STREAM ID S-G9	STREAM NAME UNT to Jonnikin Creek
LAT 36.959437 LONG -79.586316	DATE 04/02/2015
PROJECT NAME MVP	CLIENT MVP
INVESTIGATORS G. Stevens, A. Rodrian, S	. Kelly
FLOW REGIME Perennial ✓ Intermittent Ephemeral	WATER TYPE TNW ✓ RPW NRPW

CHANNEL FE	ATURES	Estimate Measurements Top of Bank Width: 4 ft Top of Bank Height: LB 3 ft RB 4 ft Water Depth: 4.00 in Water Width: 2 ft High Water Mark: 36 in		f <u>t</u>	Stream Erosion NoneModerate Artificial, Modified or Char YesNo Dam PresentYes SinuosityLow GradientFlatModerate	nnelized ∠ No Medium High
FLOW CHARACTERI		Water Present No water, stream bed dry Stream bed moist Standing water Flowing water Velocity Fast Moderate Slow			Color Color Color	esented by Stream % turbidTurbid
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)				
Substrate Type	Diame	% Composition in		Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder		mm (10")	10		plant materials (CPOM)	20
Cobble		m (2.5"-10")	50	Muck-Mud	black, very fine organic (FPOM)	0
Gravel Sand		n (0.1"-2.5") nm (gritty)	25		(ITOM)	
Silt		0.06 mm	<u>5</u> 0	Marl	grey, shell fragments	0
Clay		mm (slick)	10	Widii	grey, shell magnicino	
WATERSHED FEATURES		Predominant Surrounding Landus Forest Commercial Field/Pasture Industrial Agricultural Residential Other: Canopy Cover Partly open Partly shade Shaded		cial iial	Indicate the dominant type In	s ceous rate 15-30ft
AQUATIC VEC	SETATION	Indicate the dominant type and record the dominant species present		ingFree floating		

	Culvert at head of stream from pond
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/14/2019. The presence of a stream channel and OHWM was confirmed

Stream ID S-G9



Photograph Direction WSW

Date: <u>04/02/20</u>15

Comments: 2015 stream identification.



Photograph Direction NE

Date: 11/14/2019

STREAM ID S-G8	STREAM NAME UNT to Jonnikin Creek
LAT 36.957804 LONG -79.583494	DATE 04/02/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS G. Stevens, A. Rodrian, S. H	Kelly
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW RPW ✓ NRPW

					Stream Erosion	
		'	k Width: 4.0 ft		NoneModerate	Heavy
		Top of Ban	· ·		Artificial, Modified or Channelized	
		LB <u>1.0 ft</u> RB <u>2.0 ft</u>		Yes _ <u>✓</u> No		
CHANNEL FE	ATURES	Water Depth: 6.00 in		Dam PresentYes _	✓ No	
		Water Width: 2.0 ft			_	
		High Water	Mark: <u>24.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	tion: West		Gradient	
					<u>✓</u> FlatModerate (0.5/100 ft(2 ft/100 ft)	
		Water Pres			Proportion of Reach Repre	sented by Stream
			r, stream bed dry oed moist		Morphology Types Riffle 15 % Run 65	%
F1 014		Standing			Pool 20 %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ ClearSlightly	turbidTurbid
		Fast	Moderate		OpaqueStained	
	<u>✓</u> Slow				Other	
INOR	INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)			
Outs starts	(Siloula	add up to 10				
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")	5		plant materials (CPOM)	30
Cobble		m (2.5"-10")	40	Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")	30		(FPOIVI)	
Sand Silt		nm (gritty) 0.06 mm	20	Marl	grey, shell fragments	
Clay		mm (slick)	5	iviaii	grey, shell fragilierits	
Olay	10.004	` ,	unt Surrounding Lan	duse	Indicate the dominant type	(Check one)
		<u>✓</u> Forest	Commer	cial	<u>✓</u> Trees Shrub	
			astureIndustrial		Grasses Herba	ceous
WATERSHED		Agricult	ural Resident	ial	Floodplain Width	
FEATURES		Other:			Wide > 30ft Moderate 15-30ft	
		Canopy Co			✓ Narrow <16ft	
		Partly open Shaded Open		aded	Wetland Present _v_Yes	No
		_			Wetland ID W-B4 PEM/PSS	
AOHATIC VE	SETATION		e dominant type and Lemergent	d record the o	lominant species present ergentRooted float	ing Free floating
AQUATIC VEGETATION		Rooted emergentRooted submer			9 1 136 110atility	

	Tadpoles
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/15/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction East

Date: 04/02/2015

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/15/2019

STREAM ID S-Q15	STREAM NAME UNT to Jonnikin Creek
LAT 36.957558 LONG -79.583476	DATE 06/19/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A. Stott, A.Grech, L. Sexton	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

Perenniai –	_ mermine	nt <u> — Epnem</u>	erai — TNW —	RPW —	NRPW <u> </u>	
		Estimate N	Neasurements		Stream Erosion	
		Top of Ban	k Width: 5.0 ft		None Moderate .	Heavy
		Top of Ban	k Height:		Artificial, Modified or Chan	nelized
		LB 1.0	in RB <u>6.0</u>	<u>in</u>	✓ Yes No	inenzeu
CHANNEL FE	ATURES	Water Depth: 0.00 in		Dam PresentYes	∠ No	
		Water Widt	h: <u>0.0 ft</u>		Dum resent res	_140
		High Water	Mark: <u>4.0 in</u>		Sinuosity 🔽 Low	Medium High
		Flow Direct	tion: Northwest		Gradient	
						Severe
						(10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
			ned moist		Riffle % Run	%
EL OW		Standing	g water		Pool %	
FLOW CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
			Moderate		OpaqueStained	
	Slow				Other	
INOR	INORGANIC SUBSTRATE COMPONENTS ORGANIC SUBSTRATE COMPONENTS			IPONENTS		
	(should	add up to 100	0%)	(does not necessarily add up to 100%)		
Substrate Type	Diame	% Composition in Sampling Reach		Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")		Detilius	plant materials (CPOM)	30
Cobble	64-256 m	ım (2.5"-10")		Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	10	WIGON-WIGG	(FPOM)	
Sand	0.06-2r	nm (gritty)	10			
Silt		0.06 mm	80	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
			ant Surrounding Lan		Indicate the dominant type	
		Forest Field/Pa	Commer asture Industrial		✓ Trees Shrub: Grasses Herba	
		— Agricult		tial	_	00000
WATERSHED FEATURES		Other:	_		Floodplain Width Wide > 30ft Moder	rate 15-30ft
		Canopy Cover Narrow <16ft				
Partly openPartly shaded			No			
		<u>✓</u> Shaded	OpenOpen		Wetland Present ✓ Yes Wetland ID W-B4 PEM	NO
4011471037	DET 4 7:01:		· · · · · · · · · · · · · · · · · · ·		dominant species present	ing Free fleating
AQUATIC VEGETATION Rooted emergent Rooted submergent Rooted floating Free Attached algae		ingFree floating				
					-	
Information listed on this form represents the data collected in 2015. The stream was revisited						
		on 11/15/20	019. The presence of	a stream char	nnel and OHWM was confirm	ed

	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/15/2019. The presence of a stream channel and OHWM was confirmed
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	

Stream ID S-Q15



Photograph Direction ESE

Date: 06/19/2015

Comments: 2015 stream identification.



