Survey Descriptio	n										
Project Name:		Waterb	ody Nam	e:			w	aterbody ID:			Date:
Atlantic Coast Pipel	line	UNT to	o Valley	Fork			S	rae112			5/2/2016
State:	County:		C	Company:			Crew N	Member Initials	5:	Photos:	
West Virginia	Randolph		Ν	IRG			kno, d	cg		3 phot	OS
Tract Number(s):			Ν	learest Mile	epost:			Associated W	etland	ID(s):	
Unnamed tract south	of 04-002-B01	9	6	60.6				none			
Survey Type: (check one)	⊠Center	line	□Re-Ro	oute	□Ac	ccess Road		□Other:			
Physical Attribute	s										
Stream Classification: (check one)	Ephem	eral	⊠Interm	ittent	□Pe	erennial					
Waterbody Type:											
(check one)	River ⊠	Stream	□ Ditch	🗆 Ca	anal	□ Other	:				
OHWM Width: _7_ft.	OHWM Indi (check all that a	cator: pply)		□ Clear lir on bank	ne	□Shelvin	g	□Wrested vegetation		Scouring	g ⊟Water staining
Height: _ <u>.5</u> ft.	□Ben vegeta	t, matted, o ation	r missing	□Wrack li	ne	⊠Litter ar debris	nd	□Abrupt plar community ch	nt nange	□Soil cl	naracteristic change
Width of Waterbody - 1	op of Widt	h of Water	body - To	e of Slope	Width	of Waterb	odv - W	ater Edge to	Depth	of Water	•
Bank to Top of Bank:	to Te	be of Slope	:		Water	Edge:	.,		(Approx.	)	
<u>_10_</u> ft.		<u>15</u> ft.				-	<u>6_</u> ft.				<u>2_</u> ft.
Sinuosity:	Wat	er velocitv			N/A∟ Bank	height			Bank	slone	
(check one)	(Appr	ox.)			Juni	Right:			Dunit	Right	:
		-	<u>1</u> fps			l oft	<u>1_</u> ft.			l off	<u>5</u> degrees
	ng N/A					Lent.	<u>4_</u> ft.			Lon	<u>30</u> degrees
Qualitative Attribu	tes										
Water Appearance: (check one)	No water	□Clear	□Turbic	I □Sh on	een surfac	⊡Su e scu	rface um	□Algal mats	□Othe	r:	
Substrate:	Bedrock	Boulder	Cobble	e 🛛 Grave	el 🛛	Sand	⊠ Silt/ c	lay 🗆 Organic	; □ (	Other:	
(check all that apply) % of Substrate:	% _20	<u>)</u> %	<u>20_</u> %	<u>20 </u> %	_2	<u>20  %</u>	<u>20_</u> %	%	)	%	
Width of Riparian Zone	e: Vegetat	ive Lavers									
50 ft	(check all	that apply)	nante	⊠ Trees:	-	۵	Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u> </u>	(approx.)		nants.	<u>13</u> ın.		-	_ <u>.25_</u> in				
Dominant Bank Vegeta	ntion (list):	. L.									
I ulip tree, sycamor	e, yellow bird	n									
Aquatic Habitats (ex: su	ubmerged or emer	ged aquatic v	egetation,	overhanging	banks/ro	oots, leaf pac	ks, large	submerged wood	l, riffles,	deep pool	5):
Riffle, pool											
Aquatic Organisms Ob	served (list):										
none observed, hea	avy rainfall										
T&E Species Observed	l (list):										
none observed											
Disturbances (ex: liveste	ock access, manu	re in waterbo	dy, waste o	discharge pipe	es):						
Bank modification											
Tributary is: (check one)	⊠ Natura	l	□ Artif	icial, man-m	ade	Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		⊠ Mod	erate		□ Low					

Srae112

**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 srae112 facing southeast upstream



Waterbody srae112 facing west downstream



Waterbody srae112 facing south across

Survey Description	n								
Project Name:		Waterbody Na	ame:		w	laterbody ID:			Date:
Atlantic Coast Pipel	ine	Valley Fork			S	rae188			6/24/2016
State:	County:		Company:		Crew I	Member Initials	:	Photos:	
West Virginia	Randolph		NRG		CG, S	SA		1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B073			NA			none			
Survey Type: (check one)		e ⊡Re-	Route	⊠Access Road		□Other:			
Physical Attributes	S								
Stream Classification: (check one)	Ephemera	al 🗆 Inte	ermittent	Perennial					
Waterbody Type:									
(check one)	River 🛛 Sti	ream 🗌 Dit	ich 🗆 C	anal 🗌 Other:					
OHWM Width:	OHWM Indica (check all that appl	tor: y)	⊠ Clear lir	ne 🗆 Shelvin	g	□Wrested	X	Scouring	g ⊠Water
<u>35</u> ft.			on bank			vegetation			staining
Height:ft.	⊠Bent, r vegetatio	matted, or missi	ng	ne ⊠Litter ar debris	nd	□Abrupt plan community ch	t lange	⊠Soil cl	naracteristic change
N/AL Width of Waterbody - T	on of Width	of Watorbody -	Too of Slopa	Width of Waterb	ody - W	later Edge to	Donth	of Water	•
Bank to Top of Bank:	to Toe	of Slope:	The of Slope	Water Edge:	ouy-w	aler Euge lu	(Approx.)	UI Water	
<u>_60_ft</u> .	_	<u>_25_</u> ft.		_	<u>35_</u> ft.				<u>4</u> ft.
0				N/A 🗆			N/A 🗆		
(check one)	(Approx.)	velocity:		Bank height			Bank s	Biope	
□Straight		_2.5_ fp	S	Kight.	<u>7_</u> ft.			Nigin	<u>60</u> degrees
⊠Meanderir				Left:	7 ft.			Left	: 45 degrees
Qualitative Attribu	tes								arg.ttt
Water Appearance:									
(check one)	No water	Clear ⊠Tur	bid □Sh or	neen □Sui n surface scu	rface um	□Algal [ mats	□Othe	r:	
Substrate:	Bedrock 🛛 🖾 Bo	oulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	□ Silt/ c	clay 🗆 Organic	: 🗆 C	Other:	
% of Substrate:	<u>% 25 9</u>	% <u>25 </u> %	<u>   25  </u> %	<u>25</u> %		_%%		%	
Width of Riparian Zone	e: Vegetativ	e Layers:							
	(check all that	t apply)	⊠ Trees	: D	Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>π</u> . N/A□	avg. DBH (approx.)	or Dominants:	<u>6</u> in.	-	_ <u>1_</u> in.				
Dominant Bank Vegeta	tion (list):								
Tuliptree, birch, Virg	ginia creeper, p	barsnip							
Aquatic Habitats (ex: su	bmerged or emerge	d aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
Boulders, riffles									
Aquatic Organisms Ob	served (list):								
None but likely pres	ent								
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ock access, manure	in waterbody, was	te discharge pipe	es):					
Bank revetment, bri	dged								
Tributary is: (check one)	□ Natural	□ A	rtificial, man-m	ade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	× N	loderate	□ Low					

Srae188

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

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

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

### Notes:

Recent flash flooding in area. Water is high, turbid, and fast.





Waterbody SRAE188 facing southeast upstream



Waterbody SRAE188 facing northwest downstream



# Waterbody SRAE188 facing northeast across

Survey Descriptio	n								
Project Name:		Waterbody I	Name:		v	aterbody ID:		D	ate:
Atlantic Coast Pipe	line	UNT to Va	lley Fork		S	irae118		5	/7/2016
State:	County:		Company:		Crew I	Member Initials	: 1	Photos:	
West Virginia	Randolph		NRG		CG, ł	<0		1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B071/072			60.8			none			
Survey Type: (check one)	⊠Centerli	ne 🗆 R	e-Route	□ Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	⊠Epheme	eral 🗆 In	termittent	Perennial					
Waterbody Type:									
(check one)	□River ⊠ S	Stream 🗆 🛙	Ditch 🗆 C	anal 🛛 Other:					
онwм	OHWM Indic	ator:					_		
Width: <u>3</u> ft.	(check all that ap	(עומן	Clear lii on bank	ne 🗆 Shelving	g	☐Wrested vegetation	$\boxtimes$	Scouring	□Water staining
Height:	⊠Bent	, matted, or mis	sing	ine ⊠Litter ar	nd	□Abrupt plan	t	Soil cha	aracteristic change
ft. N/A□	vegetat	ion		debris		community ch	ange		
Width of Waterbody -	Top of Width	n of Waterbody	- Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth	of Water:	
Bank to Top of Bank:	to To	e of Slope:		Water Edge:			(Approx.)		
<u>_10_</u> ft.		<u>2</u> ft.			<u>2</u> ft.				<u>0.1_</u> ft.
Sinuosity:	Wate	r velocity:		N/A			Bank s	lope	
(check one)	(Appro:	x.)		Right:			Buinto	Right:	
		1_f	ps	L offi	<u>3_</u> ft.			- L offi	45 degrees
□Meanderi	ng N/A□	]		Leit.	<u>2</u> ft.			Len.	<u>30</u> degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	<sup>□</sup> No water   ⊠	IClear □T	urbid □Sł	neen ⊡Sur	rface	□Algal	□Other	:	
			or	surface scu	um	mats			
Substrate:	Bedrock 🛛 🖾	Boulder 🛛 🖾 Co	obble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗌 Organic		Other:	
% of Substrate:	<u>% 5</u> 9	% <u>20 </u> 9	% <u>30</u> %	<u>40</u> %	<u>5</u> %	%		%	
Width of Riparian Zone	e: Vegetati	ve Layers:							
	(check all th	nat apply)	⊠ Trees	: 🛛 🛛	🛛 Saplii	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>12 π</u> · N/A□	AVG. DB (approx.)	H of Dominant	<b>s:</b> <u>14</u> in.	-	_ <u>1_</u> in.				
Dominant Bank Vegeta	ation (list):								
Maple, buckeye, ne	ettle, birch								
Aquatic Habitats (ex: s	ubmerged or emerg	ed aquatic vegeta	ation, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, o	deep pools)	:
none									
Aquatic Organisms Ob	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure	e in waterbody, wa	aste discharge pip	es):					
Culverted beneath	road								
Tributary is: (check one)	□ Natural		Artificial, man-m	nade 🛛 🖾 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High	$\boxtimes$	Moderate	□ Low					

### Srae118

**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:

Jalky For Rd		
STAT -	Et culvert PP	MN (ac 118
K	300' 200' 7	- praello Staclig



Waterbody SRAE118 facing south upstream



Waterbody SRAE118 facing north downstream



# Waterbody SRAE118 facing west across

Survey Descriptio	n								
Project Name:		Waterbody Na	ame:		v	aterbody ID:		D	ate:
Atlantic Coast Pipe	line	UNT to Vall	ey Fork		S	irae119		5/	7/2016
State:	County:		Company:		Crew I	Member Initials	: F	Photos:	
West Virginia	Randolph		NRG		CG, ł	<0		1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B072			60.8			none			
Survey Type: (check one)	⊠Centerlin	ne 🗆 Re-	-Route	□Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	⊠Epheme	ral 🗌 Inte	ermittent	Perennial					
Waterbody Type:									
(check one)	□River ⊠ S	tream 🗆 Di	tch 🗆 C	anal 🗌 Other:					
онwм	OHWM Indic	ator:						o :	
Width: _2_ft.	(cneck all that app	<i></i>	on bank		g		X	Scouring	⊡ water staining
Height:	⊠Bent,	matted, or missi	ng 🗆 Wrack li	ne 🗆 Litter ar	nd	□Abrupt plan	t	Soil cha	racteristic change
<u> </u>	vegetati	ion		debris		community ch	ange		
Width of Waterbody - " Bank to Ton of Bank"	Top of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth (	of Water:	
Bank to Top of Bank.		e of Stope.		Water Luge.			(,,pp,o,u)		01 #
<u>_6</u> ft.		<u>_1_</u> ft.		N/A□ -	<u>2</u> ft.		N/A□		<u>J. I</u> II.
Sinuosity:	Water	velocity:		Bank height			Bank s	lope	
(check one)	(Approx	(.) 		Right:	<b>2</b> #			Right:	20 degrees
		<u>_1.5_</u> fp	S	Left:	<u></u> II.			Left:	<u>30</u> degrees
	ng N/A□				<u>1_</u> ft.			-	20 degrees
Qualitative Attribu	utes								
Water Appearance: (check one)	<sup>□</sup> No water ⊠	lClear □Tur	bid □St or	leen ⊡Sui i surface scu	rface um	□Algal [ mats	□Other	:	
Substrate:	Bedrock B	Boulder 🛛 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	Silt/ d	clay 🗆 Organic		Other:	
(check all that apply) % of Substrate:	%	<u>% 20</u> %	<u>30</u> %	<u>30</u> %	<u>20_</u> %	%		%	
Width of Riparian Zone	e: Vegetativ	ve Layers:							
<u>12 ft</u> ·	(check all the Avg. DBI	at apply) H of Dominants:	⊠ Trees _ <u>8_</u> in.	: 2	I Sapliı _ <u>1_</u> in.	ngs/Shrubs:	$\boxtimes$	Herbs	
N/A⊡ Dominant Bank Veget	(approx.)		_		_				
Ramps, blue beech	n, tuliptree								
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, o	deep pools):	
none									
Aquatic Organisms Of	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure	e in waterbody, was	te discharge pip	es):					
none									
Tributary is: (check one)	⊠ Natural	□ A	rtificial, man-m	ade 🗆 Manipu	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High	× N	loderate	□ Low					

### Srae119

**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 SRAE119 facing south upstream



Waterbody SRAE119 facing north downstream



# Waterbody SRAE119 facing west across

Survey Description	l								
Project Name:		Waterbody Na	ame:		v	Vaterbody ID:			Date:
Atlantic Coast Pipelir	ne	UNT to Vall	ey Fork		S	Srae187		6	6/21/2016
State:	County:		Company:		Crew I	Member Initials	: 1	Photos:	
West Virginia	Randolph		NRG		CG, S	SA		1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B025; 04-002-B	8073		NA			none			
Survey Type: (check one)		e ⊡Re-	Route	⊠Access Road		Other:			
<b>Physical Attributes</b>									
Stream Classification: (check one)	Ephemera	al 🛛 Inte	ermittent	Perennial					
Waterbody Type:									
(check one)	River 🛛 Str	ream 🗆 Dir	tch 🗆 Ca	anal 🗌 Other:					
OHWM Width: 8 ft.	OHWM Indica (check all that appl	tor: y)	□ Clear lir on bank	ne 🗆 Shelving	g	□Wrested vegetation	$\boxtimes$	Scouring	□Water staining
Height: 0.5_ft.	⊠Bent, r vegetatio	matted, or missi	ng    □Wrack li	ne □Litter ar debris	nd	□Abrupt plan community ch	t ange	⊠Soil cł	naracteristic change
N/AL	n of Midth	of Waterbady	Too of Slope	Width of Waterb	ody - M	lator Edgo to	Donth	of Wator	
Bank to Top of Bank:	to Toe	of Slope:	Toe of Slope	Water Edge:	ouy - w	rater Euge to	(Approx.)	or water	•
<u>_14_</u> ft.	-	<u>7</u> ft.			<u>7_</u> ft.		N/A□		<u>0.25_</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank s	lope	
(check one)	(Approx.)	-		Right:				Right	
g		_ <u>1_</u> fps	6	Left:	<u>4_</u> ft.			Left	<u>80</u> degrees
	9 N/A□			2010	<u>2</u> ft.			2011	<u>30</u> degrees
Qualitative Attribut	es								
Water Appearance: (check one)	No water ⊠0	Clear □Tur	bid □Sh on	leen ⊡Sui surface scu	rface um	□Algal [ mats	□Other	÷	
Substrate:	Bedrock 🛛 Bo	oulder 🖂 Cob	ble 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic		Other:	
(check all that apply) % of Substrate:	% 20 9	% 40 %	20 %	15 %	5%	%		%	
Width of Pinarian Zana	Vogototiv								
width of Riparian Zone.	(check all that	t apply)	⊠ Trees	: 🛛 🛛	🛛 Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>30 ft</u> - N/A□	Avg. DBH (approx.)	of Dominants:	<u>10</u> in.	-	<u>1_</u> in.				
Dominant Bank Vegetat	ion (list):								
Nettle, tuliptree, map	ole, birch, fern								
Aquatic Habitats (ex: sub	omerged or emerge	d aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	, riffles, o	deep pools	3):
Step pools									
Aquatic Organisms Obs	erved (list):								
Salamanders, crayfis	sh								
T&E Species Observed	(list):								
none									
Disturbances (ex: livestoo	ck access, manure i	n waterbody, was	te discharge pipe	es):					
Adjacent to road									
Tributary is: (check one)	⊠ Natural	□ A	rtificial, man-m	ade 🗆 Manipu	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	× N	loderate	□ Low					

