

Waterbody SUPA011 facing northeast across

Survey Descriptio	n							
Project Name:		Waterbody Na				aterbody ID:		Date:
Southeast Reliabilit	•	Unnamed T	•	Frubie Run	S	UPB009		6/27/2014
State:	County/Parish:		Company:			Member Initials:	-	otos:
West Virginia	Upshur		Natural Re	esource Group	TP		3	
Tract Number(s):			Nearest Mile	epost:		Associated We	tland ID(	s):
03-107			31.27			none		
Survey Type: (check one)	⊠Centerline	e □Re-	Route	□Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)	Ephemera	al ⊡Inte	ermittent	⊠Perennial				
Waterbody Type:								
(check one)	River Str	ream 🗌 Dit	ich 🗆 Ca	anal 🗌 Other	:			
онwм	OHWM Indica							
Width: <u>5.0</u> ft.	(check all that appl	<i>y)</i>	⊠ Clear lir on bank	ne ⊠Shelvin	g	☐Wrested vegetation		ouring
Height:	□Bent, r	matted, or missi	ng ⊡Wrack li	ne 🗆 Litter ar	nd	□Abrupt plant		Soil characteristic change
ft. N/A□	vegetatio	on		debris		community cha	ange	
Width of Waterbody - 1 Bank to Top of Bank:			Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of V Approx.)	Nater:
	to Toe	of Slope:		Water Edge:		(*	-рргох.)	0.05 (
<u>_5 ft</u> .	-	<u>4_</u> ft.		N/A□	<u>2</u> ft.		I/A□	<u>0.25</u> ft.
Sinuosity:		velocity:		Bank height		E	Bank slop	)e
(check one)	(Approx.)			Right:	4 44		F	Right:
	<u>1.0</u> f	ips		Left:	<u>1_</u> ft.			<u>85</u> degrees
Meanderi	ng N/A□				<u>3_</u> ft.			<u>85</u> degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	<sup>□</sup> No water ⊠0	Clear □Tur		neen ⊡Sui i surface sci		□Algal □ mats	Other:	
	Bedrock 🗆 Bo	oulder 🛛 Cob	ble 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	□ Othe	er:
(check all that apply) % of Substrate: 5	%	% _20_%	_30_%	25 %	20 %	%		%
Width of Riparian Zone	e: Vegetativ	o Lavers.						
	(check all that		⊠ Trees	:	⊠ Saplir	ngs/Shrubs:	🗆 He	rbs
<u>50 ft</u> ⊷ N/A□	Avg. DBH (approx.)	of Dominants:	<u>14</u> in.	-	<u>2</u> in.			in.
Dominant Bank Vegeta	ation (list):							
Tulip poplar, sugar	maple, red ma	ple, Christma	as fern, sou	thern ladyfern				
Aquatic Habitats (ex: se	ubmerged or emerge	d aquatic vegetation	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep	p pools):
Fringe wetlands, de	ebris piles, rocł	ks, cobble, ba	ars and ben	ches				
Aquatic Organisms Ob	served (list):							
Mayfly, caddisfly, st	tonefly							
T&E Species Observed	l (list):							
none								
Disturbances (ex: livest	ock access, manure	in waterbody, was	te discharge pip	es):				
Pond built upstrean	n, outside of co	orridor						
Tributary is: (check one)	☑ Natural	□ A	rtificial, man-m	ade 🗌 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	<sup>⊠</sup> High		oderate	□ Low				

Waterbody ID: SUPB009

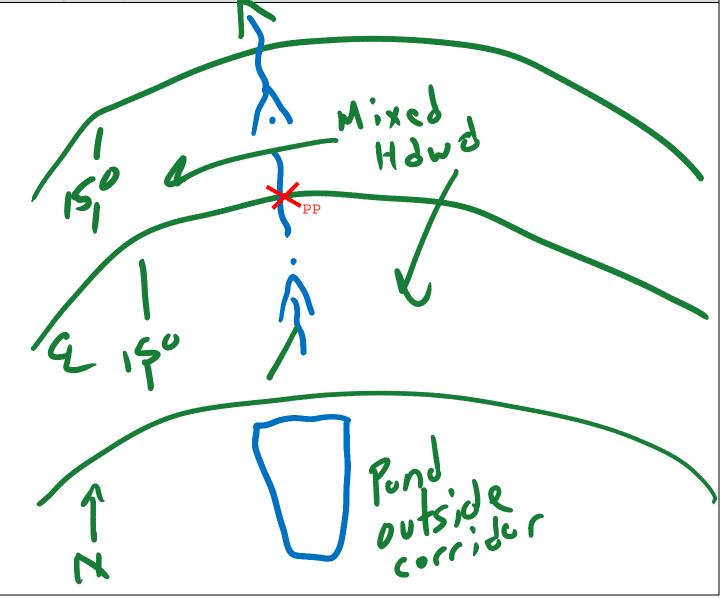
**High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Clear flowing mountain stream, lots of bars and benches, cobble, rock, caddisfly, stonefly, mayfly observed





Waterbody SUPB009 facing south upstream



Waterbody SUPB009 facing north downstream



Waterbody SUPB009 facing west across

Survey Descriptio	n							
Project Name:		Waterbody Na	me:		w	aterbody ID:		Date:
Southeast Reliabilit		Trubie Run				UPB103		8/6/2014
State:	County:		Company:		Crew I	Member Initials:	Photos:	
West Virginia	Upshur		NRG		TP, S		01-03	
Tract Number(s):			Nearest Mile	epost:		Associated Wetlar	nd ID(s):	
03-069			27.05			none		
Survey Type: (check one)		e □Re-l	Route	⊠Access Road		□Other:		
Physical Attribute								
Stream Classification: (check one)	Ephemera	al 🗆 Inter	rmittent	⊠Perennial				
Waterbody Type:								
(check one)	□River ⊠ Str	ream 🗆 Dito	ch 🗆 C	anal 🗌 Other	:			
онwм	OHWM Indica							
Width:ft.	(check all that appl	<i>Y)</i>	⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	Scourin	g □Water staining
Height:	□Bent, r	natted, or missin	ng ⊡Wrack li	ne 🗆 Litter ar	nd	□Abrupt plant	□Soil c	haracteristic change
<u> </u>	vegetatio	n		debris		community change	9	
Width of Waterbody -			Toe of Slope	Width of Waterbo	ody - W		th of Wate	r:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		(Appro	ox.)	
<u>20.0</u> ft.	-	<u>18.0</u> ft.			<u>20.0_</u> ft	N/A[	7	<u>0.75</u> ft.
Sinuosity:	Water	velocity:		Bank height			k slope	
(check one)	(Approx.)			Right:			Right	:
		<u>_1.0</u> fps	6	Left:	<u>10</u> ft.		Lef	<u>70</u> degrees
⊠Meanderi	ng N/A□				<u>4</u> ft.			<u>90</u> degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	<sup>□</sup> No water ⊠0	Clear □Turt				□Algal □Oth mats	ner:	
Substrate:	Bedrock 🗆 Bo	oulder 🖂 Cobb					] Other:	
(check all that apply)5						, ,		
% of Substrate:	%%	<u>40</u> %	<u>20</u> %	40_%	%	%	%	
Width of Riparian Zon				-		(O) 1		
>50 ft	(check all that <b>Avg. DBH</b>	of Dominants:	⊠ Trees 11 in.		⊴ Saplır <u>2_</u> in.	ngs/Shrubs:	⊠ Herbs	
N/A	(approx.)		<u> </u>	-	<u> </u>			
Dominant Bank Vegeta American beech, w		aum, sourwoo	od, rhodode	endron, christm	ias fer	'n		
Aquatic Habitats (ex: s		-					s deep poo	s):
Lot of exposed roo							.0, 0000 poo	
Aquatic Organisms Ol	oserved (list):							
Mayfly, stonefly, an	d caddis fly lar	vae.						
T&E Species Observe	d (list):							
none								
Disturbances (ex: livest	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
Culvert crossing up	stream of data	point						
Tributary is: (check one)	⊠ Natural		tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	⊠ High		oderate	□ Low				

Waterbody ID: SUPB103

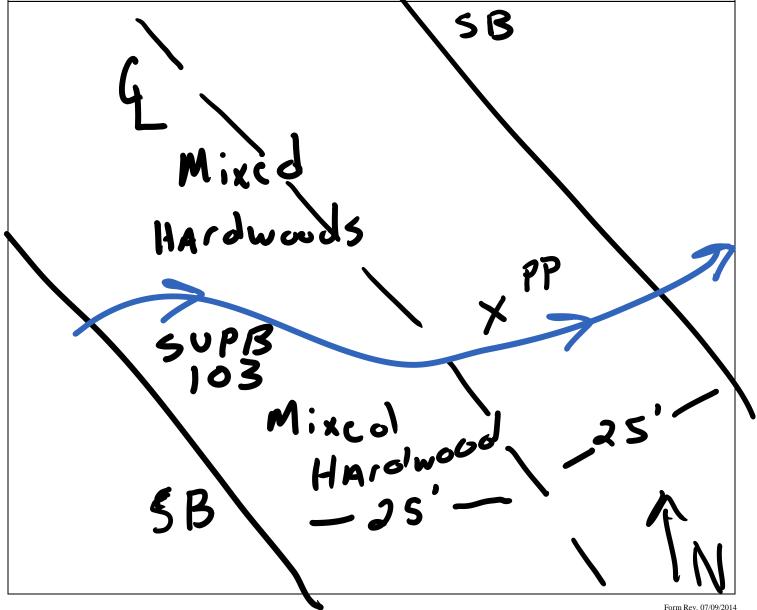
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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 mountain stream. Thalwag meanders back and forth in stream bed and varies from 5 to 20 feet wide.





Waterbody SUPB103 facing east upstream



Waterbody SUPB103 facing west downstream



Waterbody SUPB103 facing south across

Survey Descriptio	'n									
Project Name:			ody Nam				Vaterbody ID:		Date:	
Southeast Reliabilit	у	Unnam	ned Trik	outary to E	Buckhannon Riv	ver S	SUPA012		6/28/2014	
State:	County/Par	rish:		Company			Member Initials	: PI	hotos:	
West Virginia	Upshur		1	Natural Re	esource Group	GB, T	TP, SK	3	}	
Tract Number(s):			1	Nearest Mile	epost:		Associated W	etland I	D(s)	
03-114				32.35			none			
Survey Type: (check one)	⊠Cen	nterline	□Re-Ro	oute	□Access Road		□Other:			
Physical Attribute	S									
Stream Classification: (check one)	⊠Eph	emeral	□Interm	nittent	□Perennial					
Waterbody Type:										
	River	⊠ Stream	□ Ditch	n 🗆 Ca	anal 🗌 Other:					
OHWM Width:	OHWM I (check all th	ndicator: hat apply)		Clear lir     on bank	e 🗆 Shelving	g	Wrested	⊠S	Couring □Water staining	
<u>3.0</u> ft.				UTDATK			vegetation		Stairing	
Height: <u>0.50</u> ft.		Bent, matted, or getation	<sup>.</sup> missing	□Wrack li	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		□Soil characteristic chang	je
N/A□ Width of Waterbody - <sup>-</sup>	Top of M	Vidth of Water	ody - T	oe of Slope	Width of Waterbo	odv - V	Vater Edge to	Depth of	f Water:	
Bank to Top of Bank:		o Toe of Slope			Water Edge:	,,		(Approx.)		
<u>3.0</u> ft.		<u>_1.5_</u> ft.				ft.			ft.	
Sinuosity:	M	Vater velocity:			N/A⊠ Bank height			N/A⊠ Bank slo		
(check one)		Approx.)			Right:			Dalik Si	Right:	
□Straight		_	fps		_	<u>2.0_</u> ft			65 degrees	
⊠Meanderi	ng N	J/A⊠			Left:	<u>1.5_</u> ft.			Left: <u>60</u> degrees	
Qualitative Attribu	ites									
Water Appearance: (check one)	<sup>⊴</sup> No water	□Clear	□Turbio	d ⊡Sh	een ⊡Sur	face	□Algal	□Other:		
				on	surface scu	um	mats			
Substrate:	Bedrock	□ Boulder [	Cobble	e 🗆 Grave	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic	: 🗆 Ot	her:	
% of Substrate:	%	%	_ <u>10_</u> %	%	<u>15</u> %	<u>75_</u> %	% _%	%	1	
Width of Riparian Zone		etative Layers:								
ft∙		k all that apply) . <b>DBH of Domi</b> l	nants:	⊠ Trees:			ngs/Shrubs:	×F	lerbs	
N/A⊠	(appro			<u>    12.0  </u> in		1.25		_	in.	
Dominant Bank Vegeta Sugar maple, white		poplar, blac	k cherr	v. multiflo	ra rose. blackb	errv. s	stiltarass. dee	ertonau	e. woodnettle	
Aquatic Habitats (ex: s	•						•			
none	- g					, - J		,, .		
Aquatic Organisms Ob	oserved (list)	:								
none										
T&E Species Observed	d (list):									
none										
Disturbances (ex: livest	ock access, m	anure in waterboo	dy, waste	discharge pipe	es):					
Area was selective	ly logged									
Tributary is: (check one)	⊠ Na	tural	□ Artif	ïcial, man-m	ade 🛛 Manipu	ulated				
Stream Quality <sup>a</sup> : (check one)	□ Hig	jh	⊠ Moc	lerate	□ Low					

Waterbody ID: SUPA012

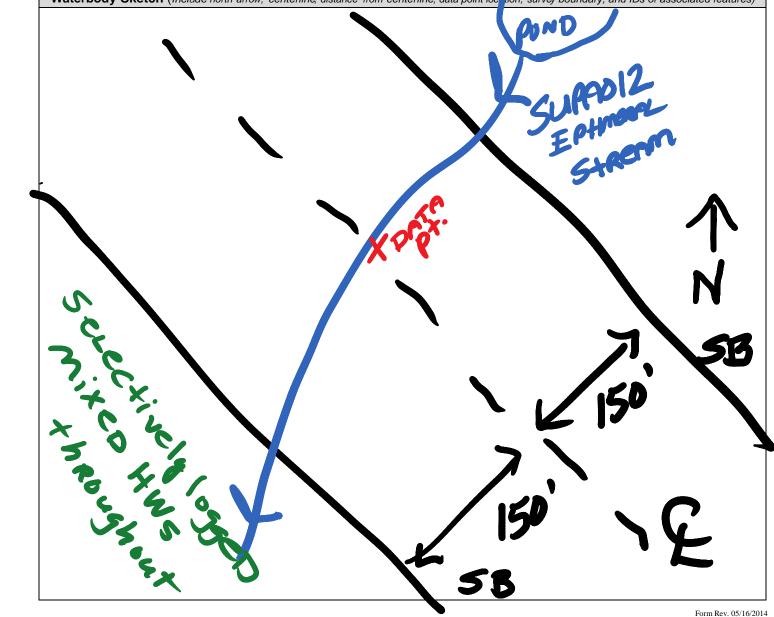
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Unnamed Tributary to Buckhannon River, continues out of corridor both directions, shown as a NHD intermittent stream line





