawa silaw		1		N/A		N/A	
Sinuosity: (check one)	Water v (Approx.)	elocity:	IS	Bank height Right:	<u></u> ft.	Bank slope Right	<u>90</u> degrees
	9 N/A□	ter an chi		Left:	<u>Z_ft.</u>	Lef	
Qualitative Attribut	es						
Water Appearance: (check one)	No water 🛛 🖾 C	lear 🗆 Turbi		een ⊡Sur surface scu	A REAL PROPERTY AND A REAL	Other:	
Substrate:	Bedrock 🗆 Bou	Ider Cobb		el 🖸 Sand 🗆] Silt/ clay 🛛 Organi	c 🗆 Other:	
(check all that apply) % of Substrate:	%	% 20	% 20			%%	
Width of Riparian Zone:	Vegetative	Layers:			1		
<u>75</u> <u>ft</u> . N/A□	(check all that a Avg. DBH c (approx.)	of Dominants:	Trees	: 🛛 🗠	Saplings/Shrubs:	⊡ Herbs in	
Dominant Bank Vegetat							
Reas all	0	11-15-1		. I-			
ACCT TUbrus Aquatic Habitats (ex: sub	merged or emerged	aquatic vedetation	overhanging	panks/roots, leaf pack	S. large submerged woo	d, riffles, deep pool	s):
Aquatic Organisms Obs	erved (list):	JICAF 1	ucity,	liffies u			
Frog							
T&E Species Observed (
None Of Disturbances (ex: livestoc	OSKIVED	waterbody, waste	discharge nine	s):			
~	one ok	reved					
Tributary is:	/				(B) (1) (1) (1)		
(check one) Stream Quality ^a :	Vatural	🗆 Arti	ficial, man-ma	ade 🗆 Manipu	lated		
(check one)	🗉 High	🗆 Moo	derate	🗆 Low			

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

Waterbody ID:

5900003

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

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

Notes:

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

	Nº2
CL	N
	pe sgrocoz
	en comercia de la com



Waterbody data point sgro003 facing west upstream.



Waterbody data point sgro003 facing northeast downstream.



Waterbody data point sgro003 facing northwest across bank.

Survey Descriptio	n	•			<u> </u>				
Project Name:		Waterbody Nar				aterbody ID:		Date:	
Southeast Reliabilit	у	Unnamed tril	butary to Fa	alling Run	sg	gra001		8/11/2014	
State:	County:		Company:			Member Initials		otos:	
Virginia	Greensville			source Group	GB, L			photos	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID	(s):	
15-022			282.5			wgra002			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road	l	□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	:				
OHWM Width:	OHWM Indica (check all that apply		Clear lin	ne ⊡Shelvin	g		⊠So	couring DWater	
<u>3.0 f</u> t.			on bank			vegetation		staining	
Height: ft. N/A□	□Bent, n vegetatio	natted, or missin n	g	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		Soil characteristic change	
Width of Waterbody - 1 Bank to Top of Bank:		of Waterbody - ⁻ of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth of (Approx.)	Water:	
	to roe	or Slope:		water Euge.			(Applox.)		
<u>_3.5</u> ft.	-	<u>2.0</u> ft.		 N/A⊠	f	t.	N/A⊠	ft.	
Sinuosity:		velocity:		Bank height			Bank slo	ре	
(check one)	(Approx.)			Right:	05 (1			Right:	
		fr	DS	Left:	<u>2.5_</u> ft.			<u>70</u> degrees Left:	
Meanderi	ng N/A⊠				<u>2.5_</u> ft.			<u>90</u> degrees	
Qualitative Attribu	tes								
Water Appearance: (check one)	³ No water □0	Clear □Turb		leen ⊡Su surface sci		□Algal [mats	□Other:		
	Bedrock 🗆 Bo	oulder 🗆 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	□ Oth	er:	
(check all that apply) % of Substrate:	%	_%	<u>% 10</u> %	<u> 60 </u> %	<u>30 </u> %	%		%	
Width of Riparian Zone									
ft	(check all that Avg. DBH	apply) of Dominants:	⊠ Trees: _ <u>9.0_</u> in.			ngs/Shrubs:		erbs	
N/A 🛛	(approx.)		<u>- 0.0 </u> m.	-	_ <u>0.5_</u> in				
Dominant Bank Vegeta Loblolly pine, Amer		wood, white d	oak, hickor	y, pepperbush,	greer	nbrier			
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, dee	ep pools):	
none									
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	(list):								
none									
Disturbances (ex: liveston In pine plantation, no re		•	e discharge pipe	es):					
Tributary is:		-							
(check one) Stream Quality ^a :	⊠ Natural	□ Art	tificial, man-m	ade 🗌 Manip	ulated				
(check one)	🗆 High	□ Mo	oderate	⊠ Low					

Waterbody ID:

Sgra001

^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.
 Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; minimum disturbance by livestock or man.
 Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

Upstream reach continues out of corridor; bed and bank ends at boundary of wetland wgra002.