Photograph Direction WNW

Date: 11/15/2019

STREAM ID S-A6	STREAM NAME UNT to Rocky Creek
LAT 36.952100 LONG -79.580120	DATE 04/01/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S.Yarbrough, C.Stoliker, J.H	leule
FLOW REGIME Perennial — Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Perennial 4	Intermitte	nt Epheme	eral TNW	RPW 💆	NRPW —	
Estimate Measurements Top of Bank Width: 5.0 ft Top of Bank Height:			Stream Erosion			
		Top of Ban	Top of Bank Width: 5.0 π		✓ NoneModerate	Heavy
		Top of Ban	k Height:		Artificial, Modified or Char	nnelized
		LB 3.0	in RB <u>3.0</u>	<u>in</u>	Yes ✓ No	
CHANNEL FE	ATUDES	Water Dept	Vater Depth: 4.00 in			
CHANNEL FE	ATURES	Water Widt			Dam PresentYes _	<u>∕</u> No
			Mark: <u>6.0 in</u>		Sinuosity Low	Medium 🔽 High
			Disastina Fast			_ •
		Flow Direct	IOII. <u>Last</u>		Gradient Flat <u>✓</u> Moderate _	Severe
						(10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types	-
			ped moist		Riffle 10 % Run 50) %
FLOW		Standing	•		Pool 40 %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			Clear Slightly	
			✓ Moderate		OpaqueStainedOther	
		Slow		1		
INOR		STRATE CO add up to 10			RGANIC SUBSTRATE CON does not necessarily add u	
Substrate	(Siloulu a	add up to 10	% Composition in		loes not necessarily add u	% Composition in
Type	Diame	ter	Sampling Reach	Type	Characteristic	Sampling Area
Bedrock					sticks, wood, coarse	
Boulder	> 256	mm (10")	5	Detritus	plant materials (CPOM)	20
Cobble		m (2.5"-10")	10		black, very fine organic	
Gravel	2-64 mm	1 (0.1"-2.5")	10	Muck-Mud	(FPOM)	
Sand	0.06-2n	nm (gritty)	40			
Silt	0.004-0	0.06 mm	45	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)]		
		Predomina	ant Surrounding Lar	nduse	Indicate the dominant type	(Check one)
		<u>✓</u> Forest	Commer	cial <u>v</u> Trees Shrubs		
		— Field/Pa			_	
WATERSHED	1	Other:	Kesideli	Floodplain Width Wide > 30ft ✓ Moder		
FEATURES		_ ••				rate 15-30ft
	Canopy Cover			Narrow <16ft		
	Partly open _ <u>✓</u> Partly s Shaded Open		. —	aded	Wetland Present ✓ Yes	No
		— Shaded	OpenOpen		Wetland ID W-A5	
		Indicate the dominant type and record the dominant species present				
AQUATIC VE	·			Rooted subme	<u>—</u>	tingFree floating
Floating algaeAttached algae						
Information listed on this form represents the data collected in 2015. The stream was revisited			ream was revisited			
on 11/16/2019. The presence of a stream channel and OHWM was confirmed			eu			
OR OTHER						
WILDLIFE OBSERVED/OTHER						
OBSERVATION NOTES						
1 40123		Ī				

V5 2015



Photograph Direction East

Date: 04/01/2015

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/16/2019

STREAM ID S-H11 Braid	STREAM NAME UNT to Rocky Creek
LAT 36.949642 LONG -79.579558	DATE 11/22/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A. Stott, A. Grech	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

i elelililai =	intermitte	пі— прпепі	<u> </u>	101 VV —	1414 77 —		
			Measurements k Width: 2.0 ft		Stream Erosion None Moderate	Heavy	
		Top of Ban					
		LB_3.0	· ·	in	Artificial, Modified or Chan Yes ✓ No	inelized	
CHANNEL FEATURES			th: 0.00 in	_	Dam PresentYes	<u>_</u> No	
			Mark: 2.0 in		Sinuosity 🔽 Low	Medium High	
		ľ	tion: South		Cuadiant		
		1 1011 211000			Gradient ✓ Flat Moderate _	Severe	
					(0.5/100 ft (2 ft/100 ft)	(10 ft/100 ft)	
FLOW		Water Present ✓ No water, stream bed dry _ Stream bed moist _ Standing water			Proportion of Reach Representation of Reach Representa	sented by Stream	
CHARACTERISTICS		Velocity Fast Slow	water Moderate		Turbidity ClearSlightly turbidTurbid OpaqueStainedOther		
INOR					DRGANIC SUBSTRATE COMPONENTS		
	(should	add up to 100		(does not necessarily add up to 100%)			
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder		mm (10")	5		plant materials (CPOM)	70	
Cobble		m (2.5"-10")	5	Muck-Mud	black, very fine organic		
Gravel		n (0.1"-2.5")	40		(FPOM)		
Sand		nm (gritty)	45	NAI			
Silt		0.06 mm		Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)	not Currentina I an	d	Indicate the deminent type	(0) 1	
WATERSHED FEATURES		Predominant Surrounding Landuse ✓ Forest Commercial Field/Pasture Industrial Agricultural Residential Other:		cial tial	Indicate the dominant type Trees Shrub: Grasses Herbar Floodplain Width Wide > 30ft Moder Narrow <16ft	s	
		Canopy Cover ✓ Partly open			Wetland PresentYes Wetland ID	<u>✓</u> No	
AQUATIC VEGETATION		1 — —		d record the or Rooted submo Attached alga	ergentRooted float	ingFree floating	
	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/15/2019. The presence of a stream channel and OHWM was confirmed						

	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/15/2019. The presence of a stream channel and OHWM was confirmed
MACROINVERTEBRATES OR OTHER WILDLIFE	
OBSERVED/OTHER OBSERVATIONS AND NOTES	

Stream ID S-H11



Photograph Direction NNE

Date: <u>04/01/2015</u>

Comments: 2015 stream identification.



Photograph Direction SSE

Date: 11/15/2019

STREAM ID S-F2	STREAM NAME UNT to Rocky Creek
LAT 36.944227 LONG -79.57121	DATE 04/02/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS E. Strohmaier, L. Summers	, D. McCullough
FLOW REGIME Perennial — Intermittent— Ephemeral	WATER TYPE TNW — RPW — NRPW ✓

			leasurements		Stream Erosion		
		Top of Ban	k Width: 7.0 ft		None Moderate	Heavy	
		Top of Ban	k Height:		Artificial, Modified or Char	nnelized	
		LB 2.0	ft RB <u>2.0</u>	<u>ft</u>	Yes ⊂ <u></u> No		
CHANNEL FEATURES		Water Dept	h: 0.00 in		D D	. N.	
		Water Widt	h: <u>0.0 ft</u>		Dam PresentYes	Z NO	
		High Water	Mark: <u>2.0 in</u>		Sinuosity 🔽 Low	Medium High	
		Flow Direct	ion: Southwest		Gradient		
					Flat Moderate _	Severe	
		14/ 4 B			, ,	(10 ft/100 ft)	
		Water Pres ✓ No wate	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream	
			ped moist		Riffle % Run	%	
FLOW		Standing			Pool %		
CHARACTER	ISTICS	Flowing water			Turbidity		
		Velocity			ClearSlightly turbidTurbid OpaqueStained		
		Fast Moderate					
		Slow			Other		
INOR		STRATE CO		ORGANIC SUBSTRATE COMPONENTS			
	(should	add up to 100			(does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder		mm (10")			plant materials (CPOM)	90	
Cobble		m (2.5"-10")		Muck-Mud	black, very fine organic	0	
Gravel		1 (0.1"-2.5")	5		(FPOM)	Ŭ	
Sand		nm (gritty)	20			0	
Silt		0.06 mm	65	Marl	grey, shell fragments	, and the second	
Clay	< 0.004	mm (slick)	10				
		Predominant Surrounding Landuse ✓ Forest Commercial			Indicate the dominant type ✓ Trees Shrub		
		Field/Pa			Grasses Herba		
		Agricult	ural Resident	tial			
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Moder	rate 15-30ft	
		Canopy Co	over		✓ Narrow <16ft		
		<u>✓</u> Partly o		aded	Wetlered Breezert - Ver	4 No	
		Shaded	Open		Wetland PresentYes Wetland ID	<u>v</u> No	
					dominant species present		
AQUATIC VE	GETATION		· —	Rooted subme	<u> </u>	ingFree floating	
		Floating	g aigae	Attached alga	<u> </u>		

	Stream S-F2 is confluent to stream S-C7.
	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/15/2019. The presence of a stream channel and OHWM was confirmed
OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	