Waterbody SUPA012 facing northeast upstream



Waterbody SUPA012 facing southwest downstream



Waterbody SUPA012 facing northwest across

Survey Descriptio	n								
Project Name:		Waterbody Na				Vaterbody ID:		Date:	
Southeastern Relia	bility	Grassy Run			S	SUPA013		6/28/2014	
State:	County/Parish:		Company		Crew	Member Initials	: P	hotos:	
West Virginia	Upshur		Natural Re	esource Group	GB, <sup>-</sup>	TP, SK	;	3	
Tract Number(s):	1		Nearest Mile	epost:	I	Associated W	etland I	D(s)	
03-117			32.75			none			
Survey Type: (check one)	⊠Centerlin	e □Re-	Route	□Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	Epheme	ral □Inte	rmittent	⊠Perennial					
Waterbody Type: (check one)	∃River ⊠ St	tream 🗆 Dit	ch 🗆 Ca	anal 🗌 Other	:				
OHWM Width: <u>17.0_</u> ft.	OHWM Indica (check all that app		□ Clear lir on bank	ne 🗆 Shelvin	g	□Wrested vegetation	$\boxtimes$	Scouring ⊠Water staining	
<b>Height:</b> <u>2.5_</u> ft. N/A□	⊟Bent, vegetati	matted, or missir on	ng   □Wrack li	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		□Soil characteristic chan	ige
Width of Waterbody - Bank to Top of Bank:		of Waterbody - e of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - V	Vater Edge to	Depth c (Approx.)	f Water:	·
<u>35.0</u> ft.		<u>8.0</u> ft.		<u>1</u> N/A□	<u>2.0_</u> ft.		N/A□	<u>0.75</u> ft.	
Sinuosity: ( <sup>check one)</sup> ⊡Straight ⊠Meanderi	(Approx	velocity: .) <u>2.0</u> fp	S	Bank height Right: Left:	<u>8.0_</u> ft 7.0_ft.		Bank sl	ope Right: <u>85</u> degrees Left: <u>80</u> degrees	
Qualitative Attribu				<u> </u>				0	
Water Appearance: (check one)	<sup>□</sup> No water ⊠	Clear DTurl		neen DSul n surface scu		□Algal [ mats	□Other:		
(check all that apply)		oulder ⊠ Cob % _ <u>10_</u> %		el ⊠ Sand <u>12</u> %	⊠ Silt/ 0 %		⊡ 0 %		
Width of Riparian Zone 	(check all that	ve Layers: at apply) I of Dominants:	<sup>⊠</sup> Trees _ <u>12.0_</u> in		⊠ Sapli _1.25	ings/Shrubs: in.		Herbs in.	
N/A⊠ Dominant Bank Vegeta	ation (list):	l. hinah. uhaala		e e e la como la como la c					
Sugar maple, heml									
Aquatic Habitats (ex: s Step pools, riffles, r			on, overhanging	banks/roots, leaf pac	ks, large	e submerged wood	, riffles, d	eep pools):	
Aquatic Organisms Ob	served (list):								
Trout									
T&E Species Observed	l (list):								
none									
Disturbances (ex: livest	ock access, manure	in waterbody, wast	e discharge pip	es):					
Area to the north be	etween stream	n and road ha	s been logg	jed					
Tributary is: (check one)	Natural	□ Ai	tificial, man-m	ade 🗆 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	⊠M	oderate	□ Low					

Waterbody ID: SUPA013

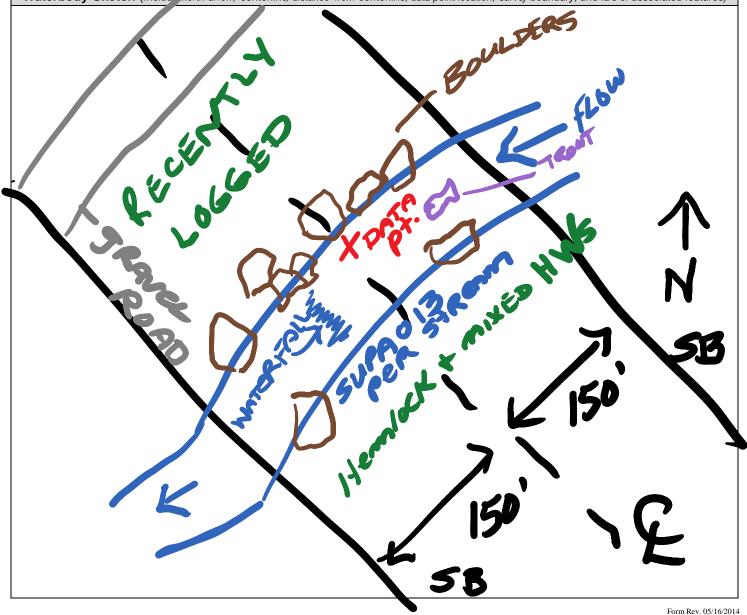
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Grassy Run, continues out of corridor both directions, forest on north bank has been logged; stream is brook trout habitat





Waterbody SUPA013 facing east upstream



Waterbody SUPA013 facing west downstream



Waterbody SUPA013 facing north across

Survey Descriptio	n								
Project Name:		Waterbody Na	ame:		v	Vaterbody ID:			Date:
Atlantic Coast Pipe	-	Gravel Run			_	Supe011			7/25/2016
State:	County:		Company:		Crew I	Member Initials:	:	Photos:	
West Virginia	Upshur		NRG		CG, A			1-3	
Tract Number(s):			Nearest Mile	epost:		Associated We	etland	ID(s):	
03-118			NA			none			
Survey Type: (check one)		e □Re-	Route	⊠Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	Ephemer	al ⊡Inte	ermittent	⊠Perennial					
Waterbody Type:									
	River Sti	ream 🗆 Dit	ich 🗆 C	anal 🗌 Other:	:				
ОНѠМ	OHWM Indica								
Width: <u>12</u> ft.	(check all that appl	y)	Clear lir on bank	ne 🗆 Shelving	g	⊠Wrested vegetation	X	Scouring	g ⊟Water staining
Height:	⊠Bent, i	matted, or missi	ng	ne 🛛 Litter ar	nd	□Abrupt plant		⊠Soil cl	naracteristic change
_ <u>_1_</u> ft. N/A□	vegetatio	on		debris		community cha	ange		
Width of Waterbody - 1			Toe of Slope	Width of Waterb	ody - W			of Water	:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		(	(Approx.)		
<u>_25_</u> ft.	-	<u>8</u> ft.			<u>8</u> ft.		N/A□	-	<u>0.3</u> ft.
Sinuosity:	Water	velocity:		N/A□ Bank height			Bank s	slone	
(check one)	(Approx.)			Right:				Right	:
		<u>0.5</u> fp	S	Left:	<u>4</u> ft.			Left	<u>35</u> degrees
⊠Meanderi	ng N/A□			Len.	<u>7_</u> ft.			Len	<u>45</u> degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water ⊠	Clear □Tur	bid ⊡Sh	ieen ⊡Sui	rfago		∃Othei	<b>.</b>	
				i surface sci		□Algal □ mats		1.	
Substrate:	Bedrock 🗆 Bo	oulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic		Other:	
	<u>70 </u> %	%	_% <u>5</u> %	<u> 10  </u> %	<u>15_</u> %	%		%	
Width of Riparian Zone	e: Vegetativ	e Layers:							
	(check all tha		☑ Trees			ngs/Shrubs:	$\boxtimes$	Herbs	
<u>20 ft</u> - N/A□	(approx.)	of Dominants:	<u>_10_</u> in.	-	_ <u>1_</u> in.				
Dominant Bank Vegeta									
Hemlock, rhododen									
Aquatic Habitats (ex: se		d aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	e submerged wood,	riffles,	deep pool	s):
Pools, overhanging	•								
Aquatic Organisms Ob									
Invertebrates, minn	ows								
T&E Species Observed	l (list):								
none									
Disturbances (ex: livest	ock access, manure	in waterbody, was	te discharge pip	es):					
Crosses over road									
Tributary is: (check one)	□ Natural	□ A	rtificial, man-m	ade 🛛 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	× M	loderate	□ Low					

Waterbody ID:

Supe011

**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.

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### Notes:

	surcoll TN
AAA	Gravel Logging
R	to to
	H K K



Waterbody supe011 facing southeast upstream



Waterbody supe011 facing northwest downstream



Waterbody supe011 facing southwest across

Survey Description	n							
Project Name:		Waterbody Na	me:			/aterbody ID:		Date:
Southeast Reliability	у	Gravel Run			S	UPB010		6/30/2014
State:	County/Parish:		Company:			Member Initials:	Photos	:
West Virginia	Upshur		Natural Re	esource Group	TP		3	
Tract Number(s):			Nearest Mile	epost:		Associated Wetl	and ID(s):	
03-118			34.35			WUPB009f		
Survey Type: (check one)	⊠Centerline	e □Re-I	Route	□Access Road		□Other:		
<b>Physical Attributes</b>	S							
Stream Classification: (check one)		al 🗌 Inter	rmittent	⊠Perennial				
Waterbody Type: (check one)	River 🛛 Str	eam 🗆 Dite	ch 🗆 Ca	anal 🗌 Other	:			
OHWM Width: <u>15.0</u> ft.	OHWM Indica (check all that appl		⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	Scourir	ng ⊡Water staining
<b>Height:</b> ft. N/A□	□Bent, r vegetatic	natted, or missin	ig ⊠Wrack li	ne 🗆 Litter ar debris	nd	□Abrupt plant community chan		characteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W	Ater Edge to De (Ap	epth of Wate	er:
<u>_15_</u> ft.	-	<u>15_</u> ft.			<u>_10_</u> ft.	N/A	A□	<u>0.33</u> ft.
Sinuosity: (check one) □Straight ⊠Meanderir	(Approx.)	velocity: fps		Bank height Right: Left:	<u>0.5_</u> ft.		ink slope Righ Le	<u>15</u> degrees <b>ft:</b>
Qualitative Attribu					<u>6.0_</u> ft.	·		<u>85</u> degrees
Water Appearance:	les							
(check one)	No water ⊠0	Clear DTurb		een 🗆 Sui surface scu		□Algal □C mats	Other:	
Substrate:  (check all that apply) % of Substrate:	Bedrock □ Bo	oulder ⊠ Cobb % _ <u>50</u> _%	ble ⊠ Grave _ <u>20</u> _%		⊠ Silt/ o <u>10</u>	clay □ Organic %%	□ Other: %	
Width of Riparian Zone	c: Vegetative		× <b>-</b>	5		(O)		
<u>50 ft</u> ⊷ N/A□	Avg. DBH (approx.)	of Dominants:	⊠ Trees: <u>13_</u> in.		⊴ Saplii _ <u>2_</u> in.	ngs/Shrubs:	□ Herbs i	n.
Dominant Bank Vegeta Tulip poplar, sugar i	. ,	rbododendro	n southern	ladyfern				
				•				
Aquatic Habitats (ex: su Fringe wetlands, de					ks, large	e submerged wood, rif	fles, deep po	ols):
Aquatic Organisms Ob	served (list):							
Caddisfly, fish, craw	. ,							
T&E Species Observed	l (list):							
none								
Disturbances (ex: livesto	ock access, manure i	n waterbody, wast	e discharge pipe	es):				
none								
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	<sup>⊠</sup> High		oderate	□ Low				

Waterbody ID: SUPB010

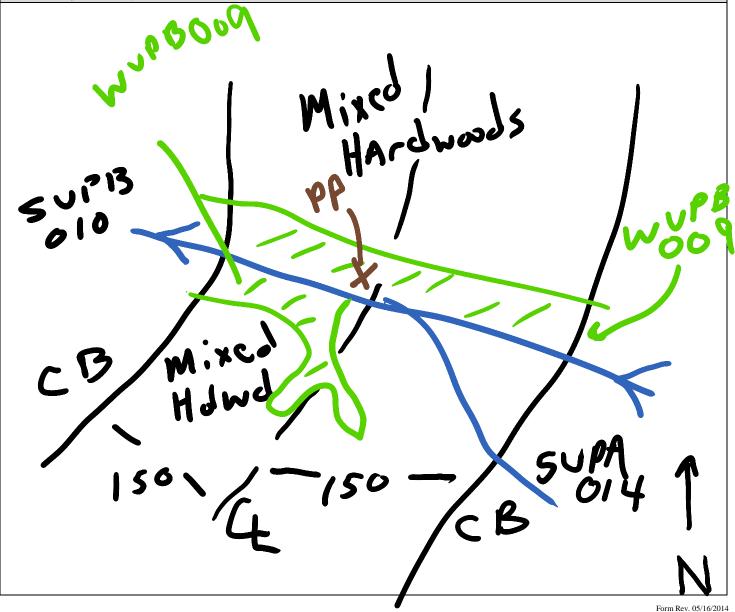
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Clear flowing mountain stream, lots of bars and benches, cobble, rock, caddisfly, broad/flat





Waterbody SUPB010 facing southeast upstream



Waterbody SUPB010 facing northwest downstream



Waterbody SUPB010 facing southwest across

Survey Descriptio	n								
Project Name:		Waterbody Na				aterbody ID:		-	ite:
Southeastern Relia	bility	Unnamed T	ributary to (	Gravel Run	S	UPA014		6/	30/2014
State:	County/Parish:		Company		Crew N	Member Initials:	: P	hotos:	
West Virginia	Upshur		Natural Re	esource Group	GB, T	A	:	3	
Tract Number(s):			Nearest Mile	epost:		Associated We	etland I	D(s)	
03-118			34.4			WUPA010			
Survey Type: (check one)	⊠Centerlin	e □Re-	Route	□Access Road	I	□Other:			
Physical Attribute	s								
Stream Classification: (check one)	Ephemer	ral ⊠Inte	ermittent	□Perennial					
Waterbody Type: (check one)	River ⊠ St	ream 🗆 Di	tch 🗆 C	anal 🛛 Other	:				
OHWM Width:	OHWM Indica (check all that app		Clear lir	ne ⊠Shelvin	g	□Wrested		Scouring	⊠Water
<u>5.0</u> ft.			on bank			vegetation			staining
Height: <u>1.0_</u> ft. N/A□	□Bent, vegetatio	matted, or missi on	ng ⊠Wrack li	ine ⊠Litter ar debris	nd	□Abrupt plant community ch		⊡Soil cha	racteristic change
Width of Waterbody - 1			Toe of Slope	Width of Waterb	ody - W	ater Edge to		of Water:	
Bank to Top of Bank:	to Toe	e of Slope:		Water Edge:			(Approx.)		
<u>8.0</u> ft.	-	<u>4.0</u> ft.		N/A□	<u>4.0 ft</u> .		N/A□		<u>.25_</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank sl	ope	
(check one)	(Approx.			Right:				Right:	
		<u>0.75</u> fp	S	Left:	<u>1.8</u> ft.			Left:	<u>60</u> degrees
⊠Meanderi	ng N/A□				<u>2.5</u> ft.				<u>45</u> degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	No water ⊠	Clear □Tur			rface um	□Algal [ mats	□Other:		
Substrate:	Bedrock B	oulder 🖂 Cob				lay 🗆 Organic		ther:	
(check all that apply) % of Substrate:		_% _5 %		<u></u>	25_%		_%		
Width of Riparian Zone	Vogotativ	e Layers:			_				
-	(check all that		⊠ Trees	:	⊠ Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>WETLAND IS</u> <u>RIPARIAN_ft</u>	(approx.)	I of Dominants:	_ <u>13.0_</u> ii	n	iı	n.		in.	
Dominant Bank Vegeta Sugar maple, hemle	. ,	k birch Amei	rican linden	rhododendroi	n tulin	poplar gree	en ash	Christm	nas fern
woodland aster Aquatic Habitats (ex: si									
Pools, riffles, coars			,		,	;;;;;;	,, -		
Aquatic Organisms Ob	served (list):								
Salamander, water	striders								
T&E Species Observed	l (list):								
none									
Disturbances (ex: livest	ock access, manure	in waterbody, was	te discharge pip	es):					
none apparent									
Tributary is: (check one)	Natural	□ A	rtificial, man-m	nade 🗌 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	⊠ N	loderate	□ Low					

Waterbody ID: SUPA014

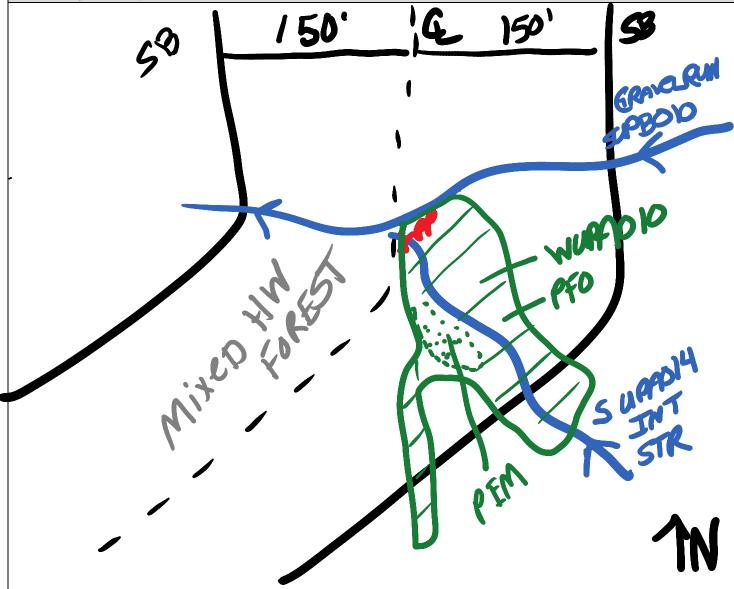
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Unnamed Tributary to Gravel Run, confluence at centerline, upstream continues out, connected to PFO/PEM wetland WUPA010.