5910002

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

50 84

J910.0028



Waterbody SGRA001 facing north upstream



Waterbody SGRA001 facing west downstream



Waterbody SGRA001 facing east across

Survey Description	n							
Project Name:		Waterbody Na	me:		N	aterbody ID:		Date:
Southeast Reliability		Falling Run				gra002		8/11/2014
State:	County:		Company:	-		Member Initials:		hotos:
Virginia	Greensville			esource Group	GB, L	•		B photos
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID	D(s):
15-021; 15-022			282.55			wgra002		
Survey Type: (check one)	⊠Centerline	□Re-I	Route	□Access Road	1	□Other:		
Physical Attributes	S							
Stream Classification: (check one)		l 🛛 🖾 Inte	rmittent	Perennial				
Waterbody Type:								
(check one)	River Str	eam 🗌 Dite	ch 🗆 Ca	anal 🛛 Other	:			
OHWM Width: 8.0 ft.	OHWM Indicat (check all that apply		⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	⊠S	Couring □Water staining
Height: 2.0 ft.	□Bent, n vegetatio	natted, or missir	ng	ne □Litter ai debris	nd	□Abrupt plant community cha		☐Soil characteristic change
N/A□	-						ange	
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth of Approx.)	f Water:
		-					,	1.0 ft.
<u>_12.0</u> ft.	-	<u>_5.0</u> ft.		N/A□	<u>4.0_</u> ft.		N/A□	<u></u> n.
Sinuosity:		/elocity:		Bank height		1	Bank slo	ре
(check one)	(Approx.)	-		Right:	<u>3.5_</u> ft.			Right: 90 degrees
		<u>_0.05</u> fp	S	Left:				Left:
Meanderir	ng N/A□				<u>3.5_</u> ft.			<u>70</u> degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water ⊠C	Clear □Turb			rface um	□Algal [mats	Other:	
Substrate:	Bedrock 🗆 Bo	ulder 🗆 Cobl	ole 🛛 Grave	el 🛛 Sand 🛛	Silt/ o	clay 🗆 Organic	🗆 Ot	her:
(check all that apply) % of Substrate:	%	%	_% <u>5</u> %	50 %	45 %	%		%
_			_/0 _0_/0	/0	<u>+0</u> /0	/0		
Width of Riparian Zone	: Vegetative (check all that		⊠ Trees	:	⊠ Sapliı	ngs/Shrubs:		Herbs
<u>ft</u> .	Avg. DBH (approx.)	of Dominants:	<u>12.0 in</u>		_ <u>0.75_</u> i	•		
N/A⊠ Dominant Bank Vegeta								
Loblolly pine, red el		erican holly,	greenbrier	, red maple, gr	ape, c	ane, Japanes	se stilt g	grass
Aquatic Habitats (ex: su	bmerged or emerged	l aquatic vegetatic	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, de	ep pools):
Pools, overhanging	banks and roo	ts, wrack pile	es					
Aquatic Organisms Ob	served (list):							
Frogs, minnows, wa	ter striders							
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ock access, manure i	n waterbody, wast	e discharge pipe	es):				
In pine plantation, no re	cent disturbance	apparent.						
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality ^a : (check one)	□ High	⊠ Mo	oderate	□ Low				

Waterbody ID:

Sgra002

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.

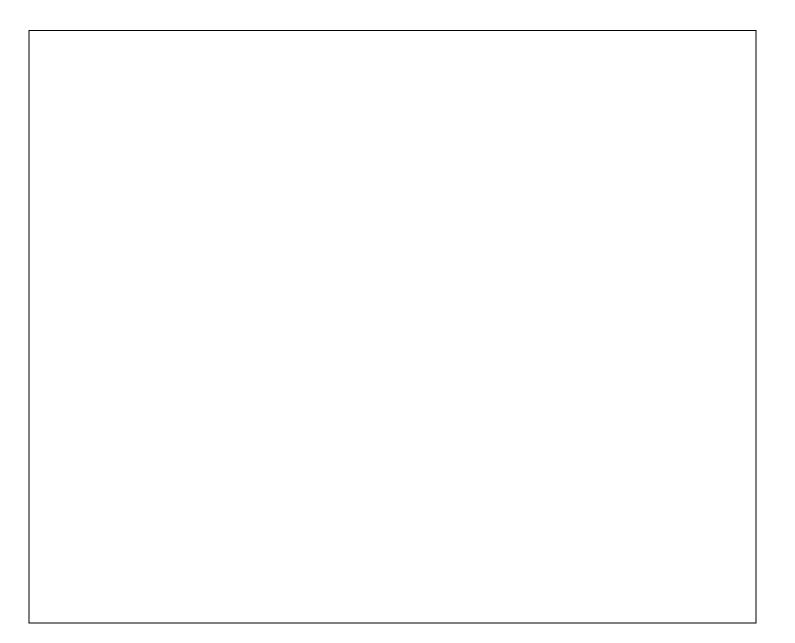
Notes:

Falling Run; extends out of corridor in both directions, flows through wetland wgra002.

5910002

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

J.910.002.





Waterbody SGRA002 facing west upstream



Waterbody SGRA002 facing east downstream



Waterbody SGRA002 facing north across

Survey Description	n	-							
Project Name:		Waterbody Na			w	aterbody ID:			ate:
Southeast Reliabilit	у	Unnamed tri	butary to F	alling Run	sg	gra003		8	/11/2014
State:	County:		Company:			Member Initials		notos:	
Virginia	Greensville			esource Group	GB, L			photo	S
Tract Number(s):	- -		Nearest Mile	epost:		Associated W		• •	
15-024; 15-025			282.70			Discontinuc	ous fring	ge wetl	and
Survey Type: (check one)		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 🗆 Dite	ch 🗆 Ca	anal 🗌 Other	:				
онwм	OHWM Indica	tor:							
Width: <u>3.0</u> ft.	(check all that apply		□ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	⊠S	couring	□Water staining
Height:	□Bent, n	natted, or missir	ng ⊡Wrack li	ne 🗆 Litter ar	nd	□Abrupt plan	t 🗆]Soil cha	aracteristic change
ft. N/A□	vegetatio	n	0	debris		community ch	ange		C C
Width of Waterbody - T Bank to Top of Bank:			Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth of (Approx.)	f Water:	
Balik to Top of Balik.	to loe	of Slope:		water Edge:			(Approx.)		
<u>_5.0</u> ft.	-	<u>2.5</u> ft.		N/A□	<u>2.0_</u> ft.		N/A□		<u>0.33_</u> ft.
Sinuosity:		velocity:		Bank height			Bank slo	ре	
(check one)	(Approx.)			Right:	00 (Right:	05 1
		<u>_0.25</u> fp	S	Left:	<u>3.0_</u> ft.			Left:	<u>65</u> degrees
Meanderin	ng N/A□			-	<u>3.0_</u> ft.				80 degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water ⊠0	Clear DTurk		leen ⊡Su i surface sci		□Algal [mats	Other:		
Substrate:	Bedrock 🗆 Bo	oulder 🛛 Cobl	ole 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	: 🗆 Ot	her:	
(check all that apply) % of Substrate:	%	% 5%	<u> 15 </u> %		40 %	%		%	
_			<u> 10 </u> /0	<u>40</u> /0	<u>40</u> /0	70		/0	
Width of Riparian Zone	e: Vegetative (check all that		□ Trees	: [∃ Saplir	ngs/Shrubs:	×	Herbs	
<u>ft</u> .	Avg. DBH (approx.)	of Dominants:	<u>in</u> .		in.	9			
N/A⊠ Dominant Bank Vegeta	,								
Blackberry, Joe-pye		h needles, cl	ematis, poi	son hemlock, r	hexia,	soft rush			
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, de	ep pools)	:
Pools									
Aquatic Organisms Ob	served (list):								
Frogs, minnows, wa	ater striders								
T&E Species Observed	l (list):								
none									
Disturbances (ex: livesto	ock access, manure i	n waterbody, wast	e discharge pipe	es):					
Crosses existing power	ring ROW								
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗌 Manip	ulated				
Stream Quality ^a : (check one)	□ High	⊠ Me	oderate	□ Low					

