Stream ID S-LL1



Photograph Direction SE

Date: 08/12/2015

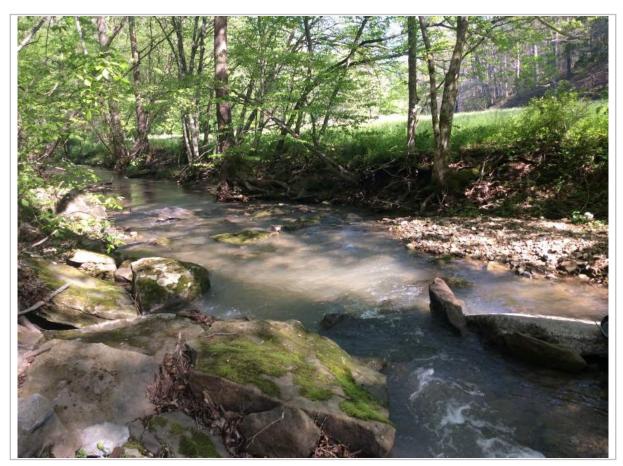
Comments: 2015 stream identification.



Photograph Direction SE

Date: 09/25/2019

STREAM ID	S-IJ27		STREAM NA	STREAM NAME Little Knawl Creek			
CLIENT MVP			PROJECT N	PROJECT NAME MVP			
LAT 38.80998		ONG -80.55057			COUNTY Braxton		
INVESTIGATO	ORS E. Fo	oster, S. Therkild	dson				
WATER TYPE		NRPW [FLOW REG Perennial	IME Intermit	ttent Ephemeral		
		Estimate Mea	asurements		Sinuosity Low 🗸	Medium High	
Top of Bank Width Top of Bank Heigh LB2.0 ft Water Depth:3.0			Width: 20.0 ft Height:	ft	Gradient Flat <u>✓</u> Mo	oderate Severe (100 ft) (100 ft)	
				"	✓ None Moderate	Heavy	
		Water Width:			Artificial, Modified or Chan	_ ,	
CHANNEL FE	ATURES	·		00 0 ft	Yes ✓ No		
			n Water Mark (Width):		Within Roadside Ditch		
		, ,	n Water Mark (Height)). <u>12.U</u> IN	Yes _ <u>✓</u> No)	
		Flow Direction	n: vvest	_	Culvert PresentYes		
					Culvert Material:		
					Culvert Size: in		
		Water Presei	nt		Proportion of Reach Repres	sented by Stream	
			stream bed dry		Morphology Types (Only ente	er if water present)	
		Stream bed			Riffle 50 % Run 50) %	
FLOW		Standing v			Pool %		
CHARACTER	CHARACTERISTICS Flowing w		Flowing water		Turbidity		
		Velocity			Clear Slightly to	urbidTurbid	
		Fast _ ∠ Slow	✓ Moderate		Other		
INORGANIC SUBSTRATE COMPON							
INOR	_				ORGANIC SUBSTRATE COM		
	_	UBSTRATE CO ld add up to 10	0%) 100		(does not necessarily add u	p to 100%)	
Substrate Type	(shou				(does not necessarily add u	p to 100%)	
Substrate Type Bedrock	(shoul	ld add up to 10	0%) 100 % Composition in	Substrate	Characteristic sticks, wood, coarse	p to 100%) % Composition in	
Substrate Type Bedrock Boulder	(shoul	meter 56 mm (10")	9% Composition in Sampling Reach	Substrate Type	(does not necessarily add u	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble	Shoul Dia > 28 64-256	meter 56 mm (10") 6 mm (2.5"-10")	9%) 100 % Composition in Sampling Reach 20 30	Substrate Type	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble Gravel	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5")	9%) 100 % Composition in Sampling Reach 20 30 30	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM)	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble Gravel Sand	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty)	9%) 100 % Composition in Sampling Reach 20 30	Substrate Type Detritus Muck-Mud	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Shoul Dia	meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm	9%) 100 % Composition in Sampling Reach 20 30 30	Substrate Type Detritus	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble Gravel Sand	Shoul Dia	dd add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick)	% Composition in Sampling Reach 20 30 30 20	Substrate Type Detritus Muck-Mud Marl	characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Shoul Dia	dd add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick)	9%) 100 % Composition in Sampling Reach 20 30 30	Substrate Type Detritus Muck-Mud Marl	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant	9% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu—Commercia	Substrate Type Detritus Muck-Mud Marl	characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Shoul Dia	756 mm (10") 756 mm (2.5"-10") 75 mm (2.5"-10") 75 mm (9ritty) 75	9 Composition in Sampling Reach 20 30 30 20 t Surrounding Landu Commerciature Industrial Residential	Substrate Type Detritus Muck-Mud Marl	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dia	756 mm (10") 756 mm (2.5"-10") 75mm (0.1"-2.5") 75mm (gritty) 75mm (gritty) 75mm (slick)	9 Composition in Sampling Reach 20 30 30 20 t Surrounding Landouture Commerciature Industrial	Substrate Type Detritus Muck-Mud Marl	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl use	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commerciature — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl use	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl use	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Narrow <15ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Narrow <15ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Narrow <15ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Narrow <15ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Narrow <15ft Modera	p to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agriculture ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 20 30 30 20 t Surrounding Landu — Commercia — Industrial — Residential — Other: er — Partly shad	Substrate Type Detritus Muck-Mud Marl use al	Characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Narrow <15ft Modera	p to 100%) % Composition in Sampling Area	



