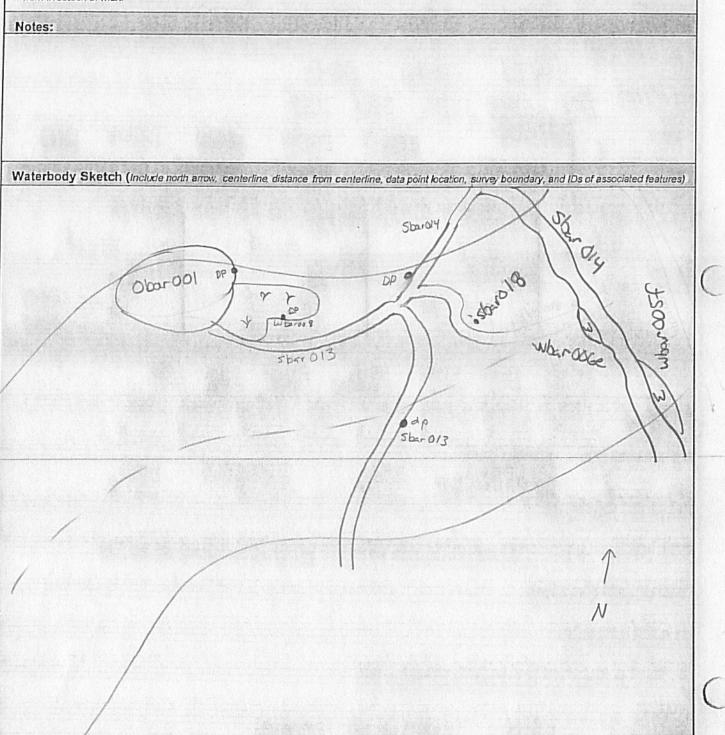
Linear Waterbod	y Data Sheet			erik saranasakan			
Survey Description	n		season relieved	Oliv Arthropia	Waterbody ID:	Date:	
Project Name:		Waterbody Nan		. 0		7	-31-16
ACP		UNT to	o Stuar	t Kun	Sbar 014	San Academy applied applied	01-10
State:	County/Parish:		Company:		Crew Member Initials		. 11-
VA	Bath		EST		KM, WU	SE, MI	N, NE
Tract Number(s):			Nearest Milepos	t	Associated W		
36-05	0 36-1	249	101.	0	du	ar006e wa	1002t
Survey Type: check one)	□Centerline	ØRe-F	toute C	Access Road	☐Other:		X 3 12 Nr 7 (2 Tr 3 C S)
Physical Attribute	NATIONAL PROPERTY.			COLUMN SECTION AND			
Stream Classification: check one)	□Ephemera	i □Inter	mittent II	2Perennial			
Waterbody Type: (check one)	River Str	eam 🗆 Ditc	h □ Canal	□ Other			
OHWM Width: L/ ft.	OHWM Indica (check all that appl)		Clear line on bank	□Shelvir	g	Scouring	□Water staining
Height 0.2 ft.	⊠Bent, r vegetatio	natted, or missin n	g Wrack line	Litter a debris	nd	hange	teristic change
N/A□ Width of Waterbody - □	op of Width	of Waterbody -	Toe of Slope Wi	dth of Waterb	ody - Water Edge to	Depth of Water:	
Bank to Top of Bank:	to Toe	of Slope:	Wa	ter Edge:	L	0.1	ft.
Sft.	_	3_ft.			<u>7ft.</u>	N/A□	
	Weter	velocity:	N/A	nk height		Bank slope	
Sinuosity: check one)	(Approx.)			Right	18	Right: 7	5 degrees
□Straight		f;	os	Left:	1.5 n.	Left:	degrees
™Meanderi	ng N/A			Leit.	<u>l</u> n.		degrees
STORY OF STREET	PARK SALES STATES STATE		The Market	1000			
Qualitative Attribu Water Appearance:	iles America					Flother	
(check one)	No water	Clear □Turb	id □Sheen on sur	A STATE OF THE PARTY OF THE PAR	urface □Algal cum mats	□Other:	
Substrate: [Bedrock □ Bo	ulder 🗹 Cobb	le 🗹 Gravel	Sand	Silt/ clay Organi	c Other:	
(check all that apply)		110		10 %	30 %	% %	
% of Substrate:	%	_%%	70 20 70	76			
Width of Riparian Zon	e: Vegetativ		B's		COEICharbe	☐ Herbs	
40 ft.	(check all that	of Dominants:	Trees:		Saplings/Shrubs:	NA in.	
NAC	(approx.)		10.00 February 200			The second Second Second	
Dominant Bank Veget	ation (list):		e l	-1 1	P. I.		
Carpin	in caro	liniana,	omilax	10tuna	rona	d differ deep pools).	
Agustic Habitate for e	hmerned or emerne	d aquatic vegetatio	n, overhanging ban	ks/roots, leaf pa	cks, large submerged woo	d, filles, deep poors).	20.15
Submerge	d aquati	vegetati	on, overh	anging b	anks, leaf po	cks, littles, 1	20012
Aquatic Organisms O	bserved (list):	Control of the second					
mayfly,	Cadd of	y					
T&E Species Observe							
none						- No. 17 July 18 Carlot	
Disturbances (ex lives	tock access, manure	in waterbody, wast	e discharge pipes):				
AT	V trail			1.44, 7			
Tributary is:	☐ Natural	□ Aı	tificial, man-made	e 🗆 Mani	pulated		
Stream Quality ::			adorato	D.Lew.			
(check one)	High	□M	oderate	□ Low			artherine and a transfer and a state of the

Watert	ody	ID	: 100
S	bar	0	14

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

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

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





Waterbody data point sbar014 facing southeast upstream.





Waterbody data point sbar014 facing northeast across bank.

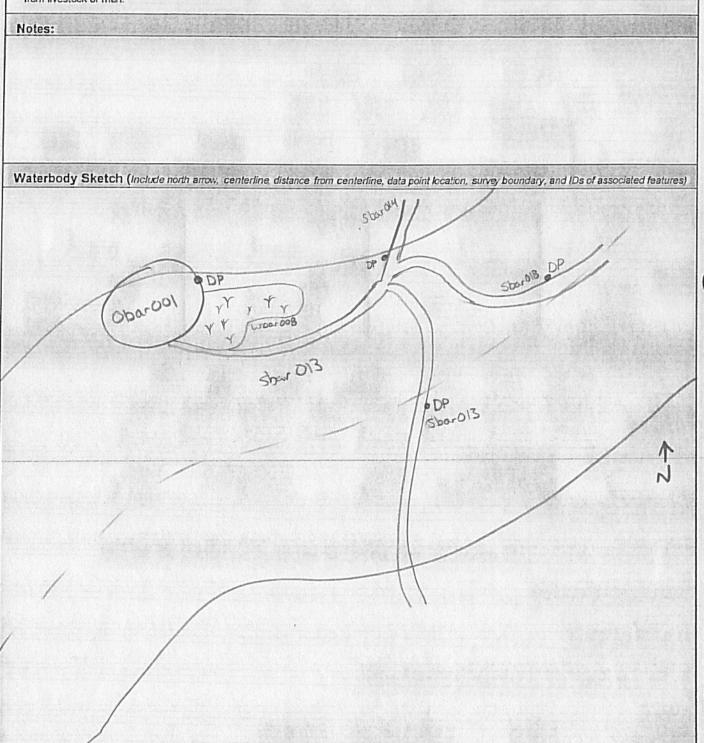
Linear Waterbody	Data Sheet		IR SERVICE AND STREET	unia (1. monta 17.7 m)	er de redscoklabel	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1200
Survey Description				Set tomake	Water	rbody ID:	Da	ate:
Project Name:		Waterbody Na			PER STATE STATE OF THE STATE OF	par 013		3-30-16
ACP		UNT to	. Stuart R	un		ber Initials:	Photos:	
State: C	ounty/Parish:		Company:				 A reliability of control of the little 	NW. HE
VA	Bath		ESI		KM, 1			7909/112
Tract Number(s):			Nearest Milepos	t	Ass	sociated Wetlan		
36-049			101			WBAROC	78	
Survey Type:	□Centerline	MRe-I	Route D	Access Road		Other:	der bet not a	5.0000000000
Physical Attributes								
Stream Classification: check one)	□Ephemera	ıl □Inte	rmittent G	Perennial				
Naterbody Type: check one)	ver Str	eam 🗆 Dite	ch 🗆 Canal	□ Other	•			
Width: 4 ft.	OHWM Indica (check all that apply		Clear line on bank	□Shelvin		Wrested egetation	Scouring	□Water staining
Height: <u>Ø.</u> l_ft.	vegetatio			☐Litter ar debris	c	Abrupt plant ommunity change		aracteristic change
Width of Waterbody - Top	of Width	of Waterbody - of Slope:	Toe of Slope Wid	ith of Waterb ter Edge:	ody - Wate	r Edge to Dept	h of Water: x.)	
Bank to Top of Bank: 5ft.	to roe	2 ft.	N/A		<u>⊰</u> ft.	N/A□	۵ و	· l _ft.
Sinuosity:	Water	velocity:	distribution of the party and administration	nk height		Bank	slope	
check one)	(Approx.)	1		Right:	1 -		Right:	45 degrees
□Straight			ps	Left:	ft.		Left:	Q _A
☐Meandering	N/A□			_	1,5 n.			70 degrees
Qualitative Attribute								
Water Appearance:	NORTH TO DAY WAS		56	Пе	rface D]Algal □Oth	ner:	
check one) LIN	o water	Clear □Turt	oid □Sheen on sur	APPLICATION OF THE PROPERTY OF THE PARTY OF	um	mats		
Substrate:	Bedrock □ Bo	ulder 🗹 Cobl	ble D'Gravel	☑ Sand	Silt/ clay	☐ Organic □	Other:	
(check all that apply)			% 30 %	5 %	60 %	% _	%	
% of Substrate:	%	_%						
Width of Riparian Zone:	Vegetativ		Trees:		Saplings	/Shrubs:	Herbs	
50 tt	3.535 9345 agostagos (Saight Sainte)	of Dominants:	CONTROL OF CONTROL AND AND ADMINISTRATION OF		3 in.	that all of the control of the contr	NA in.	
VA□	(approx.)		The second second					
Dominant Bank Vegetation						2	1 1	
Aquatic Habitats (ex: subr		irrodendron	- tulipifera	Querca	s alba	Pinus S	s deep pools):
Aquatic Habitats (ex. subr	nerged or emerge	d aquatic vegetation	on, overnanging bank	sarous, lear pa	cks, large sur			
Overhanana	routs, le	of packs	, riffles,	deep po	ols			
Aquatic Organisms Obse	erved (list):		of return to the territory					
Aquatic Organisms Obse May Fly T&E Species Observed (Stone	cy, cad	disfly,	Water &	Strider			
Disturbances (ex: livestoc	k access, manure	in waterbody, was	te discharge pipes):		Y	and the second of the second		
	rossing			A COMPLETE				
Tributary is: (check one)	Natural	ΠA	rtificial, man-made	e 🗆 Manij	pulated			
Stream Quality *: (check one)	□ High	ĎIN	loderate	□ Low				

Waterbody	ID:	
Waterbody Shar	-0	13

• 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 mals, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.





Waterbody data point sbar013 facing southeast upstream.



Waterbody data point sbar013 facing northwest downstream.



Waterbody data point sbar013 facing northeast across bank.

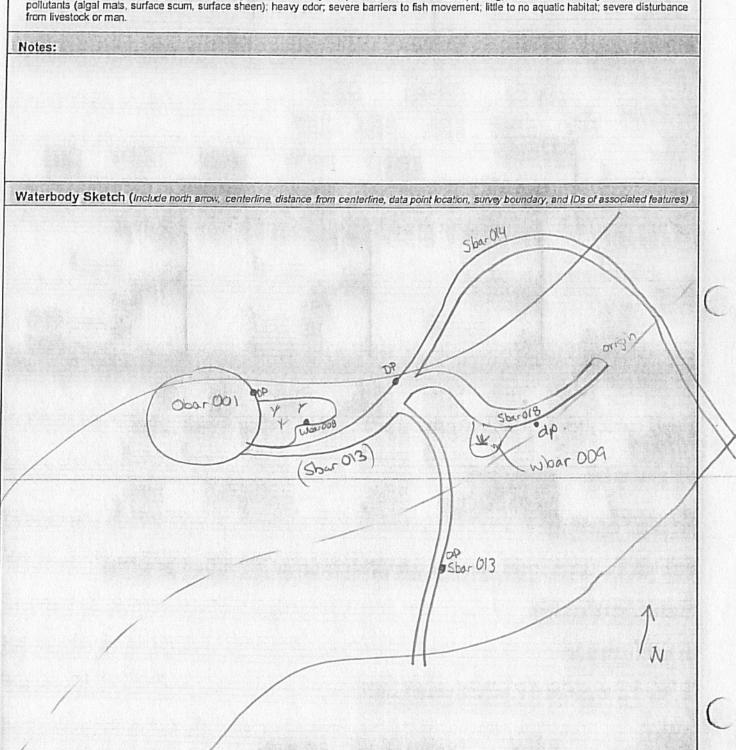
inear Waterbod	y Data Shee	t		100,000,000	54 45 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		JA
urvey Description	1	har a da A		Santa Par	Waterbody ID:	Date:	
roject Name:		Waterbody N		P	Sbar 01	8 3-3	11-16
ACP		UNT	to Stuart	Kun		NAME OF THE PROPERTY OF THE PARTY.	1 10
	County/Parish:		Company:		Crew Member Initials		1
VA	Bath		ESI		KM, WV	E, W, M	
ract Number(s):			Nearest Milepos	•	Associated W		
36-0	49 36	- 050	101.	0	Wba	7009	
urvey Type:	□Centerline	e 136	e-Route	Access Road	□Other:	THE WAY BEING YOU TO	30 4 CH S 10 S 10 S
Physical Attributes			SHEET STATES			AND SHAPEN THE COL	
tream Classification:	Ephemera	al □In	termittent	Perennial			
Vaterbody Type:	River Str	eam 🗆 🗅	Ditch Canal	□ Other			
HWM . Width:ft.	OHWM Indica (check all that appl)		☐ Clear line on bank	□Shelvin	g		□Water staining
Height:ft.	vegetatio	οn	sing □Wrack line	□Litter a debris	community c	hange	istic change
Vidth of Waterbody - To	op of Width	of Waterbody	- Toe of Slope Wid	ith of Waterb ter Edge:	ody - Water Edge to	Depth of Water: (Approx.)	
lank to Top of Bank:	to loe	of Slope:		or Luge.			ft.
ft.	-	ft.	N/A	d -	<u>, , , , , , , , , , , , , , , , , , , </u>	N/ASZ	
inuosity:	Water	velocity:	WEST-DEFECTIONS TO STATE COLUMN 1. PRIMERS	k height		Bank slope	
heck one)	(Approx.)			Right	2 .	Right: 니	≤ degrees
Contagni		,	_fps	Left:	7	Left: 7	
☑Meanderin	IS NAD		and the second second	=	<u>Z_ft.</u>	The second secon	degrees
Qualitative Attribut	tes						
Vater Appearance:		Class DT	urbid □Sheen	ПS	rface □Algal	□Other:	
check one)	No water □	Clear □T	on surf	PERSONAL PROPERTY OF THE PROPERTY OF THE PERSON OF THE PER	um mats		41 10 47 - 4 1
Substrate:	Bedrock □ Bo	oulder 🗆 Co	obble Gravel	□ Sand	Silt/ clay Organi	c 🗆 Other:	
theck all that apply)		%	%%	%	106%	%%	
6 of Substrate:	%			70		TANK TRANSPORTER TO SERVICE STATE OF THE SERVICE STATE STATE OF THE SERVICE STATE OF THE SERVICE STATE ST	
Vidth of Riparian Zone	: Vegetativ		☑ Trees:		☐ Saplings/Shrubs:	Herbs	
10 tt	(check all that	t apply) I of Dominant			S in.	NA in.	~
VAC	(approx.)		70 11.			TERRITOR AND A STREET OF THE STREET AND A ST	
Dominant Bank Vegeta							
Acer Aquatic Habitats (ex. s.	rubrum	, Ca	rpinus cou	rolinian	a	d riffles deen pools)+	
quatic Habitats (ex. s.	ibmerged or emerge	d áquatic veget	ation, overhanging bank	s/roots, leaf pa	cks, large submerged woo	u, mies, ueep poois).	
no	ne						
Aquatic Organisms Ob	served (list):		and the second section of the second				
[&E Species Observed	love						
ac opecies observed	lone						
Disturbances (ex: livest		in waterbody w	raste discharge pipes):			Company and the second second second	
	our access, manufe	materiologi, w					
DISTUIDANCES (ex. aves.	non						
Tributary is:			Artificial, man-made	□ Mani	pulated		