Waterbody ID:

Sgra003

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.

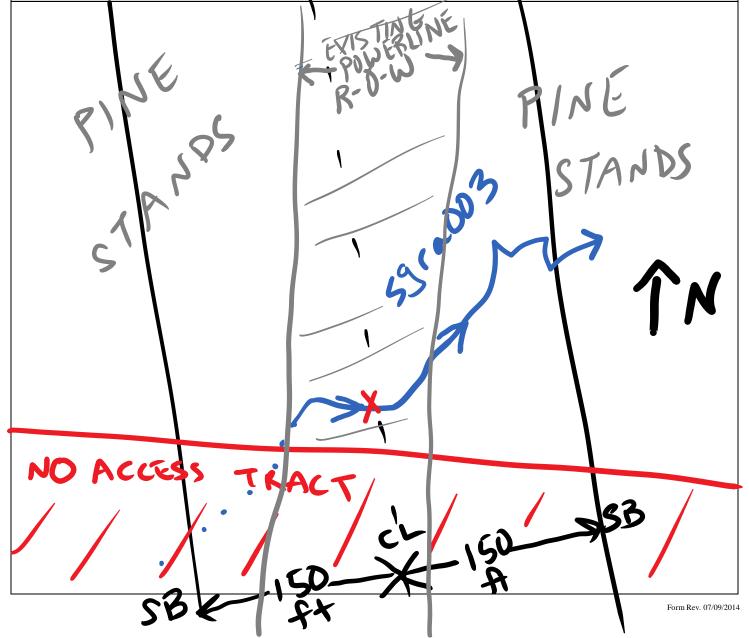
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate 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:

Downstream continues out of corridor, upstream extends into no access tract.

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





Waterbody SGRA003 facing west upstream



Waterbody SGRA003 facing east downstream



Waterbody SGRA003 facing south across

Survey Description	n								
Project Name:		Waterbody Na				aterbody ID:		Date:	
Southeast Reliabilit		Unnamed tri		ountain's Creel		gra004		8/11/2	2014
State: Virginia	County : Greensville		Company: Natural Re	esource Group		Member Initials	:	Photos: 3 photos	
Tract Number(s):			Nearest Mile	•	00, 0	Associated W	otland	•	
15-032			283.95	φυσι.				nge wetland	
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:									
	River Str	ream 🗆 Dito	:h □ Ca	anal 🗌 Other	:				
OHWM Width: <u>3.0</u> ft.	OHWM Indica (check all that appl		⊠ Clear lir on bank	ne 🗆 Shelvin	g	□Wrested vegetation	X	Scouring	□Water staining
Height:ft.	□Bent, r vegetatio	natted, or missin	g	ne □Litter ar debris	nd	□Abrupt plan community ch		□Soil characte	ristic change
N/A□ Width of Waterbody - T	on of Width	of Waterbody	Too of Slong	Width of Waterb	ody - W	ator Edgo to	Donth	of Water:	
Bank to Top of Bank:		of Slope:	The of Slope	Water Edge:	ouy - w	aler Luge lo	(Approx.)		
<u>4.0</u> ft.	-	<u>2.0</u> ft.			<u>1.5_</u> ft.		N/A□	0.20	_ft.
Sinuosity:	Water	velocity:		Bank height			Bank s	slope	
(check one)	(Approx.)	-		Right:				Right:	
		<u>_0.25</u> fp	S	Left:	<u>3.0_</u> ft.			 Left:	degrees
Meanderin	ng N/A□				<u>3.0_</u> ft.				degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water ⊠0	Clear 🗆 Turb			rface um	□Algal mats	□Othe	r:	
	Bedrock 🗆 Bo	oulder 🗆 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	ay 🗆 Organic	; □ (Other:	
(check all that apply) % of Substrate:	%	_%_%	<u> 5 </u> %	<u>35</u> %	<u>60</u> %	%		%	
Width of Riparian Zone									
<u>ft</u> . N/A⊠	(check all that Avg. DBH (approx.)	apply) of Dominants:	⊠ Trees: 12.0 in		⊠ Saplir _ <u>1.0_</u> in.	ngs/Shrubs:	\boxtimes	I Herbs	
Dominant Bank Vegeta	,								
Red maple, beech,		v, river birch, s	sweetgum,	yellow poplar,	hay so	cented fern,	grape	, cane, greer	nbrier
Aquatic Habitats (ex: su	ubmerged or emerge	d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles,	deep pools):	
Pools, scattered emerge									
Aquatic Organisms Ob	. ,								
Frogs, water strider	S								
T&E Species Observed	l (list):								
Disturbances (ex: livesto	ock access manure i	n waterbody, waste	discharge nine	oc).					
Recently clear cut – ver		-							
Tributary is: (check one)	⊠ Natural	□ Ari	ificial, man-m	ade 🗆 Manip	ulated				
Stream Quality ^a : (check one)	□ High		oderate	⊠ Low					

Waterbody ID: Sgra004 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: Out of corridor in both directions A Waterbody Sketch (Include north arrow, centerline, distance fro erline, data p t location, survey boundary, and IDs of associated features) rent い