Srae187

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 SRAE187 facing southwest upstream



Waterbody SRAE187 facing northeast downstream



# Waterbody SRAE187 facing southeast across

Survey Description	on										
Project Name:		Waterb	ody Name	:			Wa	terbody ID:			Date:
Atlantic Coast Pipe	eline	UNT t	o Valley I	Fork			sra	ae120			05/07/16
State:	County:		Co	ompany:		С	rew Me	ember Initials	5:	Photos:	
WV	Randolp	h	N	RG		С	G, K	C		9, 10,	11
Tract Number(s):			Ne	earest Mile	epost:		ļ	Associated W	etland	ID(s):	
04-002-B072			60	0.9				none			
Survey Type: (check one)	⊠Ce	enterline	□Re-Rou	ıte	□Access	Road	[	]Other:			
Physical Attribut	es										
Stream Classification	): 	h		111		·					
	⊐Ep	nemeral		ttent	□Perenn	lai					
Waterbody Type: (check one)	□River	Stream Stream	□ Ditch	□ Ca	anal 🗆	Other:					
ОНWM	OHWM	Indicator:									
Width: _ <u>6_</u> ft.	(check all	that apply)		Clear lin on bank	ne ⊡S	helving		☐Wrested vegetation		Scouring	g ⊠Water staining
Height:		Bent, matted, c	or missing	□Wrack li	ne ⊠L	itter and		□Abrupt plar	nt	□Soil c	haracteristic change
<u>.10_</u> ft. N/A□	Ve	egetation			deb	ris		community ch	nange		
Width of Waterbody -	Top of	Width of Water	body - Toe	e of Slope	Width of W	aterbod	ly - Wa	ter Edge to	Depth	of Wate	r:
Balik to Top of Balik.	1	to Toe of Slope	):		water Eug	e:			(Approx.,	/	
<u>8 ft.</u>		<u>8</u> ft.				у	′ <u></u> ft.		N/A□		<u>.1</u> ft.
Sinuosity:	1	Water velocity			Bank heigh	nt			Bank s	slope	
(check one)		(Approx.)			Riç	ght:				Right	t:
			<u>1</u> fps		· .	eft·	<u>2</u> ft.			l ef	40 degrees
□Meande	ring	N/A□			-	_2	<u>2_</u> ft.			Len	<u>35</u> degrees
Qualitative Attrib	utes										
Water Appearance: (check one)	□No water	⊠Clear	□Turbid	□Sh	een	Surfa	ice	□Algal	□Othe	r:	
Substrates										)thore	
Substrate: (check all that apply)		□ Boulder			ei 🛛 San	a 🛛	SIIt/ CIa	iy 🗆 Organic		Jther:	
% of Substrate:	%	%	<u>20 </u> %	<u> 10 </u> %	<u> 5 </u> %	6	<u>5_</u> %	%	·	%	
Width of Riparian Zor	ne: Veç	getative Layers	:	⊠ ∓			0 1	(0)	5	7	
ft∙	Avc	a. DBH of Dom	inants:	⊢ Irees:		1	Sapling	s/Snruds:	Ľ	Herbs	
N/A⊠	(app	rox.)		<u>_</u>		<u>l</u>	<u> </u>				
Dominant Bank Vege	tation (list):										
Trees, Birch. Herbs includ Aquatic Habitats (ex:	include Ar	merican Bee eed. Ramps.	ch, and Y False M	fellow Bi litterworf	rch. Shrut Ferns and banks/roots //	os inclu <u>d Trilliu</u> af packs	ide Ar im.	merican Be	ech, S		Maple, and Yellow
none	ousinorgou or	omorgoù aqualo	vogotation, e	vonanging	burno, rooto, r	sui puono,	, laigo o		, 111100,	0000 000	
Aquatic Organisms C	<b>Observed</b> (lis	t):									
none											
T&E Species Observe	ed (list):										
none											
Disturbances (ex: lives	stock access, r	nanure in waterbo	dy, waste di	scharge pipe	es):						
road cuts											
Tributary is: (check one)	Na	atural	□ Artific	ial, man-m	ade 🛛 🖂	Manipula	ated				
Stream Quality <sup>a</sup> : (check one)	🗆 Hi	gh	⊠ Mode	rate		LOW					

### srae120

**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 SRAE120 facing south upstream



Waterbody SRAE120 facing north downstream



# Waterbody SRAE120 facing west across

Survey Description	on										
Project Name:		Waterb	ody Name:				Ň	/aterbody ID:		D	ate:
Atlantic Coast Pipe	line	UNIt	o Valley F	ork			SI	rae121		5,	/10/2016
State:	County:		Co	mpany:			Crew I	Member Initials	:	Photos:	
WV	Randolp	h	NF	RG			CG, ł	<b>(</b> 0		1-3	
Tract Number(s):			Ne	arest Mile	epost:			Associated W	etland	ID(s):	
Unknown			61	.1				none			
Survey Type: (check one)	⊠Cei	nterline	□Re-Rou	te	□Ac	cess Road	ł	□Other:			
Physical Attribute	es										
Stream Classification:											
(check one)	⊠Epl	hemeral		ent	□Pe	rennial					
Waterbody Type: (check one)	River	⊠ Stream	□ Ditch		anal	□ Other	:				
ОНШМ	OHWM	Indicator:									
Width: <u>5</u> ft.	(cneck all t	tnat арріу)	C	☐ Clear lir on bank	ne	⊔Shelvin	ıg	☐Wrested vegetation	L	Scouring	⊡Water staining
Height:		Rent matted o	r missina (	∃Wrack li	ne	⊠I itter a	nd	⊠Abrupt plan	t	□Soil cha	aracteristic change
<u>.2_</u> ft.	ve	getation	i meeng			debris		community ch	ange		
Width of Waterbody -	Top of	Nidth of Water	body - Toe	of Slope	Width	of Waterb	ody - W	ater Edge to	Depth	of Water:	
Bank to Top of Bank:	t	o Toe of Slope	):		Water	Edge:		Ū	(Approx.	)	
<u>15_</u> ft.		<u>8_</u> ft.				-	<u>3_</u> ft.			_	<u>.1_</u> ft.
Cinuccitur		Notorvolocity			N/A 🗆	aight			N/A∐ Benk		
(check one)	(	Approx.)			вапк г	Right			Banks	Right-	
			fps			night.	<u>3_</u> ft.			rtight.	<u>30</u> degrees
⊠Meander	ing	N/A 🖂				Left:	4 ft.			Left:	30 degrees
Qualitative Attribu	ites				I						
Water Appearance:											
(check one)	<sup>⊠</sup> No water	□Clear	□Turbid	⊡Sh on	ieen i surface	⊖Su e sc	rface um	□Algal mats	□Othe	r:	
Substrate:	Bedrock	□ Boulder	⊠ Cobble	S Grav	el 🗆	Sand	⊠ Silt/ c	clay 🗆 Organic	; 🗆 (	Other:	
% of Substrate:	%	%	<u>10_</u> %	<u> 5 </u> %		%	<u>85_</u> %	%		_%	
Width of Rinarian Zon	e. Vea	otativo I avors									
	c. Veg (chec	ck all that apply)	•	⊠ Trees	:	[	⊠ Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>ft</u> . N/A 🖂	Avg (appr	<b>. DBH of Dom</b>	inants:	<u>12</u> in.			<u>2</u> in.				
Dominant Bank Veget	ation (list):	,									
Trees Black Cherry	/, Sugar M	laple, Black	Walnut, v	iolets, s	tinging	g nettle, V	Virginia	a knotweed			
Aquatic Habitats (ex: s	ubmerged or e	emerged aquatic	vegetation, ov	verhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pools)	:
none											
Aquatic Organisms Ol	bserved (list	<i>:</i> ):									
none											
T&E Species Observe	d (list):										
none											
Disturbances (ex: lives	tock access, m	nanure in waterbo	dy, waste dis	charge pipe	es):						
Road crossing											
Tributary is: (check one)	🛛 Na	itural	□ Artifici	al, man-m	ade	🗆 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 Hig	gh	⊠ Moder	ate		□ Low					

### srae121

**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 srae121 facing southeast upstream



Waterbody srae121 facing northwest downstream



Waterbody srae121 facing south across

Survey Description	n										
Project Name:		Waterbo	ody Nam	ie:			w	/aterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to	o Valley	/ Fork			SI	rae122			5/10/2016
State:	County:		C	Company:			Crew M	Member Initials	:	Photos:	
WV	Randolph		1	NRG			CG, k	<b>(</b> 0		1-3	
Tract Number(s):			r	Nearest Mile	epost:		L	Associated W	etland	ID(s):	
unknown			6	61.1				none			
Survey Type: (check one)	⊠Cent	orlino		oute		ress Road		□ Other:			
Physical Attribute	-0011			outo							
Stream Classification:	15										
(check one)	⊠Ephe	emeral		nittent	□Pe	erennial					
Waterbody Type: (check one)	River	Stream	□ Ditch	n 🗆 Ca	anal	□ Other	:				
ОНШМ	OHWM Ir	ndicator:							_		
Width: _ <u>2_ft</u> .	(cneck all th	ат арріу)		☐ Clear lir on bank	ne	⊔Shelvin	g	☐Wrested vegetation		Scouring	⊠Water staining
Height:	□B	ent, matted, or	<sup>,</sup> missing	⊡Wrack li	ne	⊠Litter a	nd	□Abrupt plan	t	□Soil ch	aracteristic change
<u>2_</u> ft. N/A□	veg	etation	Ū			debris		community ch	ange		Ū.
Width of Waterbody -	Top of W	idth of Waterl	oody - T	oe 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>_15_</u> ft.		<u>_10_</u> ft.				-	<u>2</u> ft.		NI/A 🗆	-	<u>1_</u> ft.
Sinuosity:	w	ater velocity:			Bank	neight			Banks	slope	
(check one)	(A)	pprox.)				Right:				Right:	
		<u>.</u>	<u>25_</u> fps			Left:	<u>4_</u> ft.			Left:	<u>35</u> degrees
□Meanderi	ing N/	/A□					<u>4_</u> ft.				<u>35</u> degrees
Qualitative Attribu	utes										
Water Appearance: (check one)	☐No water	□Clear	⊠Turbio	d ⊡Sh on	ieen i surface	⊡Su e sci	rface um	□Algal [ mats	□Othe	r:	
Substrate:	Bedrock	Boulder		e 🗆 Grave	el 🗆	Sand [	⊠ Silt/ c	clay 🗆 Organic		Other:	
(check all that apply) % of Substrate:	%	%	%	%		%	100 %	%		%	
Width of Pinarian Zon	e: Vege	tativo Lavors:							-	_	
	c. vege (check	all that apply)		⊠ Trees	:	[	□ Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>10 ft</u> - N/A□	Avg. (approx	DBH of Domin	nants:	<u>12</u> in.		-	in.				
Dominant Bank Veget	ation (list):	,									
Trees Black Cherry	/, Tulip tree	, Sugar Ma	ple, Bla	ack Walnu	t, viole	ets, golde	en ragv	wort			
Aquatic Habitats (ex: s	ubmerged or er	nerged aquatic v	egetation,	, overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pools	):
none											
Aquatic Organisms Ol	bserved (list):										
none											
T&E Species Observe	d (list):										
none											
Disturbances (ex: lives	tock access, ma	nure in waterboo	dy, waste	discharge pipe	es):						
none											
Tributary is: (check one)	⊠ Nati	ural	□ Artif	ficial, man-m	ade	🗆 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 Higł	า	⊠ Moc	derate		□ Low					

### srae122

**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 srae122 facing southeast upstream



Waterbody srae122 facing northwest downstream



Waterbody srae122 facing southwest across

Survey Description	on							
Project Name:		Waterbody N	lame:		v	aterbody ID:		Date:
Atlantic Coast Pipe	eline	UNT to Val	lley Fork		S	rae123		5/10/2016
State:	County:		Company:		Crew I	Member Initials:	Photos:	
WV	Randolph		NRG		CG, ł	<0	1-3	
Tract Number(s):			Nearest Mile	epost:	•	Associated Wetl	and ID(s):	
unknown			61.2			none		
Survey Type: (check one)	⊠Centerlir	ne ⊡Re	e-Route	□ Access Road		□Other:		
Physical Attribute	es							
Stream Classification (check one)	: □Epheme	ral 🛛 🖾 Int	termittent	Perennial				
Waterbody Type: (check one)	□River ⊠ S	tream 🗆 D	itch 🗆 C	anal 🗌 Other:				
OHWM Width:	OHWM Indic (check all that app	ator: <sub>bly)</sub>	Clear lir	ne 🗆 Shelving	g	□Wrested	□Scourin	g ⊠Water
<u>    8  </u> ft.			on bank			vegetation		staining
Height: ft. N/A□	□Bent, vegetati	matted, or miss on	sing □Wrack li	ne ⊠Litter ar debris	nd	□ Abrupt plant community chan	⊡Soil c ge	haracteristic change
Width of Waterbody -	Top of Width	of Waterbody	- Toe of Slope	Width of Waterbo	ody - W	ater Edge to De	pth of Wate	r:
Bank to Top of Bank:	to Toe	e of Slope:	•	Water Edge:		(Ap	prox.)	
<u>ft</u> .		<u>_11_</u> ft.		N/A□	<u>8</u> ft.	N//	\□	<u>1_</u> ft.
Sinuosity:	Water	velocity:		Bank height		Ba	nk slope	
(check one)	(Approx	<u>(</u> )		Right:			Right	t: 45. domest
		<u>.1_</u> fp	S	Left:	<u>5_</u> ft.		Lef	<u>45</u> degrees t:
	ring N/A□				<u>7_</u> ft.			45 degrees
Qualitative Attrib	utes							
Water Appearance: (check one)	□No water   ⊠	lClear □Tu	ırbid □Sh or	neen ⊡Sur n surface scu	rface um	□Algal □C mats	Other:	
Substrate:	Bedrock B	oulder 🛛 Co	bble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ o	clay 🗆 Organic	Other:	
(check all that apply) % of Substrate:	_%	%15	_% <u>10</u> %	<u>   5  </u> %	<u>70_</u> %	%	%	
Width of Riparian Zor	ne: Vegetativ	/e Layers:						
<u>10 ft</u> -	(check all the <b>Avg. DB</b>	at apply) H of Dominants	⊠ Trees 3: _ <u>12_</u> in.	: [	∃ Sapliı in.	ngs/Shrubs:	⊠ Herbs	
Dominant Bank Vege	tation (list):							
Trees Black Cherr	y, Stripe Maple	, Sugar Map	le, Witch ha	zel shrub, viole	ts, fals	se Solomon's S	eal, ,sting	ing nettle
Aquatic Habitats (ex:	submerged or emerg	ed aquatic vegeta	tion, overhanging	banks/roots, leaf pac	ks, large	submerged wood, rif	fles, deep poo	ls):
Aquatic Organisms O	bserved (list):							
T&E Species Observe	ed (list):							
Disturbances (ave live	took access manual	in waterbady	sto discharge al-	<i></i>				
Dammed outside of	corridor	an walerbody, Wa	iste discharge pip	53).				
Tributary is: (check one)	⊠ Natural		Artificial, man-m	iade 🗆 Manipi	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High	$\boxtimes$ I	Voderate	□ Low				

### srae123

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:

Associated with seep prae123





Waterbody srae123 facing south upstream



Waterbody srae123 facing north downstream



Waterbody srae123 facing west across
Survey Descriptio	n	•							
Project Name:		Waterbody Nar	ne:		M	Vaterbody ID:		Da	ite:
Atlantic Coast Pipe	line	UNT to Elk F	liver		S	srae134		5/2	23/2016
State:	County:		Company:		Crew	Member Initials:	Pł	notos:	
West Virginia	Randolph		NRG		CG, I	RP	1	-3	
Tract Number(s):	1		Nearest Mile	epost:	I	Associated We	etland ID	D(s):	
04-002-B025			61.3			none			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road	ł	Other:			
Physical Attribute	S								
Stream Classification:									
(check one)		al 🛛 Inter	mittent	Perennial					
Waterbody Type: (check one)	□River ⊠ Str	eam 🗆 Ditc	h 🗆 Ca	anal 🛛 🗆 Other	:				
ОНШМ	OHWM Indica	tor:							
<b>Width:</b> <u>5</u> ft.	(check all that appl)	()	on bank		ıg		⊔5	couring	staining
Height:	⊠Bent, r	natted, or missin	g	ine 🗆 Litter a	nd	⊠Abrupt plant	$\geq$	Soil cha	racteristic change
ft. N/A□	vegetatio	n		debris		community cha	ange		
Width of Waterbody -	Fop of Width	of Waterbody -	Foe 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>30_</u> ft.	-	<u>4_</u> ft.			<u>4_</u> ft.			_(	<u>).1_</u> ft.
Sinuosity:	Water	velocity:		Bank height		E	Bank slo	pe	
(check one)	(Approx.)	•		Right:				Right:	
		<u>_0.1_</u> fps		Left:	<u>7_</u> ft.			Left:	<u>30</u> degrees
□Meanderi	ng N/A□				<u>8_</u> ft.			_	45 degrees
Qualitative Attribu	ites								
Water Appearance:			id Deb		rfooo		Othor		
			id 131 on	n surface sc	um	mats			
Substrate:	Bedrock Bc	oulder 🗆 Cobb	le 🗆 Grav	el 🗆 Sand	⊠ Silt/ o	clay 🗆 Organic	□ Otł	ner:	
% of Substrate:	%	_%	%	%%	<u>100 %</u>	<u>%</u> %		%	
Width of Riparian Zon	e: Vegetative	E Layers:							
0.4	(check all that	apply)	⊠ Trees	: (	⊠ Sapli	ngs/Shrubs:	$\boxtimes$	lerbs	
<u>8 II</u> . N/A□	(approx.)	or Dominants.	<u>15</u> in.		<u>1</u> in.				
Dominant Bank Vegeta	ation (list):								
Maple, tulip tree, je	welweed								
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetation	n, overhanging	banks/roots, leaf pag	cks, large	e submerged wood,	riffles, de	ep pools):	
none									
Aquatic Organisms Of	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure i	n waterbody, waste	discharge pipe	es):					
none									
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	nade Manip	oulated				
Stream Quality <sup>a</sup> : (check one)	□ High	⊠ Mo	derate	□ Low					

#### Srae134

**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 srae134 facing east upstream



Waterbody srae134 facing west downstream



Waterbody srae134 facing north across

Survey Description	n								
Project Name:		Waterbody N	ame:		w	laterbody ID:			Date:
Atlantic Coast Pipel	ine	UNT to Elk	River		S	rae133			5/23/2016
State:	County:		Company:		Crew I	Member Initials	: F	Photos:	
West Virginia	Randolph		NRG		CG, F	RP		1-4	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B025			61.4			Wrae226			
Survey Type: (check one)	⊠Centerlin	ne ⊡Re	-Route	□ Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	Epheme	ral ⊠Inte	ermittent	Perennial					
Waterbody Type: (check one)	]River ⊠ St	tream 🗆 Di	tch 🗆 Ca	anal 🗌 Other:	:				
OLDAVA		-1							
Width: <u>8</u> ft.	(check all that app	ator: oly)	□ Clear lir on bank	ne 🗆 Shelving	g	□Wrested vegetation	$\boxtimes$	Scouring	□Water staining
Height: 0.5 ft.	⊠Bent, vegetati	matted, or miss	ing	ne ⊠Litter ar debris	nd	□Abrupt plan	t ange	□Soil ch	aracteristic change
N/A 🗆									
Bank to Top of Bank:	op of Width to Toe	of Waterbody	- Toe of Slope	Width of Waterbe	ody - W	ater Edge to	Depth ( (Approx.)	of Water	
<u>_30</u> ft.		<u>_2_</u> ft.			<u>2</u> ft.			-	<u>_0.1_</u> ft.
Sinuosity:	Water	r velocity:		N/A∟ Bank beight			Rank s	lone	
(check one)	(Approx	<i>x)</i>		Right:			Dank 3	Right:	
		<u>_0.5_</u> fp	os	L offi	<u>5_</u> ft.			الم ا	70 degrees
□Meanderii	ng N/A□			Leit.	<u>5_</u> ft.			Leit	<u>60</u> degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water ⊠	lClear □Tu	rbid □Sh on	leen 🗆 Sur surface scu	rface um	□Algal [ mats	□Other	:	
Substrate:	Bedrock 🛛 B	oulder 🛛 Col	oble 🛛 Grave	el 🗆 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	: 🗆 C	Other:	
(check all that apply) % of Substrate:	%	% <u>_20</u> %	<u>20</u> %	% _	<u>60_</u> %	%		%	
Width of Riparian Zone	e: Vegetativ	ve Layers:							
<u>10 ft</u> -	(check all the Avg. DBH (approx.)	<sup>at apply)</sup> H of Dominants	⊠ Trees : _ <u>6_</u> in.	: 2	I Saplir _ <u>1_</u> in.	ngs/Shrubs:	$\boxtimes$	Herbs	
Dominant Bank Vegeta	tion (list):								
Maple, goldenrod, r	nettle								
Aquatic Habitats (ex: su	ubmerged or emerge	ed aquatic vegetat	ion, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, o	deep pools	5):
none									
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ock access, manure	in waterbody, was	ste discharge pipe	es):					
Road cut									
Tributary is: (check one)	Natural	Α []	rtificial, man-m	ade 🛛 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		Noderate	⊠ Low					

### Srae133

**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 srae133 facing southeast upstream



Waterbody srae133 facing northwest downstream



# Waterbody srae133 facing southwest across

Survey Description	n								
Project Name:		Waterbody Na	me:		w	/aterbody ID:		Date:	
Atlantic Coast Pipel	ine	UNT to Elk F	River		S	irae132	<b>I</b> = -	5/23/	2016
State:	County:		Company:		Crew I	Member Initials:	Pho	otos:	
West Virginia	Randolph		NRG		CG, F	RP	1-	5	
Tract Number(s):			Nearest Mile	epost:		Associated We	tland ID(	(s):	
04-002-B025			61.4			none			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□ Access Road		□Other:			
Physical Attributes	S								
Stream Classification: (check one)	Ephemera	al 🛛 Inter	mittent	Perennial					
Waterbody Type:									
(check one)	River Str	eam 🗆 Dito	ch 🗆 Ca	anal 🗌 Other:	:				
онwм	OHWM Indica	tor:							
<u>3</u> ft.	(check all that appl)	*)	on bank		g		× SC	ouring	staining
Height:	⊠Bent, r	natted, or missin	ig	ne 🛛 Litter ar	nd	⊠Abrupt plant		Soil charact	eristic change
ft. N/A□	vegetatio	n		debris		community cha	nge		
Width of Waterbody - T	op of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	epth of \	Water:	
Bank to Top of Bank:	to loe	of Slope:		water Edge:		(*	φρισχ.)		
<u>_6_</u> ft.	-	<u>2</u> ft.			<u>2</u> ft.	N		0.1_	_ft.
Sinuosity:	Water	velocity:		Bank height		B	ank slop	be	
(check one)	(Approx.)			Right:				Right:	
		<u>_0.5_</u> fps	6	l eft:	<u>2</u> ft.			<u>30</u>	degrees
	ng N/A□				<u>2</u> ft.				degrees
Qualitative Attribu	tes								
Water Appearance: (check one)	No water ⊠0	Clear 🗆 Turb	oid □Sh on	leen ⊡Sui i surface sci	rface um	□Algal □ mats	Other:		
Substrate:	Bedrock 🗆 Bo	oulder 🛛 Cobb	ole 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	□ Othe	er:	
(check all that apply)	0/	0/ F 0/	5 %	10.94	80 %	9/		0/	
	76	/0/0	%	/8	00_/0	76		70	
Width of Riparian Zone	e: Vegetative	e Layers:		•	🛛 Sanlir	nas/Shrubs		orbe	
<u>10 ft</u> -	Avg. DBH	of Dominants:	<u>_6_</u> in.	. Ľ	⊴ 0apin _ <u>1_</u> in.	ngs/onrubs.		erbs	
N/AL	tion (list):								
Maple, jewelweed, s	sedges								
Aquatic Habitats (ex: su	Ibmerged or emerge	d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood, i	riffles, dee	p pools):	
none									
Aquatic Organisms Ob	served (list):								
salamanders									
T&E Species Observed	l (list):								
none									
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pipe	es):					
Road cut creates st	ream exposing	subsurface f	flow						
Tributary is: (check one)	□ Natural		tificial, man-m	ade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		oderate	⊠ Low					

### Srae132

**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 srae132 facing southeast upstream



Waterbody srae132 facing northwest downstream



Waterbody srae132 facing northeast across

Open Waterboo	dy Dat	ta Sheet										
Survey Descripti	ion											
Project Name:		N	Vaterbod	y Name:			1	Waterbody ID:			Date:	
Atlantic Coast Pip	eline	L	Jnname	ed pond			(	Orae113			5/23/20	16
State:	County	y:		Comp	any:		Crew	Member Initials	:	Photos:		
West Virginia	Rando	olph		NRG			CG,	RP		1-2		
Tract Number(s):				Neare	st Milepost:			Associated Wet	land	ID(s):		
04-002-B025				61.7				none				
Survey Type: (check one)		⊠Centerline	[	□Re-Rou	te	□ Access Ro	bad	□Other:				
Physical Attribut	tes											
Waterbody Type: (check one)	ick Pond	⊠ Natural F	Pond 🗆	Lake 🗆	Reservoir [	] Impoundm	ent 🗆	Oxbow 🗆 Oth	er:			
Hydrologic Regime:	□P	ermanently Fl	looded	🗆 Semij	permanently	Flooded	⊠ Seas	onally Flooded		Temporari	ily Floode	d
онwм	(	OHWM Indica	tor:									
Height:	(	check all that appl	(y)		Clear line on bank	e ⊡Sh	elving	□Wreste vegetatio	d า	□Sco	uring	⊠Water staining
<u> </u>		⊠Bent, r vegetatic	matted, o on	r missing	□Wrack line	□Litt debri	er and s	□ Abrupt communit	plant y cha	□Soil cł inge	naracterist	ic change
Depth of Water:			Bank he	eight (ave	erage):			Bank slope (	avera	age):		
 N/A□	<u>25</u> ft.				<u>    1   </u> ft.					20_degree	es	
Qualitative Attrib	outes		<u> </u>									
Water Appearance: (check one)	□No w	rater ⊠Cl	ear	□Turbid	□ Shee on surfa	n 🗆 ice sc	Surface um	e ⊡Algal mats	□C	Other:		
Substrate: (check all that apply)	🗆 Bedi	rock 🛛 Bou	Ilder 🗆	Cobble	□ Gravel	□ Sand	⊠ Si	lt/ clay □ Orga	nic	Other:		
% of Substrate:		_%	_%	%	%	» <u> </u> %	6 <u>100</u>	0_%	<u>%</u>		<u>%</u>	
Width of Riparian Zo	one:	Vegetative L (check all that ap	ayers:		⊠ Trees:		⊠ Sap	olings/Shrubs:		⊠ He	rbs	
n. N/A⊠		Avg. DBH of	f Domina	ints:	<u>6</u> in.		_ <u>2_</u> in	l.				
Dominant Bank Vege		(list):										
Birch, goldenrod	(											
Aquatic Habitats (ex:	submergeo	d or emerged aqua	atic vegetatio	on, overhangi	ng banks/roots, le	eaf packs, large s	submergeo	d wood, riffles, deep p	ools, et	tc.):		
none												
Aquatic Organisms (	Observe	ed (list):										
none												
T&E Species Observ	ed (list):	-										
none												
Disturbances (ex: live	estock acc	cess, manure in	waterbody	/, waste dis	charge pipes):							
Adjacent to old log	gging r	oad										
Waterbody is: (check one)		⊠ Natural		□ Artifici	al, man-made	e 🗆 Mai	nipulate	d				
Waterbody Quality <sup>a</sup> (check one)	:	□ High		Moder	ate	⊠ Low						

Orae113

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:





Open waterbody orae113 facing east



Open waterbody orae113 facing west

Survey Descriptio	n								
Project Name:		Waterbody Na	ame:		W	aterbody ID:		D	ate:
Atlantic Coast Pipe	line	UNT to Elk	River		S	rae131		5	/23/2016
State:	County:		Company:		Crew N	Member Initials	: P	hotos:	
West Virginia	Randolph		NRG		CG, F	RP	1	-4	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland I	D(s):	
04-002-B025			61.9			none			
Survey Type: (check one)	⊠Centerlin	e □Re	-Route	□ Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	Ephemer	al 🛛 Inte	ermittent	Perennial					
Waterbody Type: (check one)	□River ⊠ St	ream 🗆 Di	tch 🗆 C	anal 🛛 Other:	:				
OHWM Width: 4 ft.	OHWM Indica (check all that app	ator: ly)	Clear lin on bank	ne 🗆 Shelvin	g	□Wrested vegetation		Scouring	□Water staining
Height: 	□Bent, vegetatio	matted, or missi on	ng ⊡Wrack I	ine □Litter ar debris	nd	□Abrupt plan community ch	t [ ange	⊐Soil cha	aracteristic change
Width of Waterbody -	Top of Width	of Waterbody ·	Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth o	f Water:	
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		-	(Approx.)		
<u>6</u> ft.	-	<u>3</u> ft.			<u>3</u> ft.			_	<u>0.1_</u> ft.
Sinuosity:	Water	velocity <sup>.</sup>		N/AL			Bank sl	one	
(check one)	(Approx.)	)		Right:			Buinton	Right:	
		<u>_0.75_</u> f	ps	L offer	_ <u>4_</u> ft.			ا من	45 degrees
□Meanderi	ng N/A 🗆			Lent:	_4_ft.			Len:	80 degrees
Qualitative Attribu	ites			1					
Water Appearance: (check one)	<sup>□</sup> No water ⊠	Clear □Tui	bid ⊡Sł or	neen ⊡Sui n surface scu	rface um	□Algal [ mats	□Other:		
Substrate:	Bedrock B	oulder 🗆 Cob	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic		ther:	
(check all that apply) % of Substrate:	_%	%	_% <u>30</u> %	<u>   60   </u> %	<u>10_</u> %	%		%	
Width of Riparian Zon	e: Vegetativ	e Layers:							
ft-	(check all tha Avg. DBH	t apply) I of Dominants	⊠ Trees	:: 2	I Saplir ⊠ 1 in	ngs/Shrubs:	$\boxtimes$	Herbs	
N/A⊠	(approx.)		<u>_12</u>	-	<u>_</u>				
Dominant Bank Vegeta Maple, Wood anem	ation (list): 10ne, beech								
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, d	eep pools)	:
none									
Aquatic Organisms Of	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure	in waterbody, was	te discharge pip	es):					
none									
Tributary is: (check one)	⊠ Natural	□ A	rtificial, man-m	nade 🗆 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High	× N	loderate	□ Low					

Srae131

pracple

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:

With spring point prae126

Side



Waterbody srae131 facing southeast upstream



Waterbody srae131 facing northwest downstream



Waterbody srae131 facing north across

Survey Descriptio	n								
Project Name:		Waterbody Na	me:		v	aterbody ID:		D	ate:
Atlantic Coast Pipe	line	UNT to Elk I	River		S	rae130	<u> </u>	5	/20/2016
State:	County:		Company:		Crew I	Member Initials	:	Photos:	
West Virginia	Randolph		NRG		CG, ł	<0		1-4	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B025			63.9			none			
Survey Type: (check one)	⊠Centerlin	e □Re-	Route	□ Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	Ephemer	ral ⊠Inte	rmittent	Perennial					
Waterbody Type:									
(check one)	□River ⊠ St	tream 🗆 Dit	ch 🗆 Ca	anal 🗌 Other:					
онwм	OHWM Indica	ator:						0	
Width: _ <u>6_ft</u> .	(Check all that app	ny)	on bank		g		X	Scouring	staining
Height:	⊠Bent,	matted, or missir	ng ⊡Wrack li	ne ⊠Litter ar	nd	□Abrupt plan	t	Soil ch	aracteristic change
_ <u>1_</u> ft. N/A□	vegetati	on		debris		community ch	ange		
Width of Waterbody -	Top of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth	of Water:	
вапк то тор от вапк:	to loe	e of Slope:		water Edge:			(Approx.)		
<u>_20</u> ft.		<u>4_</u> ft.		N/A 🗆 –	<u>4</u> ft.		N/A□		<u>0.2_</u> ft.
Sinuosity:	Water	velocity:		Bank height			Bank s	lope	
(check one)	(Approx.	.)		Right:				Right:	
C C		<u>    0.75   </u> fp	S	Left:	<u>4_</u> ft.			Left:	20 degrees
	ng N/A□				<u>5_</u> ft.				<u>30</u> degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	<sup>□</sup> No water ⊠	Clear DTurl	oid □Sh on	neen ⊡Sui n surface sci	rface um	□Algal [ mats	□Other	r:	
Substrate:	Bedrock 🛛 B	oulder 🛛 Cobl	ble 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic		Other:	
(check all that apply) % of Substrate:	%10	<u>% 25</u> %	<u>35</u> %	<u>   15  </u> %	<u>15_</u> %	%		_%	
Width of Riparian Zon	e: Vegetativ	ve Layers:							
ft.	(check all tha	at apply)	⊠ Trees	: D	Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
N/A⊠	(approx.)	l of Dominants.	<u>_12_</u> in.	-	_ <u>1_</u> in.				
Dominant Bank Vegeta	ation (list):								
iviayappie, beech, i	Паріе								
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegetation	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	, riffles,	deep pools)	12
Large woody debris	5								
Aquatic Organisms Ol	oserved (list):								
none									
T&E Species Observe	d <i>(list)</i> :								
none									
Disturbances (ex: livest	ock access, manure	in waterbody, wast	e discharge pipe	es):					
Strip mine bench h	eadwaters								
Tributary is: (check one)	□ Natural		tificial, man-m	ade 🛛 🛛 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	M	oderate	□ Low					