Photograph Direction NNE

Date: 04/02/2015

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 11/15/2019

STREAM ID S-C7	STREAM NAME UNT to Rocky Creek
LAT 36.944069 LONG -79.57148	DATE 04/02/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS L.Harloe, K.Lamontagne, A.	Flake, E. Strohmaier, L. Summers, D. McCullough
FLOW REGIME Perennial — Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

			leasurements		Stream Erosion			
		-	k Width: 20.0 ft		NoneModerate	Heavy		
		Top of Ban	· ·		Artificial, Modified or Char	nelized		
		LB <u>5.0</u>	ft RB <u>5.0</u>	<u>ft</u>	Yes No			
CHANNEL FE	CHANNEL FEATURES		th: 8.00 in		Dam PresentYes _	∠ No		
		Water Widt	h: 13.0 ft			_		
		High Water	Mark: <u>36.0 in</u>		Sinuosity Low	Medium High		
		Flow Direct	tion: Southwest		Gradient			
					<u>✓</u> FlatModerate (2 ft/100 ft)	Severe		
		Water Pres	sent		Proportion of Reach Repre	,		
			r, stream bed dry		Morphology Types	-		
		_	ped moist		Riffle 25 % Run 15	%		
FLOW		Standing	•		Pool 60 %			
CHARACTER	STICS	Flowing water			Turbidity			
		Velocity			✓ Clear — Slightly turbid — Turbid — Opaque — Stained — Other			
		Fast ✓ Slow	Moderate					
INORGANIC SUBSTRAT			MOONENTS			IDONENTO		
INOR		add up to 10		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)				
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area		
Bedrock			0	Datritus	sticks, wood, coarse			
Boulder	> 256	mm (10")	0	Detritus	plant materials (CPOM)	5		
Cobble	64-256 m	m (2.5"-10")	20	Muck-Mud	black, very fine organic	0		
Gravel	2-64 mm	า (0.1"-2.5")	15	WIGOK-WIGG	(FPOM)	0		
Sand	0.06-2r	nm (gritty)	25			0		
Silt		0.06 mm	10	Marl	grey, shell fragments	U		
Clay	< 0.004	mm (slick)	30					
		Predominant Surrounding Landuse ✓ Forest Commercial			Indicate the dominant type ✓ Trees Shrub			
		Field/Pa			Grasses Herba			
****		Agricult		tial	Elecatele Width			
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft ✓ Moder	ate 15-30ft		
		Canopy Co	over		Narrow <16ft			
		<u>✓</u> Partly c		aded	Wetland Donount V 4 1			
		Shaded	Open		Wetland PresentYes Wetland ID	<u>v</u> NO		
			e dominant type and	d record the o	dominant species present			
AQUATIC VEGETATION				Rooted subme Attached alga	ergentRooted float	ingFree floating		
		ı ıvatılı	y aiyac	ritaci i c u aiya	∪			

	S-F2 and S-F1 are tributaries to this perennial creek. Terrace development. Cattle grazing. In cow pasture
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/15/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction North

Date: 04/02/2015

Comments: 2015 stream identification.

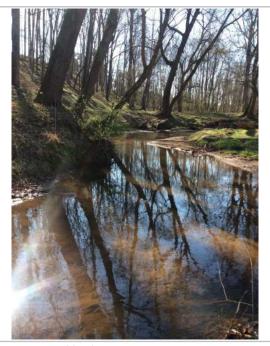


Photograph Direction South

Date: 11/15/2019

STREAM ID				STREAM NA			Creek	
CLIENT MVI				PROJECT N	AME MVI	Р		
LAT 36.929	687 <u>L</u>	ong -79.526	108	STATE Virgi	nia		COUNTY Pittsylvania	
INVESTIGATO	ORS L.Harle	oe, K.Lamontagne, A	. Flake, E.	Strohmaier, L. Su	ummers, D. Mc	Cullo	Dugh DATE 04/01/2015	
WATER TYPE TNW	WATER TYPE TNW RPW NRPW Perennial Intermittent Ephemeral							
Estimate Massuramenta Sinuscity Low & Madium High								
CHANNEL FEATURES		Estimate Measurements Top of Bank Width:18 ft Top of Bank Height: LB1 ft		Sinuosity Low Medium High Gradient Flat Moderate Severe (2 ft/100 ft) Stream Erosion None Moderate Heavy Artificial, Modified or Channelized Yes No Within Roadside Ditch Yes No Culvert Present Yes No Culvert Material: Culvert Size: in				
FLOW CHARACTER	Water Preser No water, s Stream bec Standing w Flowing wa Velocity Fast Slow	stream be d moist vater			P M R P	roportion of Reach Repres florphology Types (Only enter tiffle 10 % Run 60 Pool 30 % Furbidity Clear	er if water present) %	
INOR	INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) 100				_	RGANIC SUBSTRATE COM		
Substrate Type	•	meter	% Co	mposition in pling Reach	Substra Type	ate	Characteristic	% Composition in Sampling Area
Bedrock					Detritus		sticks, wood, coarse	
Boulder	> 25	56 mm (10")			Delilius		plant materials (CPOM)	5
Cobble	64-256	6 mm (2.5"-10")	10		Muck-Mu	ıd	black, very fine organic	
Gravel	2-64 r	mm (0.1"-2.5")	20		WIGGK WIG	1	(FPOM)	
Sand	0.06	-2mm (gritty)	40					
Silt	0.00	04-0.06 mm	30		Marl		grey, shell fragments	
Clay < 0.004 mm (slick) Predominant Surrounding Landuse ✓ Forest — Commercial — Field/Pasture — Industrial — Agricultural — Residential — ROW — Other: Canopy Cover — Open ✓ Partly shaded — Shaded Floodplain Width — Wide > 30ft ✓ Moderate 15-30ft — Narrow <15ft Canopy Cover — Open ✓ Partly shaded								
MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS								
Milk dumped into stream Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed.								

Stream ID S-C3



Photograph Direction North

Date: <u>04/01/2015</u>

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/16/2019

			<u> </u>					
STREAM ID					to Harpen Creek			
CLIENT MVF			PROJECT N	AME MVF	·			
LAT 36.929	<u>711 г</u>	ong -79.5265	554 STATE Virgin	nia	COUNTY Pittsylvania			
INVESTIGATO	JRS L.Harle	oe, K.Lamontagne, A.	Flake, E. Strohmaier, L. Su	ummers, D. Mc	Cullough DATE 04/01/2015			
WATER TYPE TNW	RPW	NRPW _	FLOW REG Perennial		ittent Ephemeral			
		T martin and a Beller			Of the Law of Madison High			
		Top of Bank H	Vidth:4 ft	ft	Sinuosity Low Medium High Gradient Flat (0.5/100 ft) Moderate Severe (2 ft/100 ft) (10 ft/100 ft) Stream Erosion			
		Water Depth:	2.0 <u>0</u> _ in		None Moderate Heavy			
		Water Width:			Artificial, Modified or Channelized			
CHANNEL FE	ATURES		Water Mark (Width):	ვ∩ ft	Yes No			
			, ,		Within Roadside Ditch			
			Water Mark (Height)		Yes V No			
		Flow Direction	: East	-	Culvert Present Yes _ No			
1					Culvert Material:			
					Culvert Size:in			
FLOW		Water Present No water, stream bed dry Stream bed moist Standing water Flowing water			Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle 30 % Run 70 % Pool 0 %			
CHARACTERI	STICS	Prowing water			Turbidity			
		Velocity			Clear Slightly turbid Turbid			
		Fast	Moderate		Other			
		Slow						
		UBSTRATE COM Id add up to 100)%) 100		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)			
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substra Type	I Characteristic '			
Bedrock				Detritus	sticks, wood, coarse			
Boulder	> 25	56 mm (10")			plant materials (CPOM)			
Cobble		6 mm (2.5"-10")	25	Muck-Mu	black, very fine organic			
Gravel		mm (0.1"-2.5")	25	Wide	(FPOM)			
Sand		i-2mm (gritty)	10					
Silt		04-0.06 mm	40	Marl	grey, shell fragments			
Clay	< 0.00	04 mm (slick)						
WATERSHED FEATURES		✓ Forest	Other:	al	Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <15ft			
MAC	ROINVER	TEBRATES/OT	HER WILDLIFE OBS	SERVED OF	R OTHER NOTES AND OBSERVATIONS			
				JENTED C.	TOTHER HOTEO AND ODDERVATIONS			
Information liste	Milk flowing into stream. Tributary to S-C3. Perennial stream. Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed.							

Stream ID S-C4



Photograph Direction West

Date: <u>04/01/2015</u>

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/16/2019

STREAM ID S-H13	STREAM NAME Harpen Creek		
LAT 36.92508 LONG-79.517343	DATE 04/02/2015		
PROJECT NAME MVP	CLIENT MVP		
INVESTIGATORS A. Stott, A. Grech, H. He	ist, team a		
FLOW REGIME ✓ Perennial Intermittent Ephemeral	WATER TYPE TNW ✓ RPW NRPW		