Waterbody SUPA014 facing east upstream



Waterbody SUPA014 facing west downstream



Waterbody SUPA014 facing south across

Survey Description	on										
Project Name:		Waterbo	dy Narr	ne:			W	aterbody ID:			Date:
Atlantic Coast Pipe		Laurel I						upe010			7/20/2016
State:	County:			Company:			Crew I	Member Initials	5:	Photos:	
West Virginia	Upshur			NRG			CG, A			1-3	
Tract Number(s):				Nearest Mile	epost:			Associated Wetland ID(s):			
03-118				NA				none			
Survey Type: (check one)		ine	□Re-R	oute	⊠Ac	ccess Road		□Other:			
Physical Attribute											
Stream Classification (check one)	: □Epheme	eral	□Intern	nittent	⊠Pe	erennial					
Waterbody Type:											
(check one)	□River ⊠ S	Stream	Ditch	n 🗆 Ca	anal	□ Other	:				
ОНWM	OHWM Indi								_		
Width: <u>15</u> ft.	(check all that a	(עוקס		Clear lir on bank	ne	□Shelvin	g	⊠Wrested vegetation	Þ	Scouring	g □Water staining
Height:	⊠Bent	t, matted, or	missing	g ⊡Wrack li	ne	⊠Litter ar	nd	□Abrupt plar	nt	⊠Soil cl	haracteristic change
ft. N/A□	vegeta	tion				debris		community ch	nange		C C
Width of Waterbody -				oe of Slope			ody - W	ater Edge to		of Water	1
Bank to Top of Bank:	to To	e of Slope:			Water	Edge:			(Approx.	)	
<u>_25_</u> ft.		<u>12</u> ft.				-	<u>12_</u> ft.		N/A□		<u>0.5</u> ft.
Sinuosity:	Wate	er velocity:			N/A⊡ Bank	height			Bank :	slone	
(check one)	(Appro				Dank	Right:			Dank	Right	:
⊠Straight		0	<u>.8_</u> fps			L offi	<u>7_</u> ft.				<u>70</u> degrees
□Meander	ring N/A					Left:	<u>7_</u> ft.			Left	70_ degrees
Qualitative Attrib	utes				1				I		
Water Appearance: (check one)	□No water	⊠Clear	□Turbi	d ⊡Sh	een	□Su	rface	□Algal	□Othe	r.	
					surfac			mats			
	Bedrock	Boulder 🗵	Cobbl	e 🛛 Grave	el 🛛	Sand	□ Silt/ c	clay 🗆 Organio		Other:	
(check all that apply) % of Substrate:	%40	_%	<u>40 </u> %	<u> 10 </u> %	_1	0_%		_%%	·	%	
Width of Riparian Zor	e: Vegetat	ive Lavers:									
-	(check all t	hat apply)		☑ Trees	:		⊠ Saplir	ngs/Shrubs:	Σ	I Herbs	
<u>ft</u> - N/A⊠	Avg. DE (approx.)	BH of Domin	ants:	<u> 10 </u> in.		-	<u>1</u> in.				
Dominant Bank Vege	tation (list):										
Rhododendron, bir	rch, stilt grass,	, magnolia	l								
Aquatic Habitats (ex:	submerged or emerg	ged aquatic ve	egetation	, overhanging	banks/ro	oots, leaf pac	ks, large	submerged wood	l, riffles,	deep pool	s):
Pool, riffles, step p	ools, boulders	s, overhan	ging v	/eg							
Aquatic Organisms O	bserved (list):										
Minnows, insects											
T&E Species Observe	ed (list):										
none											
Disturbances (ex: lives	tock access, manur	e in waterbod	y, waste	discharge pipe	es):						
Culverted, crosses	road										
Tributary is: (check one)	□ Natura	l	🗆 Arti	ficial, man-m	ade	🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		⊠ Moo	derate		□ Low					

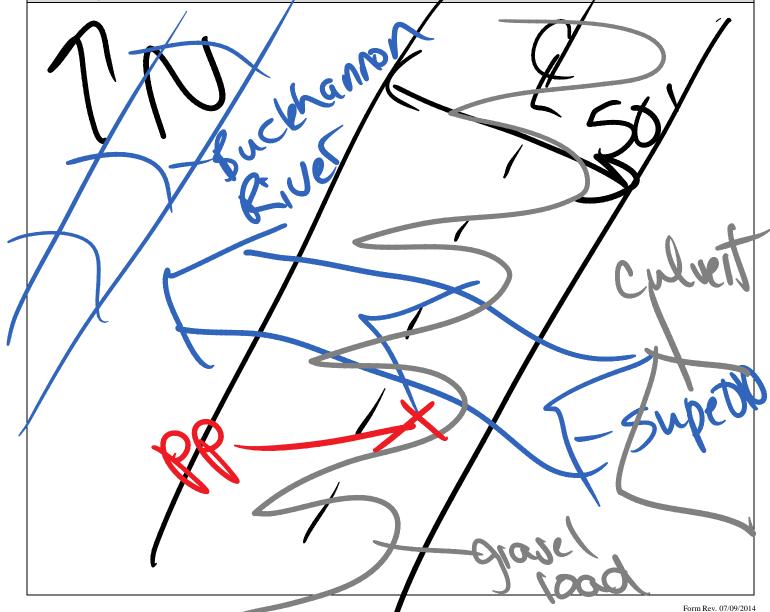
Waterbody ID: Supe010

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

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

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

#### Notes:





Waterbody supe010 facing southeast upstream



Waterbody supe010 facing northwest downstream

Survey Description	n								
Project Name:		Waterbody Na				aterbody ID:		Da	
Atlantic Coast Pipel	ine	UNT to Lau	rel Run		รเ	upa051		5/*	14/2015
State:	County:		Company:		Crew N	Member Initials	:: I	Photos:	
West Virginia	Upshur		NRG		GB, S	SA		3 photos	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
03-123; access road	d 244		35.6			Discontinuo	ous frir	nge wetla	nd
Survey Type: (check one)		e □Re-	Route	⊠Access Road		□Other:			
Physical Attributes	S								
Stream Classification: (check one)	□Ephemer	ral ⊠Inte	ermittent	Perennial					
Waterbody Type:									
	River St	ream 🗆 Dit	ch 🗆 C	anal 🗌 Other	:				
онwм									
Width: _ <u>3.0_</u> ft.	(check all that app	עי)	Clear lir on bank	ne 🗆 Shelvin	g	⊠Wrested vegetation	X	Scouring	□Water staining
Height:		matted, or missi	ng		nd	□Abrupt plar		□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	ater Edge to	Depth (Approx.)	of Water:	
•		•			0.05 #			0	20 ft.
<u>_5.0</u> ft.		<u>1.5</u> ft.		N/A□	<u>2.25_</u> ft.		N/A□		<u>20_</u> it:
Sinuosity:		velocity:		Bank height			Bank s	lope	
(check one)	(Approx.			Right:	<u>3.0</u> ft.			Right:	80 degrees
		<u>_0.50</u> fp	DS	Left:				Left:	-
Meanderir	ng N/A□				<u>3.0_</u> ft.				75 degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water	Clear □Tur		neen ⊡Sui i surface sci		□Algal mats	□Other		
	Bedrock 🗆 B	oulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🛛 Organio	; □ C	Other:	
(check all that apply) % of Substrate:	%	% 25 %	35 %	20 %	15 %	%	5	%	
Width of Riparian Zone	· Vegetativ	e Layers:						-	
	(check all tha	at apply)	⊠ Trees	: D	⊠ Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>ft</u> . N/A⊠	Avg. DBH (approx.)	l of Dominants:	<u>13.0</u> i	n	<u>1.0</u> in				
Dominant Bank Vegeta	tion (list):								
Black cherry, sugar fern. wood fern. Chr	<u>ristmas fern. a</u>	olden ragwor	<u>t. tussock s</u>	<u>edae. deer-ton</u>	aue ar	<u>rass. areenb</u>	rier. a	rape	olly, New York
Aquatic Habitats (ex: su Leaf packs, emerge		ed aquatic vegetation	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, o	deep pools):	
Aquatic Organisms Ob	served (list):								
frog									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ock access, manure	in waterbody, was	te discharge pipe	es):					
Culvert crossing for	existing dirt to	wo track, con	fined to ditc	h along existing	g road	for a distand	ce		
Tributary is: (check one)	⊠ Natural		rtificial, man-m	ade 🛛 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	□ M	oderate	⊠ Low					

Waterbody ID:

supa051

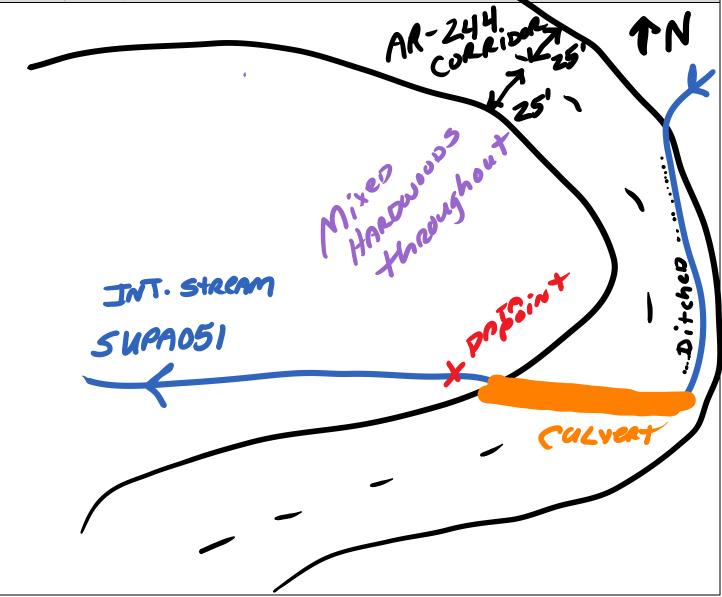
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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





# Waterbody SUPA051 facing east upstream



Waterbody SUPA051 facing west downstream



Waterbody SUPA051 facing north across

Survey Descriptio	n							•
Project Name:		Waterbody Na	me:			/aterbody ID:		Date:
Southeast Reliabilit	У	Laurel Run			S	UPB011		6/30/2014
State:	County/Parish:		Company:		Crew I	Member Initials:	Photos:	
West Virginia	Upshur		Natural Re	esource Group	ΤP		3	
Tract Number(s):	1		Nearest Mile	epost:	1	Associated Wet	land ID(s):	
03-124			34.9			none		
Survey Type: (check one)	⊠Centerline	e □Re-I	Route	□Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)		al 🛛 🗆 Inter	rmittent	⊠Perennial				
Waterbody Type:	-							
	River Str	eam 🗆 Dite	ch 🗆 Ca	anal 🗌 Other:	:			
OHWM Width: 15.0 ft.	OHWM Indica (check all that appl		⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	□Scourin	g □Water staining
Height: 1.0 ft.		natted, or missin	ıg ⊠Wrack li		nd	Abrupt plant		haracteristic change
N/A□	vegetatio			debris		community char	ige	
Width of Waterbody - 1 Bank to Top of Bank:	op of Width to Toe	of Waterbody - of Slope:	Toe of Slope	Width of Waterb Water Edge:	ody - W	Ater Edge to De	epth of Wate	r:
<u>_20</u> ft.		_12_ ft.			_12_ ft.			_0.5_ ft.
<u></u> n.	-	<u>_12_</u> 1t.		N/A□	<u>_12_</u> 1t.	N/	A□	
Sinuosity: (check one)		velocity:		Bank height		Ba	ank slope	
	(Approx.)			Right:	<u>2.5_</u> ft		Righ	t: <u>30</u> degrees
		<u>1.5_</u> fps		Left:	<u></u> n.		Lef	t:
Meanderi	ng N/A□			-	<u>5.0_</u> ft			80 degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	No water ⊠0	Clear 🗆 Turk		neen ⊡Sui n surface scu		□Algal □0 mats	Other:	
Substrate:	Bedrock 🛛 Bo	oulder 🛛 Cobb	ole 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic	Other:	
(check all that apply) % of Substrate:	%5	_% _ <u>25</u> _%	<u> </u>	<u>60</u> %	<u>5</u> %	%	%	5
Width of Riparian Zone	e: Vegetative	avers:						
That of Repartal Long	(check all that		⊠ Trees	:	🛛 Sapli	ngs/Shrubs:	□ Herbs	
<u>50 ft</u> ∙ N/A□	Avg. DBH (approx.)	of Dominants:	<u>14</u> in.	-	<u>2</u> in.		in.	
Dominant Bank Vegeta								
Tulip poplar, sugar				•				
Aquatic Habitats (ex: s				-	-	-	ffles, deep poo	ls):
Fringe wetlands, de	•	s, cobble, ba	irs and ben	ches, submerg	ed wo	od		
Aquatic Organisms Ob								
Caddisfly, fish, crav	vfish							
T&E Species Observed	l (list):							
none								
Disturbances (ex: livest	ock access, manure i	n waterbody, wast	e discharge pip	es):				
Possible pasture or	n left bank at up	ostream edge	of corridor					
Tributary is: (check one)	⊠ Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High	⊠ Mo	oderate	□ Low				

Waterbody ID: SUPB011

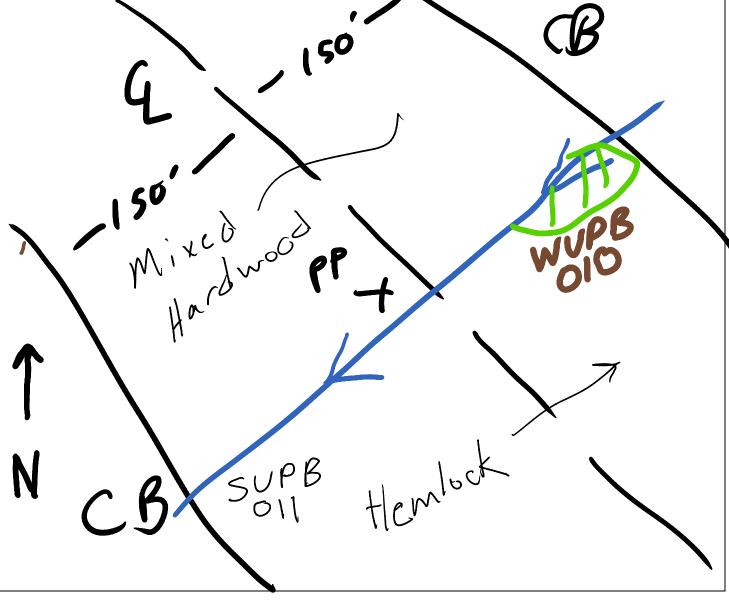
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Clear flowing stream, lots of bars and benches, cobble, rock, caddisfly, broad/flat