Srae130

**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 srae130 facing east upstream



Waterbody srae130 facing west downstream



Waterbody srae130 facing north across

Survey Description	n								
Project Name:		Waterbody Na	me:		W	Vaterbody ID:		Date	:
Atlantic Coast Pipel	ine	UNT to Elk F	River		S	srae129		5/20	)/2016
State:	County:		Company:		Crew I	Member Initials:	: P	hotos:	
West Virginia	Randolph		NRG		CG, ł	<b>&lt;</b> 0	1	1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland I	D(s):	
04-002-B025			62.0			Wrae222, w	rae22	3	
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road	b	Other:			
Physical Attribute:	S								
Stream Classification:									
(check one)		al 🛛 Inter	mittent	Perennial					
Waterbody Type: (check one)	River 🛛 Str	eam 🗆 Dito	ch □C	anal 🗆 Other	r:				
онwм	OHWM Indica	tor:							
Width: _2_ft.	(cneck all that apply	/)	Clear lir on bank	ne ∐Shelvir	ng	☐Wrested vegetation	$\boxtimes$	Scouring	⊠Water staining
Height:	⊠Bent, n	natted, or missin	ig	ine 🛛 Litter a	nd	□Abrupt plant	t 🛛	⊠Soil charad	cteristic change
ft. N/A□	vegetatio	n	-	debris		community cha	ange		-
Width of Waterbody - T	op of Width o	of Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth o	f Water:	
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		(	(Approx.)		
<u>_6_</u> ft.	-	<u>2_</u> ft.			<u>2</u> ft.			0.1	ft.
Sinuosity	Water	velocity		N/A⊔ Bank beight			N/AL	one	
(check one)	(Approx.)	velocity.		Right:			Darik Si	Right:	
⊠ Straight		<u>_1_</u> fps		L atte	<u>2</u> ft.			<u>30</u>	)_ degrees
□Meanderir	ng N/A□			Left:	<u>2_</u> ft.			Left: 35	degrees
Qualitative Attribu	tes								
Water Appearance:									
(check one)	No water ⊠0	Clear 🗆 Turb	oid □Sh or	neen DSu n surface sc	urface sum	□Algal [ mats	Other:		
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobb	ole 🛛 Grav	el 🛛 Sand	Silt/ o	clay 🛛 Organic	□ Ot	ther:	
% of Substrate:	%	%	<u>% 30</u> %	%	<u>40</u> %	<u>    30   </u> %		%	
Width of Riparian Zone	e: Vegetative	e Lavers:							
	(check all that	apply)	□ Trees	s:	🗆 Saplii	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>ft</u> . N/A⊠	Avg. DBH	of Dominants:	_	_in.		_in.			
Dominant Bank Vegeta	ition (list):								
Rubus sp., grasses									
Aquatic Habitats (ex: su	ubmerged or emerged	d aquatic vegetatio	n, overhanging	banks/roots, leaf pag	cks, large	submerged wood,	riffles, de	eep pools):	
none									
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	(list):								
none									
Disturbances (ex: livesto	ock access, manure i	n waterbody, waste	e discharge pip	es):					
Strip mine bench									
Tributary is: (check one)	□ Natural	⊠ Ari	tificial, man-m	nade Manip	oulated				
Stream Quality <sup>a</sup> : (check one)	□ High	□ Mo	oderate	⊠ Low					

Srae129

**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 srae129 facing east upstream



Waterbody srae129 facing west downstream



Waterbody srae129 facing south across

Survey Descriptio	n								
Project Name:		Waterbody Na	me:		w	laterbody ID:		D	ate:
Atlantic Coast Pipe	line	UNT to Elk F	River		S	rae128	<u> </u>	5	/20/2016
State:	County:		Company:		Crew I	Member Initials	: 1	Photos:	
West Virginia	Randolph		NRG		CG, ł	<b>(</b> 0		1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B025			62.1			Wrae222			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□ Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	⊠Ephemera	al 🗆 Inter	mittent	Perennial					
Waterbody Type:									
(check one)	□River ⊠ Str	ream 🗆 Dito	ch 🗆 C	anal 🛛 Other:					
онwм	OHWM Indica	tor:					_		
Width: _2_ft.	(check all that apply	<i>y)</i>	Clear lir on bank	ne ⊡Shelvin	g	☐Wrested vegetation	X	Scouring	□Water staining
Height:	□Bent, r	natted, or missin	ig	ne ⊠Litter ar	nd	□Abrupt plan	t	□Soil ch	aracteristic change
ft. N/A□	vegetatio	on		debris		community ch	ange		
Width of Waterbody -	Top of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth	of Water:	
Bank to Top of Bank:	to Toe	of Slope:		water Edge:			(Approx.)		
<u>_10_</u> ft.	-	<u>1</u> ft.		N/A 🖂	f	't.	N/A 🖂		ft.
Sinuosity:	Water	velocity:		Bank height			Bank s	lope	
(check one)	(Approx.)	-		Right:				Right:	
_ = =		f;	ps	Left:	<u>4_</u> ft.			Left:	<u>45</u> degrees
□Meanderi	ng N/A⊠				<u>4_</u> ft.				45 degrees
Qualitative Attribu	ites								
Water Appearance: (check one)	<sup>⊠</sup> No water □0	Clear 🗆 Turb	oid □St or	neen ⊡Sui n surface sci	rface um	□Algal   mats	□Other	r:	
Substrate:	Bedrock 🛛 🖾 Bo	oulder 🛛 Cobb	ole 🛛 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	clay 🗆 Organic	: 🗆 C	Other:	
(check all that apply) % of Substrate:	%%	% <u>25</u> %	<u>   25  </u> %	<u>   15  </u> %	<u>15_</u> %	%		%	
Width of Riparian Zone	e: Vegetative	e Layers:							
"	(check all that	apply)		s: D	Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
<u> </u>	Avg. DBH (approx.)	of Dominants:		_in	<u>2</u> in.				
Dominant Bank Vegeta	ation (list):								
Birch, maple									
Aquatic Habitats (ex: s	ubmerged or emerged	d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles,	deep pools)	
none									
Aquatic Organisms Ob	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure i	n waterbody, waste	e discharge pip	es):					
Strip mine benches	5								
Tributary is: (check one)	□ Natural	⊠ Ari	tificial, man-m	ade 🗆 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		oderate	⊠ Low					

Srae128

**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 srae128 facing east upstream



Waterbody srae128 facing west downstream



Waterbody srae128 facing north across

Survey Descriptio	n							
Project Name:		Waterbody Na	me:		W	/aterbody ID:		Date:
Atlantic Coast Pipe	line	UNT to Elk F	River		S	rae127		5/20/2016
State:	County:		Company:		Crew I	Member Initials:	Photos:	1
West Virginia	Randolph		NRG		CG, ł	<0	1-3	
Tract Number(s):			Nearest Mile	epost:		Associated Wet	land ID(s):	
04-002-B025			62.3			none		
Survey Type: (check one)	⊠Centerlin	e □Re-	Route	□Access Road	I	□Other:		
Physical Attribute	es.							
Stream Classification: (check one)	Ephemer	al ⊠Inte	rmittent	Perennial				
Waterbody Type:								
(check one)	□River ⊠ St	ream 🗆 Dite	ch 🗆 Ca	anal 🗌 Other	:			
онwм		ator:						
Width: _2_ft.	(Check all that app	y)	on bank		g	☐Wrested vegetation	Scourin	lg ⊡Water staining
Height:	⊠Bent,	matted, or missir	ng ⊡Wrack li	ne ⊠Litter ar	nd	□Abrupt plant	□ Soil o	characteristic change
<u> </u>	vegetatio	on		debris		community char	ige	
Width of Waterbody - " Bank to Top of Bank:	Top of Width	of Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to De	epth of Wate	r:
Ballk to Top of Ballk.	to Toe	of Slope:		water Edge:		(~)	μολ.)	
<u>4</u> ft.	-	<u>2</u> ft.			<u>2</u> ft.	N/	A	<u>1_</u> ft.
Sinuosity:	Water	velocity:		Bank height		Ba	ank slope	
(check one)	(Approx.	)		Right:			Righ	t:
		<u>_0.75</u> fp	S	Left:	<u>.25_</u> ft.		Lef	<u>25</u> degrees
□Meanderi	ing N/A□				<u>.25_</u> ft.			<u>25</u> degrees
Qualitative Attribu	ites							
Water Appearance: (check one)	<sup>□</sup> No water ⊠	Clear □Turl	oid ⊡Sh	neen ⊡Su	rface	□Algal □0	Other:	
Cub strate			on	surface sci				
(check all that apply)		oulder 🗆 Cobl	ole 🗆 Grave	el 🖾 Sand I	imes Silt/ c	clay 🗆 Organic	☐ Other:	
% of Substrate:	_%	%	_%	% <u>10 </u> %	<u>90_</u> %	%	%	
Width of Riparian Zon	e: Vegetativ	e Layers:						
ft	(check all tha	t apply)	⊠ Trees	:	⊠ Saplir	ngs/Shrubs:	⊠ Herbs	
N/A⊠	(approx.)	of Dominants.	<u>_10_</u> ın.	-	<u>2</u> ın.			
Dominant Bank Vegeta	ation (list):							
Yellow birch, red m	aple, red pine,	sedges						
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegetation	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood, ri	ffles, deep poo	ls):
none								
Aquatic Organisms Ob	oserved (list):							
none								
T&E Species Observed	d (list):							
none								
Disturbances (ex: livest	ock access, manure	in waterbody, wast	e discharge pipe	es):				
Strip mine bench								
Tributary is: (check one)	□ Natural		tificial, man-m	ade 🗆 Manip	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High		oderate	⊠ Low				

Srae127

**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 dissipates.





Waterbody srae127 facing east upstream



Waterbody srae127 facing west downstream



Waterbody srae127 facing north across

Survey Description	n	<b>I</b>							
Project Name:		Waterbody Nar	ne:		N	Vaterbody ID:		Date:	
Atlantic Coast Pipel	ine	UNT to Elk F	liver		S	srae126		5/20/	2016
State:	County:		Company:		Crew I	Member Initials:	Pł	hotos:	
West Virginia	Randolph		NRG		CG, ł	<b>&lt;</b> 0	1	-3	
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID	D(s):	
04-002-B025			62.4			Wrae220			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road	ł	□Other:			
Physical Attribute	s								
Stream Classification:									
(check one)		al 🛛 Inter	mittent	Perennial					
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	h 🗆 Ca	anal 🛛 Other	:				
онwм	OHWM Indica	tor:							
Width: _2_ft.	(спеск ан тпат аррі	/)	Clear lir on bank	ne ∐Shelvin	ıg	☐Wrested vegetation	⊠S	couring	⊔Water staining
Height:	⊠Bent, r	natted, or missin	g	ne 🗆 Litter a	nd	⊠Abrupt plant		Soil charact	eristic change
ft. N/A□	vegetatio	'n		debris		community cha	ange		
Width of Waterbody - T	op of Width	of Waterbody -	Foe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of	f Water:	
Bank to Top of Bank:	to Toe	of Slope:		Water Edge:		(-	Approx.)		
<u>8</u> ft.	-	<u>1</u> ft.			<u>1_</u> ft.			0.1_	_ft.
Sinuosity:	Water	velocity		N/AL		' F	Bank slo	one	
(check one)	(Approx.)	velocity.		Right:		-		Right:	
		<u>_0.75</u> fp:	6	Loffi	<u>6</u> ft.			<u>35</u>	degrees
□Meanderin	ng N/A□			Leit.	<u>6</u> ft.			<u>45</u>	degrees
Qualitative Attribu	tes								
Water Appearance:	Ne water 🛛		:		-				
	INO water 🖾	Jear 🗆 i urb	id Lish on	n surface sc	um	mats	Uther:		
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobb	le 🗆 Grave	el 🗆 Sand	⊠ Silt/ o	clay 🗆 Organic	□ Otł	her:	
% of Substrate:	<u>90 </u> %	_%	%	%%	<u>10_</u> %	%		_%	
Width of Riparian Zone	e: Vegetative	e Layers:							
f+	(check all that	apply)	□ Trees	s: [	⊠ Sapliı	ngs/Shrubs:	$\boxtimes$ H	Herbs	
N/A⊠	AVG. DBH (approx.)	of Dominants:		_in	<u>2</u> in.				
Dominant Bank Vegeta	tion (list):								
Yellow birch, tag alo	der, sedges								
Aquatic Habitats (ex: su	ubmerged or emerge	d aquatic vegetation	n, overhanging	banks/roots, leaf pac	cks, large	e submerged wood,	riffles, de	ep pools):	
none									
Aquatic Organisms Ob	served (list):								
none									
T&E Species Observed	(list):								
none									
Disturbances (ex: liveste	ock access, manure i	n waterbody, waste	discharge pipe	es):					
Strip mine bench									
Tributary is: (check one)	□ Natural	⊠ Art	ificial, man-m	ade 🗆 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		derate	⊠ Low					
Waterbody ID:

### Srae126

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

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

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

#### Notes:

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





Waterbody srae126 facing east upstream



Waterbody srae126 facing west downstream



Waterbody srae126 facing north across

Survey Descriptio	n								
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:	
Atlantic Coast Pipe	line	UNT to Rou	gh Gap Ru	n	S	rae125		5/19/2016	
State:	County:		Company:		Crew N	Member Initials	: F	hotos:	
West Virginia	Randolph		NRG		CG, K	(O		1-3	
Tract Number(s):	1		Nearest Mile	epost:		Associated W	etland	D(s):	
04-002-B025			62.9			Wrae216			
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road		□Other:			
Physical Attribute	s								
Stream Classification:	M. <b>-</b> .								
(cneck one)	Ephemer	al ⊔Inter	mittent						
Waterbody Type: (check one)	River St	ream 🗆 Dito	ch 🗆 C	anal 🗌 Other:	:				
онwм	OHWM Indica	itor:					57		
Width: _2_ft.	(crieck all that appl	y)	on bank	ne Li Sheiving	g	☐Wrested vegetation		Scouring ⊠Water staining	
Height:	⊡Bent, i	matted, or missin	ig ⊡Wrack li	ne 🗆 Litter ar	nd	□Abrupt plan	t	□Soil characteristic change	е
<u> </u>	vegetatio	n		debris		community ch	ange		
Width of Waterbody -	Top of Width	of Waterbody -	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth (	of Water:	
	10 100	or slope.		Water Luge.			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4	
<u>_8_</u> ft.	-	<u>1</u> ft.		N/A⊠	f	t.	N/A⊠	n.	
Sinuosity:	Water	velocity:		Bank height			Bank s	юре	
(check one)	(Approx. <sub>)</sub>	)		Right:	7 4			Right:	
		t	ps	Left:	<u>/</u> 11.			Left:	
	ng N/A⊠				<u>7_</u> ft.			<u>70</u> degrees	
Qualitative Attribu	ites								
Water Appearance: (check one)	No water	Clear DTurb	oid ⊡Sh	neen Sur	rface	□Algal [ mats	□Other:	:	
Substrate:	Bedrock 🗆 Br	oulder 🗆 Cobr	ole 🛛 Grav	el 🗆 Sand 🛛	 ⊠ Silt/ c			ither:	
(check all that apply)									
	%	%	_% <u>5</u> %	% _	<u>95_</u> %	%		%	
Width of Riparian Zone	e: Vegetativ	e Layers:	Traca		7 Conlin	ac/Chruha		Llarka	
<u> </u>	Avg. DBH	of Dominants:	a nees 4 in.	. 6	⊐ Sapiir 1 in.	iys/Shirubs.		neibs	
N/A⊠ Dominant Bank Vagati	(approx.)		<u>_</u>	-					
Birch, ground ceda	r, maple								
Aquatic Habitats (ex: s	ubmerged or emerge	d aquatic vegetatio	n, overhanging	banks/roots, leaf pacl	ks, large	submerged wood	, riffles, c	leep pools):	
none									
Aquatic Organisms Ob	oserved (list):								
none									
T&E Species Observed	l (list):								
none									
Disturbances (ex: livest	ock access, manure	in waterbody, waste	e discharge pip	es):					
Road runoff									
Tributary is: (check one)	□ Natural	□ Ar	tificial, man-m	iade 🛛 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		oderate	⊠ Low					