59/000

Thin coeridor Mixed HWS



Waterbody SGRA004 facing north upstream



Waterbody SGRA004 facing south downstream



Waterbody SGRA004 facing west across

Survey Description	n								
Project Name:		Waterbody Na				aterbody ID:		Da	
Southeast Reliabilit	-	Unnamed tr	•	ountain's Creel	-	gra005			1/2014
State:	County:		Company:	0		Member Initials		hotos:	
Virginia	Greensville			esource Group	GB, L			photos	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland II	D(s):	
15-032			284.3			none			
Survey Type: (check one)	⊠Centerlin	e □Re-	Route	□Access Road		□Other:			
Physical Attribute	s								
Stream Classification: (check one)	⊠Ephemer	ral □Inte	ermittent	Perennial					
Waterbody Type:									
(check one)	River ⊠ St	ream 🗌 Di	ich 🗆 C	anal 🗌 Other:	:				
OHWM	OHWM Indica (check all that app		□ Clear lir		~	□Wrested		· · · · · · · · · · · · · · · · · · ·	□\\/.etor
Width: _ <u>2.0_f</u> t.	(oncorr an inai app	(נ י	on bank	ne 🗆 Shelvin	y	vegetation	83	Scouring	□Water staining
Height:	□Bent,	matted, or missi	ng	ne ⊠Litter ar	nd	□Abrupt plan		Soil char	acteristic change
ft. N/A□	vegetati	on		debris		community ch	ange		
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbe Water Edge:	ody - W		Depth of (Approx.)	f Water:	
	10 100	-		water Luge.			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		4
<u>_4.0</u> ft.		<u>1.0</u> ft.			f	t.	N/A⊠		ft.
Sinuosity:		velocity:		Bank height			Bank slo	оре	
(check one)	(Approx.		,	Right:	40 ft			Right:	75 dogroos
			fps	Left:	<u>4.0_</u> ft.			Left:	75 degrees
Meanderin	ng N/A⊠			-	<u>4.0_</u> ft.				75_degrees
Qualitative Attribu Water Appearance:	tes								
	³ No water □	Clear □Tur		neen ⊡Sui n surface scu		□Algal [mats	□Other:		
	Bedrock 🛛 B	oulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	Ot	her:	
(check all that apply) % of Substrate:	_%	_%	_% _%	<u>35</u> %	<u>65_</u> %	%		_%	
Width of Riparian Zone	: Vegetativ	e Lavers:							
-	(check all tha		⊠ Trees			ngs/Shrubs:		Herbs	
<u>ft</u> . N/A⊠	AVG. DBF (approx.)	I of Dominants:	<u>7.0</u> in.	-	<u>0.5</u> in				
Dominant Bank Vegeta	tion (list):								
Loblolly pine, swee	tgum, ironwoo	od, red maple	, greenbrier	, grape, Japan	ese ho	oneysuckle			
Aquatic Habitats (ex: su	ubmerged or emerge	ed aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	, riffles, de	ep pools):	
none									
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	l (list):								
none									
Disturbances (ex: livesto	ock access, manure	in waterbody, was	te discharge pipe	es):					
In pine plantation, mani	ipulated for drain	age purposes							
Tributary is: (check one)	□ Natural		rtificial, man-m	ade 🛛 🖾 Manip	ulated				
Stream Quality ^a : (check one)	🗆 High		oderate	⊠ Low					

Waterbody ID:

Sgra005

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.

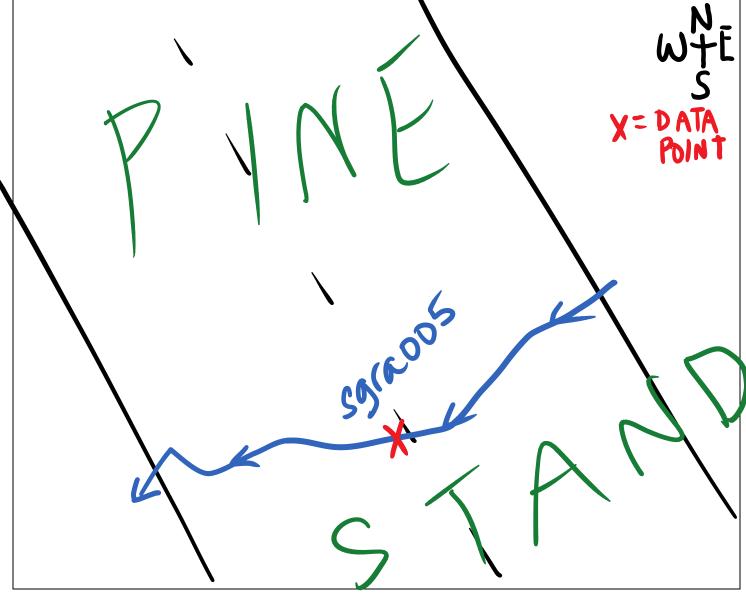
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate 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:

NHD intermittent stream line; weak stream characteristics so classified as ephemeral. Several other ditch like features intersect but lack an OHWM; manipulated as part of pine plantation drainage system.