			leasurements k Width: 20 ft		Stream Erosion None Moderate	Heavy	
		Top of Ban	k Height:				
CHANNEL FEATURES		LB 2		ft	Artificial, Modified or Char Yes ✓ No	nelizea	
		Water Dept	h: 10.00 in	_			
CHANNEL FE	AIURES	Water Widt			Dam Present Yes	<u>∠</u> No	
		High Water	Mark: 24 in		Sinuosity Low	Medium High	
					Gradient		
					Flat Moderate _		
		Water Pres	4		(0.5/100 ft (2 ft/100 ft)	,	
			sent r, stream bed dry		Proportion of Reach Representation Morphology Types	esented by Stream	
			ped moist		Riffle % Run	%	
FLOW		Standing	•		Pool %		
CHARACTER	ISTICS	Flowing water			Turbidity		
		Velocity			Clear Slightly	turbid <u></u> Turbid	
		Fast Moderate Slow			Opaque Stained Other		
INOD	04110 0110	_	MBONENTO			4DONENTO	
INOR		STRATE CO			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic % Composition Sampling A		
Bedrock				Detritus	sticks, wood, coarse		
Boulder	> 256	mm (10")	5	Detilius	plant materials (CPOM)	45	
Cobble	64-256 m	ım (2.5"-10")	0	Muck-Mud	black, very fine organic		
Gravel		า (0.1"-2.5")	25		(FPOM)		
Sand		nm (gritty)	35				
Silt		0.06 mm	35	Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)	0				
		Predominant Surrounding Landuse Forest Commercial			Indicate the dominant type ✓ Trees Shrubs		
		Field/Pa	asture Industrial		Grasses Herba		
WATERCHER.		Agricult	ural Resident		Floodplain Width		
WATERSHED FEATURES		Other:			Wide > 30ft Mode	rate 15-30ft	
					✓ Narrow <16ft		
		Partly o		aded	Wetland PresentYes <u>✓</u> No		
		<u></u> ✓ Open	Shaded		Wetland ID	<u></u>	
					dominant species present		
AQUATIC VE	GETATION			Rooted subme Attached alga	ergentRooted float	ting Free floating	
				Allacited alya			

Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed

Stream Photograph Page

Stream ID S-H13



Photograph Direction SSW

Date: 04/02/2015

Comments: 2015 stream identification.



Photograph Direction SSW

Date: 11/16/2019

STREAM ID S-G6	STREAM NAME UNT to Harpen Creek			
LAT 36.92068 LONG -79.505898	DATE 04/01/2015			
PROJECT NAME MVP	CLIENT MVP			
INVESTIGATORS G. Stevens, A. Rodrian, S	s. Kelly			
FLOW REGIME Perennial ✓ Intermittent Ephemeral	WATER TYPE TNW ✓ RPW NRPW			

CHANNEL FEATURES		Top of Ban Top of Ban LB 4 Water Dept	ft RB <u>3</u> th: 1.00 in	f <u>t</u>	Stream Erosion Nonev Moderate Artificial, Modified or CharYesv No Dam PresentYesv Sinuosity Lowv Gradientv FlatModerate	nnelized ∠No Medium High
					(0.5/100 ft (2 ft/100 ft)	(10 ft/100 ft)
FLOW Standing Standing Flowing Velocity		r, stream bed dry bed moist g water		Proportion of Reach Representations of Reach R	% turbidTurbid	
INOR		STRATE CO	-	_	RGANIC SUBSTRATE CON	-
Substrate Type	Diame	<u> </u>	% Composition in Sampling Reach	Substrate Type	1	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder		mm (10")	5	200.100	plant materials (CPOM)	75
Cobble		m (2.5"-10")	15	Muck-Mud	black, very fine organic	0
Gravel		1 (0.1"-2.5")	25		(FPOM)	
Sand Silt		nm (gritty) 0.06 mm	40	Marl	arov shall fragments	0
Clay		mm (slick)	0 15	iviaii	grey, shell fragments	
		ant Surrounding Lan Commer asture Industrial ural Resident	cial tial	Indicate the dominant type In	s ceous rate 15-30ft	
AQUATIC VEGETATION Roote		Rooted	emergent	d record the d Rooted submo	dominant species present ergent Rooted float	ingFree floating

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES

Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID s-G6



Photograph Direction South

Date: 04/01/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/16/2019

STREAM ID S-G5	STREAM NAME UNT to Harpen Creek			
LAT 36.917678 LONG -79.496609	DATE 04/01/2015			
PROJECT NAME MVP	CLIENT MVP			
INVESTIGATORS G. Stevens, A. Rodrian, S	. Kelly			
FLOW REGIME Perennial Intermittent ✓ Ephemeral	WATER TYPE TNW RPW ✓ NRPW			

CHANNEL FEATURES		Top of Ban Top of Ban LB 6 Water Dept	ft RB <u>3</u> h: 1.00 in	f <u>t</u>	Stream ErosionNoneV_Moderate Artificial, Modified or CharYesV_No Dam PresentYesV SinuosityLow Gradient	nnelized
					✓ FlatModerate (0.5/100 ft (2 ft/100 ft)	
FLOW CHARACTERISTICS Stream bed r Standing wa Flowing wate Velocity		r, stream bed dry bed moist g water		Proportion of Reach Representations of Reach R	% turbidTurbid	
INOR		STRATE CO	-	ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diame	<u> </u>	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	00
Boulder		mm (10")	0		plant materials (CPOM)	90
Cobble Gravel		m (2.5"-10")	10 30	Muck-Mud	black, very fine organic (FPOM)	0
Sand		nm (gritty)	50		()	
Silt		0.06 mm	0	Marl	grey, shell fragments	0
Clay	< 0.004	mm (slick)	10		3 1,7 1 13 1	
<u>✓</u> Forest		over pen <u>✓</u> Partly sh	cial l tial	Indicate the dominant type In	s ceous rate 15-30ft	
AQUATIC VEGETATION		Rooted	emergent		dominant species present ergent Rooted float	ingFree floating

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES

Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID s-G5



Photograph Direction South

Date: 04/01/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/16/2019

STREAM ID S-G4	STREAM NAME Harpen Creek			
LAT 36.916404 LONG -79.492645	DATE 04/01/2015			
PROJECT NAME MVP	CLIENT MVP			
INVESTIGATORS G. Stevens, A. Rodrian, S	. Kelly			
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW ✓ RPW NRPW			

Top of Bank Top of Bank LB 6 f Water Depti Water Width		ft RB <u>4</u> th: <u>6.00 in</u>	f <u>t</u>		nnelized <u>∕</u> No	
FLOW Standing Flowing CHARACTERISTICS Stream I Standing Flowing Velocity		r, stream bed dry bed moist g water		Proportion of Reach Representations of Reach R	% turbidTurbid	
INOR		STRATE CO			RGANIC SUBSTRATE CON does not necessarily add u	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	45
Boulder		mm (10")	20		plant materials (CPOM)	15
Crovel		m (2.5"-10")	45	Muck-Mud	black, very fine organic (FPOM)	0
Gravel Sand		n (0.1"-2.5") nm (gritty)	20		(I I OM)	
Silt		0.06 mm	10 0	Marl	grey, shell fragments	0
Clay		mm (slick)	5		groy, enem magimente	
, , ,		ant Surrounding Landuse Commercial asture Industrial tural Residential Diver Open Partly shaded		Indicate the dominant type V Trees Shrubs Grasses Herbaceous Floodplain Width Wide > 30ft Moderate 15-30ft V Narrow <16ft Wetland Present Yes No Wetland ID None		
AQUATIC VEGETATION		Rooted	emergent	d record the d Rooted submo Attached alga	dominant species present ergent Rooted float	tingFree floating

Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-G4



Photograph Direction South

Date: <u>04/01/2015</u>

Comments: 2015 stream identification.



Photograph Direction South

Date: 11/16/2019

STREAM ID S-G3	STREAM NAME UNT to Harpen Creek		
LAT 36.915700 LONG -79.490006	DATE 04/01/2015		
PROJECT NAME MVP	CLIENT MVP		
INVESTIGATORS G. Stevens, A. Rodrian, S	. Kelly		
FLOW REGIME ✓ Perennial Intermittent Ephemeral	WATER TYPE TNW ✓ RPW NRPW		