Waterbody SUPB001 facing west upstream



Waterbody SUPB001 facing east downstream



Waterbody SUPB001 facing south across

Survey Descriptio	n										
Project Name:		Waterbo	•					aterbody ID:			Date:
Atlantic Coast Pipel		UNT to		ile Creek				upa053			5/15/2015
State:	County:		C	Company:				Member Initials	5:	Photos:	
West Virginia	Upshur		٢	IRG			GB, S	SA		3 photo	DS
Tract Number(s):				learest Mile	epost:			Associated W	etland	ID(s):	
03-125				36.0				none			
Survey Type: (check one)	□Center	rline	□Re-Ro	oute	⊠Ac	cess Road		□Other:			
Physical Attribute	S										
Stream Classification: (check one)	□Epherr	neral	⊠Interm	ittent	□Pe	erennial					
Waterbody Type: (check one)	River ⊠	Stream	Ditch	□ Ca	anal	Other:					
онум											
Width: <u>3.0 ft</u> .	OHWM Ind (check all that a			□ Clear lin on bank	e	Shelvin	g	⊠Wrested vegetation		Scouring	g ⊟Water staining
Height: 0.33 ft.	⊠Ber veget	nt, matted, or	missing	□Wrack li	ne	□Litter ar debris	nd	□Abrupt plan community ch		□Soil cł	naracteristic change
N/A□	0							,	0		
Width of Waterbody - 1 Bank to Top of Bank:		th of Waterl		be of Slope	Width Water		ody - W	ater Edge to	Depth (Approx.	of Water	:
		•	•			U	4 5 6				0.10 ft.
<u>3.5 f</u> t.		<u>1.5</u> ft.			N/A□		<u>1.5_</u> ft.		N/A□	-	<u></u> n.
Sinuosity: (check one)		ter velocity:			Bank I	height			Bank	slope	
Straight	(App		05 600			Right:	<u>2.5</u> ft.			Right	80 degrees
			<u>.25</u> fps			Left:				Left	:
	ng N/A					-	<u>2.5_</u> ft.				<u>80</u> degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	<sup>]</sup> No water	⊠Clear	□Turbic		een surface	⊟Sur e scu		□Algal mats	□Othe	r:	
	Bedrock	Boulder	Copple	e 🛛 Grave	el 🛛	Sand 2	⊠ Silt/ c	lay 🛛 Organic		Other:	
(check all that apply) % of Substrate:	%	%	<u>20_</u> %	<u>20</u> %	3	<u>5</u> %	<u>20_</u> %	_5_%		%	
Width of Riparian Zone	e: Vegeta	tive Layers:									
	(check all	that apply)		☑ Trees:		Σ	Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>ft</u> . N/A⊠	AV <b>G. D</b> (approx.)	BH of Domi	nants:	<u>   12.0   </u> ii	า.	-	<u>0.75</u> i	n.			
Dominant Bank Vegeta	ation (list):										
Sugar maple, white golden ragwort, woo	od fern. vern	<u>nal grass. ĭ</u>	voodla	nd sédae							-
Aquatic Habitats (ex: so Leaf packs, emerge	0	0 1	egetation,	overhanging	banks/rc	oots, leaf pac	ks, large	submerged wood	I, riffles,	deep pools	5):
Aquatic Organisms Ob	served (list):										
none											
T&E Species Observed	l (list):										
none											
Disturbances (ex: liveste				• • •	es):						
Livestock access, c	ulvert crossi	ing for exis	sting fa	rm road							
Tributary is: (check one)	⊠ Natura	al	□ Artif	icial, man-m	ade	Manipu	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		□ Mod	erate		⊠ Low					

Waterbody ID:

supa053

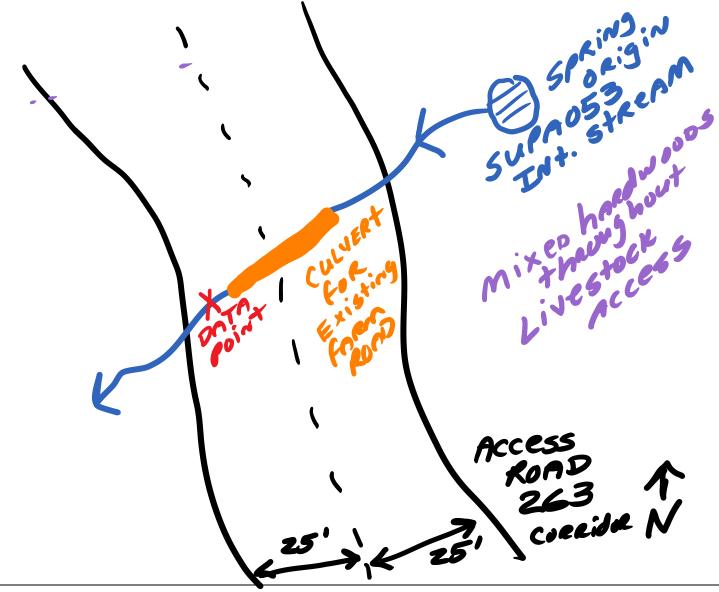
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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 spring fed stream, severely degraded, continues out of access road corridor in both directions





# Waterbody SUPA053 facing southeast upstream



Waterbody SUPA053 facing northwest downstream



# Waterbody SUPA053 facing southwest across

Survey Descripti	on								
Project Name:		Waterbody Na				aterbody ID:			Date:
Atlantic Coast Pip	eline	UNT to Ten	mile Creek		SI	upa052			5/15/2015
State:	County:		Company:		Crew I	Member Initials:	: F	Photos:	
West Virginia	Upshur		NRG		GB, S	SA	:	3 photo	S
Tract Number(s):	I		Nearest Mile	epost:		Associated W	etland	ID(s):	
03-125			36.3			none			
Survey Type: (check one)		e □Re-	Route	⊠Access Road	l	□Other:			
Physical Attribut	tes								
Stream Classification (check one)	n: □Ephemei	ral ⊠Inte	rmittent	□Perennial					
Waterbody Type: (check one)	□River ⊠ St	tream 🗆 Dit	ch 🗆 C	anal 🛛 Other	:				
OHWM Width: 3.0 ft.	OHWM Indica (check all that app		□ Clear lir on bank	ne ⊡Shelvin	g	⊠Wrested vegetation		Scouring	□Water staining
Height: 0.33_ft.	⊠Bent, vegetati	matted, or missii on	ng ⊡Wrack li	ne □Litter a debris	nd	□Abrupt plant community ch		□Soil ch	aracteristic change
N/A□ Width of Waterbody	- Top of Width	of Waterbody -	Too of Slope	Width of Waterb	ody - W	ater Edge to	Denth (	of Water	
Bank to Top of Bank		e of Slope:		Water Edge:	ouy - w		(Approx.)	or water	
<u>_5.0</u> ft.		<u>1.5</u> ft.			<u>1.0</u> ft.		N/A□	_	<u>0.08_</u> ft.
Sinuosity:		velocity:		Bank height			Bank s	lope	
(check one)	(Approx	.)		Right:				Right:	
		<u>    0.05   </u> fp	os	Left:	<u>3.0</u> ft.			Left	<u>70</u> degrees
	ering N/A□			-	<u>4.5_</u> ft.				<u>65</u> degrees
Qualitative Attrik	outes								
Water Appearance: (check one)	□No water □	lClear ⊠Tur			rface um	□Algal [ mats	Other	:	
Substrate:	□ Bedrock ⊠ B	oulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic		)ther:	
(check all that apply) % of Substrate:	%15_	<u>% 30</u> %	<u> 15 </u> %	<u>20</u> %	<u>20_</u> %	%		_%	
Width of Riparian Zo	ne: Vegetativ	ve Layers:							
<u>ft</u>	(check all the Avg. DBH	-		s: D	⊠ Saplir <u>0.50_</u> i	ngs/Shrubs: n.	$\boxtimes$	Herbs	
N/A⊠ Dominant Bank Vege	(approx.)								
Multiflora rose, Ja grass	panese honeys		•	•				•	
Aquatic Habitats (ex:		ed aquatic vegetation	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, c	deep pools	):
Leaf packs, emer	• •								
Aquatic Organisms (	Observed (list):								
none									
T&E Species Observ	ed (list):								
none									
Disturbances (ex: live	stock access, manure	in waterbody, was	te discharge pipe	es):					
Livestock access,	paralleled by e	xisting farm re	bad						
Tributary is: (check one)	□ Natural		rtificial, man-m	iade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	□ M	oderate	⊠ Low					

Waterbody ID:

supa052

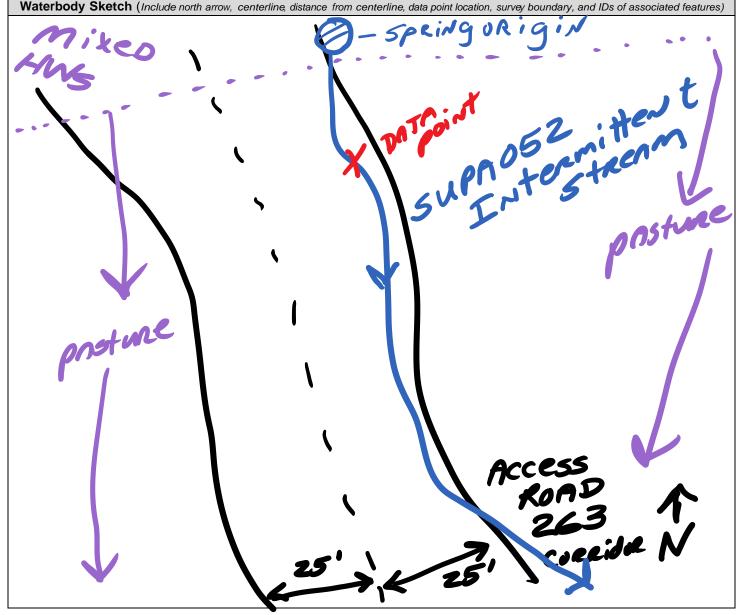
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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 spring fed channelized stream in an active pasture, severely degraded, continues out of access road corridor in both directions, spring origin just outside access road corridor.





Waterbody SUPA052 facing northeast upstream



Waterbody SUPA052 facing southwest downstream



# Waterbody SUPA052 facing southeast across

Survey Descriptio	n							
Project Name:		Waterbody Na				laterbody ID:		Date:
Southeast Reliabilit	У	Tenmile Cre	ek		S	UPA016		7/14/2014
State:	County:		Company:		Crew I	Member Initials	: Pho	otos:
West Virginia	Upshur		Natural Re	esource Group	GB, S	SK	3	
Tract Number(s):	1		Nearest Mile	epost:	1	Associated W	etland ID(	(s):
03-129, 03-130			35.8			none		
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	eam 🗆 Dito	:h □Ca	anal 🗆 Other	:			
OHWM Width:	OHWM Indica (check all that apply		⊠ Clear lir on bank	ne ⊠Shelvin	g	Wrested	⊠Sc	ouring
<u>14.0</u> ft.			ULIDALIK			vegetation		Stairing
Height: ft. N/A□	□Bent, r vegetatio	natted, or missin n	g	ne 🗆 Litter ar debris	nd	□Abrupt plant community ch		Soil characteristic change
Width of Waterbody - 1	Top of Width	of Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of	Water:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:	-	_	(Approx.)	
<u>ft</u> .	_	<u>12.0</u> ft.			<u>13.0_</u> ft			<u>_1.25_</u> ft.
Sinuosity:	Water	velocity:		N/A□ Bank height			N/A⊡ Bank slop	
(check one)	(Approx.)			Right:		I	•	Right:
□Straight		<u>_1.5_</u> fps	i	_	<u>3.5_</u> ft.			60 degrees
⊠Meanderi	ng N/A□			Left:	<u>3.5_</u> ft.			Left: <u>85</u> degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	<sup>□</sup> No water ⊠0		id ⊓Sh		4			
	⊐No water ⊠C	Clear 🗆 Turb		leen ⊡Sui I surface scu		□Algal [ mats	□Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🛛 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic	□ Othe	er:
% of Substrate:	%	<u>% 45</u> %	<u> 10 </u> %	<u>20</u> %	<u>25_</u> %	%		_%
Width of Riparian Zone	e: Vegetative	E Layers:						
100 #	(check all that		⊠ Trees	: D	🛛 Saplii	ngs/Shrubs:	⊠ He	erbs
<u>100 ft</u> - N/A□	AV <b>g. DBH</b> (approx.)	of Dominants:	<u>_9.0_</u> in.	· -	_ <u>0.75_</u> i	n.		
Dominant Bank Vegeta	ation (list):							
Sycamore, black ch deertongue, multiflo	ora rose. clearv	veed			-		-	-
Aquatic Habitats (ex: s Pools, riffles, wrack		u aqualic vegetalio	n, overhanging	banks/100ts, lear pac	ks, large	submerged wood,	, nines, dee	μ μουις).
Aquatic Organisms Ob	served (list):							
Frog, fish								
T&E Species Observed	d (list):							
none								
Disturbances (ex: livest	ock access, manure i	n waterbody, waste	e discharge pipe	es):				
Runoff from adjace	nt strip mine							
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	🗆 High	⊠ Mo	oderate	□ Low				

Waterbody ID: SUPA016

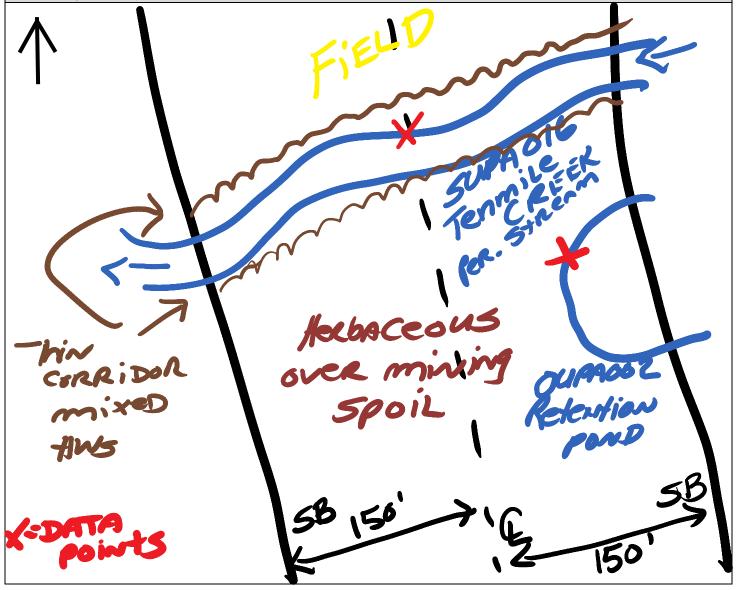
**High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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





Waterbody SUPA016 facing east upstream



Waterbody SUPA016 facing west downstream



Waterbody SUPA016 facing north across

Open Waterbod	ly Dat	ta Sheet									
Survey Descripti	on										
Project Name:		N	aterbod	y Name:			N	Waterbody ID:		Date:	
Southeast Reliabil	lity	L	Inname	ed Pond			•	OUPA002		7/14/20	14
State:	County	y:		Comp	any:		Crew	Member Initials:	Photos:	•	
West Virginia	Upshu	ur		Natu	ral Resource	e Group	GB,	SK	1		
Tract Number(s):				Neare	est Milepost:		4	Associated Wetland	ID(s):		
03-129				35.8				none			
Survey Type: (check one)		⊠Centerline	[	□Re-Rou	ite 🗆	Access Roa	d	□Other:			
Physical Attribut	es										
Waterbody Type:	ck Pond	□ Natural F	Pond 🗆	Lake 🗆	Reservoir 🗆	Impoundme	nt 🗆	Oxbow 🛛 Other: R	etention	pond	
Hydrologic Regime:	⊠ P	ermanently F	ooded	🗆 Semi	permanently FI	ooded 🗆	Seas	sonally Flooded $\Box$	Temporar	ily Floode	d
онwм		OHWM Indica			⊠ Clear line		vina	□Wrested		uring	□Water
Height: _ <u>3.0</u> ft.	C.	check an mai appi	y)		on bank	□Shel	ving	vegetation	□Sco	uring	staining
		□Bent, r vegetatio	,	r missing	□Wrack line	□Litte debris	r and	⊠Abrupt plant community cha		haracterist	ic change
Depth of Water:			Bank he	eight (ave	erage):			Bank slope (aver	age):		
_ <u>2.0</u> N/A 🗆	<u>)</u> ft.				<u>6.0</u> ft.			-	70_degre	es	
Qualitative Attrib	outes										
Water Appearance: (check one)	□No w	vater □CI	ear	⊠Turbid	□ Sheen on surface		urface m	e □Algal □0 mats	Other:		
Substrate: (check all that apply)	Bed	rock 🗆 Bou	lder 🛛	Cobble	⊠ Gravel	⊠ Sand	⊠ Si	lt/ clay 🛛 Organic	□ Other:		
% of Substrate:		_%	_%	<u> 5 </u> %	<u> 10 </u> %	<u>40</u> %	45	<u> %  </u> %		%	
Width of Riparian Zor	ne:	Vegetative L (check all that ap			⊠ Trees:	[	⊠ Sap	olings/Shrubs:	⊠ He	rbs	
ft. N/A⊠		Avg. DBH of	Domina	ints:	<u>7.0</u> in.		_ <u>0.50</u>	<u>)_</u> in.			
Dominant Bank Vege	tation (	(list):									
Sycamore, autum			, milkw	eed, bla	ackberry, Ind	lian hemp	, cro	wnvetch, fescue			
Aquatic Habitats (ex: s Pool	submerge	d or emerged aqua	tic vegetatio	on, overhang	ing banks/roots, leaf	packs, large su	bmerge	d wood, riffles, deep pools, e	tc.) <b>:</b>		
Aquatic Organisms C	Observe	ed (list):									
none											
T&E Species Observe	ed (list):										
none											
Disturbances (ex: live Receives directed			-	/, waste dis	scharge pipes):						
Waterbody is:			-								
(check one)		□ Natural		⊠ Artific	ial, man-made	🗆 Mani	pulate	d			
Waterbody Quality <sup>a</sup> : (check one)	1	□ High		□ Mode	rate D	⊠ Low					