Waterbody ID:

Srae125

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

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

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

### Notes:

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

WELRIDGE M
2 300 MP
Bencul
STAR 125 WORESTER
Form Rev. (109/20



Waterbody srae125 facing north upstream



Waterbody srae125 facing south downstream



Waterbody srae125 facing northwest across

Open Waterboo	dy Dat	a Sheet										
Survey Descripti	ion											
Project Name:		V	Vaterbod	y Name:			N	Waterbody II	D:		Date:	
Atlantic Coast Pip	eline	L	Inname	d pond			(	Orae112			5/19/20	16
State:	County	<i>r</i> :		Comp	any:		Crew	Member Init	ials:	Photos:		
West Virginia	Rando	olph		NRG	i		CG,	КО		1-2		
Tract Number(s):				Neare	st Milepost:		/	Associated V	Vetland	ID(s):		
04-002-B025				62.9				none				
Survey Type: (check one)			[	∃Re-Rou	te	□Access R	bad	□Other:				
Physical Attribut	tes											
Waterbody Type: (check one)	ck Pond	⊠ Natural ⊑	Pond 🗆	laka 🗆	Reservoir [		oont 🗆		Other.			
									Julei.			
Hydrologic Regime:	🗆 Pe	ermanently F	looded	🗆 Semi	permanently	Flooded	⊠ Seas	onally Flood	ed 🗆	Temporari	ly Floode	d
онwм	C	OHWM Indica	tor:									
Height:	(0	check all that appl	'y)		□ Clear line on bank	e ⊡Sh	elving	□Wre vegeta	sted ition	□Sco	uring	⊠Water staining
<u> </u>		⊠Bent, i vegetatio	matted, o on	r missing	□Wrack line	□Lit debr	ter and s	⊡ Abru comm	upt plant unity cha	⊠ Soil cł ange	naracterist	tic change
Depth of Water:			Bank he	eight (ave	erage):			Bank slop	be (aver	age):		
N/A□	_ft.				<u>2</u> ft.				_	20_degree	es	
Qualitative Attrib	outes											
Water Appearance: (check one)	□No wa	ater ⊠C	ear [	□Turbid	□ Sheer on surfa	n 🗆 ace so	Surface :um	e ⊡Algal mats		Other:		
Substrate: (check all that apply)	□ Bedr	ock 🗆 Bou	Ilder 🗆	Cobble	□ Gravel	□ Sand	⊠ Si	lt/ clay ⊠ O	rganic	Other:		
% of Substrate:		_%	_%	%	%		6 <u>50</u>	<u>% 50</u>	%		%	
Width of Riparian Zo	ne:	Vegetative L	ayers:									
<u>ft</u> .		(check all that ap	рју)		⊠ Trees:		⊠ Sap	olings/Shrubs	:	⊠ Hei	bs	
N/A⊠		Avg. DBH of (approx.)	f Domina	nts:	<u>5</u> in.		<u>_1_</u> in					
Dominant Bank Vege	etation (	list):										
Striped maple, gro	ound co	edar, Yello	w birch									
Aquatic Habitats (ex:	submerged	l or emerged aqua	atic vegetatio	n, overhang	ing banks/roots, le	eaf packs, large	submergeo	d wood, riffles, de	ep pools, e	tc.)		
none												
Aquatic Organisms (	Observe	d (list):										
none												
T&E Species Observ	ed (list):											
none												
Disturbances (ex: live	stock acc	ess, manure in	waterbody	, waste dis	charge pipes):							
none												
Waterbody is: (check one)		Natural		□ Artific	ial, man-made	e 🛛 Ma	nipulate	d				
Waterbody Quality <sup>a</sup> ; (check one)	:	□ High		□ Mode	rate	⊠ Low						

Waterbody ID:

Orae112

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:

Vernal pool

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





Open waterbody orae112 facing north



Open waterbody orae112 facing west

Survey Descriptio	n										
Project Name:		Waterbod	ly Name	•			W	laterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to I	Elkwate	er Fork			S	srae206		•	7/29/2016
State:	County:		Co	ompany:			Crew	Member Initials	5:	Photos:	
West Virginia	Randolph		N	RG			CG, /	AS		1-5	
Tract Number(s):	•		Ne	earest Mile	epost:			Associated W	etland	ID(s):	
unknown			N	A				none			
Survey Type: (check one)		ne 🗆	]Re-Rou	ite	□A	ccess Road	l	⊠Other: pipe	yard		
Physical Attribute	s										
Stream Classification:	3										
(check one)	Epheme	ral 🛛	Intermit	tent	□Pe	erennial					
Waterbody Type: (check one)	∃River ⊠ S	tream [	Ditch		anal	□ Other	:				
ОНШМ	OHWM Indic	ator:									
Width: <u>6</u> ft.	(cneck all that ap	ріу)	(	Clear lir on bank	ne	□Shelvin	g	☐Wrested vegetation		Scouring	g ⊟Water staining
Height:	⊠Bent,	matted, or n	nissing	□Wrack li	ne	□Litter a	nd	□Abrupt plar	nt	⊠Soil cl	naracteristic change
ft. N/A□	vegetat	ion				debris		community ch	nange		
Width of Waterbody -	op of Width	of Waterbo	ody - Toe	e of Slope	Width	of Waterb	ody - W	ater Edge to	Depth	of Water	:
вапк то тор от вапк:	to lo	e of Slope:			water	Edge:			(Approx.,	)	
<u>ft</u> .		<u>3</u> ft.				-	<u>3</u> ft.		N/∆ □	-	<u>_0.1_</u> ft.
Sinuosity:	Wate	r velocitv:			Bank	height			Bank	slope	
(check one)	(Approx	к.)				Right:				Right	:
		0.8	<u>5_</u> fps			l oft	<u>6_</u> ft.			l off	<u>40</u> degrees
□Meanderi	ng N/A⊡	]				Lon	<u>6</u> ft.			Lon	_ <u>50</u> degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	No water 🛛	Clear [	Turbid	⊓sh	een	⊡Su	rface		□Othe	r	
				on	surfac	e sc	um	mats			
Substrate:	Bedrock 🗆 E	Boulder 🗆	Cobble	S Grav	el 🛛	Sand	□ Silt/ o	clay 🗆 Organio	; 🗆 (	Other:	
% of Substrate:	%	%	%	<u> 10 </u> %	9	<u>90 </u> %		_%%	·	%	
Width of Riparian Zone	e: Vegetati	ve Layers:									
	(check all th	at apply)		☑ Trees	:		⊠ Sapli	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>п</u> . N/A⊠	(approx.)	H of Domina	ints:	<u>_12_</u> in.		-	_ <u>1_</u> in.				
Dominant Bank Vegeta	tion (list):										
Jewelweed, maple,	tuliptree, blue	e beech									
Aquatic Habitats (ex: s	ubmerged or emerg	ed aquatic veg	getation, o	verhanging	banks/ro	oots, leaf pac	ks, large	e submerged wood	, riffles,	deep pool	s):
none											
Aquatic Organisms Ot	served (list):										
none											
T&E Species Observed	l (list):										
none											
Disturbances (ex: livest	ock access, manure	e in waterbody,	, waste dis	scharge pipe	es):						
Pasture runoff, tanl	ĸ										
Tributary is: (check one)	□ Natural		□ Artific	ial, man-m	ade	🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		□ Mode	rate		⊠ Low					

Waterbody ID:

Srae206 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: Associated with seeps prae401 & 402 Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) ACRE T rac 40 L place Lal



Waterbody srae206 facing south upstream



Waterbody srae206 facing north downstream



Waterbody srae206 facing east across

Survey Descriptio	n						<u> </u>				
Project Name:		Waterbo	ody Name	:			W	aterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to	Falling	Spring F	Run		S	RAC159e			4/29/2016
State:	County:		Co	ompany:			Crew N	Member Initials	:	Photos:	
West Virginia	Randolph		N	RG			CR, A	S		3	
Tract Number(s):			Ne	earest Mile	epost:		1	Associated W	etland	ID(s):	
04-002-B025.AR								None			
Survey Type: (check one)	□Cent	erline	□Re-Rou	ute	⊠Aco	ess Road		□Other:			
Physical Attribute	S										
Stream Classification:											
	⊡Ephe	emeral		ttent	⊔Per	ennial					
Waterbody Type: (check one)	River	Stream	⊠ Ditch	□ Ca	anal	□ Other	:				
онwм	OHWM In	dicator:									
Width: _2_ft.	(Check all the	агарруу)		Clear lir on bank	ne	Shelvin	g	☐Wrested vegetation	L	Scouring	g ⊡Water staining
Height:	□B	ent, matted, or	r missing	□Wrack li	ne	⊠Litter ar	nd	□Abrupt plan	t	□Soil cl	haracteristic change
<u> </u>	veg	etation				debris		community ch	ange		
Width of Waterbody - 1 Bank to Ton of Bank	Top of W	idth of Waterl	oody - To	e of Slope	Width o	of Waterb	ody - W	ater Edge to	Depth	of Water	r:
Bank to Top of Bank:	to	Toe of Slope			water i	age:			(Approx.	)	
<u>_8_</u> ft.		<u>    1   </u> ft.				-	<u>2</u> ft.		N/A□	-	<u>0.2</u> ft.
Sinuosity:	w	ater velocity:			Bank h	eight			Bank	slope	
(check one)	(Aļ	oprox.)				Right:				Right	:
		-	<u>1_</u> fps			l eft	<u>2</u> ft.			l eft	60 degrees
□Meanderi	ng N/	′A□				2011	<u>2</u> ft.			2011	60 degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	No water	⊠Clear	□Turbid	□ Sh on	een surface	⊡Su scu	rface um	□Algal mats	□Othe	r:	
Substrate:	Bedrock	Boulder 🛛	Cobble	⊠ Grave	el 🖂 :	Sand [	⊠ Silt/ c	lay 🗆 Organic	; 🗆 (	Other:	
(check all that apply) % of Substrate:	%	%	10 %	45 %	35	5 %	10 %	%		%	
Width of Piparian Zong	- Vogo	tativo Lavors:									
	(check	all that apply)		⊠ Trees	:	۵	⊠ Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>ft</u> .	Avg.	DBH of Domi	nants:	<u>8</u> in.		-	<u>2</u> in.				
° Dominant Bank Vege	tation (list):	)									
Tulip poplar, Americ sumac	can elm, re	d maple, lo	cust, yel	low birch	n, beec	h, May-a	apple,	goldenrod, k	blackb	erry, da	andelion, yarrow,
Aquatic Habitats (ex: se	ubmerged or en	nerged aquatic v	egetation, c	overhanging	banks/roc	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
None											
Aquatic Organisms Ob	served (list):										
None											
T&E Species Observed	l (list):										
None											
Disturbances (ex: livest	ock access, ma	nure in waterboo	dy, waste di	scharge pipe	es):						
Located within road	lside ditch										
Tributary is: (check one)	Natural	ural	□ Artific	ial, man-m	ade	🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	<u> </u>	⊠ Mode	erate		□ Low					

Waterbody ID: SRAC159e

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:

دەرىدا

Recent heavy rain ending a few hours ago. Stream located with a roadside ditch and it receives water input from seeps

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

cless Drue

SRAC160

SRAC159.e



Waterbody SRAC159e facing east upstream



Waterbody SRAC159e facing west downstream



# Waterbody SRAC159e facing south across

Survey Descriptio	n				<u> </u>				
Project Name:		Waterbody	Name:		W	Vaterbody ID:		D	ate:
Atlantic Coast Pipe	ine	UNT to Fa	alling Spring	g Run	s	RAC159i		4/	29/2016
State:	County:		Company	<b>/</b> :	Crew I	Member Initials:	Pł	hotos:	
West Virginia	Randolph		NRG		CR, A	AS	3	5	
Tract Number(s):			Nearest I	Milepost:		Associated We	etland ID	D(s):	
04-002-B025.AR						None			
Survey Type: (check one)	□Centerli	ne 🗆	Re-Route	⊠Access Road	ł	Other:			
Physical Attribute	s								
Stream Classification: (check one)	Epheme	eral 🖂 I	ntermittent	Perennial					
Waterbody Type: (check one)	]River □ S	Stream 🛛	Ditch	Canal D Other	:				
OHWM Width: _4_ft.	OHWM Indic (check all that ap	cator: oply)	⊠ Clea on ban	r line □Shelvir <	ıg	□Wrested vegetation	□S	couring	□Water staining
<b>Height:</b> ft. N/A□	□Bent vegetat	, matted, or mi tion	ssing ⊡Wrac	k line ⊠Litter a debris	nd	□Abrupt plant community cha	ange	∃Soil cha	racteristic change
Width of Waterbody - 1 Bank to Top of Bank:	op of Widtl	h of Waterbod	ly - Toe of Slo	pe Width of Waterb	ody - W	ater Edge to	Depth of	f Water:	
<u>8_ft.</u>		_ <u>1_</u> ft.		N/A	<u>4</u> ft.	1	N/A□		<u>0.2_</u> ft.
Sinuosity:	Wate	r velocity:		Bank height		I	Bank slo	ре	
(check one)	(Appro	x.)	(	Right:	2 ft			Right:	60 degrees
Maandari		_ <u>_1_</u>	īps	Left:	<u></u> n.			Left:	
	N/AL				<u>2</u> ft.			-	60 degrees
Qualitative Attribu	tes								
(check one)	<sup>]</sup> No water ∑	⊠Clear □ <sup>-</sup>	Turbid 🗌	Sheen □Su on surface sc	rface um	□Algal [ mats	∃Other:		
Substrate:	Bedrock 🗆 E	Boulder 🛛 🛛	Cobble 🛛 🖾 G	ravel 🛛 Sand	⊠ Silt/ o	clay 🗆 Organic	□ Otł	her:	
(check all that apply) % of Substrate:	_%%	<u> </u>	_% _45_%	% <u>35</u> %	<u>10 </u> %	%		%	
Width of Riparian Zone	e: Vegetati	ve Layers:							
<u>ft</u> .	(check all the <b>Avg. DB</b>	H of Dominan	⊠ Tre nts: _ <u>8_</u> i	ees: [	⊠ Sapliı _ <u>2_</u> in.	ngs/Shrubs:	×F	Herbs	
° Dominant Bank Vege	tation (list):								
Tulip poplar, Americ sumac	can elm, red r	maple, locus	st, yellow bi	rch, beech, May-	apple,	goldenrod, b	lackbei	rry, dar	delion, yarrow,
Aquatic Habitats (ex: se	ubmerged or emerg	ged aquatic vege	tation, overhang	ing banks/roots, leaf pao	cks, large	e submerged wood,	riffles, de	ep pools):	
Leaf packs									
Aquatic Organisms Ob	served (list):								
None									
T&E Species Observed	l (list):								
None									
Disturbances (ex: livestee Located within road	ock access, manur Iside ditch	e in waterbody, v	vaste discharge	pipes):					
Tributary is:									
(check one)	Natural		Artificial, mar	n-made 🛛 🛛 Manip	ulated				
(check one)	🗆 High	X	Moderate	□ Low					

Waterbody ID: SRAC159i

**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:

ده،مدا

Recent heavy rain ending a few hours ago. Stream located with a roadside ditch and it receives water input from seeps