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





Waterbody SGRA005 facing east upstream



Waterbody SGRA005 facing west downstream



Waterbody SGRA005 facing north across

Linear Waterbody	/ Data Sheet							
Survey Description Project Name:	م الم الم الم الم الم الم الم الم الم ال	· · · · · · · · · · · · · · · · · · ·						
_		Waterbody Nar			Wa	aterbody ID:	07	Date:
ACP			s came	Supp		sgrp0		6/16/15
State: VA	County/Parish:	ville	Company: EST			Lember Initials	: Photos: N, E	Facing , W
Tract Number(s):	-		Nearest Milepo 28	st: B. <u>3</u>		Associated W	etland ID(s):	
Survey Type: (check one)		e □Re-f	Route	□Access Road	ł	□Other:		
Physical Attributes	en de la compañía de							
Stream Classification: (check one)	DEphemera	al Dinter	mittent					
Waterbody Type: (check one)	River Str	ream 🖾 Dito	ch 🗌 Cana	al 🗌 Other	г.			
OHWM Width:ft.	OHWM Indica (check all that appl)		Clear line	∴⊡Shelvin	ng	□Wrested vegetation	□Scourin	g ⊡Water staining
Height:ft.	☐ Bent, r vegetatio		ig ⊡Wrack line	□Litter a debris	nd	□Abrupt plan community ch		haracteristic change
Width of Waterbody - T			Toe of Slope W		ody - W	ater Edge to	Depth of Wate	r:
Bank to Top of Bank:	to loe	of Slope: <u>Z</u> ft.	·	/ater Edge: /A□ —	<u> </u>	t.	(Approx.) N/A□	<) ft.
Sinuosity: (^{check one)} □Straight ↓Meanderir	(Αρριοκ.)	/1	ips B	ank height Right: Left: –	<u></u>	ft.	Bank slope Righ Lei	<u> </u>
Qualitative Attribu	tes							
Water Appearance: (check one)	No water □	Clear 🗆 Tur		/ \	urface çum	⊡Algal mats	□Other:	· · · · · · · · · · · · · · · · · · ·
Substrate: (check all that apply) % of Substrate:] Bedrock 🛛 B	oulder □ Cob %	ble 🛛 Gravel _%%	Sand 10%	~~~~	slay ØOrgani % <u>20</u>		
Width of Riparian Zone <u>> 000ft</u> . N/A□	(check all tha	•	pk⊤rees: 5i		X Saplin	ngs/Shrubs: _in.	A Herbs	n.
Dominant Bank Vegeta Liguídan ba	ation (list): W 6tyrc	utflva,	Smilax	rotune	difo	lia, ci	ethra	alnifolia
Aquatic Habitats (ex: su	ubmerged or emerge			1	acks, large	e submerged woo	d, rifîles, deep po	ols):
Aquatic Organisms Ob		C)					
hone a	observ	ed .						
T&E Species Observed	(list): , 063e	ived						
Disturbances (ex: livest			te discharge pipes):				
Tributary is: (check one)		L 🗆 A	Artificial, man-ma	de 🗆 Mani	ipulated			
Stream Quality ² : (check one)	🗆 High		loderate	Low				

Waterbody ID: SARPOOZ 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. St. St. St. Starter St. St. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) wgrb003 rp002



Waterbody sgrp002 facing north upstream.



Waterbody sgrp002 facing east downstream.



Waterbody sgrp002 facing north across bank.

Survey Descriptio	n							
Project Name:		Waterbody Na				/aterbody ID:		Date:
Southeast Reliabilit	у	UNT to Font	aine Creek		S	GRB001		10/4/2014
State:	County:		Company:		Crew I	Member Initials:	Photos:	
Virginia	Greensville		NRG		TP, K	ΈB	001-00)3
Tract Number(s):			Nearest Mile	epost:		Associated Wetlan	d ID(s):	
15-064; 15-065; 15	-066(?); 15-067	7	291.4-291	.8		WGRB002		
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:				
онwм	OHWM Indica							
Width: ft.	(check all that apply	/)	⊠ Clear lii on bank	ne 🗆 Shelving	g	□Wrested vegetation	Scouring	g □Water staining
Height:	⊟Bent, n	natted, or missir	ng ⊠Wrack li	ine 🗆 Litter ar	nd	□Abrupt plant	□Soil c	haracteristic change
<u>0.5-2</u> ft. N/A□	vegetatio	n		debris		community change	•	
Width of Waterbody - 1 Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W	Ater Edge to Dept	h of Wate	r:
		•		water Euge.		(Appio	,	
7 _{_ft.}	-	3_ft.		N/A□	<u>3-6_</u> ft.	N/A□		<u>0.5-1.5_</u> ft.
Sinuosity:	Water	velocity:		Bank height			slope	
(check one)	(Approx.)	·		Right:			Right	:
		<u>_0.5_</u> fp:	S	Left:	<u>4_</u> ft.		Lef	<u>90</u> degrees
⊠Meanderi	ng N/A□			Lon	<u>4_</u> ft.		Lon	<u>90</u> degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	[□] No water □0	Clear 🗆 Turl		neen ⊡Sur n surface scu		□Algal ⊠Oth mats	ner: tan di	ue to tannins
	Bedrock 🗆 Bo	ulder 🗆 Cobl	ble 🗆 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic 🗆	Other:	
(check all that apply) % of Substrate:	%	%	%	% 50 %	50 %	%	%	
				<u></u>	00_/0		/0	
Width of Riparian Zone	e: Vegetative (check all that		⊠ Trees	: D	🛛 Saplir	ngs/Shrubs:	□ Herbs	
<u>_>50_ft</u> - N/A□	Avg. DBH (approx.)	of Dominants:	<u>_10_</u> in.		<u>2</u> in.	<u><u></u></u>		
Dominant Bank Vegeta	ation (list):							
Water tupelo, swan	np tupelo, red n	naple, tulip p	oplar, swee	et pepper bush,	winte	r berry, Americar	n holly, n	etted chain fern
Aquatic Habitats (ex: s				banks/roots, leaf pac	ks, large	submerged wood, riffle	s, deep pool	s):
Debris piles, leaf pa	acks, roots alor	ng bank, dow	ned logs					
Aquatic Organisms Ob	oserved (list):							
Frogs, crawfish								
T&E Species Observed	d (list):							
none								
Disturbances (ex: livest	ock access, manure i	n waterbody, wast	e discharge pip	es):				
Tracts timbered adj	acent to strean	n in segment	s, possible	run off from ag	. fields	S		
Tributary is: (check one)	⊠ Natural		tificial, man-m	nade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	□ High	× M	oderate	□ Low				

Waterbody ID: SGRB001

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.