Waterbody ID:

#### OUPA002

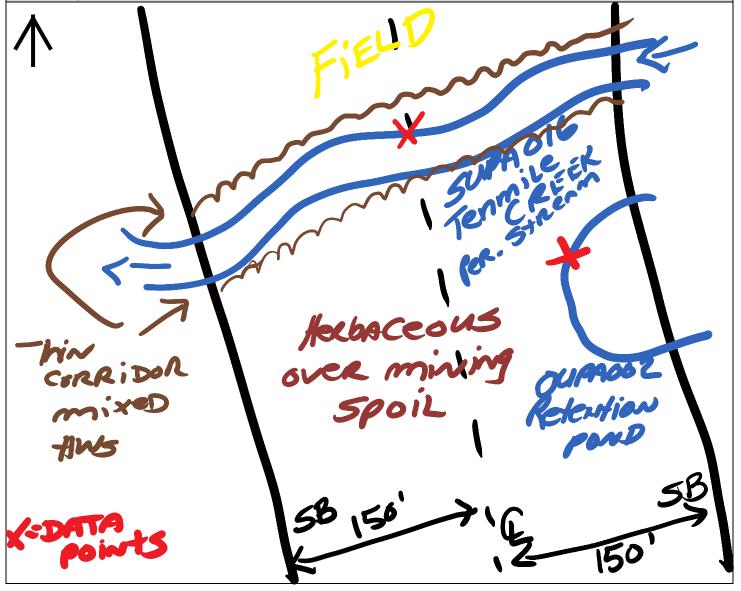
High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

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

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

#### Notes:

Retention pond for run-off and sediment associated with strip mine





Waterbody point OUPA002 facing north

Survey Description	n							
Project Name:		Waterbody Na				/aterbody ID:		Date:
Atlantic Coast Pipel	ine	UNT to Tenn	nile Creek		S	UPB050		5/18/2015
State:	County:		Company:		Crew I	Member Initials	: Pho	itos:
West Virginia	Upshur		NRG		TP, A	S	01·	-03
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s	s):
03-129.AR, unlabel	ed tract to east	t of 03-129	36.6			WUPB050		
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:	:			
OHWM Width: _ <u>3.0_</u> ft.	OHWM Indica (check all that apply		⊠ Clear lir on bank	ne DShelving	g	□Wrested vegetation	□Sco	ouring ⊟Water staining
<b>Height:</b> ft. N/A□	vegetatio	natted, or missin n	lg ⊡Wrack li	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		Soil characteristic change
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 of V (Approx.)	Vater:
<u>4.0</u> ft.	-	<u>1.0</u> ft.			<u>2.0_</u> ft.		N/A□	<u>0.25</u> ft.
Sinuosity: (check one) □Straight ⊠Meanderin	(Approx.)	velocity: 1.5_fps	3	Bank height Right: Left:	<u>2</u> ft. <u>2</u> ft.		Bank slop R	e Right: <u>80</u> degrees Left: <u>80</u> degrees
Qualitative Attribu					<u></u> n.			<u></u> dogrooo
Water Appearance:	162							
(check one)	No water ⊠0	Clear 🗆 Turb		leen ⊡Sur I surface scu		□Algal mats	□Other:	
Substrate: [ (check all that apply) % of Substrate:	Bedrock □ Bo	ulder ⊠ Cobb % <u>15_</u> %	ble ⊠ Grave _20_%		⊠ Silt/ c <u>30_</u> %	clay □ Organic %		r: _%
Width of Riparian Zone <u>10 ft</u> . N/A□	(check all that	•	□ Trees		⊠ Saplir _2_in.	ngs/Shrubs:	□ He	rbs
Dominant Bank Vegeta Sycamore, autumn	. ,	que						
Aquatic Habitats (ex: su Cobble, debris piles		d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, deep	p pools):
Aquatic Organisms Ob none	served (list):							
T&E Species Observed	(list):							
none								
Disturbances (ex: livestor Strip mine, culvert f		-	e discharge pipe	es):				
Tributary is: (check one)	⊠ Natural	□ Ari	tificial, man-m	ade 🗆 Manipi	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High		oderate	□ Low				

Waterbody ID: SUPB050

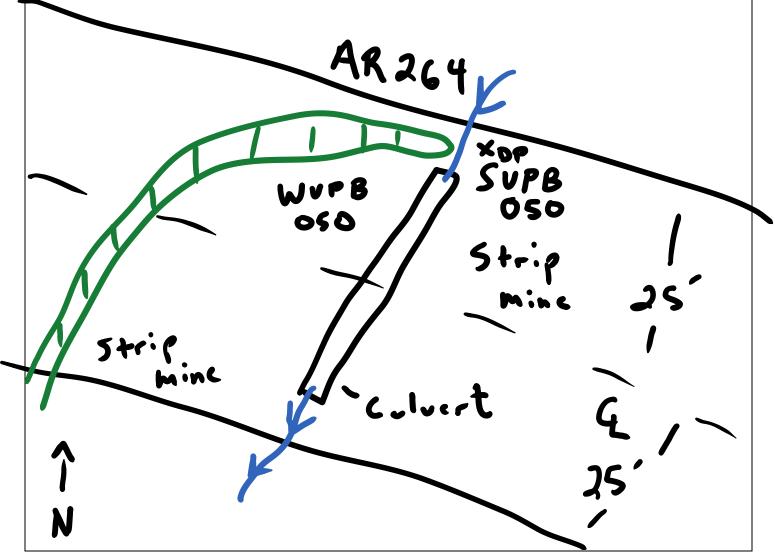
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Degraded perennial stream in strip mine. Strong grade control, weak sinuosity. Please note, heavy rains in last 24 hours, stream appears to be perennial, based on today's observations.





Waterbody SUPB050 facing north-northeast upstream



Waterbody SUPB050 facing south-southwest downstream



Waterbody SUPB050 facing west-northwest across

Survey Description	n	•						
Project Name:		Waterbody Name: UNT to Tenmile Creek				aterbody ID:		Date:
Atlantic Coast Pipel	ine	UNI to Ienn	nile Creek		s	UPB051		5/18/2015
State:	County:		Company:		Crew M	Member Initials:	Pho	otos:
West Virginia	Upshur		NRG		TP, A	S	01	-03
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID(	s):
unlabeled tract to ea	ast of 03-140.A	AR1	36.8			none		
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 🗆 Ditc	h 🗆 Ca	anal 🗌 Other:				
OHWM Width: _ <u>5.0</u> ft.	OHWM Indica (check all that apply		⊠ Clear lir on bank	ne	g	□Wrested vegetation	□Sco	ouring ⊟Water staining
<b>Height:</b> _ <u>1.0</u> ft. N/A□	⊠Bent, r vegetatio	natted, or missin n	g	ne ⊠Litter ar debris	nd	□Abrupt plant community cha	t ⊡s ange	Soil characteristic change
Width of Waterbody - T			Foe of Slope	Width of Waterbo	ody - W		Depth of V	Nater:
Bank to Top of Bank: 10.0_ft.		of Slope: <u>3.0_</u> ft.		Water Edge: 	<u>5.0_</u> ft.		(Approx.) N/A□	<u>0.25</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank slop	e
(check one)	(Approx.)			Right:			F	Right:
		<u>_1.5_</u> fps		Left:	<u>12_</u> ft.			<u>85</u> degrees
Meanderir	ng N/A□				<u>12_</u> ft.			<u>85</u> degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water ⊠0	Clear □Turb		leen ⊡Sur I surface scu		□Algal □ mats	]Other:	
	Bedrock 🗆 Bo	ulder 🛛 Cobb	le 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	□ Othe	эг:
(check all that apply) % of Substrate:	10_%	_% <u>15</u> %	<u>40</u> %	<u>20</u> %	<u>15_</u> %	%		_%
Width of Riparian Zone								
<u>40 ft</u> - N/A□	(check all that <b>Avg. DBH</b> (approx.)	apply) of Dominants:	⊠ Trees _ <u>8</u> _in.		I Saplir _2_in.	ngs/Shrubs:	□ He	rbs
Dominant Bank Vegeta								
Sugar maple, tulip p	ooplar, sassafra	as, buckeye						
Aquatic Habitats (ex: su	Ibmerged or emerged	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep	p pools):
Cobble, debris piles								
Aquatic Organisms Ob	served (list):							
none								
T&E Species Observed	(list):							
none	ok access menure :	n waterbady wast-	discharge nin	26).				
Disturbances (ex: livesto Strip mine, culvert f			alsonarge pipe	<del>.</del>				
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade 🗆 Manipi	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High	⊠ Mo	derate	□ Low				

Waterbody ID: SUPB051

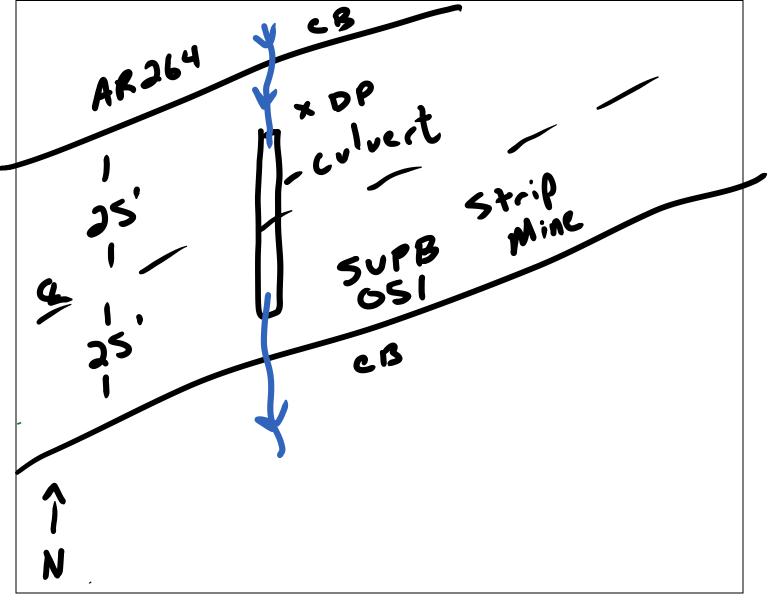
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Degraded perennial stream in strip mine, deeply incised. Strong grade control, weak sinuosity. Please note, heavy rains in last 24 hours, stream appears to be perennial, based on today's observations.





Waterbody SUPB051 facing north upstream



Waterbody SUPB051 facing southwest downstream



Waterbody SUPB051 facing west-northwest across

Survey Descriptio	n							
Project Name:		Waterbody Na				/aterbody ID:		Date:
Southeast Reliabilit	У	Unnamed T	ributary to	Tenmile Creek	S	UPA017		7/14/2014
State:	County:		Company:		Crew I	Member Initials:	: Pho	otos:
West Virginia	Upshur		Natural Re	esource Group	GB, S	SK	3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(	s):
03-129			35.9			none		
Survey Type: (check one)	⊠Centerline	e □Re-	Route	□Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)	Ephemer	al ⊠Inte	rmittent	□Perennial				
Waterbody Type: (check one)	∃River ⊠ Sti	ream 🗆 Dit	ch □C	anal 🛛 Other	:			
								_
OHWM Width: 8.0 ft.	OHWM Indica (check all that appl		⊠ Clear lir on bank	ne 🗆 Shelvin	g	□Wrested vegetation	□Sco	ouring □Water staining
Height:	□Bent	matted, or missi	ng ⊟Wrack li	ne 🗆 Litter ar	hd	Abrupt plant	t 🗆 s	Soil characteristic change
0.5_ft. N/A□	vegetatio	'		debris		community ch		
Width of Waterbody - 1			Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of V	Nater:
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:			(Approx.)	
<u>10.0_</u> ft.	-	<u>8.0</u> ft.		N/A□	<u>7.5_</u> ft.		N/A□	<u>_0.25_</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank slop	00
(check one) Straight	(Approx.)			Right:			·	Right:
		<u>_1.0_</u> fp	S	Left:	<u>2.0_</u> ft.			<u>50</u> degrees Left:
□Meanderi	ng N/A□				<u>2.0_</u> ft.			
Qualitative Attribu	ites							
Water Appearance: (check one)	<sup>□</sup> No water ⊠	Clear □Turl		neen ⊡Su n surface sci		□Algal [ mats	□Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	□ Othe	er:
(check all that apply) % of Substrate:	_%	<u>% 25</u> %	<u>45</u> %	<u>20</u> %	<u>17_</u> %	%		_%
Width of Riparian Zone	e: Vegetativ	e Lavers:						
-	(check all tha	t apply)	⊠ Trees	: 5	🛛 Saplir	ngs/Shrubs:	🛛 He	erbs
<u>ft</u> · N/A⊠	Avg. DBH (approx.)	of Dominants:	<u>_10.0_</u> i	n	_ <u>1.5_</u> in			
Dominant Bank Vegeta	ation (list):							
Sycamore, shagbai	rk hickory, ash,	, alder, sourw	vood, hemlo	ock, deertongue	e, Japa	anese spirea,	, sedge,	rush
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	, riffles, dee	p pools):
none								
Aquatic Organisms Ob	served (list):							
none								
T&E Species Observed	l (list):							
none								
Disturbances (ex: livest	ock access, manure	in waterbody, was	e discharge pip	es):				
Follows old road be	ed at foot of a s	strip mine cut						
Tributary is: (check one)	□ Natural		tificial, man-m	nade 🗌 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High	⊠M	oderate	□ Low				

Waterbody ID: SUPA017

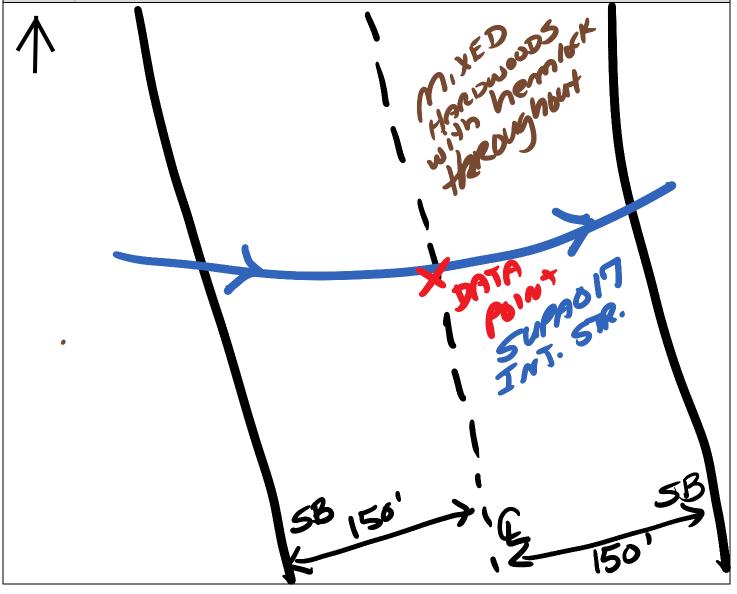
**High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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