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

(07) Drue

SRAC160

SRAC159.e



Waterbody SRAC159i facing east upstream



Waterbody SRAC159i facing west downstream



# Waterbody SRAC159i facing south across

Survey Descriptio	n						<u> </u>				
Project Name:		Waterbo	ody Name	:			W	aterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to	Falling	Spring F	Run		S	RAC159e			4/29/2016
State:	County:		Co	ompany:			Crew N	Member Initials	:	Photos:	
West Virginia	Randolph		N	RG			CR, A	S		3	
Tract Number(s):			Ne	earest Mile	epost:		1	Associated W	etland	ID(s):	
04-002-B025.AR								None			
Survey Type: (check one)	□Cent	erline	□Re-Rou	ute	⊠Aco	ess Road		□Other:			
Physical Attribute	S										
Stream Classification:											
	⊡Ephe	emeral		ttent	⊔Per	ennial					
Waterbody Type: (check one)	River	Stream	⊠ Ditch	□ Ca	anal	□ Other	:				
онwм	OHWM In	dicator:									
Width: _2_ft.	(Check all the	агарруу)		Clear lir on bank	ne	Shelvin	g	☐Wrested vegetation	L	Scouring	g ⊡Water staining
Height:	□B	ent, matted, or	r missing	□Wrack li	ne	⊠Litter ar	nd	□Abrupt plan	t	□Soil cl	haracteristic change
<u> </u>	veg	etation				debris		community ch	ange		
Width of Waterbody - 1 Bank to Ton of Bank	Top of W	idth of Waterl	oody - To	e of Slope	Width o	of Waterb	ody - W	ater Edge to	Depth	of Water	r:
Bank to Top of Bank:	to	Toe of Slope			water i	age:			(Approx.	)	
<u>_8_</u> ft.		<u>    1   </u> ft.				-	<u>2</u> ft.		N/A□	-	<u>0.2</u> ft.
Sinuosity:	w	ater velocity:			Bank h	eight			Bank	slope	
(check one)	(Aļ	oprox.)				Right:				Right	:
		-	<u>1_</u> fps			l eft	<u>2</u> ft.			l eft	60 degrees
□Meanderi	ng N/	′A□				2010	<u>2</u> ft.			2011	60 degrees
Qualitative Attribu	ites										
Water Appearance: (check one)	No water	⊠Clear	□Turbid	□ Sh on	een surface	⊡Su scu	rface um	□Algal mats	□Othe	r:	
Substrate:	Bedrock	Boulder 🛛	Cobble	⊠ Grave	el 🖂 :	Sand [	⊠ Silt/ c	lay 🗆 Organic	; 🗆 (	Other:	
(check all that apply) % of Substrate:	%	%	10 %	45 %	35	5 %	10 %	%		%	
Width of Piparian Zong	- Vogo	tativo Lavors:									
	(check	all that apply)		⊠ Trees	:	۵	⊠ Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>ft</u> .	Avg.	DBH of Domi	nants:	<u>8</u> in.		-	<u>2</u> in.				
° Dominant Bank Vege	tation (list):	)									
Tulip poplar, Americ sumac	can elm, re	d maple, lo	cust, yel	low birch	n, beec	h, May-a	apple,	goldenrod, k	blackb	erry, da	andelion, yarrow,
Aquatic Habitats (ex: se	ubmerged or en	nerged aquatic v	egetation, c	overhanging	banks/roc	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
None											
Aquatic Organisms Ob	served (list):										
None											
T&E Species Observed	l (list):										
None											
Disturbances (ex: livest	ock access, ma	nure in waterboo	dy, waste di	scharge pipe	es):						
Located within road	lside ditch										
Tributary is: (check one)	Natural	ural	□ Artific	ial, man-m	ade	🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High	<u> </u>	⊠ Mode	erate		□ Low					

Waterbody ID: SRAC159e

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:

دەرىدا

Recent heavy rain ending a few hours ago. Stream located with a roadside ditch and it receives water input from seeps

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

cless Drue

SRAC160

SRAC159.e



Waterbody SRAC159e facing east upstream



Waterbody SRAC159e facing west downstream



# Waterbody SRAC159e facing south across

Survey Descriptio	n				<u> </u>				
Project Name:		Waterbody	Name:		W	Vaterbody ID:		D	ate:
Atlantic Coast Pipe	ine	UNT to Fa	alling Spring	g Run	s	RAC159i		4/	29/2016
State:	County:		Company	<b>/</b> :	Crew I	Member Initials:	Pł	hotos:	
West Virginia	Randolph		NRG		CR, A	AS	3	5	
Tract Number(s):			Nearest I	Milepost:		Associated We	etland ID	D(s):	
04-002-B025.AR						None			
Survey Type: (check one)	□Centerli	ne 🗆	Re-Route	⊠Access Road	ł	Other:			
Physical Attribute	s								
Stream Classification: (check one)	Epheme	eral 🖂 I	ntermittent	Perennial					
Waterbody Type: (check one)	]River □ S	Stream 🛛	Ditch	Canal D Other	:				
OHWM Width: _4_ft.	OHWM Indic (check all that ap	cator: oply)	⊠ Clea on ban	r line □Shelvir <	g	□Wrested vegetation	□S	couring	□Water staining
<b>Height:</b> ft. N/A□	□Bent vegetat	, matted, or mi tion	ssing ⊡Wrac	k line ⊠Litter a debris	nd	□Abrupt plant community cha	ange	∃Soil cha	racteristic change
Width of Waterbody - 1 Bank to Top of Bank:	op of Widtl	h of Waterbod	ly - Toe of Slo	pe Width of Waterb	ody - W	ater Edge to	Depth of	f Water:	
<u>8_ft.</u>		_ <u>1_</u> ft.		N/A	<u>4</u> ft.	1	N/A□		<u>0.2_</u> ft.
Sinuosity:	Wate	r velocity:		Bank height		I	Bank slo	ре	
(check one)	(Appro	x.)	(	Right:	2 ft			Right:	60 degrees
Maandari		<u></u>	īps	Left:	<u></u> n.			Left:	
	N/AL				<u>2</u> ft.			-	60 degrees
Qualitative Attribu	tes								
(check one)	No water ∑	⊠Clear □ <sup>-</sup>	Turbid 🗌	Sheen □Su on surface sc	rface um	□Algal [ mats	∃Other:		
Substrate:	Bedrock 🗆 E	Boulder 🛛 🛛	Cobble 🛛 🖾 G	ravel 🛛 Sand	⊠ Silt/ o	clay 🗆 Organic	□ Otł	her:	
(check all that apply) % of Substrate:	_%%	<u> </u>	_% _45_%	% <u>35</u> %	<u>10 </u> %	%		%	
Width of Riparian Zone	e: Vegetati	ve Layers:							
<u>ft</u> .	(check all the <b>Avg. DB</b>	H of Dominan	⊠ Tre nts: _ <u>8_</u> i	ees: [	⊠ Sapliı _ <u>2_</u> in.	ngs/Shrubs:	×F	Herbs	
° Dominant Bank Vege	tation (list):								
Tulip poplar, Americ sumac	can elm, red r	maple, locus	st, yellow bi	rch, beech, May-	apple,	goldenrod, b	lackbei	rry, dar	delion, yarrow,
Aquatic Habitats (ex: se	ubmerged or emerg	ged aquatic vege	tation, overhang	ing banks/roots, leaf pao	cks, large	e submerged wood,	riffles, de	ep pools):	
Leaf packs									
Aquatic Organisms Ob	served (list):								
None									
T&E Species Observed	l (list):								
None									
Disturbances (ex: livestee Located within road	ock access, manur Iside ditch	e in waterbody, v	vaste discharge	pipes):					
Tributary is:									
(check one)	Natural		Artificial, mar	n-made 🛛 🛛 Manip	ulated				
(check one)	🗆 High	X	Moderate	□ Low					

Waterbody ID: SRAC159i

**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:

ده،مدا

Recent heavy rain ending a few hours ago. Stream located with a roadside ditch and it receives water input from seeps

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

(07) Drue

SRAC160

SRAC159.e



Waterbody SRAC159i facing east upstream



Waterbody SRAC159i facing west downstream



# Waterbody SRAC159i facing south across

Survey Description	n							
Project Name:		Waterbody Na	ame:		W	/aterbody ID:		Date:
Atlantic Coast Pipel	ine	UNT to Fall	ng Spring F	Run	S	RAC158		4/29/2016
State:	County:		Company:		Crew I	Member Initials:	Pho	otos:
West Virginia	Randolph		NRG		CR, A	AS	3	
Tract Number(s):			Nearest Mile	epost:		Associated We	tland ID(	(s):
04-002-B025.AR						None		
Survey Type: (check one)		e □Re-	Route	⊠Access Road		□Other:		
Physical Attribute	s							
Stream Classification: (check one)		al ⊠Inte	ermittent	Perennial				
Waterbody Type:								
(check one)	River 🛛 Sti	ream 🗌 Dir	ich 🗆 C	anal 🛛 🗆 Other	:			
онwм	OHWM Indica	itor:						
Width: <u>6</u> ft.	(спеск ал тат арр	<i>y)</i>	☑ Clear III on bank	ne ⊔Shelvin	g	☐Wrested vegetation	⊔Sc	ouring ⊔Water staining
Height:	□Bent, r	matted, or missi	ng 🗆 Wrack li	ine ⊠Litter ar	nd	□Abrupt plant		Soil characteristic change
ft. N/A□	vegetatio	n	-	debris		community cha	nge	_
Width of Waterbody - T Bank to Top of Bank:	op of Width	of Waterbody - of Slope	Toe of Slope	Width of Waterb	ody - W	/ater Edge to D	epth of N Approx.)	Water:
								0.4 ft
<u>_15_</u> ft.	-	<u>   1   </u> ft.		N/A□	<u>6</u> ft.	N	I/A□	<u>_0.4_</u> 1t.
Sinuosity:	Water	velocity:		Bank height		B	ank slop	pe
(check one)	(Approx.)	)		Right:			I	Right:
		<u>_1_</u> fps	6	Left:	<u>3_</u> ft.			60 degrees
Meanderin	ng N/A□				<u>3_</u> ft.			60 degrees
Qualitative Attribu	tes							
(check one)	<sup>]</sup> No water ⊠0	Clear □Tur	bid □Sł or	neen ⊡Su n surface sci	rface um	□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>% 20 9</u>	% <u>20</u> %	<u>45</u> %	<u>15</u> %	_%	%		_%
Width of Riparian Zone	e: Vegetativ	e Layers:						
00.1	(check all that	t apply)	☑ Trees	: D	⊠ Saplir	ngs/Shrubs:	🖂 He	erbs
<u>30 π</u> . N/A□	AV <b>G. DBH</b> (approx.)	of Dominants:	<u>_10_</u> in.	-	_ <u>2_</u> in.			
° Dominant Bank Vege	tation (list):							
Tulip poplar, Americ sumac. indian plant	can elm, red m ain	aple, locust,	yellow birch	n, beech, May-a	apple,	goldenrod, bl	ackberr	ry, dandelion, yarrow,
Aquatic Habitats (ex: su	ubmerged or emerge	d aquatic vegetati	on, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, dee	p pools):
Leaf packs, rock pil	es							
None								
T&E Species Observed	(list):							
None								
Disturbances (ex: livesto	ock access, manure i	in waterbody, was	te discharge pip	es):				
Flows through a 2'	diameter culve	ert						
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: SRAC158

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

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

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

### Notes:

Recent heavy rain ending a few hours ago. Road is eroding away near culvert outlet.

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





Waterbody SRAC158 facing south upstream



Waterbody SRAC158 facing north downstream



Waterbody SRAC158 facing east across

Linear Waterbod	y Data	Sheet										
Survey Description	n											
Project Name:			Waterb	ody Nar	ne:			v	Vaterbody ID:			Date:
Atlantic Coast Pipel	ine		UNT to	o Fallir	ng Spring F	Run		S	SRAC157			4/29/2016
State:	County:				Company:			Crew	Member Initials	5:	Photos:	
West Virginia	Randolp	bh			NRG			CR, /	AS		3	
Tract Number(s):					Nearest Mil	epost:			Associated W	etland	I ID(s):	
04-002-B025.AR									None			
Survey Type: (check one)	□Ce	enterline		□Re-F	Route	⊠Ac	cess Road	b	□Other:			
Physical Attribute	s											
Stream Classification:												
(спеск опе)	⊠Ep	ohemera	I	⊔Inter	mittent	⊔Pe	rennial					
Waterbody Type: (check one)	River	□ Stre	eam	⊠ Ditc	h □C	anal	□ Othe	r:				
OHWM	OHWN (check al	I Indicat	or:			~~	□ Sholvir			Г	Securin	
<u>3 ft.</u>	(oncon a	and apply	/		on bank	le		ig	vegetation	L	Joconni	staining
Height:		Bent, m	natted, c	or missin	g ⊡Wrack I	ine	⊠Litter a	nd	□Abrupt plar	nt	□Soil c	haracteristic change
<u>0.3_</u> ft. N/A□	V	egetatio	n				debris		community cl	nange		
Width of Waterbody - 1 Bank to Top of Bank:	op of	Width c to Toe (	of Water of Slope	body - 1 e:	Toe of Slope	Width Water	of Waterb Edge:	ody - V	Vater Edge to	Depth (Approx.	of Water	r:
_18 ft.			1 ft.					3 ft.				<u>0.2</u> ft.
						N/A□				N/A□	_	
Sinuosity: (check one)		Water N (Approx.)	elocity:			Bank h	Diabt			Bank	Slope	
⊠Straight				1_fps			Kight.	<u>2</u> ft.			Right	<u>60</u> degrees
□Meanderii	ng		_				Left:	2 ft			Left	:: 60 degrees
Overlitetive Attailer										I		
Qualitative Attribu	tes											
(check one)	No water	⊠C	lear	□Turb	id ⊡Sl or	neen n surface	⊡Su sc	urface sum	□Algal mats	□Othe	er:	
Substrate:	Bedrock	🗆 Bo	ulder		le 🛛 Grav	el 🛛	Sand	Silt/	clay 🛛 Organio		Other:	
(check all that apply) % of Substrate:	<u>%</u>	%	-	_%	<u>45</u> %	4	<u>5_</u> %	<u> 10 </u> %	%	)	%	
Width of Riparian Zone	: Ve	getative	Layers	:								
ft.	(che Av	eck all that : <b>a. DBH</b> :	apply) of Dom	inants:	⊠ Trees	:		⊠ Sapli	ngs/Shrubs:	D	∃ Herbs	
N/A⊠	(app	orox.)			<u>8</u>			<u></u>				
° Dominant Bank Vege	tation (list)	):								~		
Locust, black cherry blackberry	, yellow	birch,	golder	ragwo	ort, red ma	ple, da	ndelion,	, old fie	eld cinquetoi	, Can	adian g	oldenrod,
Aquatic Habitats (ex: su	ubmerged or	emerged	aquatic	vegetatio	n, overhanging	banks/ro	ots, leaf pao	cks, large	e submerged wood	l, riffles,	deep pool	s):
None												
Aquatic Organisms Ob	served (lis	st):										
None												
T&E Species Observed	(list):											
None												
Disturbances (ex: livesto	ock access,	manure ir	n waterbo	ody, waste	e discharge pip	es):						
Located within road	lside ditc	h flows	s acros	ss acce	ess road							

□ Artificial, man-made

□ Moderate

□ Manipulated

 $\boxtimes$  Low

Tributary is: (check one)

Stream Quality<sup>a</sup>: (check one)

⊠ Natural

 $\Box$  High

Waterbody ID: SRAC157

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

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

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

### Notes:

Recent heavy rain ending a few hours ago. Stream located with a roadside ditch and it receives water input from seeps. Stream crosses access road and due to erosion it has begun to erode the road