Waterbody	ID:
Stor	018

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 mals, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.





Waterbody data point sbar018 facing east upstream.





Waterbody data point sbar018 facing north across bank.

Linear Waterbod	y Data Sheet		CONTROL AUGUSTAN		N. 100 N. 202 C. N. 200 S. 128 S.
Survey Description	i	Waterland of Normal	A Company	Waterbody ID:	Date:
Project Name:		Waterbody Name: UNT to Stud	1 P.	Sbar019-	P 3-31-16
ACP			rt run	Market State (State State Stat	Photos:
	County/Parish:	Company:		Crew Member Initials:	
AV	Bath	ESI		KM, WV	S, N, E
Fract Number(s):	6-052	Nearest Mile		Associated Wet	
Survey Type:	002				
check one)	□Centerline	☐Re-Route	□Access Road	□Other:	Section 2011 12 4 59 / 24 4 6 7 7 7 7 8 4 9
Physical Attributes				元 计有关设置设置	
Stream Classification: check one)	□Ephemera	I □Intermittent	₽Perennial		
Waterbody Type: check one)	River Str	eam □ Ditch □ Ca	nal Other		
OHWM Width: Z ft.	OHWM Indical (check all that apply	or: Clear line on bank	e □Shelvin	g □Wrested vegetation	□Scouring □Water staining
Height: O. I ft.	vegetatio		debris	community char	
Vidth of Waterbody - T Bank to Top of Bank:	op of Width o	of Waterbody - Toe of Slope of Slope:	Width of Waterb Water Edge:	ody - Water Edge to (A	epth of Water:
<u> </u>	-	ft.	N/A□ —		<u> </u>
inuosity:		velocity:	Bank height	В	ank slope
check one)	(Approx.)	1 .	Right	l n.	Right: 80 degrees
		fps	Left:	7	Left: 60 degrees
⊡Meanderin	ng N/A□		<u>0</u>	. <u>5</u> ft.	The second secon
Qualitative Attribu	tes		然情况解剖		
Nater Appearance:	HERE THE STORY TO THE STATE OF	Siear □Turbid □Sh	SERVICE OF COLUMN STATE OF THE	rface □Algal □	Other:
			makatan jalah dari	Silt/ clay Organic	☐ Other:
Substrate: C check all that apply) % of Substrate:	l Bedrock □ Bo	_% 20 % 10		60 %%	%
Width of Riparian Zone	: Vegetative	Layers:			
30 tt	(check all that			Baplings/Shrubs:in.	NH in.
VA□ Dominant Bank Vegeta			er many program	Charles and the control of the contr	
<u> </u>					
Urchenthel	ubmerged or emerge	d aquatic vegetation, overhanging	banks/roots, leaf pa	cks, large submerged wood,	riffles, deep pools):
leaf pac	ks, riffle	, deep pools			
Aquatic Organisms Of	served (list):		The American Company		
mayfly [&E Species Observer	i (list):	1			
Nonce Disturbances (ex. lives)	observock access, manure	red in waterbody, waste discharge pipe	es):	Andrews Commence of the Commen	
Calv					
Tributary is: (check one)	Natural	☐ Artificial, man-m	ade 🗆 Mani	pulated	
Stream Quality *: (check one)	□ High	☐ Moderate	Low		Control of the Contro

Waterbody	ID:	
Sloar	1019	P

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 mals, 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) Sbaro19_ E P/E break Sbaro19_P



Waterbody data point sbar019p facing south upstream.





Waterbody data point sbar019p facing east across bank.

Linear Waterbody Data Sheet			AS CONTRACTOR WITH SERVICE	· · · · · · · · · · · · · · · · · · ·
Survey Description		of the state of th	Waterbody ID:	Date:
Project Name:	Waterbody Name:			
ACP	UNT to Stud	rt Kun	Sbar 019-e	
State: County/Parish:	Company:		Crew Member Initials:	Photos:
VA Bath	ESI		KM, WV	SE, NW, NE
Tract Number(s):	Nearest Mile		N DV	
36-052	101	, 2	NOV	
Survey Type: (check one)	☑Re-Route	□Access Road	□Other:	
Physical Attributes				
Stream Classification: (check one)	I □Intermittent	□Perennial		
Waterbody Type: □River ☑ Stre	eam 🗆 Ditch 🗆 Ca	anal		
OHWM Indicat (check all that apply		e Shelving	□Wrested vegetation	□Scouring □Water staining
vegetation		debris	community chang	
Width of Waterbody - Top of Width of	of Waterbody - Toe of Slope of Slope:	Width of Waterbo Water Edge:	ody - Water Edge to Dep	oth of Water:
ft	<u>2</u> n.	N/AB		ft.
SilidoSity.	relocity:	Bank height	Bai	nk slope Right: レぐ
check one) Straight	fps	Right:	ft.	degrees
@Meandering N/A	- ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Left:	n.	Left: 43 degrees
Laweaudering N/Als		***********		
Qualitative Attributes		ENHALMEN	THE PARTY OF THE PARTY.	
Water Appearance: (check one) INo water INO	clear □Turbid □Sh on	een □Sur surface scu	lacc	Other:
Substrate: Bedrock Bo (check all that apply) % of Substrate: %	ulder Cobble Grave		Silt/ clay Organic Organic %	□ Other: %
Width of Riparian Zone: Vegetative	Layers:			
(check all that	of Dominants: 19		Saplings/Shrubs:in.	NH in.
Dominant Bank Vegetation (list):		Service and the service of the servi	No service to the service of the ser	
Arer albam Dia	strobus. Qu	ercus rub	ra	
Acer rubrum, Pin Aquatic Habitats (ex submerged or emerged	aquatic vegetation, overhanging	banks/roots, leaf pac	ks, large submerged wood, rif	fles, deep pools):
none	Comment of the Commen			And the state of t
Aquatic Organisms Observed (list):				
none observ	ed		AN TONE STORE STATE OF THE	
T&E Species Observed (list):				
none observ				
Disturbances (ex. livestock access, manure	n waterbody, waste discharge pip	es):		
none of	served			
Tributary is:	AND THE PERSON OF THE PERSON O		ulated	
(check one) Natural	☐ Artificial, man-n	nade 🗆 Manip	ulated	
Stream Quality :: (check one)		☐ Low		

Waterbody	ID:		
Slone	DI	9	P

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

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

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Notes:

OHIUM discontinuous

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

P/E break
Sbar019_P

Sbar019-E



Waterbody data point sbar019e facing southeast upstream.



Waterbody data point sbar019e facing northwest downstream.



Waterbody data point sbar019e facing northeast across bank.

Linear Waterbod	y Data Sheet		CONTROL AUGUSTAN		N. 100 N. 202 C. N. 200 S. 128 S.
Survey Description	i	Waterland of Normal	A Company	Waterbody ID:	Date:
Project Name:		Waterbody Name: UNT to Stud	1 P.	Sbar019-	P 3-31-16
ACP			rt run	Market State (State State Stat	Photos:
	County/Parish:	Company:		Crew Member Initials:	
AV	Bath	ESI		KM, WV	S, N, E
Fract Number(s):	6-052	Nearest Mile		Associated Wet	
Survey Type:	002				
check one)	□Centerline	☐Re-Route	□Access Road	□Other:	Section 2011 12 4 59 / 24 4 6 7 7 7 7 8 4 9
Physical Attributes				元 计有关设置设置	
Stream Classification: check one)	□Ephemera	I □Intermittent	₽Perennial		
Waterbody Type: check one)	River Str	eam □ Ditch □ Ca	nal Other		
OHWM Width: Z ft.	OHWM Indical (check all that apply	or: Clear line on bank	e □Shelvin	g □Wrested vegetation	□Scouring □Water staining
Height: O. I ft.	vegetatio		debris	community char	
Vidth of Waterbody - T Bank to Top of Bank:	op of Width o	of Waterbody - Toe of Slope of Slope:	Width of Waterb Water Edge:	ody - Water Edge to (A	epth of Water:
<u> </u>	-	ft.	N/A□ —		<u> </u>
inuosity:		velocity:	Bank height	В	ank slope
check one)	(Approx.)	1 .	Right	l n.	Right: 80 degrees
		fps	Left:	7	Left: 60 degrees
⊡Meanderin	ng N/A□		<u>0</u>	. <u>5</u> ft.	The second secon
Qualitative Attribu	tes		然情况解剖		
Nater Appearance:	HERE THE STORY TO THE STATE OF	Siear □Turbid □Sh	SERVICE OF COLUMN STATE OF THE	rface □Algal □	Other:
			makatan jalah dari	Silt/ clay Organic	☐ Other:
Substrate: C check all that apply) % of Substrate:	l Bedrock □ Bo	_% 20 % 10		60 %%	%
Width of Riparian Zone	: Vegetative	Layers:			
30 tt	(check all that			Baplings/Shrubs:in.	NH in.
VA□ Dominant Bank Vegeta			er many program	Charles and the control of the contr	
<u> </u>					
Urchenthel	ubmerged or emerge	d aquatic vegetation, overhanging	banks/roots, leaf pa	cks, large submerged wood,	riffles, deep pools):
leaf pac	ks, riffle	, deep pools			
Aquatic Organisms Of	served (list):		The American Company		
mayfly [&E Species Observer	i (list):	1			
Nonce Disturbances (ex. lives)	observock access, manure	red in waterbody, waste discharge pipe	es):	Andrews Commence of the Commen	
Calv					
Tributary is: (check one)	Natural	☐ Artificial, man-m	ade 🗆 Mani	pulated	
Stream Quality *: (check one)	□ High	☐ Moderate	Low		Control of the Contro

Waterbody	ID:	
Sloar	1019	P

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 mals, 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) Sbaro19_ E P/E break Sbaro19_P



Waterbody data point sbar019p facing south upstream.





Waterbody data point sbar019p facing east across bank.

Linear Waterbody Data Sheet			AS 0.5794 (SASSE #01) - RE-0/4A-55	CONTRACTOR STARTED			
Survey Description		of the state of th	Waterbody ID:	Date:			
Project Name:	Waterbody Name:						
ACP	UNT to Stud	rt Kun	Sbar 019-e	THE PROPERTY OF THE PERSON OF			
State: County/Parish:	Company:		Crew Member Initials:	Photos:			
VA Bath	ESI	-	KM, WV	SE, NW, NE			
Tract Number(s):	Nearest Mile			Associated Wetland ID(s):			
36-052	101	.2	Non	10			
Survey Type: Check one Centerline	PRe-Route	□Access Road	□Other:				
Physical Attributes							
Stream Classification: Check one)	I □Intermittent	□Perennial					
Waterbody Type: (check one) □River ☑ Stre	eam 🗆 Ditch 🗆 Ca	anal					
OHWM Indicat (check all that apply		e Shelving	□Wrested vegetation	□Scouring □Water staining			
vegetation		debris	community chang				
Width of Waterbody - Top of Width o	of Waterbody - Toe of Slope of Slope:	Width of Waterbo Water Edge:	ody - Water Edge to De	pth of Water: orox.)			
	2_ft.	N/AB -	ft. N/A	ft.			
Sinuosity: Water v	relocity:	Bank height	Ва	nk slope			
check one) (Approx.)		Right:	T.	Right: 45 degrees			
Listingin	fps	Left:	The second secon	Left: 45 degrees			
@Meandering N/A 19		400	ft.	degrees			
Qualitative Attributes			Galden, as the				
Water Appearance:	Clear □Turbid □Sh	een □Sur	lacc	Other:			
Substrate: ☐ Bedrock ☐ Bo	ulder Cobble Grave	el 🗆 Sand 🗈		□ Other:			
(check all that apply) % of Substrate:%%	% <u>10</u> % <u>10</u>	%% _	80 %%	%			
Width of Riparian Zone: Vegetative	Layers:		•				
(check all that			Saplings/Shrubs:in.	NH in.			
Dominant Bank Vegetation (list):							
Ares a.b. Dia	charbus Qu	erre: rub	m				
Acer rubrum, Pin Aquatic Habitats (ex submerged or emerged	aquatic vegetation, overhanging	banks/roots, leaf pac	ks, large submerged wood, rif	ffles, deep pools):			
none							
Aquatic Organisms Observed (list):							
none observ	cd .						
T&E Species Observed (list):	MARINER LETTER TO THE TOTAL TOT						
none observ							
Disturbances (ex. livestock access, manure	n waterbody, waste discharge pip	es):					
none of	served						
Tributary Is:	AND THE PERSON OF THE PERSON O	ede Divers	ulated				
(check one) P Natural	☐ Artificial, man-n	nade 🗆 Manip	uiateu				
Stream Quality *: (check one)		1 Low		The following the second of the second			

Waterbody	ID:	75	
Slone	DI	9	P

* 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 mals, surface scum, surface sheen); heavy odor; severe barriers to fish movement, little to no aquatic habitat; severe disturbance from livestock or man.