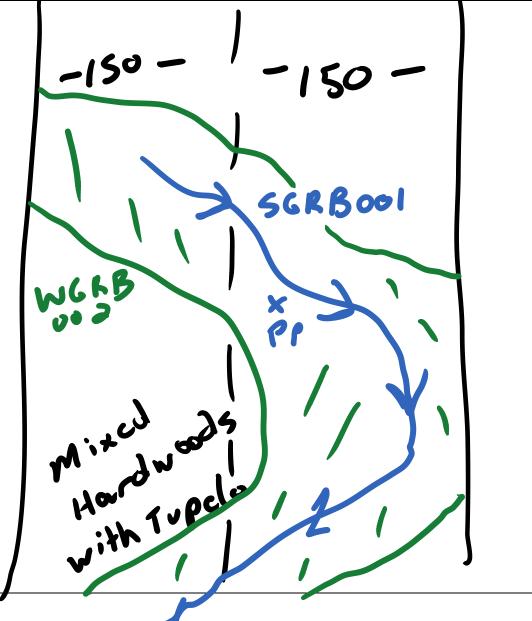
Low Quality: Channel is actively down cutting or widening; rip rap and channelization excessive; natural vegetation less than 1/3 of the active channel width on each side; lack of regeneration; filtering function severely compromised; banks unstable (eroding); water color is muddy and turbid; obvious 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:

Typical coastal, swamp stream. Numerous grade control points, wrack lines, tupelo along banks, slow moving, a number of pools, but no riffles. Moderate sinuosity and noted some sediment deposition along banks. Tannish color due to organics. Stream origin is at the convergence of multiple drainage patterns that converge to form a channel with well defined bed and bank. Please also note this is a braided stream system located within a wetland. We located the stream with the most well defined flow pattern.

A braided channel for stream SGRB001.

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





Waterbody SGRB001 facing northeast upstream



Waterbody SGRB001 facing southwest downstream



Waterbody SGRB001 facing northwest across bank

Survey Description	n			· · · · · · · · · · · · · · · · · · ·			
Project Name:		Waterbody Na	_		Waterbody ID;	34	Date:
ALP		Forte	INE CRE	28K	Sgryu	\mathcal{O}^{γ}	6/17/15
State:	County/Parish:		Company:		Crew Member Initial	ls: Photos:	Fairing
VA	Greens	ville	EST		LR, KM	N SW	SE, NW
Tract Number(s):			Nearest Mile	post:	Associated \	POD	
15-073	,		1 29	2.1	Wgr	<u>p 00 0</u>	
Survey Type: (check one)		e ⊡Re-	-Route	□Access Road	□Other:		
Physical Attributes	S. S.						
Stream Classification: (check one)	Ephemera	al. 🗆 Inte	ermittent				
Waterbody Type: (check one)	JRiver Str	eam 🖾 Di	tch 🗆 Ca	anal 🗆 Other.			
OHWM Width: <u>\5</u> ft.	OHWM Indica (check all that apply		□ Clear lir on bank	ne 🗆 Shelvin	g □Wrested vegetation	⊡Scourin	g Ó ⊟Water staining
Height:ft.	⊟Bent, n vegetatio		ing ⊡Wrack li	ne ⊡Litter ar debris	nd DAbrupt pla community o		haracteristic change
N/A⊡ Width of Waterbody - T	op of Width	of Waterbody	- Toe of Slope		ody - Water Edge to	Depth of Wate	r:
Bank to Top of Bank:		of Slope:	·	Water Edge:		(Approx.)	1 -
<u> </u> f.	_	<u> </u> _ft.			<u>5</u> ft.		<u>) 2_ft.</u>
Cinuccitur	18/otor			N/AD Ronk hoight		N/AD	
Sinuosity: (check one)	(Approx.)	velocity:		Bank height Right:		Bank slope Righ	f •
□Straight		≤ 1	fps	_	<u> </u>		<u> </u>
Meanderi	ng N/AD	-,		Left:	<u> </u>	Let	t: <u> (JD</u> degrees
Qualitative Attribu	ites	· .	, ···	· · · · ·		· .	
Water Appearance: (check one)		Clear ⊡Tu		neen 🗆 Su	ırface ⊡Algal	□Other:	
	-INO WALEI				um mats		ŧ
] Bedrock 🛛 Bo	oulder 🛛 Co	bble 🛛 Grav	rel DSand	Silt/ clay Organ	nic 🖾 Other:	
(check all that apply) % of Substrate:	%	%	%	_% <u>50 %</u>	30% 20	_%%	`
Width of Riparian Zone		•	6_		J	J	
>1001	(check all tha Avg. DBH	t apply) I of Dominants			Ç Saplings/Shrubs: 7 :-	Herbs	_
N/A	(approx.)		<u> </u>	_in.	<u> </u>		
Dominant Bank Vegeta		TAXICO	dendr	on ru	dicane	Fraxinus	
Acer rub	/						Innica.
Aquatic Habitats (ex. s					icks, large submerged wo	od, riffles, deep po	ols):
submer		ood,	eatp	acks			
Aquatic Organisms Ol	bserved (list):	\	0	1	- \)		
Various	thsh, c	yraqo1	nthe	s, tur	TIES		
T&E Species Observe							
1 none	obser	red					
Disturbances (ex: lives	tock access, manure	in waterbody, wa	aste discharge pi	pes):		01.0 × ¥.00	
none	2 Obs	serve	4				
Tributary is: (check one)			Artificial, man-r	made 🗆 Mani	pulated		
Stream Quality ^a : (check one)	∕_∑ □ _{High}	7	Moderate	□ Low			
	-	\longrightarrow	-				

Waterbody ID: 59rp 004 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. and the second Notes: data and a Part of braided channel for Fontaine Creek system Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) -150 Pt-24-150 Pt-2 a wgrp 006 upline sgrp004 - channel flows into wetland 200 × 39rp005



Waterbody sgrp004 facing northwest upstream.



Waterbody sgrp004 facing southeast downstream.



Waterbody sgrp004 facing southwest across bank.