Waterbody SUPA017 facing west upstream



Waterbody SUPA017 facing east downstream



Waterbody SUPA017 facing south across

Open Waterboo	ly Dat	a Sheet										
Survey Descripti	on											
Project Name:		V	Vaterbod	y Name:				Waterbody ID:			Date:	
Southeast Reliabi	lity	ι	Inname	d Pond				OUPA003			7/14/20	14
State:	County	:		Comp	any:		Crew	Member Initials	5:	Photos:	•	
West Virginia	Upshu	r			ral Resourc	ce Group	GB,	SK		1		
Tract Number(s):				Neare	est Milepost:			Associated Wet	land I	D(s):		
03-129				35.9				none				
Survey Type: (check one)		Centerline	[	∃Re-Rou	ite [	Access Ro	ad	□Other:				
Physical Attribut	es											
Waterbody Type:												
(check one)	ck Pond	□ Natural F	Pond 🗆	Lake 🗆	Reservoir	] Impoundm	ent 🗆	Oxbow 🛛 Oth	er: bo	prrow pit	İ	
Hydrologic Regime:	🗆 Pe	ermanently F	looded	🛛 Semi	permanently	Flooded	□ Sea	sonally Flooded		Femporar	ily Floode	d
онwм	C	HWM Indica	itor:									
Height:	(0	check all that app	(y)		☑ Clear line on bank	e ⊡Sh	elving	□Wreste vegetatio		□Sco	uring	□Water staining
<u>    1.75    </u> ft.		□Bent, vegetatio	matted, or on	r missing	□Wrack line	□Litt debris	er and s	⊠Abrupt communit			haracterist	ic change
Depth of Water:			Bank he	eight (ave	erage):			Bank slope	(avera	ge):		
	<u>5</u> ft.				<u>4.0</u> ft.					<u>70</u> degr	ees	
Qualitative Attrib	outes											
Water Appearance: (check one)	□No wa	ater ⊠C	ear [	□Turbid	□Sheer on surfa		Surface um	e □Algal mats	□0	ther:		
Substrate: (check all that apply)	Bedro	ock 🗆 Bou	Ilder 🗆	Cobble	□ Gravel	⊠ Sand	⊠S	ilt/ clay 🛛 Orga	nic	Other:		
% of Substrate:		%	_%	%	%	<u>25</u> %	_7	<u> </u>	%		<u>%</u>	
Width of Riparian Zo	ne:	Vegetative L	•		52 <b>-</b>							
ft.		(check all that ap	piy)		<sup>⊠</sup> Trees:		⊠ Sa	plings/Shrubs:		⊠ He	rds	
N/A⊠		Avg. DBH of (approx.)	f Domina	nts:	8.0	in.	<u>1.5</u>	_in.				
Dominant Bank Vege	tation (/	ist):										
Red maple, tulip p	ooplar,	alder, syca	amore, s	sugar m	naple, Japa	nese spire	ea, Ja	apanese stiltg	rass,	goldeni	od	
Aquatic Habitats (ex:	submerged	or emerged aqua	atic vegetatio	n, overhang	ing banks/roots, le	af packs, large s	ubmerge	ed wood, riffles, deep p	ools, et	c.) <b>:</b>		
Pool												
Aquatic Organisms C	Observe	d (list):										
Frogs												
T&E Species Observe	ed (list):											
none												
Disturbances (ex: live Strip mine	stock acc	ess, manure in	waterbody	, waste dis	scharge pipes):							
Waterbody is:												
(check one)		Natural		⊠ Artific	ial, man-made	e 🗆 Mai	nipulate	ed				
Waterbody Quality <sup>a</sup> : (check one)		□ High		□ Mode	rate	⊠ Low						

Waterbody ID:

#### OUPA003

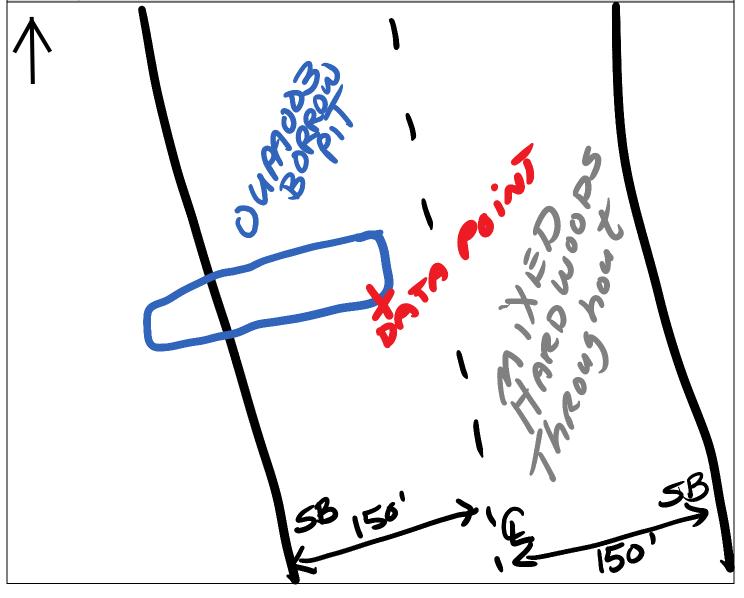
High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

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

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

#### Notes:

Borrow pit on a strip mine terrace cut





Waterbody OUPA003 facing west

Survey Description	n								
Project Name:		Waterbody N				/aterbody ID:			ate:
Southeast Reliabili	ty	Unnamed	Tributary to	Tenmile Creek	S	UPA018		7.	/15/2014
State:	County:		Company:		Crew I	Member Initials	: 1	Photos:	
West Virginia	Upshur		Natural Re	esource Group	GB, S	SK		3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID	
03-140			37.2			WUPA012			
Survey Type: (check one)	⊠Centerlin	ne ⊡Re	-Route	□Access Road		□Other:			
Physical Attribute									
Stream Classification: (check one)	Epheme	ral ⊠Inte	ermittent	Perennial					
Waterbody Type: (check one)	□River ⊠ S	tream 🗆 Di	tch 🗆 C	anal 🛛 Other	:				
OHWM Width: 4.0 ft.	OHWM Indic (check all that app		□ Clear lir on bank	ne 🗆 Shelvin	g	□Wrested vegetation	$\boxtimes$	Scouring	□Water staining
Height: 	□Bent, vegetati	matted, or miss	ing  □Wrack li	ine □Litter ar debris	nd	⊠Abrupt plan community ch		□Soil cha	aracteristic change
Width of Waterbody -	Top of Width	of Waterbody	- Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth	of Water:	
Bank to Top of Bank:		e of Slope:	•	Water Edge:	-	-	(Approx.)		
<u>5.0</u> ft.		<u>2.5_</u> ft.			<u>2.5_</u> ft.		N/A□	_	<u>0.5_</u> ft.
Sinuosity:		velocity:		Bank height			Bank s	lope	
(check one)	(Approx			Right:	<u>3.5</u> ft.			Right:	00 degrees
		<u>_0.5_</u> fp	DS	Left:				Left:	80 degrees
Meander	ing N/A□				<u>3.0</u> ft.				75 degrees
Qualitative Attribu	utes								
Water Appearance: (check one)	□No water ⊠	lClear □Tu		neen DSu n surface sci		□Algal [ mats	□Other	:	
	Bedrock 🛛 B	oulder 🗆 Cot	oble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic		Other:	
(check all that apply) % of Substrate:	%	%%	<u> 10 </u> %	<u>40</u> %	<u>50 </u> %	%		_%	
Width of Riparian Zon		/e Layers:							
ft	(check all the	at apply) <b>I of Dominants</b>	⊠ Trees			ngs/Shrubs:	$\boxtimes$	Herbs	
N/A⊠	(approx.)		<u>5.0 i</u> n.	-	_ <u>1.0 in</u> .				
Dominant Bank Veget Black cherry, sourv		le. aoldenrod	. havscente	d fern. woodlar	nd stra	awberrv			
Aquatic Habitats (ex: s		-	-			-	. riffles.	deep pools)	:
none	0 0		, 00		, 0		, ,	,	
Aquatic Organisms Ol	oserved (list):								
none									
T&E Species Observe	d (list):								
none									
Disturbances (ex: lives	tock access, manure	in waterbody, was	ste discharge pip	es):					
Strip mine flow cor	ntrols								
Tributary is: (check one)	□ Natural	A []	rtificial, man-m	nade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		loderate	⊠ Low					

Waterbody ID: SUPA018

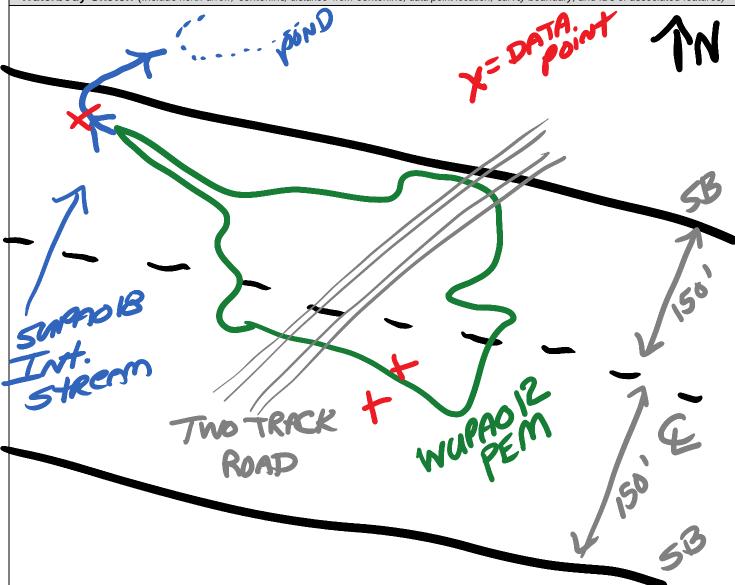
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

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

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

#### Notes:

Begins at a headcut as outflow from wetland WUPA012, downstream continues out of corridor and flows into a pond.





Waterbody SUPA018 facing south upstream



Waterbody SUPA018 facing north downstream



Waterbody SUPA018 facing west across

Survey Descriptio	n								
Project Name:		Waterbody N				Vaterbody ID:			Date:
Southeast Reliabilit	у	Tenmile Cr	eek		S	SUPA019		4	7/15/2014
State:	County:		Company:		Crew	Member Initials:	F	Photos:	
West Virginia	Upshur		Natural Re	esource Group	GB, S	SK	:	3	
Tract Number(s):			Nearest Mile	epost: Associated V			etland	ID	
03-140			37.35			WUPA015			
Survey Type: (check one)	⊠Centerline	e □Re	-Route	□Access Road		□Other:			
Physical Attribute	s								
Stream Classification: (check one)	Ephemer	al ⊠Int	ermittent	□Perennial					
Waterbody Type: (check one)	]River ⊠ St	ream 🗆 D	itch 🗆 C	anal 🛛 Other	:				
OHWM Width: 8.0 ft	OHWM Indica (check all that appl		Clear lin     on bank	ne ⊠Shelvin	g	⊠Wrested vegetation		Scouring	□Water staining
Height: 	□Bent, i vegetatio	matted, or miss	ing ⊠Wrack I	ine □Litter ar debris	nd	□Abrupt plant community cha		□Soil cł	naracteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody of Slope:	- Toe of Slope	Width of Waterb Water Edge:	ody - V	Vater Edge to	Depth ( Approx.)	of Water	:
<u></u>		<u>7.0_</u> ft.			<u>6.0 f</u> t.		N/A□		<u>0.33 f</u> t.
Sinuosity:	Water	velocity:		Bank height			Bank s	lope	
(check one)	(Approx.,			Right:				Right	
	N/A□	<u>_1.0_</u> f	ps	Left:	<u>2.5</u> ft.			Left	<u>60</u> degrees
Meanderin	ng				<u>3.0</u> ft.				60 degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water	Clear ⊠Tu		neen ⊡Su n surface sci		□Algal □ mats	Other	:	
	Bedrock 🛛 🖾 Bo	oulder 🛛 Co	bble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic		Other:	
(check all that apply) % of Substrate:	% <u>5</u> %	<u>25</u> %	6 <u>10</u> %	<u>20</u> %	<u>40 </u> %	%		%	
Width of Riparian Zone	e: Vegetativ	e Lavers:							
<u>60 ft</u> -	(check all tha Avg. DBH		⊠ Trees <u>10.0 i</u> n		⊠ Sapli _ <u>1.0 in</u>	ings/Shrubs:		Herbs	
N/A□ Dominant Bank Vegeta	(approx.)								
Red elm, yellow bird		lar, cucumbe	er magnolia,	hayscented fe	rn, lac	dyfern, violet, (	Christ	imas fe	rn, stiltgrass
Aquatic Habitats (ex: su Leaf packs, wrack p		ed aquatic vegeta	tion, overhanging	banks/roots, leaf pac	ks, large	e submerged wood,	riffles, c	deep pools	3):
Aquatic Organisms Ob	served (list):								
Water striders, frog									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ock access, manure	in waterbody, wa	ste discharge pip	es):					
Strip mine flow cont	trols, culvert								
Tributary is: (check one)	□ Natural		Artificial, man-m	nade 🛛 🖾 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		Moderate	□ Low					

Waterbody ID: SUPA019

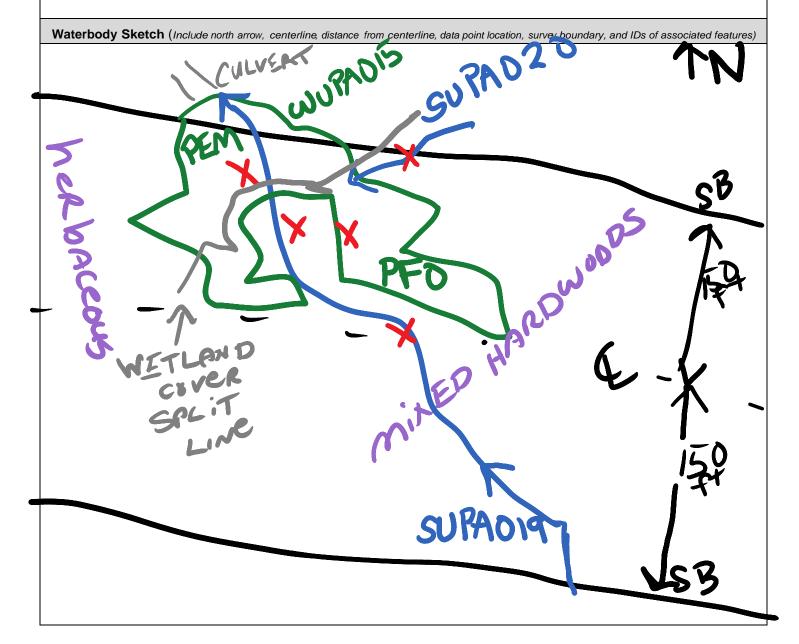
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Unnamed tribe to ten mile creek, continues out both directions, runs through wupa015, flows into culvert into a hillside just out of corridor





Waterbody SUPA019 facing south upstream



Waterbody SUPA109 facing north downstream



Waterbody SUPA019 facing east across

Survey Description	n							
Project Name:		Waterbody Na				aterbody ID:		Date:
Southeast Reliabilit	ty	Unnamed T	ributary to	Leonard Run	SI	UPB013		7/15/2014
State:	County:	1	Company:		Crew N	Member Initials:	Phot	los:
West Virginia	Upshur		Natural Re	esource Group	TP		3	
Tract Number(s):			Nearest Milepost:			Associated We	etland ID(s	):
03-146			38.35			WUPB012f		
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 🗆 Dit	ch 🗆 C	anal 🗌 Other	:			
OHWM Width: 2.0 ft.	OHWM Indica (check all that appl		⊠ Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation	□Sco	uring DWater staining
<u></u> Height: ft.	□Bent, r vegetatio	matted, or missii	ng  □Wrack li	ne □Litter ar debris	nd	☐Abrupt plant community cha		oil characteristic change
Width of Waterbody -	Top of Width	of Waterbody -	Toe of Slope	Width of Waterb	odv - W	ater Edge to	Depth of W	/ater:
Bank to Top of Bank:		of Slope:		Water Edge:	,	(	(Approx.)	
<u>_2.5</u> ft.	-	<u>1.0</u> ft.		N/A□	<u>1.5_</u> ft.	1	N/A□	<u>0.1</u> ft.
Sinuosity:		velocity:		Bank height		E	Bank slope	<del>)</del>
(check one)	(Approx.)		_	Right:	_1_ft.		R	ight: <u>85</u> degrees
⊠Meanderi	20	<u>_0.5</u> fp	5	Left:				Left:
	ng N/A□				<u>2</u> ft.			<u>85</u> degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	<sup>□</sup> No water ⊠0	Clear □Turl		neen ⊡Sui n surface scu		□Algal [ mats	∃Other:	
Substrate: [ (check all that apply) % of Substrate:	Bedrock DBc	oulder ⊠ Cob % 5 %		el ⊠ Sand [ % 95 %		lay □ Organic % %	□ Other	r: %
				<u></u>		_/0/0		
Width of Riparian Zon >50 ft	(check all that	t apply)	⊠ Trees			ngs/Shrubs:	🗆 Hei	rbs
N/A 🗆	(approx.)	of Dominants:	<u>_14_</u> in.	-	<u>2</u> in.			
Dominant Bank Veget			_					
Tulip poplar, sugar	maple, ironwoo	od, red maple	e, cinnamor	n fern, southern	n ladyfe	ern		
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetatio	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep	pools):
Debris piles, grade	control, bars a	nd benches						
Aquatic Organisms Ol	oserved (list):							
none								
T&E Species Observed	d (list):							
none								
Disturbances (ex: lives	ock access, manure	in waterbody, was	te discharge pip	es):				
None noted, agricu	ltural field near	ъу						
Tributary is: (check one)	⊠ Natural		rtificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	🗆 High	⊠ M	oderate	□ Low				

Waterbody ID:

SUPB013

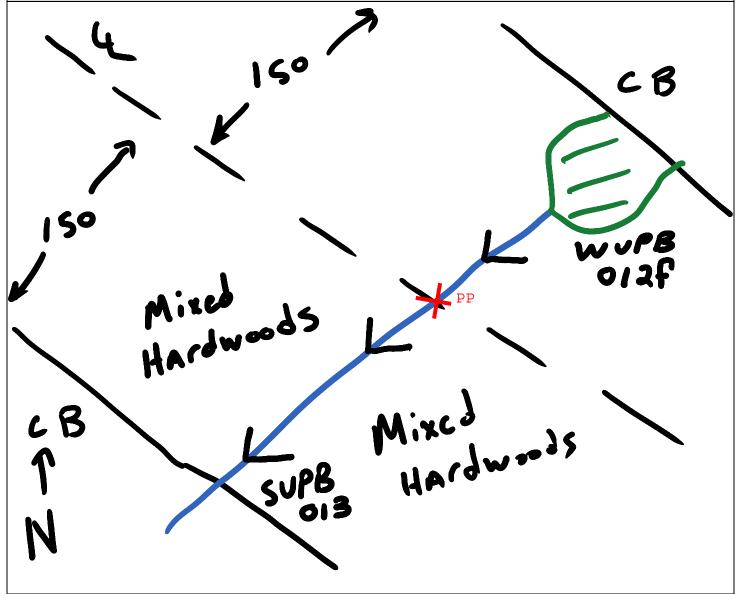
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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 originates below headwater forest wetland. Water present, but rain in last 24 hours. Lots of nick points and grade control, sediment transport, good bars and benches.