		ı				
			lleasurements k Width: 9 ft		Stream Erosion	Hoove
		'	K WIGHT.		NoneModerate .	<u> —</u> пеаvy
					Artificial, Modified or Chan	nelized
					Yes _ No	
CHANNEL FE	ATURES	Water Dept	th: 3.00 in		Dam Present Yes	✓ No
		Water Width: 6 ft			Dani Flesent les _v	_110
		High Water	Mark: 6 in		Sinuosity Low	Medium High
					Gradient	
					—	Severe
					, ,	(10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
			ned moist		Riffle 15 % Run 80	%
F1 014		— Standing	g water		Pool 5 %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water		-	
					Turbidity ✓ ClearSlightly t	turbidTurbid
		Velocity Fast	✓ Moderate		✓ ClearSlightly turbidTurbid OpaqueStained	
		Slow	Woderate		Other	
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	PONENTS
		add up to 10		_	does not necessarily add up	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	0	Detilius	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	20	- Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	55	WIGGE-WIGG	(FPOM)	0
Sand	0.06-2r	nm (gritty)	20			0
Silt	0.004-	0.06 mm	0	Marl	grey, shell fragments	U
Clay	< 0.004	mm (slick) 5				
	•		<u>-</u>			
			ant Surrounding Lar		Indicate the dominant type	
		<u></u> Forest	ant Surrounding Lar Commer	cial	<u>✓</u> Trees Shrub	S
		✓ Forest Field/Pa	ant Surrounding Lar Commer asture Industria	rcial I		S
WATERSHED		Forest Field/Pa Agricult	ant Surrounding Lar Commer asture Industria	rcial I	✓ TreesShrub: GrassesHerbar Floodplain Width	s ceous
WATERSHED FEATURES		✓ Forest Field/Pa	ant Surrounding Lar Commer asture Industria	rcial I	✓ Trees Shrub: Grasses Herbar Floodplain Width Wide > 30ft Moder	s ceous
		Forest Field/Pa Agricult Other: Canopy Co	ant Surrounding Lar Commer asture Industria rural Residen	rcial I tial	✓ TreesShrub: GrassesHerbar Floodplain Width	s ceous
		Forest Field/Pa Agricult Other: Canopy Ca Partly of	ant Surrounding Lar Commer asture Industria Resident Over open Partly sh	rcial I tial	✓ Trees Shrub: Grasses Herbar Floodplain Width Wide > 30ft Moder	s ceous rate 15-30ft
		Forest Field/Pa Agricult Other: Canopy Co	ant Surrounding Lar Commer asture Industria Resident Over open Partly sh	rcial I tial	✓ Trees Shrub: Grasses Herbar Floodplain Width Wide > 30ft ✓ Narrow <16ft	s ceous rate 15-30ft
FEATURES		✓ Forest — Field/Pa — Agricult — Other: Canopy Ca — Partly ca — Shadec	ant Surrounding Lar Commer asture Industria Resident Over open Partly sh	rcial I I I I I I I I I I I I I I I I I I I	✓ Trees Shrub: ✓ Grasses Herbar Floodplain Width ✓ Wide > 30ft Moder ✓ Narrow <16ft Wetland Present Wetland ID None dominant species present	s ceous rate 15-30ft No
		✓ Forest — Field/Pa — Agricult — Other: Canopy Ca — Partly Ca — Shaded Indicate th — Rooted	ant Surrounding Lar Commer asture Industria Resident Over open Partly sh e dominant type and emergent	rcial I tial aded	Trees Shrub: Grasses Herbar Floodplain Width Wide > 30ft Moder ✓ Narrow <16ft Wetland Present Wetland ID None dominant species present ergent Rooted float	s ceous rate 15-30ft

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES

Information listed on this form represents the data collected in 2015. The stream was revisited on 11/16/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID s-G3



Photograph Direction SW

Date: 04/01/2015

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/16/2019

STREAM ID S-CC16	STREAM NAME UNT to Harpen Creek
LAT 36.91304 LONG -79.485401	DATE 07/17/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perennial _	<u> </u>	nt <u> Ephem</u>	eral TNW	RPW –	NRPW	
		Fatimata N			Otro or Errolon	
			/leasurements k Width: <u>11.0 ft</u>		Stream ErosionNone ✓ Moderate	Heavv
		Top of Ban			-	-
				Artificial, Modified or Channelized		
		Water Depth: 3.00 in		YesNo		
CHANNEL FE	ATURES	·	th: 47.0 in		Dam PresentYes _	<u>∠</u> No
					Sinuosity 🗸 Low	Medium High
		J	Mark: 14.0 in			Tilgii
		Flow Direc	tion: West		Gradient Flat _ ✓ Moderate _	Savara
					—	(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types Riffle 30 % Run 55	%
		Stream Standin			Pool 15 %	70
FLOW CHARACTER	ISTICS	Flowing	•			
		V-114			Turbidity <u>✓</u> ClearSlightly	turbidTurbid
		Velocity Fast	✓ Moderate		Opaque Stained	
		Slow			Other	
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	MPONENTS
	(should a	add up to 10	,	,	loes not necessarily add u	<u> </u>
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder		mm (10")	20	Detritus	plant materials (CPOM)	10
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic	5
Gravel		(0.1"-2.5")	15		(FPOM)	3
Sand		nm (gritty)	40			0
Silt		0.06 mm	15	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	0	duco	Indicate the dominant type	(Chaolagae)
		Forest	ant Surrounding Lar Commer		✓ Trees Shrub	
		Field/PastureIndustrial			Grasses Herba	iceous
WATERSHED		Agricultural Residentia		tial	Floodplain Width	
FEATURES		Other:			Wide > 30ft✓ Mode	rate 15-30ft
		Canopy Co	over		Narrow <16ft	
		Partly open Partly sha		aded	Wetland Present Yes	✓ No
		Shaded	OpenOpen		Wetland ID	
AOUATONE	OFTATION				Iominant species present	ling Frog floation
AQUATIC VE	GETATION		_	Rooted subme Attached algae	_	tingFree floating
				,auu a.ga.		
MACROINVE	RTEBRATES					
OR OTHER WILDLIFE						
OBSERVED/C						
NOTES						

STREAM ID S-CC14	STREAM NAME UNT to Cherrystone Creek
LAT 36.905275 LONG -79.471495	DATE 07/16/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS LM, JH, CL, LS	
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Es		Estimate Measurements		Stream Erosion			
		Top of Bank Width: 8.0 ft		None Moderate Heavy			
		Top of Bank Height:			Artificial, Modified or Channelized		
		LB <u>4.0</u>	ft RB <u>3.5</u>	<u>ft</u>	Yes ✓ No		
CHANNEL FE	ATHRES	Water Dep	th: 0.50 in		— —		
CHANNELTE	ATORES	Water Widt	th: 30.0 in		Dam PresentYes	<u>∕</u> No	
		High Water	Mark: 10.0 in		Sinuosity Low	Medium High	
		Flow Direct	tion: South		Gradient		
					∍radieπτ ✓ FlatModerateSevere		
					,	(10 ft/100 ft)	
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	esented by Stream	
			bed moist		Riffle 45 % Run 30	%	
EL OW		Standing			Pool 25 %		
FLOW CHARACTER	ISTICS	✓ Flowing	water		Turbidity		
		Velocity			✓ ClearSlightly	turbidTurbid	
			✓ Moderate		OpaqueStained		
		Slow			Other		
INOR		STRATE CO	-	_	RGANIC SUBSTRATE CON	-	
	(should a	add up to 10	,	·	does not necessarily add u	1	
Substrate Type	Diame	ter % Composition Sampling Read		Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock		0		Detritus	sticks, wood, coarse		
Boulder		mm (10")	0	20111100	plant materials (CPOM)	15	
Cobble		m (2.5"-10")	0	Muck-Mud	black, very fine organic	25	
Gravel		n (0.1"-2.5")	0		(FPOM)	25	
Sand		nm (gritty)	30			0	
Silt		0.06 mm	60	Marl	grey, shell fragments		
Clay	< 0.004	mm (slick) 10			Indicate the dominant type (Charles are)		
Predomin: ✓ Forest		ant Surrounding Landuse Commercial		Indicate the dominant type (Check one) ✓ Trees Shrubs			
			Field/Pasture Industria		Grasses Herba		
WATERSHED		Agricultural Residential			Floodplain Width		
FEATURES		Other:			Wide > 30ft Mode	rate 15-30ft	
		Canopy Co	over		✓ Narrow <16ft		
		Partly open ✓ Partly shaded			Wetland Present ✓ Yes	No	
		ShadedOpen			Wetland ID W-CC2	140	
					lominant species present	_	
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating					
			y aiyae	Attached alga	U		
		1					
			Information listed on this form represents the data collected in 2015. The stream was revisited on 11/17/2019. The presence of a stream channel and OHWM was confirmed.				
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES		· ·					