Notes:

OHIUM discontinuous

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

P/E break
Sbar019_P

Sbar019-E



Waterbody data point sbar019e facing southeast upstream.



Waterbody data point sbar019e facing northwest downstream.



Waterbody data point sbar019e facing northeast across bank.

Open Waterbody Data Sheet

Open waterboo	iy Data Sileet								
Survey Description	on								
Project Name: Wate			lame:		Waterbody ID:		Date:		
ACP	,							4/21/2016	
State:	County:		Company: Crev			Member Initials:	Photos:		
V (Bath		NRG		SH,	SA	N/NW/W		
Tract Number(s):			Nearest Milepost	::		Associated Wetland	ID(s):		
36-052			101			Wbaf001, Sbaf00			
Survey Type: (check one)	⊠Centerlin	e □R	Re-Route	□Access Roa	ad	□Other:			
Physical Attribut	es								
Waterbody Type:		I Pond □ La	ke □ Reservoir	☐ Impoundme	ent 🗆	Oxbow Dother:			
Hydrologic Regime:	□ Permanently	Flooded	Semipermanently	y Flooded □	Sea	sonally Flooded	Temporari	y Flooded	
ОНWМ	OHWM Indi								
Height:	(check all that a	oply)	☐ Clear lii on bank	☐ Clear line ☐ Shel on bank		□Wrested vegetation	□Scou	uring ⊠Water staining	
<u>NA</u> ft.	□Ben vegeta	t, matted, or m tion	nissing □Wrack □Litter and line debris			⊠ Abrupt plant community cha	aracteristic change		
Depth of Water:		Bank heig	ht (average):			Bank slope (aver	age):		
Unko N/A□	<u>wn</u> ft.			_ft.		-	de(grees	
Qualitative Attrib	utes					<u>.</u>			
Water Appearance: (check one)	□No water □	Clear ⊠T	urbid □Sheon sur		Surfac m	e □Algal □0 mats	Other:		
Substrate: (check all that apply)	□ Bedrock □ B	oulder 🗆 Co	obble Gravel	□ Sand	□S	ilt/ clay ☐ Organic	☐ Other:		
% of Substrate:	%	%	%	%%		%%		%	
Width of Riparian Zor									
ft.	(check all that	apply)	□ Trees:		⊠ Sa	plings/Shrubs:	⊠ Her	bs	
 N/A□	Avg. DBH (approx.)	of Dominants	s :in	1.	_ <u>3</u> _iı	n.			
Dominant Bank Vege									
Carex spp. Grass	spp. Juncus eff	usus, Pinus	s strobus						
Aquatic Habitats (ex: s	submerged or emerged ac	quatic vegetation, c	overhanging banks/roots,	, leaf packs, large su	ıbmerge	ed wood, riffles, deep pools, e	etc.):		
Emergent vegetat	_								
Aquatic Organisms C	Observed (list):								
Fish (Largemouth	Bass), Eastern	newts, inse	ects						
T&E Species Observe	ed (list):								
None									
Disturbances (ex: lives	stock access, manure	in waterbody, w	aste discharge pipes):					
Area appears to h	ave once been	a stream, a	berm was con	structed arc	ound	the pond to form	impound	ment	
Waterbody is: (check one)	☐ Natural		Artificial, man-ma	de 🛭 Man	ipulate	ed			
Waterbody Quality a: (check one)	☐ High		Moderate	□ Low					

Waterbody ID:	
Obaf001	

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



Open waterbody OBAF001 facing north



Open waterbody OBAF001 facing northwest



Open waterbody OBAF001 facing west

Linear Waterbody Data Sheet

Survey Description	1							
Project Name:		Waterbody Nar	ne:		W	aterbody ID:		Date:
ACP		UNT to Stua	rt Run		SI	baf001		4/21/2016
State:	County:		Company:		Crew N	Member Initials	Photos	: :
Virginia	Bath		NRG		SH, S	SA .	E/W/I	N
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s):	
36-052			101			Wbaf001, C)baf001	
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□ Access Road		□Other:		
Physical Attributes Stream Classification:	3							
(check one)	⊠Ephemera	l □Inter	mittent	□Perennial				
Waterbody Type: (check one)	River ⊠ Stre	eam 🗆 Dito	h □ Ca	anal 🗆 Other:	:			
OHWM Width: _2_ft.	OHWM Indicat (check all that apply		☐ Clear lin	e □Shelvin	g	□Wrested vegetation	□Scourii	ng □Water staining
Height: <u>0.15</u> ft. N/A□	⊠Bent, n vegetatio	natted, or missin n	g □Wrack lin	ne □Litter ar debris	nd	☐ Abrupt plan community ch		characteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W		Depth of Wate (Approx.)	er:
_ <u>4_f</u> t.	_	<u>1</u> ft.			_1_ft.		N/A□	<u>.05</u> ft.
Sinuosity: (check one) ⊠Straight	(Approx.)	velocity:1_fps		Bank height Right: Left:	<u>.5</u> ft.		Bank slope Righ Le	20 degrees
□Meanderin	14/1.				<u>.5_</u> ft.			20 degrees
Qualitative Attribut	tes							
Water Appearance: (check one)	No water ⊠C	Clear □Turb		een □Sur surface scu		□Algal [mats	□Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo	ulder □ Cobb %		el ⊠ Sand □ % <u>10</u> % _	⊠ Silt/ c <u>90_</u> %	lay □ Organic %		
Width of Riparian Zone	(check all that	apply)	□ Trees	: С	☐ Saplin	ngs/Shrubs:	⊠ Herbs	
<u>ft</u> . N/A⊠	Avg. DBH (approx.)	of Dominants:		_in		_in.		
Dominant Bank Vegetar Carex spp. Multiflora		nn Viola ann						
Aquatic Habitats (ex: su	bmerged or emerged	l aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep po	ols):
None								
Aquatic Organisms Obs	served (list):							
Insects								
T&E Species Observed	(list):							
None								
Disturbances (ex: livesto	ck access, manure in	n waterbody, waste	discharge pipe	es):				
Stream is impounde	ed forming obat	001, small cu	ılvert pipe i	in stream not s	erving	much function	on	
Tributary is: (check one)	□ Natural	□ Art	ificial, man-m	ade 🗵 Manipu	ulated			
Stream Quality ^a : (check one)	☐ High		derate	⊠ Low				

	Waterbody ID:
	Sbaf001
а	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.
ſ	Notes:
	owever, water was flowing from the east into obaf001.
,	Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features)



Waterbody SBAF001 facing east upstream



Waterbody SBAF001 facing west downstream



Waterbody SBAF001 facing north across

Linear Waterbod	y Data Sheet	Market of Carrier States		\$16.79.60.00.00.00	5.4 (CONDICK 4 (CS) 5 (T)	R178 E E E E E E	
Survey Descriptio	n	Waterbody Na		Control of the same of the sam	Waterbody ID:		Date:
Project Name:				D		00	3-31-16
ACP		Cent to		Kun	Sbar 02 Crew Member Initials		5 01 ,0
State:	County/Parish:		Company:			SE	NW, NE
VA	Bath		ESI		KM, WV		The Property of the Control
Fract Number(s):			Nearest Milepos	t	Associated W		
36 -	052		101.3		NA		
Survey Type: check one)	□Centerline	□Re-F	Route E	Access Road	□Other:	THE SHAREST WAY	CALIFORNIA SE CARROLINAS
hysical Attribute					BY BRIDE		
Stream Classification: check one)	□Ephemera	I ⊠Inter	mittent C]Perennial			
Vaterbody Type: check one)	River Str	eam 🗆 Dito	ch 🗆 Canal	□ Other			
OHWM . Width: 3 ft.	OHWM Indica (check all that apply		Clear line on bank	□Shelvin	g	□Scouring	staining
Height: <0.1 ft.	vegetatio			□Litter a debris	community c	hange	naracteristic change
Vidth of Waterbody - 7	op of Width	of Waterbody -	Toe of Slope Wid	dth of Waterb ter Edge:	ody - Water Edge to	Depth of Water (Approx.)	•
lank to Top of Bank:	to Toe	of Slope:	Wa	ter Euge.			ft.
ft.	-	ft.	N/A	P -	ft.	N/AØ	
inuosity:	Water	relocity:	CONTRACTOR SERVICE SER	nk height		Bank slope	
heck one)	(Арргох.)			Right:	1.	Right	45 degrees
	Barrier Barrier	<u> </u>	ps	Left:	_ft.	Left	
Meanderi	ng N/A			_	t_ft.	Commence of the Co	degrees
Qualitative Attribu	ites						
Vater Appearance:	No water □	Clear □Turt			rface □Algal um mats	□Other:	
		,	on sur		THE COURSE OF THE CONTRACT OF THE	c 🗆 Other:	
THE POST PROPERTY.	☐ Bedrock ☐ Bo			☑ Sand	☑ Silt/ clay ☐ Organi		
check all that apply) 6 of Substrate:	%	_% _10	% 10 %	2 %	75%	%%	
Width of Riparian Zon	e: Vegetativ	Lavers:			,		
	(check all that	apply)	Trees:		Saplings/Shrubs:	Herbs	
30 ft	Avg. DBH (approx.)	of Dominants:	<u> 14 in.</u>		<u> </u>	Nft_ir	
ominant Bank Veget					Av speaker and the second		
6 11 -	1 1.0-1.	0	alba V	laction	a acquistif	Slum	
Smilax ro	submerged or emerge	d aquatic vegetation	on, overhanging bank	ks/roots, leaf pa	cks, large submerged woo	d, riffles, deep poo	ls):
in termitte	nt water						
None [&E Species Observe	observed						
&E Species Observe	d (list):						
no	ne						
Disturbances (ex. lives	tock access, manure	in waterbody, was	te discharge pipes):				
Culver	+					Carrie Carrier	
Tributary Is: (check one)	Natural	EΙΑ	rtificial, man-made	e 🗆 Mani	pulated		
Stream Quality ::	□ High	EI N	loderate	E Low			
(check one)	- High	L N	- COCIDIO	AND DESCRIPTION OF THE PERSON	A STATE OF THE PARTY OF THE PAR	A THE A TRANSPORT OF STREET AND A STREET AND ASSAULT	Control and Control and Spirit School Spirit Spirit

Watert	ody I	D:	
5	bar	09	0

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 mals, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man

from livestock or man.				
otes:				
terbody Sketch (Inclu	de north arrow, ce	nterline, distance from centerline, data point location	n, survey boundary, and	IDs of associated featur
				1
AL DE				1 N
		1 10		
		channel ends dissipates into overland flow		
		Flow		
		(sbar020 8 00	1 /me	
,		Cal King	on clive	
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		· ·
		X		
		culvet 7		
			0-00	
		1.110	Rous	
		Deer Reld Valler		
		Deer		
		Section 1		



Waterbody data point sbar020 facing southeast upstream.



Waterbody data point sbar020 facing northwest downstream.



Waterbody data point sbar020 facing northeast across bank.

Linear Waterbody Data Sheet

Survey Description	1							
Project Name:		Waterbody Nai	me:		W	aterbody ID:		Date:
Atlantic Coast Pipeli	ne	UNT to Stua	rt Run		sk	baa013		10/13/2016
State:	County:	•	Company:		Crew I	Member Initials:	Photos:	•
Virginia	Bath		NRG - ERN	Л	GB, A	NS .	7 phot	os
Tract Number(s):			Nearest Mile	oost:		Associated Wetla	and ID(s):	
36-055			101.3			none		
Survey Type: (check one)	⊠Centerline	□Re-F	Route	□Access Road		□Other:		
Physical Attributes Stream Classification:	8 🗵							
(check one)	⊠Ephemera	ıl □Inter	mittent	□Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	ch □ Ca	nal 🗆 Other:				
OHWM Width: 2.0 ft.	OHWM Indicat (check all that apply		⊠ Clear line on bank	e □Shelvin	g	□Wrested vegetation	⊠Scourin	g □Water staining
Height: 0.50ft.	□Bent, n vegetatio	natted, or missin n	g 🛭 Wrack lir	ne ⊠Litter ar debris	nd	☐ Abrupt plant community chang		characteristic change
Width of Waterbody - To Bank to Top of Bank:		of Waterbody - of Slope:		Width of Waterbo Water Edge:	ody - W	/ater Edge to Dep	oth of Wate	r:
ft.	_	ft.		 N/A⊠	ft	 N/A	<u>-</u>	ft.
Sinuosity: (check one) ⊠Straight	(Арргох.)	velocity:	ps	Bank height Right: Left:	2.5 _	_ft.	nk slope Righ Lef	<u>80</u> degrees t:
□Meanderin	TV/A				2.5	_ft.		80degrees
Qualitative Attribut	tes							
Water Appearance: (check one) ⊠	No water □ C	Clear □Turb		een □Sui surface scu		□Algal □O mats	ther:	
Substrate: (check all that apply) % of Substrate:	Bedrock ☐ Bo		le ⊠ Gravel % <u>35</u> %		⊠ Silt/ c 10_%	, ,	□ Other: %	
Width of Riparian Zoneft N/A⊠	(check all that	•	⊠ Trees: 12.0	_in.	☑ Saplir 1.0	ngs/Shrubs: _in.	⊠ Herbs	
Dominant Bank Vegetar White oak, red mapl goldenrod, wood as	e, sugar maple ter. Japanese	stilt grass				·		
Aquatic Habitats (ex: su none	bmerged or emerged	d aquatic vegetation	n, overhanging b	anks/roots, leaf pac	ks, large	submerged wood, riff	les, deep poo	ls):
Aquatic Organisms Obs	served (list):							
none								
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	e discharge pipes	s):				
Partially ditched; for			5 , 7 ,	•				
Tributary is: (check one)	☐ Natural	□ Art	tificial, man-ma	ıde ⊠ Manipı	ulated			
Stream Quality ^a : (check one)	☐ High		oderate	⊠ Low				

Waterbody ID: sbaa013

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

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

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

Notes:

Continues out of the survey corridor in both directions; stream channel has been altered by ditching in places; four 18" corrugated culvert crossings present – three for driveways and one for route 629.