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




Waterbody SRAC157 facing east upstream



Waterbody SRAC157 facing west downstream



Waterbody SRAC157 facing north across

Survey Descriptio	n										
Project Name:		Waterb	ody Name	):			W	aterbody ID:			Date:
Atlantic Coast Pipe	ine	UNT to	JNT to Falling Spring Run				S	RAC156			4/29/2016
State:	County:	·	C	ompany:			Crew I	Member Initials	5:	Photos:	
West Virginia	Randolph		Ν	RG			CR, A	\S		3	
Tract Number(s):	1		N	earest Mile	epost:			Associated W	etland	ID(s):	
04-002-B025.AR								None			
Survey Type: (check one)	□Cente	rline	□Re-Ro	ute	⊠Ac	cess Road	1	□Other:			
Physical Attribute	s										
Stream Classification: (check one)	□Epher	neral	⊠Intermi	ttent	□Pe	erennial					
Waterbody Type:											
(check one)	River 🛛	Stream	□ Ditch	□ Ca	anal	□ Other	:				
OHWM Width: <u>6</u> ft.	OHWM Inc (check all that	<b>licator:</b> apply)		☑ Clear lir on bank	ne	□Shelvin	g	□Wrested vegetation		Scourin	g ⊟Water staining
Height:ft.	□Be vege	nt, matted, o tation	r missing	□Wrack li	ne	⊠Litter a debris	nd	□Abrupt plar community cł	nt nange	□Soil c	haracteristic change
N/A⊔ Width of Waterbody - 1	op of Wid	th of Water	body - To	e of Slope	Width	of Waterb	odv - W	ater Edge to	Depth	of Wate	
Bank to Top of Bank:	to T	Foe of Slope	:	0.01.01000	Water	Edge:			(Approx.	)	-
<u>_15_</u> ft.		1_ft.				-	<u>6_</u> ft.				<u>0.4</u> ft.
Cinuccitur	14/-				N/A□	h a l a h f			N/A∐ Domb		
Check one)	(App	ter velocity: prox.)			вапк	Right			Bank	siope Right	
			<u>1_</u> fps				<u>3_</u> ft.				60 degrees
⊠Meanderi	ng N/A					Left:	<u>3_</u> ft.			Left	:: <u>60</u> degrees
Qualitative Attribu	tes								<u> </u>		
Water Appearance:	<b>1</b> .										
(cneck one)	No water	⊠Clear	L I urbid	⊔Sh on	surface	e sci	rface um	⊔Algal mats	□Othe	r:	
Substrate:	Bedrock	Boulder	⊠ Cobble	⊠ Grave	el 🛛	Sand	□ Silt/ c	ay 🗆 Organio		Other:	
% of Substrate:	<u>% 2</u>	<u>20 %  </u>	<u>20_</u> %	<u>45</u> %	_1	<u>5 %</u>	_%	%		_%	
Width of Riparian Zone	e: Vegeta	ative Layers:	:								
20 ft.	(check al	ll that apply)	nante:	⊠ Trees			⊠ Saplir	ngs/Shrubs:	Σ	Herbs	
<u>20 n</u> . N/A□	(approx.)		nants.	<u>_10_</u> ın.		-	<u>2</u> ın.				
° Dominant Bank Vege	tation (list):										
Tulip poplar, Americ sumac. indian plant	can elm, rec ain	l maple, lo	cust, ye	llow birch	n, bee	ch, May-a	apple,	goldenrod, k	blackt	berry, da	andelion, yarrow,
Aquatic Habitats (ex: s	ubmerged or eme	erged aquatic v	egetation, o	overnanging	banks/ro	ots, leat pac	ks, large	submerged wood	i, ritties,	deep pool	s):
Leaf packs, rock pil	es										
Aquatic Organisms Ob	served (list):										
None											
T&E Species Observed	l (list):										
None											
Disturbances (ex: livester Flows through a 2'	ock access, man diameter cu	ure in waterboo J <b>lvert</b>	dy, waste di	ischarge pipe	es):						
Tributary is:											
(check one)	⊠ Natur	al	□ Artific	cial, man-m	ade	🗆 Manip	ulated				
(check one)	🗆 High		⊠ Mode	erate		□ Low					

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

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

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

#### Notes:

Recent heavy rain ending a few hours ago.

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



Form Rev. 07/09/2014



Waterbody SRAC156 facing northeast upstream



Waterbody SRAC156 facing southwest downstream



# Waterbody SRAC156 facing northwest across

Survey Descriptio	n							-	
Project Name:		Waterbody	Name:		W	/aterbody ID:		Date:	
Atlantic Coast Pipe	line	UNT to Fa	lling Spring R	lun	s	ray001		08/17/16	
State:	County:		Company:		Crew M	Member Initials:	Photo	s:	
West Virginia	Randolph		Dominion		KO, C	CG, AS	1-3		
Tract Number(s):			Nearest Mile	epost:		Associated We			
04-002-B025			N/A			N/A			
Survey Type: (check one)		ne 🗆 Re	e-Route	⊠Access Road		□Other:			
Physical Attribute	s								
Stream Classification:									
(cneck one)	⊡Epheme	eral 🗌 In	termittent						
Waterbody Type: (check one)	∃River ⊠ S	Stream 🗆 🗆	Ditch 🗆 Ca	anal 🗌 Other:	:				
онwм	OHWM India	cator:							
Width: <u>3</u> ft.		(אוקי)	on bank		g		⊠ Scou	staining	
Height:	⊠Bent	, matted, or miss	sing □Wrack li	ne ⊠Litter ar	nd	□Abrupt plant	□Soi	I characteristic change	
<u>2_</u> ft. N/A□	vegetat	tion		debris		community cha	ange		
Width of Waterbody - 1	Fop of Width	n of Waterbody	- Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of Wa	ter:	
валк то тор от валк:	to Io	e of Slope:		water Edge:		(4	<i>чрргох.)</i>		
<u>_5</u> ft.		<u>3</u> ft.			f	ít.	J/A⊠	ft.	
Sinuosity:	Wate	r velocity:		Bank height		E	Bank slope		
(check one)	(Appro.	x.)		Right:			Rig	iht:	
			_fps	Left:	<u>1.5_</u> ft.	1	L		
	ng N/A⊠	3			<u>1.5_</u> ft.			<u>75</u> degrees	
Qualitative Attribu	ites								
Water Appearance: (check one)	<sup>☑</sup> No water □	]Clear □Tu	urbid □Sh on	een ⊡Sur surface scu	rface um	□Algal □ mats	Other:		
Substrate:	Bedrock 🛛 🗄	Boulder 🛛 Co	bble 🛛 Grave	el 🗆 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	□ Other:		
(check all that apply) % of Substrate:	% _5 9	% <u>55</u> %	% <u>10</u> %	%	<u>30_</u> %	%	9	, D	
Width of Riparian Zone	e: Vegetati	ve Layers:							
<i>t</i> +	(check all th	nat apply)	⊠ Trees:	: 🛛 🛛	I Saplir	ngs/Shrubs:	⊠ Herb	S	
N/A⊠	(approx.)		<b>s.</b> <u>8</u> in.	-	_ <u>1_</u> in.				
Dominant Bank Vegeta	ation (list): Tulip Popla	ar, Yellow Bir	ch, Green As	h, Wood Nettle	e, Lilly	Sege, Wild G	linger, Wo	ood Ferns	
Aquatic Habitats (ex: s	ubmerged or emerg	jed aquatic vegeta	tion, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep p	ools):	
	none								
Aquatic Organisms Ob	oserved (list):								
none									
T&E Species Observed	d (list):								
none									
Disturbances (ex: livest	ock access, manure	e in waterbody, wa	aste discharge pipe	es):					
none									
Tributary is: (check one)	Natural		Artificial, man-m	ade 🗌 🗆 Manipu	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		Moderate	⊠ Low					

Waterbody ID:

Sray001

**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 sray001 facing southeast upstream



Waterbody sray001 facing northwest downstream



# Waterbody sray001 facing northeast across

Survey Description	n							
Project Name:		Waterbody Nam	e:		w	aterbody ID:		Date:
Atlantic Coast Pipel	ine	UNT to Falling	g Spring F	Run	S	rac133		4/26/2016
State:	County:	C	Company:		Crew N	Member Initials:	Phot	:OS:
West Virginia	Randolph	1	NRG		CR, A	S	3	
Tract Number(s):		1	learest Mile	epost:		Associated We	tland ID(s	):
04-002-B025.AR						None		
Survey Type: (check one)		e ⊡Re-Ro	oute	⊠Access Road		□Other:		
Physical Attributes	S							
Stream Classification: (check one)	⊠Ephemera	al 🗌 Interm	nittent	Perennial				
Waterbody Type:								
(check one)	River Str	ream 🗆 Ditch		anal 🗌 Other:				
OHWM	OHWM Indica	tor:			-			
<b>widtn:</b> _ <u>4_</u> ft.	(check an that appr	¥)	on bank		g			staining
Height:	□Bent, r	matted, or missing	□Wrack li	ne ⊠Litter ar	nd	□ Abrupt plant	□S	oil characteristic change
<u>0.4_</u> ft. N/A□	vegetatio	n		debris		community cha	nge	
Width of Waterbody - T Bank to Top of Bank:	op of Width	of Waterbody - To	oe of Slope	Width of Waterbo	ody - W	ater Edge to	epth of W	ater:
	10 100	of otope.		Trater Euge.		·	11 . 7	0.0 #
<u>_6_</u> ft.	-	<u>1_</u> ft.			<u>3</u> ft.		I/A□	<u>_0.2</u> .1.
Sinuosity:	Water	velocity:		Bank height		B	ank slope	)
(check one)	(Approx.)	)		Right:			R	ight:
		<u>_1_</u> fps		Left:	<u>3</u> ft.			60 degrees
Meanderir	ng N/A□				<u>3_</u> ft.			_70_degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water ⊠0	Clear 🗆 Turbio	d ⊡Sh on	leen ⊡Sui surface scu	rface um	□Algal □ mats	Other:	
Substrate:	Bedrock 🗆 Bo	oulder 🗆 Cobble	e 🛛 Grave	el 🛛 Sand 🛛	⊠ Silt/ c	lay 🗆 Organic	□ Other	
(check all that apply) % of Substrate:	% _%	<u>   15  </u> %	<u>45</u> %	<u>   20  %</u>	<u>20_</u> %	%		%
Width of Riparian Zone	: Vegetativ	e Layers:						
00.4	(check all that	t apply)	⊠ Trees	: 2	Saplir	ngs/Shrubs:	🛛 Her	bs
<u>80 it</u> . N/A□	аvg. DBn (approx.)	or Dominants:	<u>12</u> in.	-	<u>2</u> in.			
° Dominant Bank Vege	tation (list):	nla violata rev	nna falaa	h a lh a ma a				
Yellow Dirch, Diack	cherry, red ma	pie, violets, rai	nps, laise	enelborne				
Aquatic Habitats (ex: su	Ibmerged or emerge	d aquatic vegetation,	overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep	pools):
None								
Aquatic Organisms Ob	served (list):							
None								
T&E Species Observed	(list):							
None								
Disturbances (ex: livesto	ock access, manure	in waterbody, waste	discharge pipe	es):				
Stream is located w	ithin a roadsid	e ditch an flow	s under th	ne access road	throu	gh a 18" culve	ert	
Tributary is: (check one)	□ Natural	□ Artif	icial, man-m	ade 🛛 🖾 Manipi	ulated			
Stream Quality <sup>a</sup> : (check one)	□ High	⊠ Mod	lerate	□ Low				

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

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

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

#### Notes:





Waterbody SRAC133 facing east upstream



Waterbody SRAC133 facing west downstream



# Waterbody SRAC133 facing south across

Survey Description	on									
Project Name:		Waterbo	ody Nam	ie:		v	Vaterbody ID:			Date:
Atlantic Coast Pipe	line	Falling	Falling Spring Run Srac13				Srac134			4/26/2016
State:	County:		(	Company:		Crew	Member Initials	;; F	Photos:	
West Virginia	Randolph		1	NRG		CR, /	AS		3	
Tract Number(s):			1	Nearest Mile	epost:		Associated W	etland	ID(s):	
04-002-B025.AR							None			
		rlino		outo	MAaaaaa Ba	od				
		IIIIIe		Jule	Access Ru	au				
Physical Attribute Stream Classification:	es									
(check one)	Epher	neral	Intern	nittent	⊠Perennial					
Waterbody Type:										
(check one)	□River ⊠	Stream	□ Ditch	n 🗆 Ca	anal 🛛 🗆 Oth	ier:				
онwм	OHWM Inc	dicator:							<u> </u>	
Width: 20 ft.	(cneck all that	арріу)		Clear lir on bank	ne 🗆 Sheli	ving	☐Wrested vegetation		Scouring	g ∐Water staining
Height:	□Be	nt matted o	r missina		ne 🛛 I itter	and	□Abrunt plan	nt	□Soil cl	haracteristic change
<u>1.5</u> ft.	vege	tation	rinioonig		debris	ana	community ch	nange		
Width of Waterbody -	Top of Wid	th of Water	body - T	oe of Slope	Width of Wate	rbody - V	Vater Edge to	Depth	of Water	:
Bank to Top of Bank:	to	Foe of Slope	:		Water Edge:			(Approx.)		
<u>_35</u> ft.		<u> 10 ft</u> .				<u>_23_</u> ft.			-	<u>_0.8_</u> ft.
O'mus aite		· · · · · · · · · · · · · · · · · · ·			N/A□ Dan la la simi í			N/A□	1	
(check one)	<b>vv a</b> (Арр	ter velocity: prox.)			Bank height Right			Bank s	lope Right	
		_	<u>1_</u> fps		Right.	<u> 5 </u> ft.			Right	60 degrees
⊠Meander	ing N/A				Left	7 ft.			Left	: 70 dearees
Water Appearance:	lites									
(check one)	☐No water	⊠Clear	□Turbio	d ⊡Sh on	leen □: I surface	Surface scum	□Algal mats	□Other	:	
Substrate:	Bedrock 🛛	Boulder	Cobble 🛛	e 🛛 Grave	el 🛛 🖾 Sand	□ Silt/	clay 🛛 Organic	; □C	Other:	
% of Substrate:	<u>5</u> % <u>3</u>	<u>30 </u> %	<u>20_</u> %	<u>35</u> %	<u> 10 </u> %		_%%	·	%	
Width of Riparian Zon	e: Vegeta	ative Lavers:	<u> </u>							
	(check a	ll that apply)		⊠ Trees	:	🛛 Sapli	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>80 ft</u> - N/A□	Avg. D (approx.)	BH of Domi	nants:	<u>12</u> in.		<u>_2_</u> in.				
° Dominant Bank Vege	etation (list):									
Yellow birch, black	cherry, red	maple, vio	lets, rai	mps						
Aquatic Habitats (ex: s	ubmerged or eme	erged aquatic v	egetation	, overhanging	banks/roots, leaf p	oacks, large	e submerged wood	, riffles, o	deep pool	5):
Rock piles, riffles/p Aquatic Organisms O	ools, overha	inging root	<u>:s/bank</u>							
None										
	- (lint)-									
Nono	<b>a</b> ( <i>list)</i> :									
					```					
None	tock access, man	ure in waterbo	dy, waste	discharge pipe	es):					
Tributary is: (check one)	⊠ Natur	al	□ Artif	ficial, man-m	ade 🗆 Mar	nipulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		⊠ Moo	derate	□ Low					

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

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

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

#### Notes:





Waterbody SRAC134 facing east upstream



Waterbody SRAC134 facing west downstream



# Waterbody SRAC134 facing north across

Survey Description	on										
Project Name:		Waterb	ody Nam	e:			w	aterbody ID:			Date:
Atlantic Coast Pipe	eline	Falling	Spring	Run			S	rac136			4/26/2016
State:	County:	1	C	Company:			Crew I	Member Initials	:	Photos:	
West Virginia	Randolph		1	NRG			CR, A	AS		3	
Tract Number(s):			1	learest Mile	epost:			Associated W	etland	ID(s):	
04-002-B025.AR								None			
Survey Type: (check one)	□Cente	rline	□Re-Ro	oute	⊠Ac	cess Road		□Other:			
Physical Attribute	es										
Stream Classification	: □Epher	neral	Interm	ittent	⊠Pe	rennial					
Waterbody Type: (check one)	□River ⊠	Stream	Ditch	□ Ca	anal	Other:	:				
OHWM Width:	OHWM Inc (check all that	licator: apply)		⊠ Clear lir	ne	Shelvin	g	□Wrested		Scouring	g ⊡Water
<u>12 ft</u> .				on bank				vegetation			staining
Height: ft. N/∆ □	□Be veget	nt, matted, o ation	r missing	⊠Wrack li	ne	⊠Litter ar debris	nd	□Abrupt plar community ch	nt nange	□Soil c	haracteristic change
Width of Waterbody -	Top of Wic	Ith of Water	body - To	pe of Slope	Width	of Waterb	ody - W	ater Edge to	Depth	of Water	1:
Bank to Top of Bank:	to T	oe of Slope	:		Water	Edge:			(Approx.)	)	
<u>_25</u> ft.		<u>4_</u> ft.				_	<u>12</u> ft.				<u>0.4</u> ft.
Sinuosity:	Wa	ter velocity:			Bank h	eight			Bank s	slope	
(check one)	(App	rox.)				Right:				Right	:
		-	<u>1_</u> fps			Left:	<u>6_</u> ft.			Left	<u>60</u> degrees
⊠Meander	ing N/A						_ <u>4_</u> ft.				<u>70</u> degrees
Qualitative Attrib	utes										
Water Appearance: (check one)	No water	⊠Clear	□Turbio	d ⊡Sh on	neen Surface	□Sui sci	rface Im	□Algal mats	□Othe	r:	
Substrate:	Bedrock	Boulder	⊠ Cobble	e 🗆 Grave	el 🗆	Sand [	□ Silt/ c	lay 🗆 Organic	: □ (	Other:	
(check all that apply) % of Substrate:	70 % 1	0 %	20 %	%	c	%		% %		%	
Width of Dination Zon	a. Marata										
width of Riparian Zon	check al	tive Layers: I that apply)		⊠ Trees	:	Σ	⊠ Saplir	ngs/Shrubs:	$\boxtimes$	Herbs	
<u>20 ft</u> ·	Avg. D	BH of Domi	nants:	<u>6</u> in.		-	<u>2</u> in.				
° Dominant Bank Vege	etation (list):										
Yellow birch, easte	rn hemlock,	blackberry	/, black	cherry, A	merica	an elm, re	ed ma	ple, violets, ı	amps	;	
Aquatic Habitats (ex: s	submerged or eme	erged aquatic v	egetation,	overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	, riffles,	deep pool	s):
Rock piles riffles/p	ools overha	naina root	s/bank								
Aquatic Organisms O	bserved (list):	inging root	.0/ 001111								
None											
T&E Species Observe	d (list):										
None											
Disturbances (ex: lives	tock access, man	ure in waterbo	dy, waste	discharge pipe	es):						
None											
Tributary is: (check one)	⊠ Natur	al	□ Artif	icial, man-m	ade	Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	□ High		⊠ Mod	erate		□ Low					