Stream ID s-cc14



Photograph Direction East

Date: <u>07/16/2015</u>

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/17/2019

STREAM ID S-CC13	STREAM NAME UNT to Cherrystone Creek
LAT 36.905230 LONG -79.471619	DATE 07/16/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Perennial _	Intermitte	ent <u></u> Epheme	eral TNW	RPW <u>✓</u>	NRPW —		
		:					
			Measurements k Width: 7.0 ft		Stream ErosionNone✓ Moderate .	Heavy	
		Top of Bani	k Height:		Artificial, Modified or Chan	inelized	
		LB <u>2.0</u>	ft RB <u>2.0</u>		Yes _ <u>√_</u> No		
CHANNEL FE	ATURES	Water Dept	th: <u>0.50 in</u>		Dem Branant Von	/ No	
		Water Widt	:h: 17.0 in		Dam PresentYes _✓	<u> </u>	
		High Water	r Mark: <u>11.0 in</u>		Sinuosity Low	Medium High	
		Flow Direct	tion: North		Gradient		
					✓ FlatModerate (2 ft/100 ft)	Severe (10 ft/100 ft)	
-		Water Pres	sent		Proportion of Reach Repre	,	
		No water	er, stream bed dry		Morphology Types		
			bed moist		Riffle 20 % Run 0 %		
FLOW	TOTIOS	Standing			Pool 80 %		
CHARACTER	ISTICS		wate.		Turbidity		
		Velocity Fast	Moderate		Clear Slightly t Opaque Stained	turbidTurbid	
		✓ Slow	IVIOUGIAIC	Other			
INOR	GANIC SUB	STRATE CO	MPONENTS	O	RGANIC SUBSTRATE COM	IPONENTS	
	(should a	add up to 100		,	does not necessarily add up	, , , , , , , , , , , , , , , , , , ,	
Substrate Type	Diame	:ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock	<u> </u>		0	Detritus	sticks, wood, coarse	0.5	
Boulder	> 256 mm (10")		0		plant materials (CPOM)	25	
Croyol	64-256 mm (2.5"-10")		0	Muck-Mud	black, very fine organic (FPOM)	20	
Gravel Sand	2-64 mm (0.1"-2.5")		30		(11 0111)		
Sanu	0.06-2mm (gritty) 0.004-0.06 mm		60 Marl		grey, shell fragments 0	0	
Clay	< 0.004 mm (slick)		10	111011	groy, enon nagmente		
,			ant Surrounding Landuse		Indicate the dominant type	(Check one)	
		✓ Forest Commercial		rcial	✓ Trees Shrubs	S	
		Field/Pasture Industrial Agricultural Residential			GrassesHerbac	ceous	
WATERSHED FEATURES	1	Other:		uai	Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <16ft		
PEATURES							
		Canopy Cover ✓ Partly open Partly shaded			<u></u>		
		ShadedOpen			Wetland Present <u>✓</u> Yes Wetland ID w-cc2	No	
		Indicate th	e dominant type and		dominant species present		
AQUATIC VE	AQUATIC VEGETATION		✓ Rooted emergentRooted submergentRooted floatingFree floating				
		Floating	g algae	Attached algae	<u> </u>		
							
			· · · · · · · · · · · · · · · · · · ·	•	lata collected in 2015. The str nnel and OHWM was confirme		
MACROINVERTEBRATES OR OTHER WILDLIFE			719. The prosonoc of	a sucam onan	IIICI ana Orivvivi was commi	su.	
OBSERVED/C	OBSERVED/OTHER						
OBSERVATIONS AND NOTES							
1							

Stream ID s-cc13



Photograph Direction South

Date: 07/16/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: <u>11/17/2019</u>

STREAM ID S-MM8	STREAM NAME UNT to Cherrystone Creek
LAT 36.902975 LONG -79.468234	DATE 08/24/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Grech, A. Stott, M. Whitte	n
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

i cicililai =		nt <u> </u>	erai rivvv	RPW —	NRPW	
		Fatherata I			Otas Fara-i	
			/leasurements k Width: <u>6.0</u> ft		Stream Erosion ✓ NoneModerate	Heavy
		Top of Bank Height:		Artificial, Modified or Char	nnelized	
		LB <u>3.0</u>	in RB <u>4.0</u>	<u>in</u>	Yes _ <u>✓</u> No	
CHANNEL FE	ATURES	Water Dep	th: 2.00 in		Dam PresentYes _	∠ No
		Water Widt				
		·	Mark: <u>3.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	tion: Southwest		Gradient Madarata	0
						Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle 50 % Run 20	%
FLOW		Standing	•		Pool 30 %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
		Fast Slow	✓ Moderate		OpaqueStainedOther	
INORGANIC SUBSTRATE COM		MPONENTS	0	RGANIC SUBSTRATE CON	IPONENTS	
	(should add up to 10			_	loes not necessarily add u	-
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")		Dountad	plant materials (CPOM)	20
Cobble	64-256 mm (2.5"-10")		10	Muck-Mud	black, very fine organic (FPOM)	
Gravel Sand		nm (gritty)	10		(I FOW)	
Silt		0.06 mm	50 40	Marl	grey, shell fragments	
Clay		mm (slick)	40		g.cy, c.i.c.i ii ag.i.iciiia	
,		Predomina	ant Surrounding Lan	iduse	Indicate the dominant type	(Check one)
		Forest	Commer		Trees	
		✓ Field/PastureIndustrial Agricultural Residential		tial	<u> </u>	
WATERSHED FEATURES Canopy Partly		Other:			Floodplain Width Wide > 30ft Moderate 15-30ft	
		Canopy Cover		✓ Narrow <16ft	idio 10 don	
		Partly open Partly shaded		Wetland Present ✓ Yes No		
		Shaded	led Open		Wetland ID w-MM5	NO
Indicate the dominate the domin				lominant species present ergent Rooted float	ing Froe fleeting	
		oted emergentRooted submerger pating algae Attached algae		<u> </u>	ingFree floating	
Information listed on this form re						
			019. The presence of	f a stream chai	nnel and OHWM was confirm	ned.
MACROINVEI OR OTHER	RIEBRATES	1				
WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES						

Stream ID <u>s-MM8</u>



Photograph Direction NE

Date: <u>08/24/2015</u>

Comments: 2015 stream identification.



Photograph Direction SW

Date: 11/17/2019

STREAM ID S-CC15	STREAM NAME UNT to Cherrystone Creek
LAT 36.901864 LONG -79.466564	DATE 07/16/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial — Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

	intermitte	пі— Ерпепі	•			
		Fetimate N	Measurements		Stream Erosion	
		Top of Bank Width: 6.0 ft		None <u>✓</u> Moderate .	Heavy	
		Top of Banl	k Height:		Artificial, Modified or Channelized	
		LB <u>2.5 ft</u> RB <u>4.0 ft</u>		Yes <u>✓</u> No		
CHANNEL FE	ATURES	Water Dept	th: 2.00 in		Dam Procent Vos	. No
		Water Widt	h: 2.0 ft		Dam PresentYes	NO
		High Water	Mark: <u>4.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: Southwest		Gradient	
					—	Severe
		Water Pres	cont		(0.5/100 ft (2 ft/100 ft) Proportion of Reach Repre	(10 ft/100 ft)
			r, stream bed dry		Morphology Types	-
		Stream b			Riffle 50 % Run 50	%
FLOW		Standing Flowing	•		Pool 0 %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			✓ Clear — Slightly t	turbidTurbid
		Fast . Slow	<u>✓</u> Moderate		OpaqueStainedOther	
			MDONENTS			IDONENTS
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)			
Substrate Type	Diameter		% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Dotritus	sticks, wood, coarse	
Boulder	> 256 mm (10")		0	Detritus	plant materials (CPOM)	40
Cobble	64-256 mm (2.5"-10")		0	Muck-Mud	black, very fine organic	10
Gravel	2-64 mm (0.1"-2.5")		0	Widok Widd	(FPOM)	10
Sand	0.06-2mm (gritty)		75			0
Silt		0.004-0.06 mm 15		Marl	grey, shell fragments	Ŭ
Clay	< 0.004	mm (slick)	10	-1	In dia station of a surface of the same	(2)
			Predominant Surrounding Landuse Forest Commercial		Indicate the dominant type Trees Shrubs	(Check one)
			Field/Pasture Industrial		Grasses Herbaceous	
WATERSHED	<u> </u>	Agricultural Residential		ial	Floodplain Width	
FEATURES Ca		Other:			Wide > 30ft Moderate 15-30ft	
		Canopy Cover		✓ Narrow <16ft		
					Wetland Present _ Yes No	
		Snaded	ShadedOpen		Wetland ID w-MM7	
				dominant species present	ina Fara floration	
AQUATIC VEC	AQUATIC VEGETATION		✓ Rooted emergentRooted submergentRooted floatingFree floating algae Attached algae			ingFree floating
			<u></u>			
		Information	listed on this form re	presents the d	ata collected in 2015. The str	eam was revisited
					nnel and OHWM was confirme	
MACROINVER	RTEBRATES	;				
OR OTHER WILDLIFE	THE					

	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/17/2019. The presence of a stream channel and OHWM was confirmed.
MACROINVERTEBRATES OR OTHER	
WILDLIFE OBSERVED/OTHER	
OBSERVATIONS AND NOTES	



Photograph Direction NE

Date: 07/16/2015

Comments: 2015 stream identification.