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



sbaa013 facing southeast upstream



sbaa013 facing northwest downstream



sbaa013 facing northeast across

Linear Waterbody	Data Shee	1			100 E 100 E 100 E	europolicina Englada a Victoria		
Survey Description					e kraje je je	Waterbody ID:		Date:
Project Name:		Waterbody N		SI I	0	Sbar O	21	3-31-16
ACP		UNT	to	Stuart	Lun			
State: C	ounty/Parish:		Compa	ny:		Crew Member Initial	0	W, NE SE
VA	Bath		ES	T		Mr. KW		w, NE, DE
Tract Number(s):			355 4560mb#8855c%	t Milepost:			Vetland ID(s):	
36-0	56			01.5		N ₁	one	
Survey Type: checkone)	□Centerline	. □Re	-Route	□Ac	cess Road	□Other:	CONTRACTOR DE LA	EAST / 84 (A. T. A.
Physical Attributes			BERRIE					
Stream Classification: checkone)	□Ephemera	al □Int	ermittent	Ø₽€	erennial			
Waterbody Type: check one)	iver Str	eam □ D	itch	☐ Canal	□ Other		100	
Width: G ft.	OHWM Indica (check all that appl)	tor:	Cle on ba	ear line ink	□Shelvin	g	Scour	staining
Height: 0.5 ft.	□Bent, r vegetatio	natted, or miss	ing ⊠Wr	ack line	☐Litter ar debris	nd	change	characteristic change
V/A□ Width of Waterbody - To	p of Width	of Waterbody	- Toe of S	Slope Width	of Waterb	ody - Water Edge to	Depth of Wa	ter:
Bank to Top of Bank:	to Toe	of Slope:		Water	Edge:	7		0.4 ft.
<u>8</u> ft.	-	ft.			-	O_ft.	N/A□	
	10/-4	valasibu		N/A□	helght		Bank slope	
Sinuosity: check one)	(Approx.)	velocity:		Dalik	Right:	7	Rig	
□Straight		1	fps			<u></u>	L	eft: 75 degrees
Meandering	NA				Left:	2_n.		/\(\) degrees
STATE OF THE LABOUR DATE OF THE	THE SECTION OF CHICAGO STATE ST			7010 2021				
Qualitative Attribute Water Appearance:	S							
check one)	lo water 🖽	Clear □Tu	rbid	□Sheen on surfac	□Su e sc	rface □Algal um mats	□Other:	
Substrate:	Bedrock BB	oulder 🗆 Co	bble 🗹	Gravel 🛭	Sand	☐ Silt/ clay ☐ Organ	ic Other.	
check all that apply)	00	% 40	% 3	0 %	10 %	%	%	
% of Substrate:	_% _20	76 10						
Width of Riparian Zone:	Vegetativ		P.			Saplings/Shrubs:	☐ Herbs	
20 tt.	(check all tha	t apply) of Dominants		Trees:		2 in.	NA	jn.
VA	(approx.)		To the second		2 914	A DESCRIPTION OF THE PROPERTY	Maria de la companio del companio de la companio de la companio del companio de la companio del companio de la companio de la companio de la companio del la companio del companio de la companio de la companio del companio de la companio del comp	
Dominant Bank Vegetati	on (list):							
Quercus o	Iba K	Imio lat	folia	Pinus	strobu	S	1 100-1	cols):
Aquatic Habitats (ex sub	merged of emerge	d aquatic vegeta	tion, overfia	anging banks/r	oots, leaf pa	cks, large submerged wo	od, rimes, deep p	GOIS);
		140-11		leaf ~	cke e	whomoraed was	of riffles	, pools
Aquatic Organisms Obs	erved (list):	VEGETAT	100)	I was Indo	Jes, 5	and the same		
	. 1	C.	01					
Stone Fly T&E Species Observed (, Caddis	fly, may	dy					
T&E Species Observed (list):							
none				A STATE OF THE STATE OF				
Disturbances (ex. livestoc	k access, manure	in waterbody, wa	iste dischar	ge pipes):				
non	c					أأحدث فيقط المناجعية		
Tributary Is:	☐ Natural		Artificial, n	man-made	☐ Manij	pulated		
Stream Quality *:	/				12.113			
(check one)	☐ High		Moderate		□ Low			

Waterbody	ID:
Sh-	021

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 equatic 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.

aterbody Sketch (Include north arro	w, centerline distance from centerline, data point location, survey boundar	ry, and IDs of associated features
		I.M.
	Sbar021	
	0%	



Waterbody data point sbar021 facing southwest upstream.



Waterbody data point sbar021 facing northeast downstream.



Waterbody data point sbar021 facing southeast across bank.

Linear Waterbody D	ata Sheet				B 30 C C C B	1010 54 1 4174	C 530-55	yean	1000
Survey Description		Waterbody Nar	70:	166 PASMIN	lw	aterbody ID:		Date	
Project Name:				10		Shar 02'	7	3	3-31-16
ACP		UNT +		uart Run	100000000000000000000000000000000000000	Member Initials	a deligraphical distribution par	SECTION SECTION	
	inty/Parish:		Company:					S, N	E
VA B	ath		EST		MI	Associated W	otland ID/s		
ract Number(s): 3G – C	58		Nearest Mile)1.5		1 ST MARKET MERCHANIST STATES THE STATE OF STATES	one	·)·	
Survey Type: check one)	□Centerline	Ľ3Ře-F	Route	□Access Road		□Other:		THE SERVICE	F X 50 10 10 10 10 10 10 10 10 10 10 10 10 10
Physical Attributes									
tream Classification:	□Ephemeral	□Inter	mittent	Perennial					
Vaterbody Type: check one)	er 🗹 Stre	am 🗆 Dito	h □ Ca	nal Other					
	HWM Indicato theck all that apply)	or:	Clear line	e □Shelvin	ng	□Wrested vegetation	☑ Sci	ouring	□Water staining
Height: 3 ft.	Bent, movegetation	atted, or missin	g Wrack lin	ne Litter a debris	nd	☐Abrupt plan community ch		Soil chara	cteristic change
VA□	f Width o	Waterbody -	Toe of Slope	Width of Waterb	ody - W	ater Edge to	Depth of V	Nater:	
Vidth of Waterbody - Top o Bank to Top of Bank:	to Toe o	f Slope:		Water Edge:	LI		(Approx.)	0	3 ft.
6 ft.		3 ft.			1_f		AWA 🗔	0.	<u> </u>
			SCHOOL STATE OF STATE	N/A[]			N/A□ Bank slop	10	
Sinuosity: theck one)	Water v	elocity:		Bank height Right:	- 1		and the best of the second of	Right:	1.5
Straight	1, 7,,	\ fr	os	Rigit.	١.,	ft.		1 -64.	4) degrees
Meandering				Left:	2	ft.		Left:	75 degrees
Meandering	N/A□		umanicani bula bah	KIND DE STATE OF STAT	5/5/M/N			ACCUS.	
Qualitative Attributes				15.15元号加斯坦	N. F.	era sranna		\$45.000000	
Vater Appearance: Check one)	water EC	lear □Turb		State of the Print of the Print of the Authorities and the Print of th	urface cum	□Algal mats	□Other:		
Substrate: Bec	rock Bou	ilder 🖸 Cobb	le 🗆 Grave	Sand	☐ Silt/ c	lay 🗆 Organio	: Oth	er.	
check all that apply)	7.	H		% 10 %		%9	6	%	
% of Substrate:	<u> </u>	_%	%	70					
Width of Riparian Zone:	Vegetative	Layers:			-/-		□THe	erhs	
7.5 ft.	(check all that a		Trees		Sapli	ngs/Shrubs:		in.	
VAC	(approx.)	of Dominants:	and the second	in.			Sale Standard		
Dominant Bank Vegetation									
Kalmia	latifolia	Que	mis	Drious					
Aquatic Habitats (ex subme	rged or emerged	aquatic vegetation	n, overhanging	banks/roots, leaf pa	cks, large	submerged wood	d, riffles, de	ep pools):	
a\	A STATE OF THE PARTY OF THE PAR								
د کر Aquatic Organisms Observ							v nave kategori		
Caddis T&E Species Observed (list	fly, mo	ryfly							
&E Species Observed (list	t): '	1							
non	e								
Disturbances (ex: livestock a	ccess, manure in			es):					
dirt road		g upstre						1	
Tributary is: (check one)	Natural	□ A	tificial, man-m	ade 🗆 Mani	pulated			-5-1 A-15	
Stream Quality *:	- i vatural								
	Fluid	DA	oderate	□Low					

Waterbody	ID:
Sha	-00

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 mals, surface scum, surface sheen); heavy odor; severe barriers to fish movement; little to no aquatic habitat; severe disturbance from livestock or man.

from livestock or man. Notes: Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) ATV crossing-no culve-+ Sbar022



Waterbody data point sbar022 facing south upstream.



Waterbody data point sbar022 facing north downstream.



Waterbody data point sbar022 facing east across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Project Name: Waterbody Name: 3/22/16 ACP UT to Stuart Run Sbar Oll State: County/Parish: Bath FSI JBenton, NM Associated Wetland ID(s): Nearest Milepost: Tract Number(s): 36-059, 36-060 None Survey Type: □ Centerline ☐ Access Road Other: Physical Attributes Stream Classification: Intermittent (check one) □ Ephemeral □ Perennial Waterbody Type: ₩ Stream (check one) □River □ Ditch ☐ Canal Other: OHWM OHWM Indicator: Clear line ☐ Shelving MW ater (check all that apply) □Wrested ☐ Scouring Width: vegetation staining Soil characteristic change Height: Bent, matted, or missing Wrack line ☐Litter and ☐ Abrupt plant community change vegetation N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of Depth of Water: Bank to Top of Bank: to Toe of Slope: Water Edge: 2.5 ft. N/A N/AD Sinuosity: Water velocity: Bank height Bank slope (check one) (Approx.) Right: 60 ☐ Straight degrees Left: Meandering degrees N/A Qualitative Attributes Water Appearance: □ No water □Algal Other: (check one) (Clear □Turbid □Sheen ☐ Surface on surface scum mats ☐ Bedrock Cobble Gravel Sand Silt clay Organic Other. Substrate: ☐ Boulder (check all that apply) 30 % 20 % % of Substrate: Width of Riparian Zone: Vegetative Layers: (check all that apply) Trees: Saplings/Shrubs: □ Herbs Avg. DBH of Dominants: N/AD Dominant Bank Vegetation (list): Overws alba, Kalmin latifolia, Acer rubrum

Aquatic Habitats (ex submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf packs, riffles Aquatic Organisms Observed (list): Mayfly, caddisfly cases in perennial pools T&E Species Observed (list): None Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None Tributary is: X Natural (check one) ☐ Artificial, man-made ☐ Manipulated Stream Quality *: (check one) □ High Moderate □ Low

Wate	rbody	ID:
3	bar	OIL

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

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

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

Notes:

Intermittent stram, wooded

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

SBAROII

#data point centraline



Waterbody data point sbar011 facing south upstream.





Waterbody data point sbar011 facing east across bank.

Linear Waterbody Data Sheet

Survey Description								
Project Name:		Waterbody Na	me:		W	aterbody ID:		Date:
Atlantic Coast Pipelin	е	UNT to Stua	rt Run		sb	paz002		6/16/2016
State: C	ounty:	l .	Company:		Crew N	lember Initials:	Photos:	
Virginia B	ath		ERM		SS		1-3	
Tract Number(s):			Nearest Mile	post:		Associated We	tland ID(s):	
36-059			101.6			None		
Survey Type: (check one)	□Centerline	Re-F	Route	⊠Access Road		□Other:		
Physical Attributes Stream Classification:								
(check one)	□Ephemera	ıl ⊠Intei	mittent	□Perennial				
Waterbody Type: (check one) □R	iver ⊠ Str	eam 🗆 Dito	ch 🗆 Ca	anal 🗆 Other:	:			
OHWM Width: 1_ft.	OHWM Indicat (check all that apply		☐ Clear lin	ie ⊠Shelvin	g	□Wrested vegetation	□Scourin	g □Water staining
Height: ft. N/A□	□Bent, n vegetatio	natted, or missin n	ıg □Wrack liı	ne □Litter ar debris	nd	□ Abrupt plant community cha		haracteristic change
Width of Waterbody - Top Bank to Top of Bank:		of Waterbody -	Toe of Slope	Width of Waterbo	ody - W		Depth of Wate Approx.)	r:
_2_ft.	_	_ <u>1_</u> ft.		N/A⊠	ft.	N	J/A⊠	ft.
Sinuosity: (check one) ⊠Straight	Water (Approx.)	velocity:		Bank height Right: Left:	<u>0.4_</u> ft.	В	Bank slope Right Lef	45 degrees
□Meandering	N/A⊠				<u>0.4_</u> ft.			45 degrees
Qualitative Attribute	s							
Water Appearance: (check one) ⊠ _N	o water □C	Clear □Turb	-	een □Sui surface scu		□Algal □ mats	Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock □ Bo	ulder □ Cobb %%	le ⊠ Grave	el □ Sand □ %	□ Silt/ cl %	lay □ Organic%	□ Other:%	
Width of Riparian Zone: 100 ft N/A□	Vegetative (check all that Avg. DBH (approx.)		⊠ Trees: _10_in.		□ Saplin in.	ngs/Shrubs:	⊠ Herbs	
Dominant Bank Vegetation Pinus strobus	on (list):							
Aquatic Habitats (ex: subn None		d aquatic vegetatio	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood,	riffles, deep poo	s):
Aquatic Organisms Obse None	rved (list):							
T&E Species Observed (/	ist):							
None								
None Disturbances (ex: livestock	access, manure ii	n waterbody, waste	e discharge pipe	es):				
Tributary is: (check one)		□ Ar	tificial, man-m	ade 🗆 Manipi	ulated			
Stream Quality ^a : (check one)	☐ High		oderate	⊠ Low				

Waterbody ID: sbaz002

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

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

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

Notes:

This is a small intermittent stream that is culverted across Deerfield Valley Road.