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

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

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

#### Notes:





Waterbody SRAC136 facing east upstream



Waterbody SRAC136 facing west downstream



# Waterbody SRAC136 facing north across

Survey Descriptio	n								
Project Name:		Waterbody N	ame:		W	aterbody ID:		Da	ite:
Atlantic Coast Pipe	line	UNT to Fall	ing Spring F	Run	S	RAC155		4/	29/2016
State:	County:		Company:		Crew N	Member Initials:	Pho	otos:	
West Virginia	Randolph		NRG		CR, A	AS	3		
Tract Number(s):			Nearest Mile	epost:		Associated We	atland ID	(s):	
04-002-B025.AR						None			
Survey Type: (check one)		e □Re	-Route	⊠Access Road		□Other:			
Physical Attribute	S								
Stream Classification: (check one)	⊠Ephemei	ral ⊡Int	ermittent	Perennial					
Waterbody Type:									
(check one)	□River □ St	ream 🛛 D	itch 🗆 C	anal 🛛 🗆 Other	:				
ОНШМ	OHWM Indica	ator:							
Width:ft.	(check all that app	oly)	Clear lin on bank	ne 🗆 Shelvin	g	□Wrested vegetation	□Sc	ouring	□Water staining
Height:	□Bent,	matted, or miss	ing □Wrack li	ine ⊠Litter ar	nd	□Abrupt plant		Soil cha	racteristic change
ft. N/A□	vegetati	on	-	debris		community cha	ange		-
Width of Waterbody - 1	Fop 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	e of Slope:		Water Edge:		(*	Approx.)		
<u>_6</u> ft.		_1_ft.			<u>3</u> ft.			_(	<u>).2_</u> ft.
Sinuccitur	Wator	volocity		N/AL					
(check one)	(Approx			Bank neight		E	Sank Siop	Right <sup>.</sup>	
⊠Straight		_ <u>1_</u> fp	s		<u>2</u> ft.				<u>60</u> degrees
□Meanderi	ng N/A□			Left:	2 ft.			Left:	60 degrees
Qualitative Attribu	ites							_	
Water Appearance:									
(check one)	No water ⊠	Clear □Tu	rbid □Sł or	neen 🗆 Su n surface sci	rface um	□Algal □ mats	Other:		
Substrate:	Bedrock 🗆 B	oulder 🛛 🖾 Col	oble 🛛 🖾 Grav	el 🛛 Sand 🛛	⊠ Silt/ c	ay 🗆 Organic	□ Oth	er:	
(check all that apply) % of Substrate:	_%%	<u>   10  </u> %	<u>45_</u> %	<u>35</u> %	<u>10_</u> %	%		_%	
Width of Rinarian Zone	- Vegetativ	e Lavers:							
Width of Riparian Zone	(check all that	at apply)	⊠ Trees	:	⊠ Saplir	ngs/Shrubs:	⊠H	erbs	
<u>ft</u> .	Avg. DBH	I of Dominants	<u>8</u> in.	-	<u>2</u> in.				
° Dominant Bank Vege	tation (list):								
Tulip poplar, Americ	can elm, red m	naple, locust,	yellow birch	n, beech, May-a	apple,	goldenrod, bl	ackberi	ry, dan	delion, yarrow,
Aquatic Habitats (ex: se	ubmerged or emerge	ed aquatic vegetat	ion, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, dee	p pools):	
None									
Aquatic Organisms Ob	oserved (list):								
None									
T&E Species Observed	d (list):								
None									
Disturbances (ex: livest	ock access, manure	in waterbody, was	ste discharge pip	es):					
Located within road	side ditch flov	vs through ar	n 18" culvert	:					
Tributary is: (check one)	□ Natural		Artificial, man-m	nade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		Noderate	□ Low					

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

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

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

#### Notes:

Recent heavy rain ending a few hours ago. Stream located with a roadside ditch and it receives water input from seeps





Waterbody SRAC155 facing west upstream



Waterbody SRAC155 facing east downstream



# Waterbody SRAC155 facing north across

Survey Description	n										
Project Name:		Waterbo	dy Name	:			W	aterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to	Falling	Spring F	Run		s	rae175			6/8/2016
State:	County:		Co	ompany:			Crew I	Member Initials	s:	Photos:	
West Virginia	Randolph		N	RG			CG, ł	<b>(</b> 0		1-5	
Tract Number(s):			Ne	earest Mile	epost:			Associated W	/etland	ID(s):	
04-002-B025			N	A				none			
Survey Type: (check one)		he	Re-Rou	ite		rcess Road	Ч	□ Other:			
Physical Attribute											
Stream Classification:	5										
(check one)	Epheme	ral	⊠Intermit	tent	□Pe	erennial					
Waterbody Type: (check one)	□River □ S	tream	⊠ Ditch		anal	Other	r:				
онwм	OHWM Indic	ator:							_		
Width: _2_ft.	(check all that ap	ыу)		Clear lir on bank	ne	□Shelvir	ng	☐Wrested vegetation	Þ	Scouring	y □Water staining
Height:	□Bent,	matted, or	missing	□Wrack li	ne	⊠Litter a	ind	□Abrupt plar	nt	⊠Soil cł	naracteristic change
<u> </u>	vegetat	ion				debris		community ch	nange		
Width of Waterbody - Bank to Top of Bank:	Top of Width	of Waterb	ody - Toe	e of Slope	Width	of Waterb	oody - W	ater Edge to	Depth (Approx	of Water	:
Bank to Top of Bank.	10 10	e of Slope.			vvalei	Luge.			(14001014)	/	0.4.4
<u>_4_ft.</u>		<u>_1.5_</u> ft.			N/A□		<u>1.5</u> ft.		N/A□	-	<u>_0.1_</u> II.
Sinuosity:	Wate	r velocity:			Bank	height			Bank	slope	
(check one)	(Approx	c.)				Right:	o 4			Right	45
_		_0	<u>.2_</u> fps			Left:	<u>2</u> π.			Left	<u>45</u> degrees
	ng N/A□						<u>1_</u> ft.				<u>30</u> degrees
Qualitative Attribu	utes										
Water Appearance: (check one)	<sup>□</sup> No water ⊠	Clear	□Turbid	□Sh on	ieen i surfac	⊡Su e sc	urface cum	□Algal mats	□Othe	r:	
Substrate:	Bedrock 🗆 E	Boulder 🗵	Cobble	⊠ Grav	el 🛛	Sand	Silt/ c	lay 🗆 Organio		Other:	
(check all that apply) % of Substrate:	%	%5	<u>5</u> %	<u>15</u> %	4	<u>10_</u> %	<u>40</u> %	%		%	
Width of Riparian Zon	e: Vegetati	ve Lavers:									
	(check all th	at apply)		⊠ Trees	:		🛛 Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>ft</u> · N/A⊠	(approx.)	H of Domin	ants:	<u> 5 </u> in.			<u>1</u> in.				
Dominant Bank Veget	ation (list):										
Ninebark, ash, viole	et, clover, bircl	h, grasse	S								
Aquatic Habitats (ex: s	ubmerged or emerg	ed aquatic ve	egetation, o	verhanging	banks/ro	oots, leaf pa	cks, large	submerged wood	l, riffles,	deep pools	5):
none											
Aquatic Organisms Ol	oserved (list):										
Invertebrates, cado	lis fly larvae										
T&E Species Observe	d (list):										
none											
Disturbances (ex: livest	ock access, manure	e in waterbody	y, waste dis	scharge pipe	es):						
Roadside ditch											
Tributary is: (check one)	□ Natural		Artific	ial, man-m	ade	🗆 Manip	oulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High		□ Mode	rate		⊠ Low					

Waterbody ID:

#### Srae175

**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 SRAE175 facing east upstream



Waterbody SRAE175 facing west downstream



# Waterbody SRAE175 facing north across

Survey Descriptio	n										
Project Name:		Waterb	ody Name	:			W	aterbody ID:			Date:
Atlantic Coast Pipe	line	UNT to	o Falling	Spring F	Run		S	rac138			4/26/2016
State:	County:		Co	ompany:			Crew N	Member Initials	5:	Photos:	
West Virginia	Randolp	h	N	RG			CR, A	AS		3	
Tract Number(s):			Ne	earest Mile	epost:			Associated W	etland	ID(s):	
04-002-B025.AR								None			
Survey Type: (check one)	□Cei	nterline	□Re-Rou	ite	⊠Ac	cess Road		□Other:			
Physical Attribute	s										
Stream Classification: (check one)	□Epl	hemeral	⊠Intermit	ttent	□Pe	rennial					
Waterbody Type:											
(check one)	River	⊠ Stream	□ Ditch	□ Ca	anal	□ Other:					
OHWM	OHWM	Indicator:					~				
<u>3</u> ft.	(oneon an i		(	on bank	le		y	vegetation	L	JSCOUIII	staining
Height:		Bent, matted, o	r missing	□Wrack li	ne	⊠Litter ar	nd	□Abrupt plar	nt	□Soil c	haracteristic change
ft. N/A□	ve	getation				debris		community ch	nange		
Width of Waterbody - 1	Fop of	Nidth of Water	body - Toe	e of Slope	Width	of Waterb	ody - W	ater Edge to	Depth	of Water	:
Bank to Top of Bank:	t	o Toe of Slope	):		Water	Edge:			(Approx.	)	
<u>_15_</u> ft.		<u>2</u> ft.				_	<u>8_</u> ft.				<u>_0.2</u> ft.
Sinuosity:		Nator volocity			N/A⊡ Bank ł	neight			Rank e	slone	
(check one)	(	Approx.)			Danki	Right:			Dank .	Right	:
		-	<u>1</u> fps				<u>2</u> ft.				60 degrees
⊠Meanderi	ng r	N/A□				Lett:	<u>4_</u> ft.			Len	<u>70</u> degrees
Qualitative Attribu	ites										
Water Appearance:	No water	⊠Clear		□Sh	000		face		□Otho	r.	
	No water			on	surface	e sci	Im	mats			
Substrate:	Bedrock	⊠ Boulder	Cobble 🛛	⊠ Grave	el 🛛	Sand [	□ Silt/ c	lay 🗆 Organic		Other:	
% of Substrate:	<u>5 </u> %	<u>30</u> %	<u>20 </u> %	<u>35</u> %	_1	<u>0 % </u>		_%%		%	
Width of Riparian Zone	e: Veg	etative Layers	:								
30 ft.	(chec	k all that apply)	nante	⊠ Trees		$\triangleright$	Saplir	ngs/Shrubs:	$\triangleright$	I Herbs	
<u>-30 n</u> . N/A□	(appr	ox.)	nants.	<u>_12_</u> in.		-	<u>2</u> ın.				
° Dominant Bank Vege	tation (list):										
Yellow birch, black	cherry, re	d maple, vio	lets, ram	ps, Ame	rican e	elm, east	er her	nlock, saxifra	age, C	Christma	as fern, trillium
Aquatic Habitats (ex: s	ubmerged or e	emerged aquatic	vegetation, o	overhanging	banks/ro	ots, leaf pac	ks, large	submerged wood	l, riffles,	deep pool	s):
None											
Aquatic Organisms Ob	oserved (list	*):									
None											
T&E Species Observed	d (list):										
None											
Disturbances (ex: livest	ock access, m	nanure in waterbo	dy, waste dis	scharge pipe	es):						
Flows through 3' cu	lvert und	er access ro	ad								
Tributary is: (check one)	🛛 Na	itural	□ Artific	ial, man-m	ade	🗆 Manipi	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 Hiç	gh	⊠ Mode	rate		□ Low					

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

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

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

#### Notes:





Waterbody SRAC138 facing south upstream



Waterbody SRAC138 facing north downstream



Waterbody SRAC138 facing east across

Survey Descriptio	n								
Project Name:		Waterbody	Name:		W	laterbody ID:		ſ	Date:
Atlantic Coast Pipe	line	UNT to Fa	Iling Spring I	Run	s	rac139		4	1/28/2016
State:	County:	<b>I</b>	Company:		Crew I	Member Initials:	Ph	otos:	
West Virginia	Randolph		NRG		CR, A	AS	3		
Tract Number(s):			Nearest Mil	lepost:		Associated We	tland ID	)(s):	
04-002-B025.AR						None			
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 Width:	OHWM Indic (check all that app	ator: bly)	⊠ Clear li on bank	ine 🗆 Shelvin	g	□Wrested vegetation	⊡So	couring	□Water staining
Height:	Bent	matted or mis	sing []Wrack	line 🛛 litter a	ad	□ Abrunt plant			
<u>0.6</u> ft. N/A□	vegetati	on		debris	iu	community cha	ange	3011 CT	laracteristic change
Width of Waterbody - Bank to Top of Bank:	Top of Width	of Waterbody	/ - Toe of Slope	Width of Waterb	ody - W	/ater Edge to	Depth of Approx.)	Water	
				Mater Lage.		,	FF - 7		0.6. ft
<u>_15_</u> ft.		<u>_2_</u> ft.		N/A□	<u>_10_</u> ft.	Ν	I/A□	-	<u>_0.0_</u> 1t.
Sinuosity:	Water	velocity:		Bank height		E	Bank slo	ре	
	(Approx	.)		Right:	∕l ft			Right:	60 degrees
		<u>_2</u> f	ps	Left:	<u>4</u>			Left:	
	ng N/A□				<u>2</u> ft.				<u>70</u> degrees
Qualitative Attribu	ites								
(check one)	<sup>□</sup> No water □	lClear ⊠T	urbid DS	heen □Su n surface sci	rface um	□Algal □ mats	Other:		
Substrate:	Bedrock 🛛 B	oulder 🛛 Co	obble 🛛 Grav	/el 🛛 Sand 🛛	□ Silt/ c	ay 🗆 Organic	□ Oth	ner:	
(check all that apply) % of Substrate:	% 5%	6 20 °	% 65 %	10 %		% %		%	
Width of Dinarian Zan	vereteti								
width of Riparian Zon	check all the	/e Layers: at apply)	⊠ Trees	s: D	🛛 Saplir	ngs/Shrubs:	⊠H	lerbs	
<u>50 ft</u> -	Avg. DB	I of Dominant	<b>s:</b> <u>12</u> in	. <u>-</u>	<u>2</u> in.				
° Dominant Bank Vege	etation (list):								
American elm, red	maple, locust,	yellow birch	, beech, Ma	y-apple, golden	rod, b	lackberry, dar	ndelion	, yarro	W
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegeta	ation, overhanging	g banks/roots, leaf pac	ks, large	submerged wood,	riffles, dee	ep pools	a):
Rock piles, riffles, le Aquatic Organisms Of	eat packs pserved (list):								
None									
T&E Species Observed	d (list):								
None									
Disturbances (ex: livest	ock access, manure	in waterbody, wa	aste discharge pip	bes):					
Flows through 4' cu	ulvert under ac	cess road							
Tributary is: (check one)	⊠ Natural		Artificial, man-n	nade 🛛 Manip	ulated				
Stream Quality <sup>a</sup> : (check one)	🗆 High	$\boxtimes$	Moderate	□ Low					
Waterbody ID: SRAC139

**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 is at the OHWM. Recent heavy rain ending a few hours ago

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





Waterbody SRAC139 facing southeast upstream



Waterbody SRAC139 facing northwest downstream



## Waterbody SRAC139 facing northeast across