Photograph Direction SW

Date: 11/17/2019

STREAM ID S-CC8	STREAM NAME UNT to Cherrystone Creek
LAT 36.899414 LONG -79.462700	DATE 07/15/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perenniai —	<u> </u>	nt— Lpneme	erai rivvv	RPW —	NRPW —	
		Estimate N	/leasurements		Stream Erosion	
	ļ		k Width: 10.0 ft		None Moderate	Heavy
		Top of Bank	k Height:		Artificial, Modified or Chan	nelized
ĺ		LB <u>3.0</u> f	ft RB <u>2.0</u>	f.	Yes _ <u>✓</u> No	
CHANNEL FE	ATURES	Water Dept	th: 3.00 in		Dam Brasant Vos	. No
		Water Widtl	h: 8.0 ft		Dam PresentYes	_
		High Water	r Mark: <u>18.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	tion: Southwest		Gradient	
		1			✓ FlatModerate (0.5/100 ft (2 ft/100 ft)	Severe (10 ft/100 ft)
	+	Water Pres	sent		Proportion of Reach Repre	,
			r, stream bed dry		Morphology Types	-
		Stream b	bed moist		Riffle 0 % Run 0 Pool 100 %	%
FLOW CHARACTERI	ISTICS	Flowing			100	
CHARACIEN	151105				Turbidity	Turbid Turbid
	!	Velocity Fast	Moderate		ClearSlightly t ✓ OpaqueStained	turbidTurbid
		✓ Slow	IVIOUETALC		Other	
INOF	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	PONENTS
		add up to 100		_	does not necessarily add up	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder		mm (10")	0	Detritus	plant materials (CPOM)	10
Cobble		nm (2.5"-10")	0	Muck-Mud	black, very fine organic	90
Gravel		n (0.1"-2.5")	0		(FPOM)	30
Sand	1	mm (gritty)	100	-	-1- all fragmente	0
Silt		0.06 mm	0	Marl	grey, shell fragments	
Clay	< 0.004 i	mm (slick)	0 ant Surrounding Lan	24100	Indicate the dominant type	(Obselvens)
ĺ	ļ	Forest	ant Surrounding Lan Commer	rcial	Indicate the dominant type ✓ Trees Shrubs	
ĺ		Field/Pa	astureIndustrial	I	Grasses Herbaceous Floodplain Width	
WATERSHED	,	Agriculti Other:	tural Resident			
FEATURES		_ Oulei.			Wide > 30ft Moder	ate 15-30ft
ĺ			nopy Cover		✓ Narrow <16ft	
ĺ		✓ Partly o Shaded	. — . ·	aded	Wetland PresentYes	<u>✓</u> No
					Wetland ID	-
Indicate the dominant type and record the			d record the d Rooted subme		ina Free floating	
			Attached algae	<u> </u>		
				•		
		Well define	d stream channel is r	not directly con	nected to surrounding stream	ns. Large population
ĺ					ent water feeds S-CC5.	5
MACROINVER OR OTHER	RTEBRATES	ا ز				
WILDLIFE OBSERVED/O	-TUED					
OBSERVATIO						
NOTES						



Photograph Direction $\underline{\text{NE}}$

Comments:

STREAM ID S-CC5	STREAM NAME UNT to Cherrystone Creek
LAT 36.899373 LONG -79.46261	DATE 07/15/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

					Stream Erosion	Hoove
			k Width: 12.0 ft		NoneModerate	пеаvy
		Top of Bank	ŭ		Artificial, Modified or Char	nnelized
		LB <u>29.0</u>	n RB <u>24.0</u>	<u>in</u>	Yes No	
CHANNEL FE	ATURES	Water Dept	h: <u>3.50 in</u>		Dam Present Yes	∠ No
		Water Widt	h: <u>5.0 ft</u>		- -	
		High Water	Mark: <u>10.0 in</u>		Sinuosity Low	Medium <u>v</u> High
		Flow Direct	ion: East		Gradient	
						Severe
		Water Dree	4			(10 ft/100 ft)
		Water Pres No water	r, stream bed dry		Proportion of Reach Representation Morphology Types	esented by Stream
		Stream b			Riffle 40 % Run 40	%
FLOW		Standing			Pool 20 %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			Clear Slightly	
		<u>✓</u> Fast Moderate		OpaqueStained		
Slow				T	Other	
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS			
Cubatrata	(Siloulu d	add up to Tot	·	(does not necessarily add up to 100%) Substrate % Composition in		
Substrate Type	Diame	ter	% Composition in Sampling Reach	Type	Characteristic	Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder		mm (10")	0		plant materials (CPOM)	30
Cobble		m (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	20
Gravel		(0.1"-2.5")	40		(FPOIVI)	
Sand Silt		nm (gritty) 0.06 mm	15	Marl	arov shall fragments	0
Clay		mm (slick)	15 0	IVIAII	grey, shell fragments	
Clay	× 0.004	` ′		dusa	Indicate the dominant type	(Chack and)
		Predominant Surrounding Landuse Forest Commercial			Trees \(\subseteq \text{Shrub}	
		✓ Field/Pa			Grasses Herba	ceous
WATERSHED	WATERSHED		ural Resident	tial	Floodplain Width	
FEATURES		Other:			Wide > 30ft <u>✓</u> Mode	rate 15-30ft
		Canopy Co			Narrow <16ft	
		<u>✓</u> Partly o Shaded	· <u> </u>	aded	Wetland Present Yes	✓ No
			Open		Wetland ID	<u> </u>
A OLIATION (C	OFTATION:	Indicate the	e dominant type and	d record the d	dominant species present	ting Froe fleeting
AQUATIC VE	JE I A I IUN	✓ Rooted emergent — Rooted submergent — Rooted floating — Free floatin				ingriee iloating

	Larger floodplains at stream curves encompassed by 12 foot bank full width. Several 2" anthropoids found in stream. (2015)
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/17/2019. The presence of a stream channel and OHWM was confirmed.



Photograph Direction West

Date: 07/15/2015

Comments: 2015 stream identification.



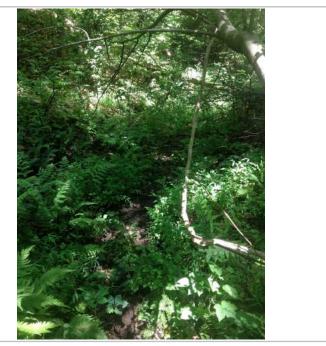
Photograph Direction East

Date: 11/17/2019

STREAM ID S-CC9	STREAM NAME UNT to Cherrystone Creek
LAT 36.89795 LONG -79.457992	DATE 07/15/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial — Intermittent— Ephemeral	WATER TYPE TNW — RPW — NRPW ✓

Perennial _	<u> </u>	nt Epheme	eral TNW	RPW	NRPW <u> </u>	
			leasurements		Stream Erosion None Moderate	Ноэм
CHANNEL FE	ATURES	Top of Banl LB <u>1.0</u> Water Dept Water Widt	k Height: ft RB <u>15.0 i</u> h: <u>0.00 in</u> h: <u>0.0 ft</u> Mark: <u>9.0 in</u>	<u>n</u>	Artificial, Modified or Chan Yes No Dam Present Yes Sinuosity Low Gradient Flat Moderate	nnelized ∠ No Medium High
FLOW CHARACTER		Stream by Standing Flowing Velocity Fast Slow	r, stream bed dry bed moist g water water Moderate		Proportion of Reach Repre Morphology Types Riffle 0 % Run 0 Pool 0 % Turbidity Clear Slightly Opaque Stained Other	% turbidTurbid
INOR	INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)			
Substrate Type	Diame	-	% Composition in Sampling Reach	Substrate Type		% Composition in Sampling Area
Bedrock Boulder	> 256	mm (10")	0 10	Detritus	sticks, wood, coarse plant materials (CPOM)	25
Cobble Gravel		ım (2.5"-10") n (0.1"-2.5")	5 15	Muck-Mud	black, very fine organic (FPOM)	50
Sand	0.06-2r	nm (gritty)	50			0
Silt		0.06 mm	10	Marl	grey, shell fragments	0
Clay < 0.004 mm (slick) 10			s ceous rate 15-30ft			
AQUATIC VE	AQUATIC VEGETATION Indicate the dominant type and record the dominant species Rooted emergentRooted submergentF Floating algae Attached algae			ergentRooted float	ingFree floating	
				aonoa aiga		
					lata collected in 2015. The str	

MACROINVERTEBRATES
OR OTHER
WILDLIFE
OBSERVATIONS AND
NOTES
Information listed on this form represents the data collected in 2015. The stream was revisited on 11/17/2019. The presence of a stream channel and OHWM was confirmed.