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

Der Sield 300' Corrilo



Waterbody sbaz002 facing southwest upstream



Waterbody sbaz002 facing northeast downstream



Waterbody sbaz002 facing southeast across

Linear Waterbody Data Sheet Survey Description Project Name: Waterbody ID: Waterbody Name: sbar 017 UT to Stuar + Run State: County/Parish: Bath J Benton, NM Nearest Milepost: Associated Wetland ID(s): Tract Number(s): 36-065 Survey Type: □ Centerline Re-Route ☐ Access Road Other: Physical Attributes Stream Classification: MPerennial (check one) □ Ephemeral □Intermittent Waterbody Type: X Stream (check one) □ Ditch ☐ Canal Other: □River OHWM OHWM Indicator: W ater Clear line on bank □ Shelving □Wrested ☐ Scouring Width: vegetation staining Soil characteristic change Height: Bent, matted, or missing Wrack line □Litter and ☐ Abrupt plant vegetation community change N/AU Depth of Water: Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Bank to Top of Bank: to Toe of Slope: Water Edge: N/AD Bank height Bank slope Sinuosity: Water velocity: (check one) (Approx.) Right: Right: □ Straight degrees Meandering N/A Qualitative Attributes Water Appearance: Clear (check one) □ No water □Turbid □Sheen □ Surface □Algal Other: ☑ Cobble Gravel Silt/ clay □ Organic ☑ Bedrock **B** Boulder Sand Substrate: (check all that apply) % of Substrate: Width of Riparian Zone: Vegetative Layers: (check all that apply) Saplings/Shrubs: 7100 ft. Avg. DBH of Dominants: N/AU Dominant Bank Vegetation (list): Acer rubrum, Liriodendran tulipifera, Fagus grandifolia, Kalmin latifolia, Polystichum acrostichoides
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf packs, submerged wood, riffles, pools Aquatic Organisms Observed (list): Caddisflies, mayflies T&E Species Observed (list): None Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None Tributary is: X Natural (check one) ☐ Artificial, man-made ☐ Manipulated

Stream Quality ::

(check one)

High

□ Moderate

□ Low

Wate	rbody I	D:	293
6	har	1	-

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

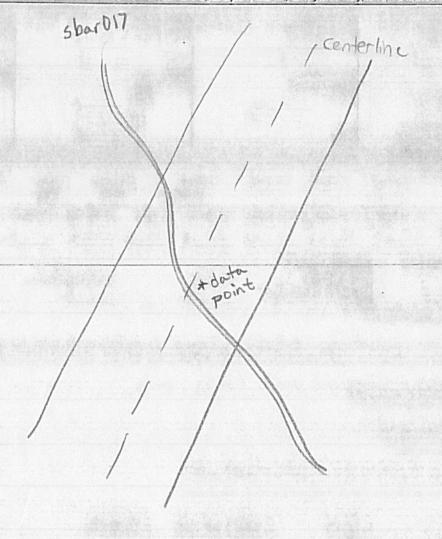
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate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

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

Notes:

Perennial Channel, NHD mapped

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





Waterbody data point sbar017 facing south upstream.



Waterbody data point sbar017 facing north downstream.



Linear Waterbody Data Sheet

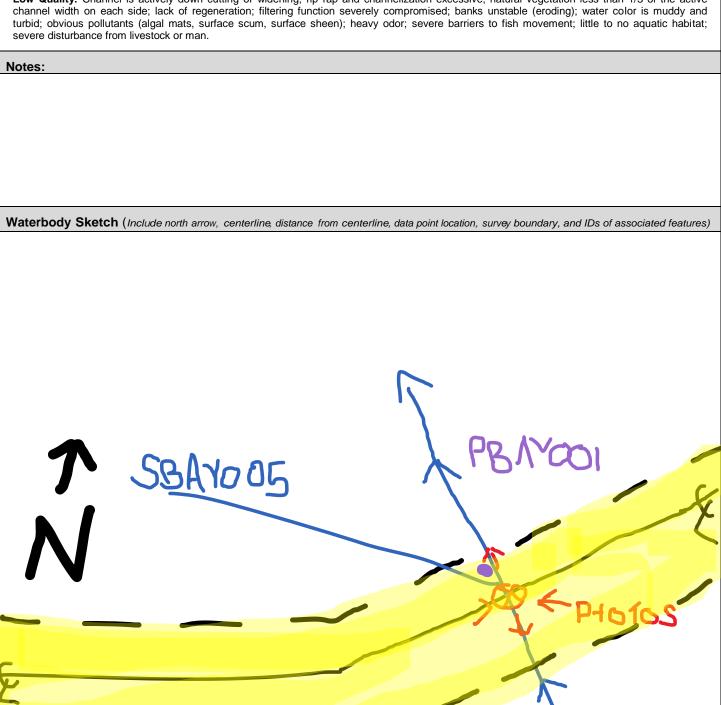
Survey Description	1							
Project Name:	Waterbody Name:				aterbody ID:		Date:	
Atlantic Coast Pipel	ine	UNT to Stua	rt Run		St	pay005		8/24/2016
State:	County:		Company:		Crew N	lember Initials:	Photos:	
•	Bath		Dominion		KO, S	5A	1-3	
Tract Number(s):			Nearest Mile	epost:		Associated We	etland ID(s):	
36-066			102			none		
Survey Type: (check one)	⊠Centerline	e □Re-F	Route	□Access Road		□Other:		
Physical Attributes Stream Classification:	3							
(check one)	□Ephemera	al □Inter	mittent	⊠Perennial				
Waterbody Type: (check one)	River 🛭 Str	eam 🗆 Dito	ch □ Ca	anal 🗆 Other:				
OHWM Width:	OHWM Indica (check all that apply		☐ Clear lin	ne □Shelvinç	g	⊠Wrested vegetation	⊠Scourin	g ⊠Water staining
Height:ft. N/A	⊠Bent, r vegetatio	matted, or missin	g □Wrack liı	ne ⊠Litter an debris	nd	□ Abrupt plant community cha		characteristic change
Width of Waterbody - T Bank to Top of Bank:			Toe of Slope	Width of Waterbo	ody - W		Depth of Wate	r:
	to roe	of Slope: _4_ft.		Water Edge: N/A□	<u>3_</u> ft.		<i>√</i> Д/А □	<u>.1_</u> ft.
Sinuosity: (check one)	(Approx.)	velocity: 05fps	S	Bank height Right: Left:	<u>.5_</u> ft.	E	Bank slope Righ Lef	70 degrees
□Meanderin				-	<u>.5_</u> ft.			_70_ degrees
Qualitative Attribu	tes							
Water Appearance: (check one)	No water ⊠0	Clear □Turb	-	een □Sur surface scu		□Algal □ mats	Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBc	oulder ⊠ Cobb % <u>65</u> %	le ⊠ Grave		⊠ Silt/ cl	lay □ Organic%	☐ Other:	
Width of Riparian Zone ft N/A⊠	(check all that		⊠ Trees: <u>7</u> in.		☑ Saplin _1_in.	gs/Shrubs:	⊠ Herbs	
Dominant Bank Vegetation (list): White Oak, Tulip Poplar, Witch Hazel, Black Cherry, Virginia Pine, Black Haw, Dryopteris Ferns, Viola								
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): none								
Aquatic Organisms Observed (list): Mosquito larvae, mayfly, stonefly, caddisfly, crawfish								
T&E Species Observed	(list):							
none								
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes):								
none								
Tributary is: (check one)	Natural	□ Art	ificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	☐ High	⊠ Mo	oderate	□ Low				

Waterbody Shay005	ID
Shav005	

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





Waterbody SBAY005 facing south upstream



Waterbody SBAY005 facing north downstream



Waterbody SBAY005 facing east across

Linear Waterbody Data Sheet

Survey Description	1	_						
Project Name:	Waterbody Name:			W	aterbody ID:	Date:		
Atlantic Coast Pipeline		UNT to Stuarts Run			SI	bay007	8/24/2016	
State:	County:	1	Company:		Crew N	lember Initials:	Phot	os:
o o	Bath		Dominion		KO, S		1-3	
Tract Number(s):			Nearest Mile	post:		Associated We	etland ID(s)	:
Survey Type: (check one)	□Centerline	e □Re-F	Route	⊠Access Road		□Other:		
Physical Attributes Stream Classification:	S							
(check one)	⊠Ephemera	al □Inter	mittent	□Perennial				
Waterbody Type: (check one)	River ⊠ Str	eam 🗆 Dito	ch 🗆 Ca	anal 🗆 Other:	:			
OHWM Width: <u>4</u> ft.	OHWM Indicat (check all that apply		☐ Clear lin	e □Shelvin	g	□Wrested vegetation	⊠Scou	uring □Water staining
Height: ft. N/A⊠	□Bent, n vegetatio	matted, or missin n	g □Wrack lii	ne ⊠Litter ar debris	nd	□Abrupt plant community cha		oil characteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - ' of Slope:	Toe of Slope	Width of Waterbo Water Edge:	ody - W		Depth of W	ater:
<u>6</u> ft.	_	_4ft.		N/A⊠	ft.	1	N/A⊠	ft.
Sinuosity: (check one) ⊠Straight	Water (Approx.)	velocity:fps		Bank height Right: Left:	<u>1</u> ft.	E		ght:
□Meanderin	g N/A⊠				<u>2</u> ft.			_70_ degrees
Qualitative Attribut	tes							
Water Appearance: (check one) ⊠	No water □C	Clear □Turb	-	een □Sur surface scu		□Algal □ mats	☐Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock DBo	oulder ⊠ Cobb % <u>70</u> %	ole ⊠ Grave		⊠ Silt/ c <u>5_</u> %	lay □ Organic%	□ Other:	%
Width of Riparian Zone	(check all that		⊠ Trees: <u>8</u> in.		⊠ Saplir _1_in.	ngs/Shrubs:	⊠ Her	bs
Dominant Bank Vegetation (list): White Oak, Speckled Alder, Deer-tongue Grass, Dryopterus Ferns								
Aquatic Habitats (ex: su	bmerged or emerged	d aquatic vegetatio	n, overhanging	panks/roots, leaf pac	ks, large	submerged wood,	riffles, deep	pools):
Aquatic Organisms Observed (list): none								
T&E Species Observed	(list):							
none								
Disturbances (ex: livesto	ck access, manure i	n waterbody, waste	e discharge pipe	es):				
none								
Tributary is: (check one)	⊠ Natural	□ Ari	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	☐ High	⊠ Mo	oderate	□ Low				

Waterbody	ID:
Sbay007	

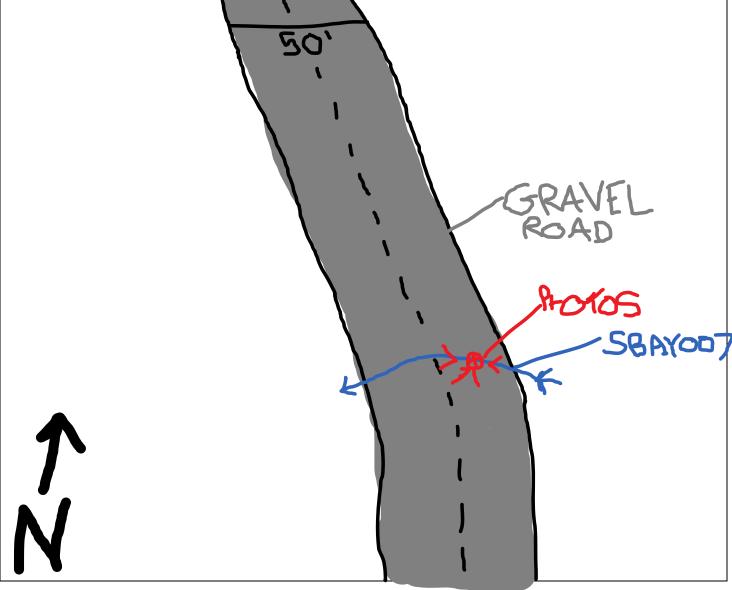
^a **High Quality:** Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

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

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

Notes:

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





Waterbody SBAY007 facing southeast upstream



Waterbody SBAY007 facing west downstream



Waterbody SBAY007 facing northeast across

Linear Waterbody Data Sheet

	iy Bata Onioc							
Survey Descriptio	n							
Project Name:	Waterbody Name:			W	aterbody ID:	Date:		
'		UNT to Stuarts Run				Sbay006		8/24/2016
State:	County:		Company:		Crew N	lember Initials	: Photo	s:
Virginia	Bath		Dominion		KO, S		1-3	
Tract Number(s):			Nearest Mile 102	epost:		Associated W	etland ID(s):	
Survey Type: (check one)	⊠Centerlin	e □Re-F	Route	□Access Road		□Other:		
Physical Attribute Stream Classification:	S							
(check one)	⊠Ephemer	ral □Inter	mittent	□Perennial				
Waterbody Type: (check one)	□River ⊠ St	ream 🗆 Dito	:h □ Ca	anal Other:				
OHWM Width: _4_ft.	OHWM Indica (check all that app		☐ Clear lin	ne □Shelvin	g	□Wrested vegetation	⊠Scour	ing □Water staining
Height: ft. N/A⊠	□Bent, vegetati	matted, or missin on	g □Wrack lii	ne ⊠Litter ar debris	nd	□Abrupt plan community ch		I characteristic change
Width of Waterbody - ⁻ Bank to Top of Bank:		of Waterbody - ⁻ of Slope:	Toe of Slope	Width of Waterbo	ody - W	ater Edge to	Depth of War (Approx.)	ter:
<u>6</u> ft.		_ <u>5_</u> ft.		N/A⊠	ft.		N/A⊠	ft.
Sinuosity: (check one) ☐Straight	Water (Approx.	velocity:) fps		Bank height Right:	_ft.		Bank slope Rig	ht: _70_ degrees
⊠Meanderi	ng N/A⊠	ips		Left:	.5_ft.		L	eft: 70 degrees
Qualitative Attribu	Itas			L				
Water Appearance:	-	Clear □Turb		een □Sur surface scu		□Algal mats	□Other:	
Substrate: [check all that apply) % of Substrate:	Bedrock B	oulder ⊠ Cobb _% _75%	le ⊠ Grave		⊠ Silt/ cl 5_%	lay □ Organio		,
Width of Riparian Zono	(check all tha		⊠ Trees:	: Σ	☑ Saplin	ngs/Shrubs:	⊠ Herbs	S
<u>ft</u> · N/A⊠	Avg. DBh (approx.)	I of Dominants:	<u>8</u> in.	-	<u>1</u> in.			
Dominant Bank Vegeta	• ,	1.51.1.01	Б		Б.	. 5	5 10	
	•		•	_				ak, Shagbark Hickory
Aquatic Habitats (ex: s	ubmerged or emerge	ed aquatic vegetation	n, overhanging	banks/roots, leaf pac	ks, large	submerged wood	, riffles, deep po	pols):
Aquatic Organisms Obnone	oserved (list):							
T&E Species Observed	d (list):							
none	•							
Disturbances (ex: livest	ock access, manure	in waterbody, waste	e discharge pipe	es):				
none	,	, ,	0 11	•				
Tributary is: (check one)	⊠ Natural	□ Art	ificial, man-m	ade □ Manipı	ulated			
Stream Quality ^a : (check one)	☐ High	⊠ Mc	derate	□ Low				

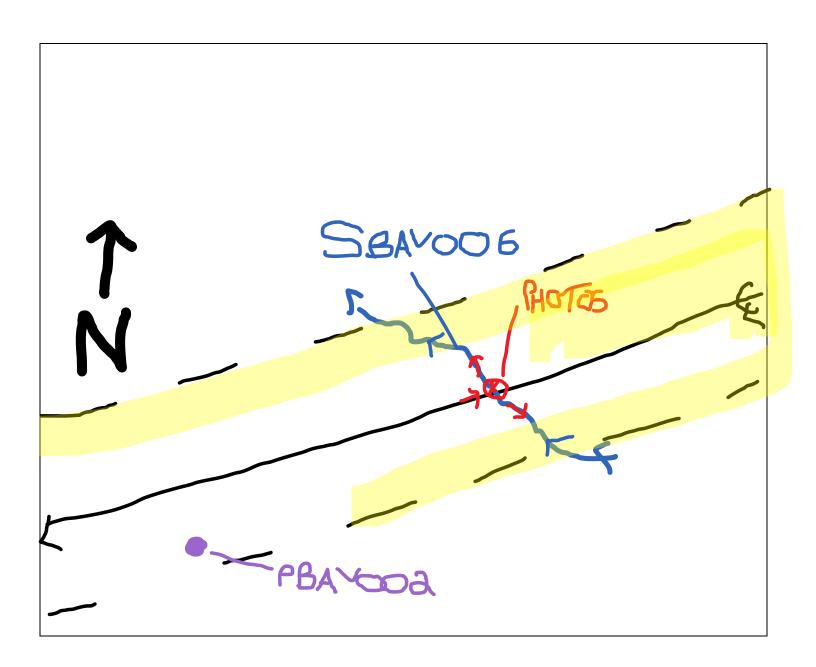
Waterbody ID:
Sbay006

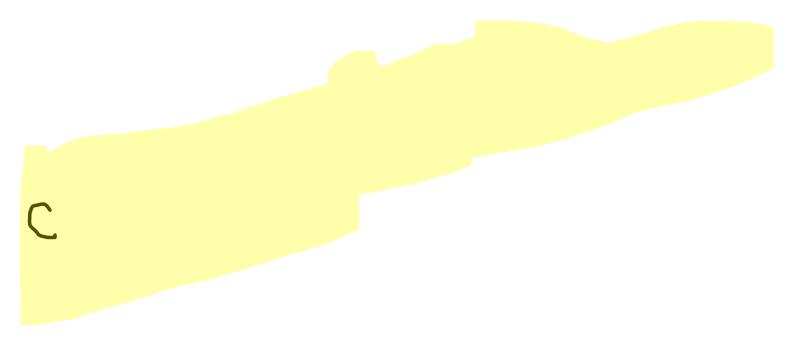
^a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

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

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

NOIES.		
		•







Waterbody SBAY006 facing southeast upstream



Waterbody SBAY006 facing west downstream



Waterbody SBAY006 facing northeast across

Linear Waterbody Data Sheet Survey Description Waterbody ID: Waterbody Name: Project Name: 3/16/16 sbar OOR Mill Creek ACP Photos: Crew Member Initials: Company: State: County/Parish: NW, SE, SW Bath JBenton EST Associated Wetland ID(s): Nearest Milepost: Tract Number(s): wbaroos, wbaroo4 103 36-075 Survey Type: □Other: ⊠Re-Route ☐ Access Road (check one) □ Centerline Physical Attributes Stream Classification: Perennial (check one) □ Ephemeral □Intermittent Waterbody Type: ☐ Ditch ☐ Canal ☐ Other: (check one) □River Stream OHWM OHWM Indicator: **W**W ater □ Scouring K Clear line ☐ Shelving **⊠**Wrested (check all that apply) Width: staining vegetation ⊠Soil characteristic change Bent, matted, or missing Wrack line ☐ Abrupt plant Height: Litter and community change vegetation N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: Water Edge: to Toe of Slope: 10 15 ft. 10 ft. N/A N/A Bank slope Bank height Sinuosity: Water velocity: (check one) (Approx.) □ Straight degrees degrees Meandering N/AD Qualitative Attributes Water Appearance: □Algal Other: □ No water © Clear □Turbid □Sheen □Surface (check one) on surface scum mats ⊠ Sand 区 Silt/ clay 区 Organic □ Cobble ☑ Gravel Substrate: ☐ Bedrock ☐ Boulder (check all that apply) 50 % 35 % 10 % % of Substrate: Width of Riparian Zone: Vegetative Layers: Herbs (check all that apply) ☐ Trees: Saplings/Shrubs:

 N/A in. Avg. DBH of Dominants: in. Dominant Bank Vegetation (list): Rubus argutus, Salix nigra, Fostuca rubra Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): submerged aquatic veg, submersed wood, lenf packs Aquatic Organisms Observed (list): None observed T&E Species Observed (list): none observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock access Tributary is: ✓ Natural (check one) ☐ Artificial, man-made ☐ Manipulated Stream Quality *: Z Low (check one) ☐ High ☐ Moderate

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

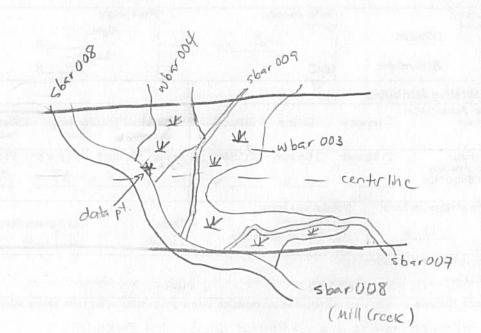
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate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

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

Notes:

Perennial channel (Mill creek), impacted by livestock

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



ZN



Waterbody data point sbar008 facing northwest upstream.



Waterbody data point sbar008 facing southeast downstream.



Linear Waterbody Data Sheet Survey Description Waterbody ID: Waterbody Name: Project Name: 3/16/16 spar 009 ACP MillCreek Photos: Crew Member Initials: Company: County/Parish: State: NIS, E Bath J Benton EST Associated Wetland ID(s): Tract Number(s): Nearest Milepost: wbar004. wbar003 103 56-075 Survey Type: □ Centerline XRe-Route ☐ Access Road □Other: (check one Physical Attributes Stream Classification: (check one) Perennial □ Ephemeral □Intermittent Waterbody Type: X Ditch ☐ Other: (check one) ☐ Stream ☐ Canal □River OHWM OHWM Indicator: ₩W ater Clear line □Wrested ☐ Scouring □ Shelving vegetation staining on hank ☐ Abrupt plant Soil characteristic change Height: Bent, matted, or missing Wrack line □Litter and community change vegetation debris N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: Water Edge: to Toe of Slope: 0.3 ft. 8 6 N/A 🗆 N/AD Bank height Bank slope Sinuosity: Water velocity: (check one) Right: 55 Straight degrees degrees □Meandering N/A Qualitative Attributes Water Appearance: (check one) □ No water **⊠**Clear □Turbid □Sheen ☐ Surface □Algal Other: on surface scum mats ☐ Gravel Silt/ clay Organic Other: Substrate: □ Bedrock ☐ Boulder ☐ Cobble ₩ Sand (check all that apply) % of Substrate: Width of Riparian Zone: Vegetative Layers: (check all that apply) ☐ Trees: ☐ Saplings/Shrubs: Herbs Avg. DBH of Dominants: N/A in. in. Dominant Bank Vegetation (list): Rubus argulus, Andropogon virginious, Junius effusus, Festuca rubra Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): submerged abouting vegetation Aquatic Organisms Observed (list): None observed T&E Species Observed (list): None observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock access Tributary is: (check one) ☐ Natural Artificial, man-made □ Manipulated Stream Quality *: (check one) ☐ High ☐ Moderate N Low

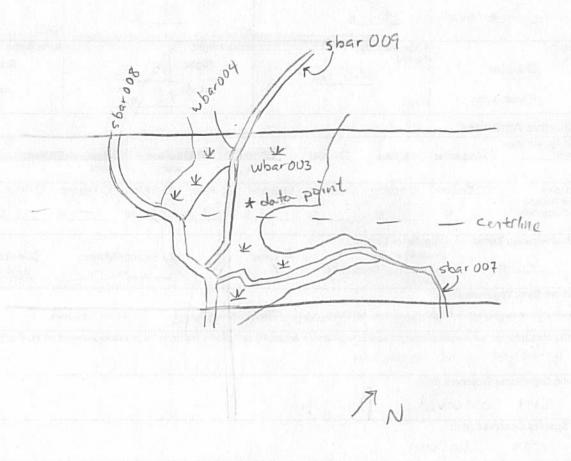
a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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

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

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

Notes:

Ditch with perennial flow, impacted by livestock





Waterbody data point sbar009 facing north upstream.



Waterbody data point sbar009 facing south downstream.



Waterbody data point sbar009 facing east across bank.

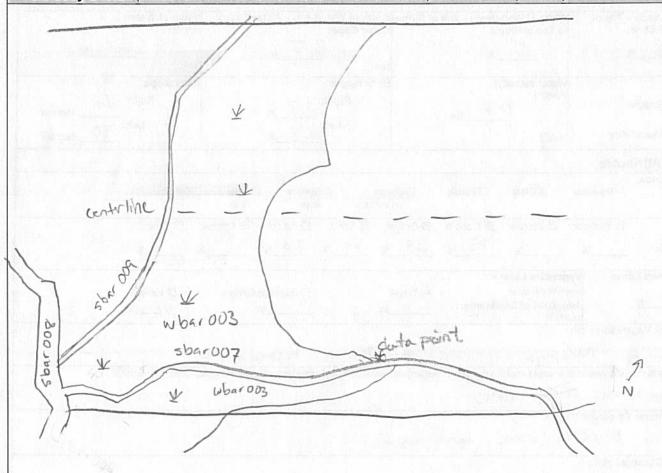
Linear Waterbody Data Sheet Survey Description Waterbody Name: Waterbody ID: Project Name: 3/16/16 Mill Creck 360r007 ACP Photos: Company: Crew Member Initials: State: County/Parish: E, W, S Bath TBenton EST Associated Wetland ID(s): Nearest Milepost: Tract Number(s): 36-075 wbar 003 03 Survey Type: DiRe-Route ☐ Access Road □Other: □ Centerline (check one) Physical Attributes Stream Classification: Perennial (check one) □ Ephemeral □Intermittent Waterbody Type: Other: Stream □ Ditch (check one) □River ☐ Canal онум OHWM Indicator: W ater X Clear line □Wrested □ Scouring ☐ Shelving Width: vegetation staining on bank ⊠Soil characteristic change Height: ☐ Abrupt plant Bent, matted, or missing Wrack line ☐ Litter and community change vegetation debris N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: to Toe of Slope: Water Edge: 0.2 ft. 35 N/AI N/A Bank slope Bank height Sinuosity: Water velocity: (check one) (Approx.) Right: 70 □ Straight degrees Meandering degrees N/AD Qualitative Attributes Water Appearance: □ No water **X**Clear □Sheen □Surface □ Algal Other: □Turbid (check one) on surface Substrate: ☐ Bedrock ☐ Boulder ☑ Cobble ☑ Gravel ⊠ Sand A Silt/ clay Organic Other: (check all that apply) % of Substrate: 15 % 30 % 25 % 30 % Width of Riparian Zone: Vegetative Layers: Herbs (check all that apply) ☐ Trees: ☐ Saplings/Shrubs: Avg. DBH of Dominants: N/A in. Dominant Bank Vegetation (list): Rubus argutus, Adropogon virginitus, Junus effusus, Festuca rubra Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Submuged aquatic veg., riffles Aquatic Organisms Observed (list): stonefly, blackfly larvac, agratic worms T&E Species Observed (list): None Oloserved Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock access Tributary is: M Natural (check one) ☐ Manipulated ☐ Artificial, man-made Stream Quality *: (check one) ☐ High Moderate □ Low

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

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

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







Waterbody data point sbar007 facing east upstream.