L	inear	Water	body	Data	Sheet

Survey Description						
Project Name:	Waterb	ody Name:	^	Waterbody ID:		
ALP			besk	Sgrpo	011110	
State:	County/Parish:	Company:		Crew Member Initials:	Photos: Facing	
VH	Greensvi	THE EST		LR, KM	S, E, W	
Tract Number(s):		Nearest Miler	post:	Associated We		
15-07	3		292.7	Warp	006	
Survey Type: (check one)		□Re-Route	□Access Road	⊡Other:		
Physical Attribute						
Stream Classification:						
(check one)						
Waterbody Type: (check one)]River 🕅 Stream	🗆 Ditch 🛛 Ca	nal 🛛 Other:			
OHWM Width:)>	OHWM Indicator: (check all that apply)	Clear line	e ⊡Shelvin	u ⊡Wrested	□Scouring □Water	
Widin. <u>]</u> Z_ft.		on bank		vegetation	staining	
Height: 7 .		or missing Wrack lir	ne ⊡Litterar			
N/A□ <u> </u>	vegetation	*)	debris	community ch	ange	
Width of Waterbody - Bank to Top of Bank:	Top of Width of Wate to Toe of Slop	rbody - Toe of Slope	Width of Waterbo Water Edge:	ody - Water Edge to	Depth of Water: (Approx.)	
· · · · ·		¢.	Hatel Luge.		>2_	
_ <u> /_</u> ft.	1 -10-	_ft.		ft.	N/A 🗆	
Sinuosity:	Water velocity	•	Bank height		Bank slope	
(check one)	(Approx.)		Right:	Ц.	Right: 80 degrees	
¥		fps	Left:	<u>र</u>	Left:	
Meander	ing N/A		<u> </u>	<u> </u>	<u> </u>	
Qualitative Attribu	ıtes				/ <u></u>	
Water Appearance: (check one)	□No water MClear	⊡Turbid ⊡Sh on		rface ⊡Algal um mats	□Other:	
	Bedrock 🖸 Boulder	Cobble Grave	el 🗙 Sand 🖉	Silt/ clay 🛛 Organic	c □ Other:	
(check all that apply) % of Substrate:	% %	%	« 30 _%	70 %9	6 %	

Width of Riparian Zon	e: Vegetative Layer (check all that apply)	s: XTrees	s: - 1	Saplings/Shrubs:	⊠ Herbs	
$\geq 100^{\text{H}}$	Avg. DBH of Don		_in.	<u> </u>	NA in.	
N/AD Dominant Bank Veget	(approx) tation (list):	•	Smilax	rotundi	Golia	
Fraxinus pennsylvanica, Toxicodendron radicans						
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, nifiles, deep pools):						
Submerged logo, leaf packs, overhanging banks						
Aquatic Organisms Observed (list):						
hone observed						
T&E Species Observed (list):						
none observed						
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):						
none c	observed	,				
Tributary is: (check one)	Natural	Artificial, man-r	nade 🗆 Mani	pulated		
Stream Quality *:		1		·	· · · · · · · · · · · · · · · · · · ·	
(check one)	🗆 High	Moderate	🗆 Low			

Waterbody ID: SARDDUS High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by а 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: Part of braided channel for Fontaine Creek system Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) (wgrp 006 upline (Soc sgrp DO4 channel Flows into wetland ≤ sgrp 005 wetlan continues downlike



Waterbody sgrp005 facing west upstream.



Waterbody sgrp005 facing east downstream.



Waterbody sgrp005 facing south across bank.

Linear Waterbody Data Sheet

Survey Description	1 <u></u>						
Project Name:		Waterbody Na		,	Waterbody ID:		Date:
ACP		Fort	aineCr	reek	sgro	002	7/29/15
State:	County/Parish:		Company:		Crew Member Initia		
VA	Greensu	ille	E	51	KWM, DB	β ω,	E,S
Tract Number(s):	·		Nearest Mile	post:	Associated	Wetland ID(s):	
15-073, 15	-074		29	9.9	wgr	p006	
Survey Type: (check one)	Centerline	e 🗆 Re-	Route	□Access Road	□Other:		
Physical Attributes Stream Classification:	3						
(check one)	DEphemera	al 🗆 înte	rmittent	Perennial			
Waterbody Type: (check one) □	River X Str	ream 🗆 Dit	ch 🗆 Ca	anal 🗆 Other:			
онwм Width: 식ठft.	OHWM Indicat (check all that apply		Clear lin on bank	e XShelving	g AW rested vegetation	Scourin	g Ster staining
Height:ft. N/A⊡	□Bent, n vegetatio	natted, or missir n	ng 🕬 rack lii	ne DLitter an debris	id Abrupt pl community	ant XSoil c change	haracteristic change
Width of Waterbody - Te Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - Water Edge to	Depth of Wate	r:
45ft.	-	<u>38_</u> ft.			SO_ft.		_ <u>2ft.</u>
Sinuosity:	Water	velocity:		Bank height	. <u> </u>	Bank slope	·····
(check one)	(Approx.)			Right:		Righ	t
□Straight	l	[ps	l _	<u>′</u> ft.	, in the second se	"degrees
Meanderin	19 N/A			Left:	<u>5_ft.</u>	Let	it: <u>45</u> degrees
Qualitative Attribu	tes			1		I	
Water Appearance:							
(check one)	No water □0	Clear XTur		_	rface ⊡Algal um mats	□Other:	
	Bedrock 🛛 Bo	oulder 🗆 Cob	ble 🛛 Grav	el 🛛 Sand 🚶	🛛 Silt/ clay 🛛 Orga	inic 🗆 Other:	
(check all that apply) % of Substrate:%%%%%%							
Width of Riparian Zone	: Vegetative	e Layers:				<u>`````````````````````````````````````</u>	
≻100 _{ft} .	(check all that		X Trees	s: 🔰	Saplings/Shrubs:	🗹 Herbs	
<u>π</u> . N/A□	Avg. DBH	of Dominants:	16	_in	<u> (in.</u>	<u> </u>	n.
Quercus pagoo	ia, Quercu: Polygonum	sp. Lud	lwigia pal	ustris	an, neer m	DINM, DOCH	meria (yinania
Quercus pagoda, Quercus michauxii, Fraxinus pennsylvanira, Acer rubrum, Boehmeria cylindrica Polygonum sp., Ludwigia palustris Aquatic Habitats (ex. submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools):							
pools, log							
Aquatic Organisms Observed (list): Sunfish, frogs, mosquibfish, dragonflics							
		quitotish.	dragont	-(108)			
T&E Species Observed	l (list):						
hone							
Disturbances (ex: liveste	ock access, manure	in waterbody, was	te discharge pip	es):			
hone							
Tributary is:			• =				
(check one)	≫ Natural	· 🛛 🗛	vrtificial, man-n	nade 🗆 Manip	oulated		_
Stream Quality *:	×						
(check one)	. 🕅 High		loderate				