Photograph Direction North

Date: 07/15/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: <u>11/17/2019</u>

STREAM ID S-CC10	STREAM NAME UNT to Cherrystone Creek
LAT 36.897195 LONG -79.456163	DATE 07/15/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JH, LM, LS, CL	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perenniai –		nt <u> </u>	erai INVV	RPW —	NRPW —	
					<u> </u>	
Тор		Estimate Measurements Top of Bank Width: 9.0 ft		Stream ErosionNone✓ Moderate Heavy		
		Top of Bank Height:				
			· ·		Artificial, Modified or Char	nelized
		LB <u>30.0</u>		<u>in</u>	Yes No	
CHANNEL FE	ATURES		th: 1.00 in		Dam PresentYes _	✓ No
		Water Widt	h: 50.0 in			_
		High Water	Mark: <u>9.0 in</u>		Sinuosity Low	Medium <u>~</u> High
		Flow Direct	tion: Northeast		Gradient	
					Flat Moderate	✓ Severe (10 ft/100 ft)
		Water Pres			, ,	,
			r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
			ped moist		Riffle 40 % Run 20	%
FLOW		Standing	g water		Pool 40 %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ ClearSlightly	turbidTurbid
		Fast	Moderate		OpaqueStained	
		✓ Slow			Other	
INOR		STRATE CO			RGANIC SUBSTRATE COM	
	(should	add up to 10			does not necessarily add u	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	10	Detritus	plant materials (CPOM)	70
Cobble	64-256 m	m (2.5"-10")	0	Muck-Mud	black, very fine organic	30
Gravel	2-64 mm	า (0.1"-2.5")	0		(FPOM)	30
Sand		nm (gritty)	40			0
Silt		0.06 mm	30	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	20			
		Predomina ✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/P	_		Grasses Herba	
		Agricult		ntial		
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft ✓ Moderate 15-30ft	
		0	Canopy Cover ✓ Partly open Partly shaded		Narrow <16ft	ate 10 don
					_	
		. —	Shaded Open		Wetland PresentYes Wetland ID	<u>✓</u> No
Indicate the dominant type and record the dominant species present						
AQUATIC VEGETATION Rooted emergent Rooted submergent Rooted floating			ing Free floating			
Floating algaeAttached algae			_			
						_
		Information	listed on this form re	presents the d	ata collected in 2015. The str	ream was revisited
					nnel and OHWM was confirm	
MACROINVER	RTEBRATES	3				
OR OTHER WILDLIFE						
OBSERVED/C						
NOTES						



Photograph Direction SW

Date: 07/15/2015

Comments: 2015 stream identification.



Photograph Direction NE

Date: 11/17/2019

STREAM ID S-MM10	STREAM NAME UNT to Cherrystone Creek
LAT 36.895982 LONG -79.452851	DATE 08/24/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Grech, A. Stott, M. Whitte	n
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Perennial _	<u> </u>	nt <u> </u>	eral TNW	RPW –	NRPW —	
		·				
		Estimate Measurements Top of Bank Width: 7.0 ft			Stream Erosion ✓ NoneModerate .	Heavy
		Top of Bank	k Height:		Artificial, Modified or Chan	nolizod
		LB 2.0	ft RB 2.0		Yes ✓ No	inelized
CHANNEL FE	ATUDEO		th: 1.00 in	_		
CHANNEL FE	ATURES	Water Widt			Dam PresentYesv	<u>∕</u> No
			Mark: 1.0 in		Sinuosity Low	Medium High
		Flow Direct				– •
		1 low blicct	ion		Gradient Flat Moderate	Severe
						(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
		Stream b	r, stream bed dry		Morphology Types Riffle % Run	%
		Standing			Pool %	,-
FLOW CHARACTER	ISTICS	Flowing	water		T	
		Volocity			Turbidity Clear ✓ Slightly f	turbidTurbid
		Velocity Fast	Moderate		OpaqueStained	
		✓ Slow			Other	
INORGANIC SUBSTRATE COMPONENT				_	RGANIC SUBSTRATE COM	
	(should a	add up to 100	· '		does not necessarily add up	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Camping Reach	Турс	sticks, wood, coarse	Gampling Area
Boulder	> 256	mm (10")		Detritus	plant materials (CPOM)	50
Cobble		ım (2.5"-10")	20		black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	30	Muck-Mud	(FPOM)	50
Sand	0.06-2n	nm (gritty)	30			
Silt	0.004-0	0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
			ant Surrounding Lan		Indicate the dominant type	
		Forest Field/Pa	Commer asture Industrial		ial <u>v</u> Trees Shrubs Grasses Herbaceous	
		Agricult		tial	_	
WATERSHED FEATURES	'	Other:			Floodplain Width Wide > 30ft Moderate 15-30ft	
		Canany Ce	Canopy Cover		✓ Narrow <16ft	ate to con
		Partly o	Partly openPartly shaded			
		✓ Shaded			Wetland PresentYes Wetland ID	<u>✓</u> No
Indicate the dominant type and record the dom			Iominant species present			
AQUATIC VEGETATIONRooted emergentR			Rooted subme	ergentRooted float	ingFree floating	
Floating algae			Attached algae	e		
					ata collected in 2015. The str	
)19. The presence of	a stream char	nnel and OHWM was confirme	ed.
MACROINVER OR OTHER	RTEBRATES	;				
WILDLIFE OBSERVED/C	THER					
OBSERVATION NOTES						
NOTES						

Stream Photograph Page

Stream ID S-MM10



Photograph Direction West

Date: <u>08/24/2015</u>

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/17/2019

STREAM ID S-CC11	STREAM NAME UNT to Cherrystone Creek
LAT 36.895822 LONG -79.452918	DATE 07/15/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS LC, KG, KB	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perennial Intermittent Ephemeral TNW RPW NRPW NRPW								
CHANNEL FEATURES		Estimate Measurements Top of Bank Width: 8.0 ft			Stream ErosionNone <u>✓</u> ModerateHeavy			
		Top of Bank Height:			Artificial, Modified or Channelized Yes No			
		LB 2.5 ft RB 3.0 ft						
		Water Depth: 1.00 in						
		Water Width: 5.0 ft			Dam PresentYes _v_No SinuosityLowMedium _v_High Gradient			
		High Water Mark: 10.0 ft						
		Flow Direction: Northeast						
					Gradient <u>✓</u> FlatModerateSevere			
					(0.5/100 ft (2 ft/100 ft) (10 ft/100 ft)			
FLOW CHARACTERISTICS		Water Present No water, stream bed dry			Proportion of Reach Represented by Stream Morphology Types Riffle 70 % Run 5 % Pool 25 % Turbidity Clear Slightly turbid Turbid			
		Stream bed moist						
		Standing water						
		Flowing water						
		Velocity						
		Fast Moderate Slow			OpaqueStained Other			
INOR		SSTRATE COMPONENTS		_	ORGANIC SUBSTRATE COMPONENTS			
		add up to 100			does not necessarily add up	•		
Substrate Type	Diameter		% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area		
Bedrock			0		sticks, wood, coarse	- F G		
Boulder	> 256 mm (10")		5	Detritus	plant materials (CPOM)	20		
Cobble	64-256 mm (2.5"-10")		15	- Muck-Mud	black, very fine organic (FPOM)	10		
Gravel	2-64 mm (0.1"-2.5")		30					
Sand	0.06-2mm (gritty)		50			0		
Silt	0.004-0.06 mm		0	Marl	grey, shell fragments	U		
Clay	< 0.004	mm (slick)	0					
WATERSHED FEATURES		Predominant Surrounding Landuse ✓ Forest Commercial Field/Pasture Industrial			Indicate the dominant type (Check one) Trees Shrubs Grasses Herbaceous			
							Agricultural Residential	
		Other: Canopy Cover						
					Partly openPartly shaded			Wetland PresentYes _v_No Wetland ID
		<u>✓</u> Shaded Open						
				Indicate the dominant type and record the dominant species present				
		AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating				
Floating algaeAttached algae								
		Information listed on this form represents the data collected in 2015. The stream was revisited on 11/17/2019. The presence of a stream channel and OHWM was confirmed.						
MACROINVER	RTEBRATES	·						
OR OTHER WILDLIFE								
OBSERVED/C								
OBSERVATIO NOTES	UNA GNU							

V5 2015



Photograph Direction NE

Date: 07/15/2015

Comments: 2015 stream identification.



Photograph Direction NE

Date: 11/17/2018