Waterbody data point sbar007 facing west downstream.



Waterbody data point sbar007 facing south across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Waterbody Name: Project Name: 3/16/16 sbar 006 ACP UT to Mill Creek Crew Member Initials: Company: County/Parish: State: Associated Wetland ID(s): F-57 J Benton Bath Tract Number(s): Nearest Milepost: 36-077 03 Survey Type: □ Centerline XRe-Route ☐ Access Road Other: (check one) Physical Attributes Stream Classification: Perennial (check one) □ Ephemeral □Intermittent Waterbody Type: Stream ☐ Canal Other: (check one) □ Ditch □River OHWM OHWM Indicator: **⊠**Water Clear line □ Shelving □Wrested ☐ Scouring Width: staining vegetation on bank Soil characteristic change Height: Bent, matted, or missing Wrack line □ Litter and ☐ Abrupt plant community change debris N/A Depth of Water: Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of Water Edge: Bank to Top of Bank: to Toe of Slope: 5.5 ft. 0.4 ft 8 N/A N/A Bank slope Sinuosity: Water velocity: Bank height (check one) Right: 75 Right: □ Straight degrees Left: Left: Meandering degrees N/AI Qualitative Attributes Water Appearance: (check one) □ No water Clear □Turbid □ Sheen ☐ Surface □ Algal Other: mats on surface scum Sand M Gravel ☑ Silt/ clay ☐ Organic Other: Substrate: □ Bedrock ☐ Boulder ☑ Cobble (check all that apply) 50 % 30 % 15 % % of Substrate: Width of Riparian Zone: Vegetative Layers: Trees: (check all that apply) Saplings/Shrubs: M Herbs 00 ft. Avg. DBH of Dominants: 10 in. N/A in. 2 in. N/A Dominant Bank Vegetation (list): Acer rubrum, Quereus alba, Polystichum acrosticoides

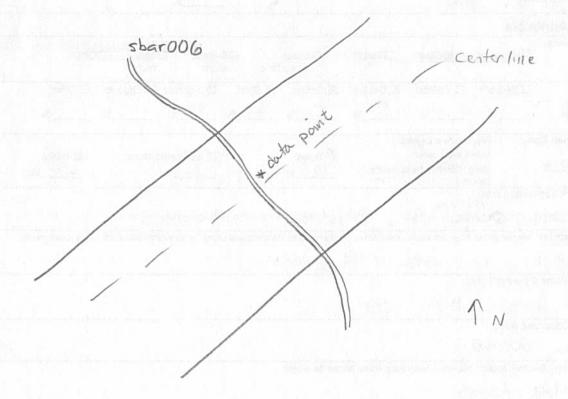
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf pucks, root mats, riffles, pools Aquatic Organisms Observed (list): agratic warms, cadiffy cases
T&E Species Observed (11st): none observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock access Tributary is: X Natural (check one) ☐ Artificial, man-made ☐ Manipulated Stream Quality *: ☐ High (check one) Moderate □ Low

a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no 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 data point sbar006 facing southeast upstream.



Waterbody data point sbar006 facing northwest downstream.



Waterbody data point sbar006 facing northeast across bank.

Linear Waterbody Data Sheet Survey Description Waterbody ID: Date: Waterbody Name: Project Name: 3/15/16 sbar 005 UT to Mill Creek ACP Photos: Crew Member Initials: Company: State: County/Parish: S, N, E J Benton FST Bath Associated Wetland ID(s): Nearest Milepost: Tract Number(s): 104 36-078 Survey Type: Re-Route □Other: (check one) □ Centerline ☐ Access Road Physical Attributes Stream Classification: (check one) MPerennial □ Ephemeral □Intermittent Waterbody Type: □ Ditch Other: Stream ☐ Canal □ River OHWM OHWM Indicator: ₩ ater Clear line **⊠**Scouring ☐ Shelving □Wrested Width: staining vegetation Bent, matted, or missing Wrack line Soil characteristic change Height: ☐ Abrupt plant ☐Litter and community change vegetation N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: to Toe of Slope: Water Edge: 0.4 # 4.5 ft. N/A N/A Bank height Bank slope Sinuosity: Water velocity: (check one) (Approx.) ☐ Straight degrees 0,5 Meandering degrees N/AD Qualitative Attributes Water Appearance: Other: □ No water Clear □Turbid □Sheen □Surface □Algal (check one) on surface scum mats Gravel ⊠ Sand ☑ Silt/ clay ☐ Organic ☐ Boulder Cobble Substrate: ☐ Bedrock (check all that apply) % of Substrate: 20 % 40 % 30 % 10 % Width of Riparian Zone: Vegetative Layers: Trees: (check all that apply) Saplings/Shrubs: ☐ Herbs 7 100 ft. Avg. DBH of Dominants: 10_in. Dominant Bank Vegetation (list): Acer rubrum, Pinus Strabus, Kalmia latifolia

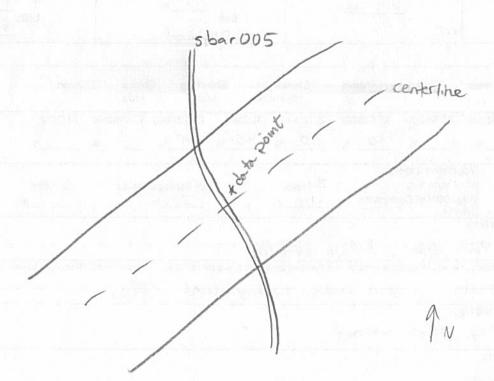
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf packs, roots, underest Lanks, submerged wood, riffles Aquatic Organisms Observed (list): Caddisfly, Stonefly, agratic worms T&E Species Observed (list): none observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): live stock access in past Tributary is: (check one) Natural ☐ Artificial, man-made ☐ Manipulated Stream Quality *: (check one) High ☐ Moderate □ Low

a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no 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 data point sbar005 facing south upstream.



Waterbody data point sbar005 facing north downstream.



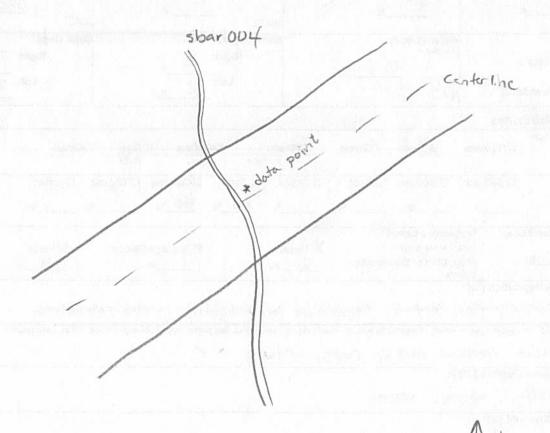
inear Waterbody Data	Sheet		afilia de la com		
Survey Description					
Project Name:	Waterbody Na			Waterbody ID:	Date:
ACP Vito 1		vill Creek		sbar004	3/15/16
State: County/F	Parish:	Company:		Crew Member Initials:	Photos:
VA Bat	h	EST		JBenton	S, N, E
ract Number(s):	Statistical Market	Nearest Milepost	Constant days	Associated Wetla	nd ID(s):
36-078	edica seleten erre. Britishriger i belik	104		MA	
Survey Type:	enterline Re-	Route	Access Road	□Other:	
Physical Attributes Stream Classification: Check one)	phemeral □Inte	ermittent 💆	Perennial		
Waterbody Type: check one) □River	Stream □ Dit	ch 🗆 Canal	☐ Other:		
Width: 5 ft.	M Indicator: all that apply)	☑ Clear line on bank	□Shelving	□Wrested vegetation	Scouring SW ater staining
	⊠Bent, matted, or missi vegetation	ng Wrack line	□ Litter and debris	d	Soil characteristic change
Width of Waterbody - Top of Bank to Top of Eank:	Width of Waterbody to Toe of Slope:	Toe of Slope Wid Wat	ter Edge: L	dy - Water Edge to De (App.	pth of Water: orox.) O-3 ft.
Sinuosity: check one) □Straight Meandering	Water velocity: (Approx.) O, 7 N/A		nk height Right: Left:	Ba 2 ft. 2 ft.	nk slope Right: 70 degrees Left: 75 degrees
Qualitative Attributes					
Water Appearance: (check one) □ No wate	r ⊠Clear □Tu	rbid □Sheen on sur			Other:
Substrate: Bedroc				Sill/clay □ Organic 140_%%	□ Other:%
7(00 ft.	regetative Layers: check all that apply) Avg, DBH of Dominants approx.)	区 Trees:		Saplings/Shrubs:	∕⊠ Herbs <u><i>N</i>/A</u> in.
Dominant Bank Vegetation (list		1.154		e conilar ration	1:101
Acer rubrum, Pir Aquatic Habitats (ex: submerged	ws mood, ro	1951 Uhum acr	rash chald	cke large submerged wood r	iffles deep pools):
lent packs, und				ana, iaige additieiged wood, i	
Aquatic Organisms Observed Calli) fly 1 ag	(list):				
T&E Species Observed (list):					
Disturbances (ex: livestock acce		aste discharge pipes):			
livestock acci					
Tributary is: (check one)	1	Artificial, man-mad	e 🗆 Mani	pulated	
Stream Quality :: (check one)	□ High 📜	Moderate	□ Low		

a High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no 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 data point sbar004 facing south upstream.



Waterbody data point sbar004 facing north downstream.



Waterbody data point sbar004 facing east across bank.

Linear Waterbody Data Sheet

Survey Description)							
Project Name:		Waterbody Name:			W	aterbody ID:		Date:
Atlantic Coast Pipeli	ne	Mill Creek			st	oaz001		6/13/2016
State:	County:		Company:		Crew N	lember Initials:	Pho	tos:
o .	Bath		ERM		SS		1-3	
Tract Number(s):			Nearest Mile	epost:		Associated W	etland ID(s	s):
36-078			104			None		
Survey Type: (check one)	□Centerline	e □Re-F	Route	⊠Access Road		□Other:		
Physical Attributes Stream Classification:	3							
(check one)	Ephemera	al □Inter	rmittent	⊠Perennial				
Waterbody Type: (check one)	River ⊠ Str	ream Dito	ch 🗆 Ca	anal 🗆 Other:				
OHWM Width:	OHWM Indica (check all that appl		⊠ Clear lin	ne ⊠Shelvin	g	□Wrested vegetation	□Sco	ouring □Water staining
Height: _3_ft. N/A□	□Bent, r vegetatio	matted, or missin on	ıg □Wrack liı	ne □Litter ar debris	nd	☐ Abrupt plant community ch		Soil characteristic change
Width of Waterbody - T Bank to Top of Bank:		of Waterbody - of Slope:	Toe of Slope	Width of Waterbo	ody - W		Depth of V	Vater:
		23_ft.			<u>22</u> ft.		N/A□	<u>0.8_</u> ft.
Sinuosity: (check one) ⊠Straight □Meanderin	(Approx.)	velocity: 1.5fps	5	Left:	3_ft.		Bank slop F	Right: <u>45</u> _ degreesteft:
	- [.,,,=				<u>6</u> ft.			50 degrees
Qualitative Attribut Water Appearance:	tes							
(check one)	No water ⊠0	Clear □Turb	-	een □Sur surface scu		□Algal [mats	☐Other:	
Substrate: (check all that apply) % of Substrate:	Bedrock	oulder ⊠ Cobb % <u>20</u> %	ble ⊠ Grave _80_%	el □ Sand □		lay □ Organic _%%	□ Othe	r: _%
Width of Riparian Zone 250+ ft N/A□	(check all that		⊠ Trees: _8_in.		☑ Saplin _1_in.	ngs/Shrubs:	⊠ He	rbs
Dominant Bank Vegeta								
Quercus alba, Carya								
Aquatic Habitats (ex: su None	bmerged or emerge	d aquatic vegetatio	n, overhanging	banks/roots, leaf pacl	ks, large	submerged wood,	riffles, deep	pools):
Aquatic Organisms Obs	served (list):							
Small minows								
T&E Species Observed	(list):							
None								
Disturbances (ex: livesto Livestock has acces		n waterbody, waste	e discharge pipe	es):				
Tributary is:								
(check one)		□ Art	tificial, man-m	ade 🗆 Manipu	ulated			
Stream Quality ^a : (check one)	☐ High	□ Мо	oderate	⊠ Low				

Waterbody shaz001	ID
sbaz001	

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

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

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

Notes:

This is a moderately sized perennial stream.



Waterbody sbaz001 facing east upstream



Waterbody sbaz001 facing west downstream



Waterbody sbaz001 facing north across

Linear Waterbody Data Sheet Survey Description Date: Waterbody Name: Waterbody ID: Project Name: 3/15/16 ACP shar 003 VT to Mill Creek Company: Crew Member Initials: Photos: County/Parish: State: E. W. N Bath JBenton EST Tract Number(s): Nearest Milepost: Associated Wetland ID(s): 36-078 04 NIA Survey Type: Re-Route (check one) □ Centerline ☐ Access Road Other: Physical Attributes Stream Classification: (check one) □ Ephemeral **⊘**Intermittent □ Perennial Waterbody Type: (check one) □River Stream □ Ditch ☐ Canal Other: OHWM OHWM Indicator: **⊠**W ater Clear line (check all that apply) □ Shelving □Wrested ☐ Scouring Width: staining on bank vegetation Bent, matted, or missing Wrack line Height: □ Litter and ☐ Abrupt plant ☐ Soil characteristic change 0.2 # debris community change vegetation N/A Depth of Water: Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Width of Waterbody - Top of Bank to Top of Bank: Water Edge: to Toe of Slope: 0.2 ft. 2,5 ft. 2.5 ft. N/A N/A Sinuosity: Water velocity: Bank height Bank slope (check one) (Approx.) ☐ Straight degrees Meandering degrees N/A Qualitative Attributes Water Appearance: □ No water Clear (check one) □Turbid □Sheen □Surface □ Algal Other: on surface scum mats (X Gravel ⊠ Sand Silt/ clay Organic Substrate: ☐ Bedrock ☐ Boulder ☐ Cobble (check all that apply) 15 % 15 % 70 % % of Substrate: Width of Riparian Zone: Vegetative Layers: (check all that apply) ☑ Trees: ⊠ Saplings/Shrubs: Herbs 7100 ft. Avg. DBH of Dominants: 10 in. N/A in. Dominant Bank Vegetation (list): Acer rubrum, Unus americana, Betula nigra, Lycopodium clavatum Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf packs, roots, riffles Aquatic Organisms Observed (list): none observed T&E Species Observed (list): None observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock access Tributary is: X Natural (check one) ☐ Manipulated ☐ Artificial, man-made Stream Quality *: (check one)

Moderate

□ Low

☐ High

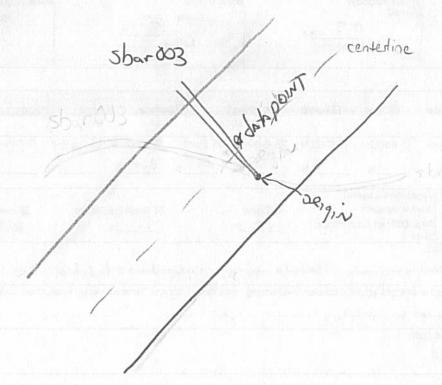
High Quality: Natural channel, natural vegetation extends at least one or two active channel widths on each side; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance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



AN



Waterbody data point sbar003 facing east upstream.