Waterbody SUPB013 facing northeast upstream



Waterbody SUPB013 facing southwest downstream



# Waterbody SUPB013 facing southeast across

Survey Description	n							
Project Name:		Waterbody Na				/aterbody ID:	_	ate:
Southeast Reliabilit	у	Unnamed Tr	ibutary to L	eonard Run	S	UPB012	7	/1/2014
State:	County/Parish:		Company:		Crew I	Member Initials:	Photos:	
West Virginia	Upshur		Natural Re	esource Group	TP		3	
Tract Number(s):			Nearest Mile	epost:		Associated Wetlar	nd ID(s):	
03-147			38.5			none		
Survey Type: (check one)	Centerline	e □Re-I	Route	□Access Road		□Other:		
Physical Attribute	S							
Stream Classification: (check one)	Ephemera	al ⊠Inter	rmittent	Perennial				
Waterbody Type: (check one)	River 🛛 Str	ream 🗆 Dito	ch 🗆 Ca	anal 🗌 Other	:			
OHWM Width: <u>5.0</u> ft.	OHWM Indica (check all that apply		⊠ Clear lir on bank	ne 🗆 Shelvin	g	□Wrested vegetation	Scouring	□Water staining
<b>Height:</b> ft. N/A□	□Bent, r vegetatio	matted, or missin	ig ⊠Wrack li	ne □Litter ar debris	nd	□Abrupt plant community change		aracteristic change
Width of Waterbody - T	op of Width	of Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to Dep	th of Water:	
Bank to Top of Bank:		of Slope:		Water Edge:		(Appr	ох.)	
<u>6</u> ft.	-	<u>4_</u> ft.		N/A□	<u>3_</u> ft.	N/A		<u>0.25_</u> ft.
Sinuosity:		velocity:		Bank height		Ban	k slope	
(check one)	(Approx.)			Right:	3.0_ ft.		Right:	85 degrees
	-   -	<u>0.5_</u> fps		Left:			Left:	
Meanderir	ng N/A□			-	<u>4.0_</u> ft.			<u>85</u> degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water	Clear ⊠Turb	-	leen ⊡Sui i surface scu		□Algal □Ot mats	her:	
	Bedrock 🗆 Bo	oulder 🛛 Cobb	ole 🛛 Grave	el 🗆 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic 🛛	Other:	
(check all that apply) % of Substrate:	%	_% _5_%	_ <u>5</u> _%	<u>0</u> %	<u>90 </u> %	%	%	
Width of Riparian Zone	: Vegetative	e Layers:						
	(check all that		⊠ Trees			ngs/Shrubs:	□ Herbs	
<u>50 ft</u> - N/A□	(approx.)	of Dominants:	<u>11</u> in.	-	<u>2</u> in.		in.	
Dominant Bank Vegeta	. ,							
Tulip poplar, sugar	maple, souther	rn ladyfern (N	NOTE: Catt	le have eaten i	most c	of the understory	.)	
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	e submerged wood, riffle	s, deep pools	):
Fringe wetlands, co	bble, woody de	ebris						
Aquatic Organisms Ob	served (list):							
Crawfish holes								
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ock access, manure i	in waterbody, wast	e discharge pipe	es):				
Cattle have comple	tely trampled s	tream, creati	ng fringe w	etlands				
Tributary is: (check one)	<sup>⊠</sup> Natural	□ Ar	tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High		oderate	⊠ Low				

Waterbody ID: SUPB012

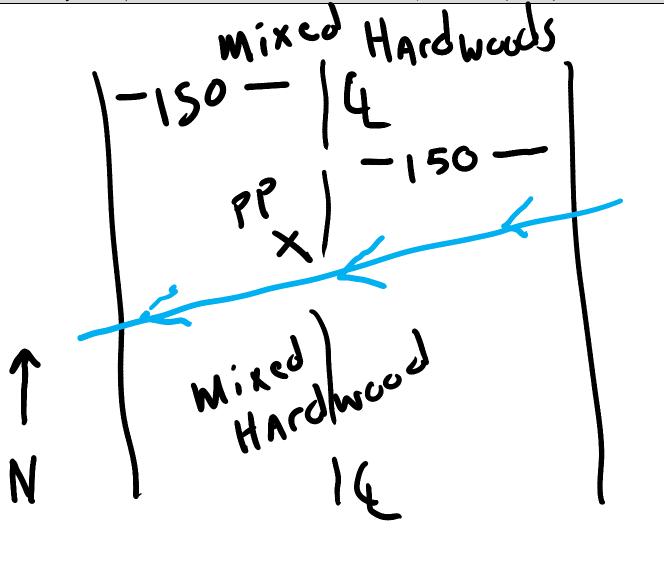
**High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Cattle have trampled in the stream





Waterbody SUPB012 facing east upstream



Waterbody SUPB012 facing west downstream



# Waterbody SUPB012 facing south across

Open Waterbod	y Data Shee	et								
Survey Descripti	on									
Project Name:		Waterbody	Name:			Wa	terbody ID:		Date:	
Southeast Reliabil	ity	Unnamed Fork Rive	r	o Right Fork	Middle	οι	JPB003		7/1/201	4
State:	County:		Compa	ny:	Crev	w Me	ember Initials:	Photos:		
West Virginia	Upshur		Natural Resource Group TP					3		
Tract Number(s):			Neares	t Milepost:		Associated Wetland ID(s):				
03-147			38.65			nc	one			
Survey Type: (check one)	⊠Centerl	ine 🗆	Re-Route	e □A	ccess Road	□Other:				
Physical Attribut	es									
Waterbody Type: (check one)	k Dand 🗆 Natu	rol Dond 🗆 I d	aka 🗆 🛙		an a un dra ant		whow C Other			
	ck Pond 🛛 Natu		аке⊔г	Reservoir 🗆 In	npounament		xbow 🗆 Other:			
Hydrologic Regime:	⊠ Permanent	Iv Flooded	∃ Semip	ermanently Flo	oded 🗆 Sea	ason	ally Flooded	Temporari	lv Flooded	ł
онwм	OHWM In		1	· · · <b>,</b> ·			,,		,	
Height:	(check all that			☑ Clear line on bank	Shelving	J		□Scou	uring	□Water
<u>4</u> ft.				ON DANK			vegetation			staining
		ent, matted, or r tation	0	□Wrack line	□Litter and debris	d	□Abrupt plant community cha		aracteristi	c change
Depth of Water:		Bank heig	ght (aver	age):			Bank slope (aver	age):		
_ <u>5</u>	_ft.			<u>4</u> ft.			_	<u>85</u> degree	es	
Qualitative Attrib	utes	I								
Water Appearance: (check one)	□No water	□Clear ⊠	Turbid	□Sheen on surface	⊡Surfa scum	се	□Algal □C mats	Other:		
Substrate: (check all that apply)	Bedrock	Boulder 🗆 C	Cobble	Gravel	Sand ⊠ :	Silt/ c	clay 🗆 Organic	Other:		
% of Substrate:	%	%	%	%	<u>% 10</u>	<u>)0 %</u>	%	%		
Width of Riparian Zor	ne: Vegetati	ve Layers:								
0 ft-	(check all th	nat apply)		Trees:	□ S	aplin	igs/Shrubs:	$\boxtimes$ Herbs		
<u>_0 n</u> . N/A⊠	Avg. DB	H of Dominant	is:	in.			_in.	i	n.	
Dominant Bank Vege	,									
Stock pond in pas	ture, oxeye d	aisy, mounta	ain timo	othy, orchard	grass					
Aquatic Habitats (ex: s	submerged or emerged	aquatic vegetation,	overhangin	g banks/roots, leaf pa	acks, large submer	ged wo	ood, riffles, deep pools, e	tc.):		
Farm pond										
Aquatic Organisms C	bserved (list):									
none										
T&E Species Observe	ed (list):									
none										
Disturbances (ex: live			waste disc	harge pipes):						
Cattle accessible,	waste in wate	er								
Waterbody is: (check one)	□ Natura	al 🛛 🖾 Artific	ial, man-	made 🗆 M	anipulated					
Waterbody Quality <sup>a</sup> : (check one)	□ High	□ Moderat	e 🛛	Low						

Waterbody ID:

### OUPB003

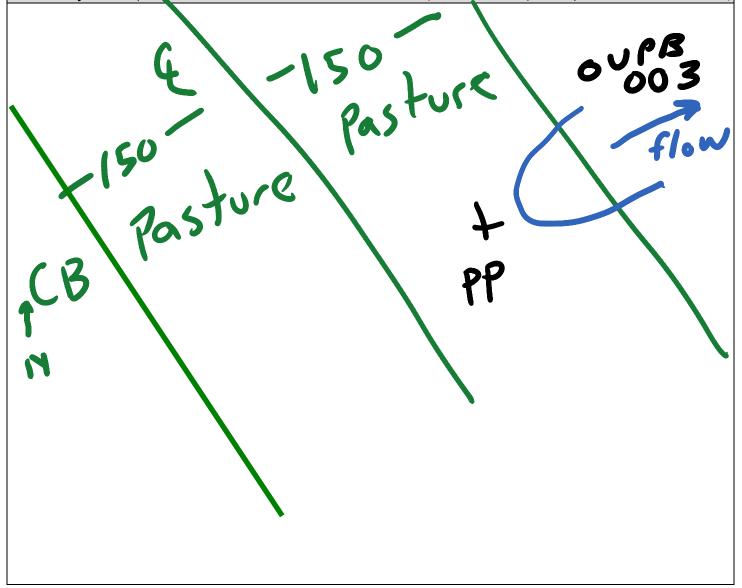
High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

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

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

### Notes:

Stock pond in cattle pasture





Waterbody OUPB003 facing north

Linear	Waterbody	y Data	Sheet
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Survey Description	n								
Project Name:		Waterbody Na	ne:			aterbody ID:		C	Date:
Southeast Reliability		Right Fork M		River		UPA015			7/1/2014
State:	County/Parish:		Company			Member Initials		Photos:	
West Virginia	Upshur		Natural Resource Group GB					3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland I	ID(s)	
03-151, 03-153			39.1			WUPA011			
Survey Type: (check one)	Centerline	e □Re-F	Route	□Access Road		□Other:			
Physical Attributes	S								
Stream Classification: (check one)		al 🛛 🗆 Inter	mittent	⊠Perennial					
Waterbody Type:	•								
	River 🗆 Sti	ream 🗆 Dito	h 🗆 Ca	anal 🗌 Other	:				
онwм	OHWM Indica								
Width: <u>32.0_f</u> t.	(check all that appl	<i>y)</i>	Clear lir on bank	ne ⊠Shelvin	g	□Wrested vegetation		Scouring	□Water staining
Height:	⊟Bent, i	natted, or missin	g ⊠Wrack li	ne ⊠Litter ar	nd	□Abrupt plan		□Soil ch	aracteristic change
<u>3.0_</u> ft. N/A□	vegetatio	n	-	debris		community ch	nange		-
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - <sup>-</sup> of Slope:	Foe of Slope	Width of Waterbe Water Edge:	ody - W	ater Edge to	Depth ( (Approx.)	of Water:	
Ballk to TOP OF Ballk.	to roe	of Slope:		water Euge.			(//pp/0x.)		
<u>45.0</u> ft.	-	<u>_20.0_</u> ft.		<u>2</u> N/A□	<u>1.0_</u> ft.		N/A□	-	<u>_1.5_</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank s	lope	
(check one)	(Approx.)			Right:				Right:	
		<u>2.0</u> fps		Left:	<u>3.0_</u> ft.			Left:	65 degrees
⊠Meanderir	ng N/A□				<u>8.0_</u> ft.			Lon	75 degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water	Clear □Turb		leen ⊡Sui ⊨surface sci		□Algal mats	□Other:	:	
	Bedrock 🛛 🖾 Bo	oulder 🛛 Cobb	le 🛛 Grave	el 🗆 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	: □0	)ther:	
(check all that apply) % of Substrate: 2	<u>0 % 25</u>	_% _ <u>30_</u> %	_ <u>10</u> _%	<u>  10 </u> %	<u> 5 </u> %	%		%	
Width of Riparian Zone	: Vegetativ	e Layers:							
WETLAND IS	(check all tha		⊠ Trees			ngs/Shrubs:	$\boxtimes$	Herbs	
RIPARIAN ft		of Dominants:	<u>13.0</u> in	-	<u>1.25</u> i	n.	_	in.	
Dominant Bank Vegeta Sugar maple, hemlo	. ,	ed oak ironw	ood witcht	azal clearwee	nd stilt	araes soda	a viole	at woo	land aster
Aquatic Habitats (ex: su					-	-	l, riffles, c	deep pools	):
Pools, riffles, coarse	-	s, wrack plies	boulders	n channel, ove	mang	ing banks			
Aquatic Organisms Ob	served (list):								
Fish									
T&E Species Observed	<i>(list)</i> :								
none									
Disturbances (ex: livesto	ock access, manure	in waterbody, waste	e discharge pipe	es):					
Road crossing north	n of corridor; re	efuse dumping	g down ste	ep slope from r	oad a	bove			
Tributary is: (check one)	<sup>⊠</sup> Natural	□ Art	ificial, man-m	ade 🗌 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	⊠ Mo	derate	□ Low					

Waterbody ID: SUPA015

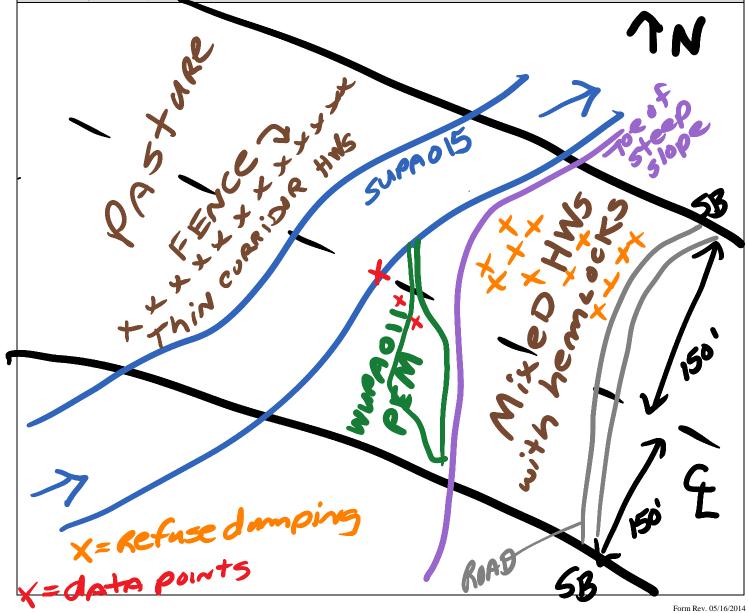
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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 of corridor in both directions, connected to PEM wetland WUPA011.