	Waterbody ID:
	sgr0 002
^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
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 livest	/, submerged objects covered with
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 (exturbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; severe barriers to fish mov severe disturbance from livestock or man.	roding); water color is muddy and
Notes:	
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey bound	ary, and IDs of associated features)
*	
W J J Sgrp004 Sgrp005	
3.5	
0005	· · · · · · · · · · · · · · · · · · ·
sgri	
Le trugrp 006	
in the interpose	
t trugit	
00/	
June Service Vie date point	
otai	
1 5gro 002	
T Sgroot	
	2
Estudy corridor - wgrport	
er er	_

٠

.



Waterbody sgro002 facing west upstream.



Waterbody sgro002 facing east downstream.



Waterbody sgro002 facing south across bank.

Linear Waterbody Data Sheet

,

Survey Description								······
Project Name: ACP		Waterbody Name:			6	erbody ID:	1	Date:
		Fontaine Creek				sgro 001		7/29/15
	County/Parish:	I	Company:		Crew Me	mber Initials:	Photos:	
AV	Greensvil	le	ESI		KW N	1,288	SE,	NW, SW
Tract Number(s):			Nearest Mile	· .	A	ssociated We		
15-07	3		2	99.9		Wgr	000 p	
Survey Type:	-							
(check one)	Centerline	□ □Re-F	Route	Access Road]Other:	· · · · · ·	
Physical Attributes								
Stream Classification: (check one)	□Ephemera	i Xinter	rmittent	□Perennial				
Waterbody Type: (check one)	River Kstr	eam 🗆 Dite	ch ⊡Ca	anal 🗆 Other:	:			
ОНWM	OHWM Indicat	or:					• •	
Width: 20 ft.	(check all that apply		Clear lin on bank	e Shelvin		□Wrested vegetation	□Scourin	g XW ater staining
Height:ft.	□Bent, n vegetatio	natted, or missin n	ng ⊡Wrack li	ne DLitter ar debris		Abrupt plant		haracteristic change
			7 (0)			•	-	
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - Wat	er Edge to L	Depth of Wate Approx.)	r:
26 _{ft.}		12 _{ft.}		-	б _{ft.}			ļ _{ft.}
π.	-	n.		N/A□	<u> </u>	٢		
Sinuosity:		velocity:		Bank height		E	Bank slope	
(check one)	(Approx.)			Right:	3 "		Righ	~ 11
			ips	Left:	<u>μ</u> .		Le	
Meanderin		-pools	only		t_ft	1		60 degrees
Qualitative Attribut		-··.						
Water Appearance:								
(check one)	No water 🛛 🗆	Clear XTuri		· · · · ·	um um	□Algal [mats]Other:	
	Bedrock Bo	oulder 🗆 Cob	ble 🛛 Grav	el 🗆 Sand	X Silt/ cla	iy 🗆 Organic	C Other:	
(check all that apply) % of Substrate:	%	%	%	_%%	_100 _%	%	%	
				-				
Width of Riparian Zone	: Vegetativ (check all that	-	⊯ Free	e'	KSanling	ıs/Shrubs:	Herbs	
>100 _{ft} .	r.	of Dominants:		_in.	i .	in.	N/A	n.
N/AC Dominant Bank Vegetat	(approx.)							· · · · · ·
Nyssa aquati	ca, Liquida	mb ar sty	raciflue,	Acer rubrum Lu	, Ca-pì, dwigia	nus carolin palustris	, Boehm	eria cylindria
Aquatic Habitats (ex: su								
Pools, logs.	overhand	ging brai	nches					
Aquatic Organisms Ob	served (list):		0.1					
Frogs, dr.	agonflies	, mosquit	orisn					
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ock access, manure	in waterbody, was	ste discharge pir	pes):				
none					•			
Tributary is: (check one)	₩ Natural		Artificial, man-r	made 🗆 Mani	pulated			
Stream Quality * : (check one)			Noderate	Low				
1	<u> </u>		10001010					

-

.

	Waterbody ID:
	sgro 00 (
^a High Quality: Natural channel, natural vegetation extends at least one or two active roots; water color is clear to tea-colored; no barriers to fish movement; many fish disturbance by livestock or man.	channel widths on each side; banks stable and protected by
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extend function or riparian vegetation only moderately compromised; banks moderately uns greenish film; moderate odor; minor barriers to fish movement; fair aquatic habitat; mir	table; water color is cloudy, submerged objects covered with
Low Quality: Channel is actively down cutting or widening; rip rap and channelizat channel width on each side; lack of regeneration; filtering function severely compre- turbid; obvious pollutants (algal mats, surface scum, surface sheen); heavy odor; s severe disturbance from livestock or man.	pmised; banks unstable (eroding); water color is muddy and
Notes:	
	· · · · · · · · · · · · · · · · · · ·
	×
Waterbody Sketch (Include north arrow, centerline, distance from centerline, data	point location, survey boundary, and IDs of associated features)
Trace body execting molade notification of contenting and not contenting and	
	-010
Λ	, rrp004
	, wy
	1
	004
N T X X	.g.r
N	005
	carp
W I	point location, survey boundary, and IDs of associated features) with point location, survey boundary, and IDs of associated features) grp 004 sgrp 005
La FI	
	59'0001
	59
	date point
I X I	point
	data
\mathbf{X}	_0
III X	Ft 310002
	F 1000
	1 99
X Y	000
	wgrp 006
Shudy corridor	et
E Shedy Con 1 X	-
	4
a	
N N	

.

-

,



Waterbody sgro001 facing southeast upstream.



Waterbody sgro001 facing northwest downstream.



Waterbody sgro001 facing southwest across bank.