Waterbody data point sbar003 facing west downstream.



Waterbody data point sbar003 facing north across bank.

Linear Waterbody Data Sheet Survey Description Waterbody Name: Waterbody ID: Date: Project Name: 3/15/16 5bar 002 VI to Mill Creek ACP Crew Member Initials: Photos: Company: State: County/Parish: E. W. N J Benton Bath EST Nearest Milepost: Associated Wetland ID(s): Tract Number(s): 36-078 04 NIA Survey Type: (check one) □ Centerline ⊠Re-Route ☐ Access Road Other: Physical Attributes Stream Classification: Perennial (check one) □ Ephemeral □Intermittent Waterbody Type: (check one) Stream □ Ditch ☐ Canal Other: □River OHWM **OHWM Indicator: ⊠**Water ☑ Clear line □ Shelving □Wrested ☐ Scouring Width: vegetation staining on bank Soil characteristic change Bent, matted, or missing Www. rack line □Litter and ☐ Abrupt plant debris community change Depth of Water: Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Bank to Top of Bank: Water Edge: to Toe of Slope: 0,4 4.5 N/A N/AD Bank height Bank slope Water velocity: Sinuosity: (check one) (Approx.) Right: ☐ Straight degrees fps Meandering degrees N/A Qualitative Attributes Water Appearance: Clear (check one) □ No water □Turbid □Sheen □Surface □Algal Other: on surface scum mats ☑ Silt/ clay ☐ Organic Other: Substrate: ☐ Bedrock ☐ Boulder ☑ Cobble Gravel ☑ Sand (check all that apply) % of Substrate: 10 % Width of Riparian Zone: Vegetative Layers: (check all that apply) Trees: ☑ Saplings/Shrubs: ☑ Herbs 7100 ft. N/A in. Avg. DBH of Dominants: N/AD Dominant Bank Vegetation (list): Acer rubrum, Quercus alba, Betha nigra

Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Mots, leaf packs inffles
Aquatic Organisms Observed (list): Store fly, caddisfly
T&E Species Observed (list): More observed Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock Tributary is: Natural (check one) ☐ Manipulated

☐ Artificial, man-made

□ Low

Moderate

Stream Quality 8:

☐ High

(check one)

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

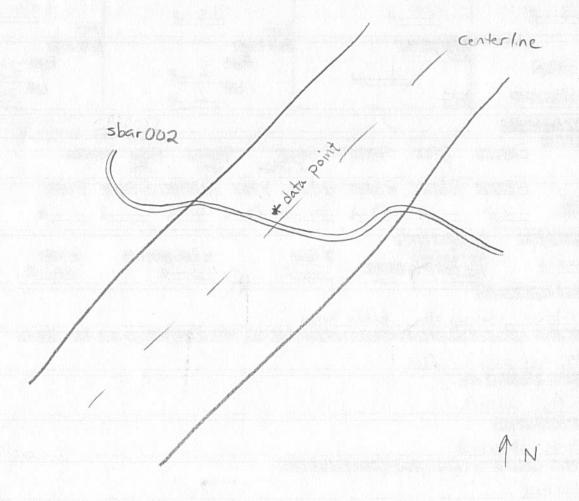
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate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

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

Notes:

Perennial channel, some minor bank fullure

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





Waterbody data point sbar002 facing east upstream.



Waterbody data point sbar002 facing west downstream.



Waterbody data point sbar002 facing north across bank.

Linear Waterbody Data Sheet Survey Description Waterbody Name: Waterbody ID: Date: Project Name: ACP shar 001 3/15/6 UT to Mill Creek Crew Member Initials: Photos: Company: State: County/Parish: S, N, W Bath EST J Benton Associated Wetland ID(s): Tract Number(s): Nearest Milepost: 36-078 wbar 001 104 Survey Type: (check one) □ Centerline KRe-Route ☐ Access Road □Other: **Physical Attributes** Stream Classification: (check one) □Perennial □ Ephemeral Waterbody Type: (check one) X Stream ☐ Ditch ☐ Canal Other: □River OHWM **OHWM Indicator:** MW ater ☐ Shelving □W rested ☐ Scouring Width: X Clear line staining on bank vegetation Soil characteristic change ⊠Bent, matted, or missing ⊠Wrack line Height: □Litter and ☐ Abrupt plant community change debris vegetation N/A Depth of Water: Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Bank to Top of Bank: Water Edge: to Toe of Slope: N/A N/A Bank height Bank slope Sinuosity: Water velocity: (check one) (Approx.) □ Straight 0.5 degrees Meandering degrees N/A Qualitative Attributes Water Appearance: Clear (check one) □No water □Turbid □Sheen □Surface □Algal Other: on surface scum mats ☐ Gravel Silt/ clay Organic Other: Substrate: ☐ Bedrock ☐ Boulder ☐ Cobble ⊠ Sand (check all that apply)
% of Substrate: 60 % 40 % Width of Riparian Zone: Vegetative Layers: ☑ Trees: (check all that apply) Saplings/Shrubs: ☐ Herbs 7100 ft. Avg. DBH of Dominants: 10 in. Dominant Bank Vegetation (list): Acer rubrum, Betila nigra, Carya ovata Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): leaf packs, riffles Aquatic Organisms Observed (list): None observed T&E Species Observed (list): Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): livestock Tributary is: A Natural (check one)

☐ Artificial, man-made

Moderate

Stream Quality *: (check one)

☐ High

☐ Manipulated

□ 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:

Intermittent stream flowing from headwater wetland

Waterbody Sketch (Include north arrow, centerline, distance from centerline, data point location, survey boundary, and IDs of associated features) sharoul wbar 001 centrline



Waterbody data point sbar001 facing south upstream.



Waterbody data point sbar001 facing north downstream.



Linear Waterbody Data Sheet Survey Description Project Name: Waterbody Name: Waterbody ID: 3/23/16 5 bar 015 UT to Mill Creek ACP Crew Member Initials: State: County/Parish: Bath JBanton, NM SE, NW, NE FST Associated Wetland ID(s): Tract Number(s): Nearest Milepost: 36-085 106 wbar 007 Survey Type: □ Centerline ☑Re-Route ☐ Access Road Other: Physical Attributes
Stream Classification: (check one) □ Ephemeral □Intermittent **M**Perennial Waterbody Type: Stream (check one) □River ☐ Ditch ☐ Canal Other: OHWM OHWM Indicator: ₩ ater ☐ Shelving □Wrested ☐ Scouring (check all that apply) D Clear line Width: staining on bank vegetation Soil characteristic change **BLitter** and Height: Bent, matted, or missing Wrack line ☐ Abrupt plant vegetation community change N/A Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Width of Waterbody - Top of Bank to Top of Bank: Water Edge: to Toe of Slope: 0,2 ft. N/A N/A Bank height Bank slope Sinuosity: Water velocity: (check one) (Approx.) ☐ Straight degrees Meandering degrees N/A Qualitative Attributes Water Appearance: Clear □ No water (check one) □Turbid □Sheen ☐ Surface □Algal Other: on surface scum K Gravel ☐ Bedrock ☐ Boulder ☑ Cobble KÓ Sand Silt/ clay Organic Other. Substrate: (check all that apply) % of Substrate: 25 % 35 % 30 % ___ % ___ % Width of Riparian Zone: Vegetative Layers: (check all that apply) Trees: ☑ Saplings/Shrubs: M Herbs Avg. DBH of Dominants: M/A in. N/A[] Dominant Bank Vegetation (list): Pinus strobus, Quercus alba, Rubus argutus, Polystichum acrostichaides Aquatic Habitats (ex submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): Submerged wood, leaf packs, riffles Aquatic Organisms Observed (list): Cuddisfly, mayfly T&E Species Observed (list): None Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): timber harvestin Tributary is: Natural (check one) ☐ Artificial, man-made ☐ Manipulated Stream Quality :: (check one) ☐ High ☑ Moderate □ Low

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E K A Dat

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

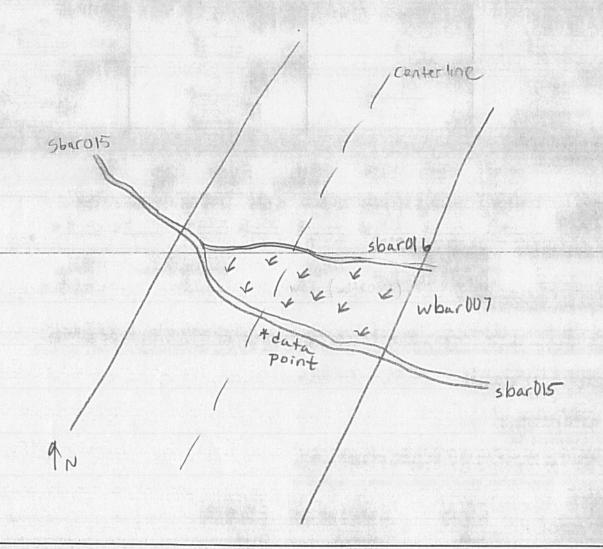
Moderate Quality: Altered channel evidenced by rip-rap; natural vegetation extends 1/3-1/2 of the active channel width on each side; filtering function or riparian vegetation only moderately compromised; banks moderately unstable; water color is cloudy, submerged objects covered with greenish film; moderate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

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

Notes:

Perennial channel with split of associated wetlands

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





Waterbody data point sbar015 facing southeast upstream.





Waterbody data point sbar015 facing northeast across bank.

Linear Waterbody Data Sheet Survey Description Project Name: Waterbody Name: Waterbody ID: Date: spar Olle 3/23/16 ACP Photos: County/Parish: Crew Member Initials: State: SE, NW, NE JB, NM Bath Tract Number(s): Nearest Milepost: Associated Wetland ID(s): Wbar OD Survey Type: □ Centerline (check one) ☑Re-Route ☐Access Road Other: Physical Attributes Stream Classification: (check one) □ Ephemeral □Intermittent Perennial Waterbody Type: (check one) □River Stream ☐ Ditch ☐ Canal ☐ Other: OHWM **OHWM Indicator:** (check all that apply) Clear line on bank Width: ☐ Shelving □Wrested □Water □ Scouring vegetation staining Height: Bent, matted, or missing Wrack line ☐Litter and Soil characteristic change ☐Abrupt plant vegetation debris community change N/A 🗆 Width of Waterbody - Top of Width of Waterbody - Toe of Slope Width of Waterbody - Water Edge to Depth of Water: Bank to Top of Bank: to Toe of Slope: Water Edge: 0,2 # N/A 🗆 N/A 🗆 Sinuosity: Water velocity: Bank height Bank slope (check one) (Approx.) □Straight degrees Meandering N/A 🗆 degrees Qualitative Attributes Water Appearance: □No water Clear (check one) □Turbid □Sheen ☐ Surface □ Algal ☐ Other: on surface scum mats Substrate: □ Bedrock ☐ Boulder Cobble ☑ Gravel Sand Silt clay Organic (check all that apply) 20 % 30 % % of Substrate: Width of Riparian Zone: Vegetative Layers: Trees: (check all that apply) A Herbs Avg. DBH of Dominants: NA in Dominant Bank Vegetation (list): Pinus strobus, Quercus alba, Rubus argutus, Polystichum acrostichoides Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools): submerged wood, riffles, pools, leaf packs Aquatic Organisms Observed (list): stonefly, aquatic worms T&E Species Observed (list): none Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): timber harvesting Tributary is:

(check one)

Stream Quality a: (check one) Natural

☐ High

☐ Artificial, man-made

Moderate

☐ Manipulated

☐ Low

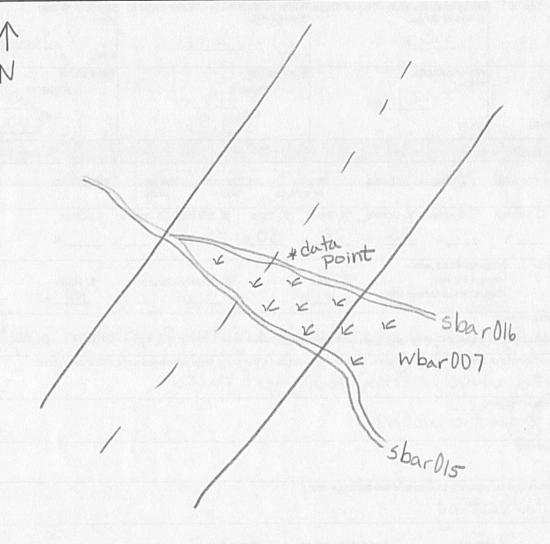
High Quality: Natural, natural bank vegetation around entire waterbody; banks stable and protected by roots; water color is clear to tea-colored; no barriers to fish movement; many fish cover types available; diverse and stable aquatic habitat; no disturbance by livestock or man.

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

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

Notes:

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





Waterbody data point sbar016 facing southeast upstream.





Waterbody data point sbar016 facing northeast across bank.