Waterbody SUPA015 facing west upstream



Waterbody SUPA015 facing east downstream



Waterbody SUPA015 facing north across

Survey Description	on										
Project Name:			body Nam				laterbody ID:			Date:	
Atlantic Coast Pipe	eline	UNT	to Midd	le Fork		S	UPB106			4/8/2015	
State:	County:			Company:		Crew I	Member Initials:	:	Photos:		
West Virginia	Upshur			NRG		TP, S	SA		01-03		
Tract Number(s):				Nearest Mile	epost:		Associated We	etland	ID(s):		
03-154			40.1				None				
Survey Type: (check one)	□Ce	enterline	□Re-R	oute	⊠Access Road	t	□Other:				
Physical Attribute	es										
Stream Classification (check one)	:	ohemeral	⊠Interr	nittent	Perennial						
Waterbody Type:											
(check one)	□River	Stream Stream	□ Ditcl	h 🗆 Ca	anal 🛛 🗆 Other	r:					
OHWM Width:		I Indicator: Il that apply)		⊠ Clear lir on bank	ne ⊠Shelvir	ng	Wrested	X	Scouring		
<u>2.0</u> ft.				OT Datik			vegetation			staining	
Height: ft. N/A□		∃Bent, matted, egetation	or missing	g ⊡Wrack li	ne □Litter a debris	nd	□Abrupt plant community ch		□Soil cl	haracteristic change	
Width of Waterbody -				oe of Slope	Width of Waterb	ody - W	ater Edge to		of Water	•	
Bank to Top of Bank:		to Toe of Slop	e:		Water Edge:		(	(Approx.)			
<u>_3.0</u> ft.		<u>_1.0</u> _ft			-	<u>1.0</u> ft.		N/A□	-	<u>0.1</u> ft.	
Sinuosity:		Water velocit	<b>v</b> :		N/A□ Bank height			Bank s	lope		
(check one)		(Approx.)			Right:		-		Right	:	
		-	<u>0.5</u> fps		Left:	<u>0.5</u> ft			Left	<u>85</u> degrees	
Meander	ring	N/A□				<u>0.5</u> ft.			Lon	<u>85</u> degrees	
Qualitative Attrib	utes										
Water Appearance: (check one)	$\Box$ No water	⊠Clear	□Turbi			irface um	□Algal [ mats	□Othe	r:		
Substrate:	Bedrock	Boulder	⊠ Cobbl	e 🛛 Grave	el 🛛 Sand	Silt/ c	clay 🗆 Organic		Other:		
(check all that apply)45		0/	10 0/				, ,				
of Substrate.	<u> 10  </u> %	%	<u> 10  </u> %	<u>   30  </u> %	<u>   15   </u> %	<u>35</u> %	%		%		
Width of Riparian Zor		getative Layer	s:	⊠ Trees		🛛 Sanlii	ngs/Shrubs:		Herbs		
<u>_50_ft</u> . N/A□	Av	<b>g. DBH of Don</b>	ninants:	<u>    10    </u> ir		<u>2</u> in.	ngs/Shirubs.				
Dominant Bank Vege		,									
Sugar maple, Eas	tern heml	ock, red ma	ple, whit	te oak, rho	dodendron.						
Aquatic Habitats (ex:	submerged or	emerged aquation	vegetation	, overhanging	banks/roots, leaf pag	cks, large	submerged wood,	riffles,	deep pool	s):	
Cobble, leaf packs	S.										
Aquatic Organisms O		s <i>t)</i> :									
A few caddis fly la	rvea.										
T&E Species Observe	ed (list):										
None											
Disturbances (ex: lives	stock access,	manure in waterb	ody, waste	discharge pipe	es):						
Road on right bank	k, but only	for about 1	0 feet								
Tributary is: (check one)	⊠ N	latural	🗆 Arti	ficial, man-m	iade 🗆 Manip	oulated					
Stream Quality <sup>a</sup> : (check one)		ligh	⊠ Moo	derate	□ Low						

Waterbody ID: SUPB106

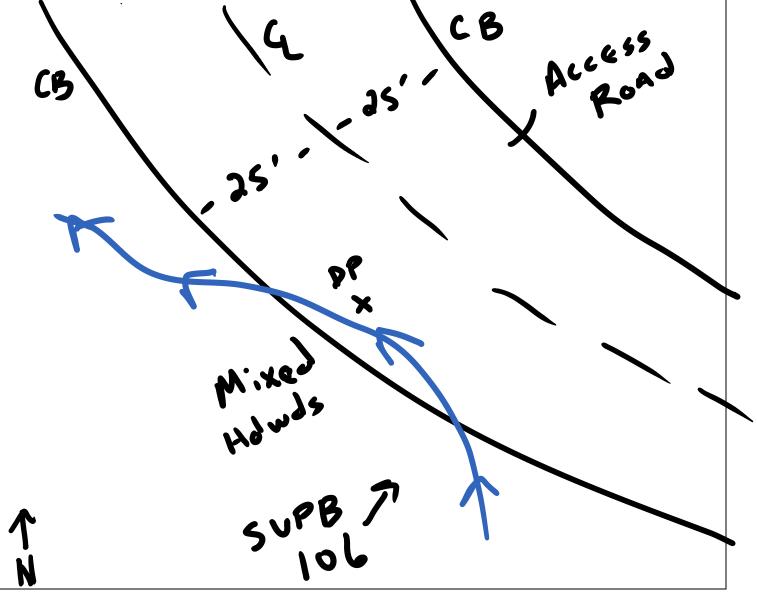
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance 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/seep. Weak bed/banks, strong grade control, a few leaf packs, weak to moderate head cuts, no riffle pool complex. Probably only flowing because of recent rainfall.





Waterbody SUPB106 facing southeast upstream



Waterbody SUPB106 facing southwest downstream



## Waterbody SUPB106 facing south across

Survey Descriptio	n								
Project Name:		Waterbody				/aterbody ID:			Date:
Atlantic Coast Pipe		UNT to Ja	ackson Fork			UPB105			4/8/2015
State:	County:		Company:		Crew I	Member Initials	: F	Photos:	
West Virginia	Upshur		NRG					01-03	
Tract Number(s):				Nearest Milepost:			Associated Wetland ID(s):		
03-159.AR1			40.7			WUPB103			
Survey Type: (check one)		ne 🗆 R	e-Route	⊠Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	⊠Epheme	ral 🗆 In	termittent	Perennial					
Waterbody Type:									
(check one)	□River ⊠ S	tream 🗆 🛙	Ditch 🗆 C	Canal 🗌 Other	:				
OHWM	OHWM Indic				~	□Wrested		Coouring	
Width: <u>1.0</u> ft.	(oncon an inat app	<i></i>	⊠ Clear I on bank	ne ⊠Shelvin	g	vegetation		Scouring	g ⊟Water staining
Height:	· · · · · · · · · · · · · · · · · · ·	,	sing □Wrack		□Litter and □Abrupt p			□Soil cł	naracteristic change
ft. N/A□	vegetat	ion		debris		community ch	lange		
Width of Waterbody - <sup>-</sup> Bank to Top of Bank:			- Toe of Slope	Width of Waterb Water Edge:	ody - W		Depth (Approx.)	of Water	:
	010	e of Slope:		water Euge.			(Approx.)		0.4.4
<u>_1.5_</u> ft.		<u>0.5</u> ft.		N/A□	<u>1.0_</u> ft.		N/A□	-	<u>_0.1_</u> ft.
Sinuosity:		r velocity:		Bank height			Bank s	lope	
(check one)	(Approx	c.)		Right:				Right	
-		0.5	fps	Left:	<u>0.75</u> ft			Left	<u>85</u> degrees
Meanderi	ng N/A□			_	<u>0.75_</u> ft				<u>85</u> degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	<sup>□</sup> No water □	]Clear ⊠T		heen □Su n surface sci		□Algal [ mats	□Other	:	
	Bedrock 🗆 E	Boulder 🛛 🖾 Co	obble 🗆 Grav	vel 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	: 🗆 C	Other:	
(check all that apply)45 % of Substrate:	% %	5 %	%	40 %	5 %	%		%	
Width of Riparian Zone	Nogotativ	ve Layers:							
	(check all th	at apply)	⊠ Tree	s: D	⊠ Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
_ <u>40_ft</u> - N/A□	Avg. DBI (approx.)	H of Dominant	<b>s:</b> <u>10</u> i	n	<u>2</u> in.				
Dominant Bank Vegeta	ation (list):								
Fescue along right	bank. Sugar	maple, Easte	ern hemlock	, yellow birch, a	nd gro	ound cedar.			
Aquatic Habitats (ex: s	ubmerged or emerg	ed aquatic vegeta	ation, overhanging	g banks/roots, leaf pac	ks, large	submerged wood	, riffles, o	deep pools	5):
None.									
Aquatic Organisms Ob	oserved (list):								
None.									
T&E Species Observed	d (list):								
None									
Disturbances (ex: livest	ock access, manure	in waterbody, wa	aste discharge pip	oes):					
Road crossing and	lawn on right	bank							
Tributary is: (check one)	⊠ Natural		Artificial, man-r	nade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		Moderate	⊠ Low					

Waterbody ID: SUPB105

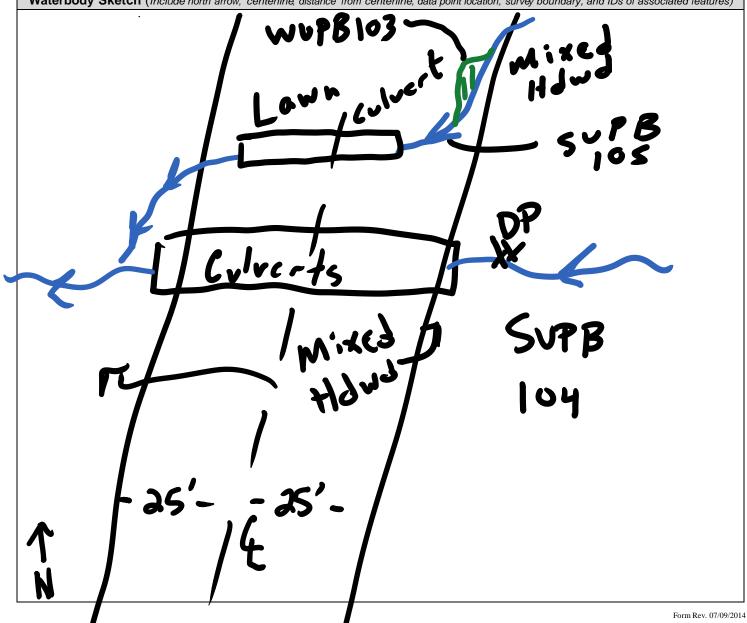
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

Ephemeral stream conveying roadside drainage. Weak sinuosity, weak grade control. Probably only flowing because of recent rainfall.





Waterbody SUPB105 facing east upstream



Waterbody SUPB105 facing west downstream



## Waterbody SUPB105 facing south across

Survey Description	on										
Project Name:		Waterbody						aterbody ID:			Date:
Atlantic Coast Pipe	line	Jackson	Fork				S	UPB104			4/8/2015
State:	County:		Co	mpany:			Crew M	Member Initials	:	Photos:	
West Virginia	Upshur		NF	RG			TP, S	A		01-03	
Tract Number(s):			Ne	arest Mile	epost:			Associated W	etland	ID(s):	
03-159.AR1			40	).7				none			
Survey Type: (check one)	Centerli	ne 🗆	Re-Rou	te	⊠Ac	cess Road		□Other:			
Physical Attribute	es										
Stream Classification: (check one)	: □Epheme	eral 🗆	Intermit	tent	⊠Pe	erennial					
Waterbody Type:											
(check one)	□River ⊠ S	tream 🗆	Ditch	🗆 Ca	anal	□ Other					
OHWM Width: 15.0 ft.	OHWM Indic (check all that ap			☑ Clear lir on bank	ne	⊠Shelvin	g	□Wrested vegetation	$\boxtimes$	Scouring	g ⊟Water staining
Height:								-			Ū
<u>2.0</u> ft. N/A□	vegetat	, matted, or mi ion	Issing		ne	□Litter a debris	nd	□Abrupt plan community ch			haracteristic change
Width of Waterbody -		of Waterboo	ly - Toe	of Slope			ody - W	ater Edge to		of Water	:
Bank to Top of Bank:	to 10	e of Slope:			Water	Eage:			(Approx.)		
<u>ft</u> .		<u>10.0</u> ft.			N/A□	-	<u>15.0</u> ft		N/A□	-	<u>0.75</u> ft.
Sinuosity:	Wate	r velocity:				height			Banks	slope	
(check one)	(Appro:	к.)				Right:				Right	
		3.0	_fps			Left:	<u>6</u> ft.			Left	<u>85</u> degrees
⊠Meander	ing N/A□	]					<u>7</u> ft.				<u>85</u> degrees
Qualitative Attribu	utes										
Water Appearance: (check one)	□No water 🛛 🗵	Clear	Turbid	□Sh on	een surface	⊡Su a sci	rface um	□Algal mats	□Othe	r:	
Substrate:	□ Bedrock 🛛 🖾	Boulder 🖂 🤇	Cobble	⊠ Grave				lay 🗆 Organic		Other:	
(check all that apply)45								, ,			
% of Substrate:	% <u>10</u>	_% _40	_%	<u>30</u> %		<u>10 </u> %	<u> 10  </u> %	%		%	
Width of Riparian Zon	e: Vegetati	ve Layers:		M <b>T</b>		5	<b>7</b> 0 11		5	7. 1. 1. a	
<u>40 ft</u> - N/A□		H of Dominar	nts:	⊠ Trees: _ <u>12</u> _in			⊠ Sapiir _2_in.	ngs/Shrubs:	×	I Herbs	
Dominant Bank Veget	ation (list):										
Fescue along right	bank. Sugar	maple, Eas	tern h	emlock,	yellov	v birch, rł	nodode	endron, and	Christ	tmas fe	rn.
Aquatic Habitats (ex: s	submerged or emerg	ed aquatic vege	etation, ov	verhanging	banks/ro	oots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
Cobble, debris pile	s, log jams, ro	ots along b	ank.								
Aquatic Organisms O											
Caddis fly larvae, s	tonefly, and, r	nayflies.									
T&E Species Observe	d (list):										
None											
Disturbances (ex: lives	tock access, manure	e in waterbody, v	waste dis	charge pipe	es):						
Road crossing and	lawn on right	bank									
Tributary is: (check one)	⊠ Natural		] Artifici	al, man-m	ade	Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	⊠ High		] Moder	rate		□ Low					

Waterbody ID: SUPB104

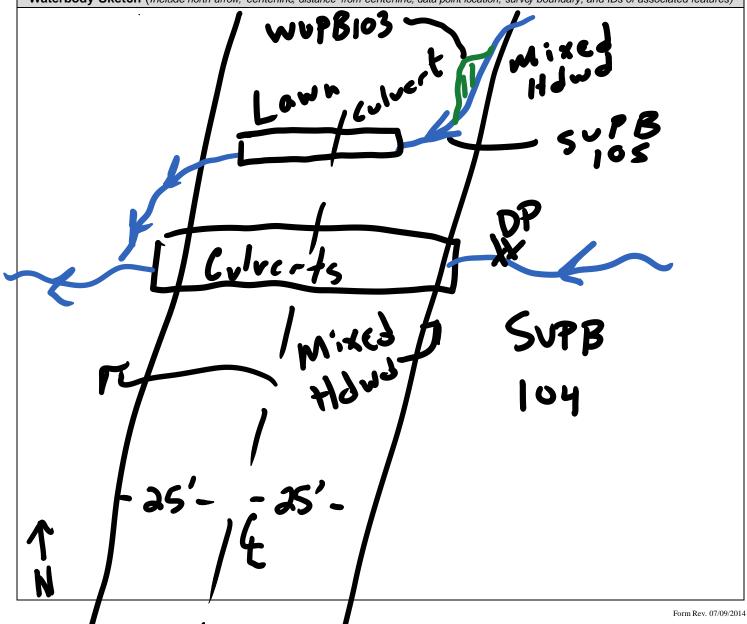
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### Notes:

Typical mountain stream. Fast flowing stream strewn with boulders and cobble. Locals state that brook trout are present. Noted strong bars and benches, cobble, strong sinuosity in thalwag, strong grade control, debris piles, moderate to strong riffle pool sequence, roots along bank.





## Waterbody SUPB104 facing south upstream



Waterbody SUPB104 facing north downstream



## Waterbody SUPB104 facing west across