Photograph Direction $\underline{^{NW}}$

STREAM ID			STREAM NA	STREAM NAME UNT to Little Knawl Creek			
CLIENT MV	CLIENT MVP			PROJECT NAME MVP			
LAT 38.8096		ONG -80.53723	1 DATE 05/07/	/2016	COUNTY Braxton		
INVESTIGATO	ORS E. Fo	ster, S. Therkild	son				
TNW	RPW [NRPW [FLOW REG Perennial	IME Intermitte	ent Ephemeral 🗸		
CHANNEL FEATURES Water Depth: 0.00 Water Width: 0.0 Ordinary High Water			Vidth:5.0ft Height: t	ft : 1.0 ft : 6.0 in 1	Gradient Flat Mo (0.5/100 ft) (2 ft) Stream Erosion ✓ None Moderate Artificial, Modified or Chang ✓ Yes No Within Roadside Ditch — Yes ✓ No Culvert Present Yes Culvert Material: Culvert Size:in	nelized	
FLOW CHARACTERISTICS Water Present No water, stream Stream bed mois Standing water Flowing water Velocity Fast Slow			tream bed dry I moist vater		Proportion of Reach Repres Morphology Types (Only enter Riffle % Run Pool % Turbidity Clear Slightly to Other	sented by Stream er if water present) % urbidTurbid	
INORGANIC SUBSTRATE COMPOI				_	RGANIC SUBSTRATE COM	IPONENTS	
	(shou	ld add up to 100	0%) 100	(0	does not necessarily add u	p to 100%)	
Substrate Type		ld add up to 100 meter	% Composition in Sampling Reach	Substrate Type	Characteristic		
	Dia	meter	% Composition in	Substrate Type	Characteristic sticks, wood, coarse	% Composition in	
Type Bedrock Boulder	Dia > 25	meter 56 mm (10")	% Composition in	Substrate	Characteristic	% Composition in	
Type Bedrock Boulder Cobble	Dia > 29 64-256	meter 56 mm (10") 5 mm (2.5"-10")	% Composition in Sampling Reach 30 30	Substrate Type	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic	% Composition in Sampling Area	
Type Bedrock Boulder Cobble Gravel	Dia > 28 64-256 2-64 r	meter 56 mm (10") 5 mm (2.5"-10") nm (0.1"-2.5")	% Composition in Sampling Reach 30 30 30	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM)	% Composition in Sampling Area	
Type Bedrock Boulder Cobble Gravel Sand	> 29 64-256 2-64 r	meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty)	% Composition in Sampling Reach 30 30	Substrate Type Detritus Muck-Mud	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	% Composition in Sampling Area	
Type Bedrock Boulder Cobble Gravel Sand Silt	> 25 64-256 2-64 r 0.06 0.00	meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 14-0.06 mm	% Composition in Sampling Reach 30 30 30	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic	% Composition in Sampling Area	
Type Bedrock Boulder Cobble Gravel Sand	> 29 64-256 2-64 r 0.06 0.00 < 0.00	meter 56 mm (10") 5 mm (2.5"-10") nm (0.1"-2.5") -2mm (gritty) 14-0.06 mm 14 mm (slick)	% Composition in Sampling Reach 30 30 30 10 Surrounding Landu — Commercia ure — Industrial al — Residential — Other:	Substrate Type Detritus Muck-Mud Marl	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments	% Composition in Sampling Area	
Type Bedrock Boulder Cobble Gravel Sand Silt Clay	> 29 64-256 2-64 r 0.06 0.00 < 0.00	meter 56 mm (10") 5 mm (2.5"-10") nm (0.1"-2.5") -2mm (gritty) 14-0.06 mm 14 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove	% Composition in Sampling Reach 30 30 30 10 Surrounding Landu — Commercia — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	% Composition in Sampling Area 40	



Photograph Direction SW

STREAM ID			STREAM NA	STREAM NAME UNT to Little Knawl Creek			
CLIENT MV	CLIENT MVP			PROJECT NAME MVP			
LAT 38.80798		ONG -80.53525		DATE 04/24/2016 COUNTY Braxton			
INVESTIGATO	DRS D Ha	dersbeck, J Mc	Guirk, C Sapusek				
WATER TYPE		NRPW [FLOW REGIME Perennial Intermittent Ephemeral			
		Estimate Mea	asurements		Sinuosity Low V	Medium High	
			Vidth: <u>15.0</u> ft Height: t RB <u>2.0</u>	ft	Gradient Flat <u>✓</u> Mo	derate Severe (10 ft/100 ft)	
Water Depth: 4.0					Artificial, Modified or Chann	nelized	
CHANNEL FE	CHANNEL FEATURES Water Width: 5.0		 Water Mark (Width):	70 ft	Yes ✓ No		
					Within Roadside Ditch		
		, ,	Water Mark (Height)	: <u>6.0</u> In	Yes <u>✓</u> No		
		Flow Direction	n: <u>vvest</u>	-	Culvert PresentYes		
					Culvert Material:		
					Culvert Size: in		
		Water Brees				antad by Stroom	
FLOW CHARACTER	Water Present No water, stream Stream bed mois Standing water Flowing water Velocity Water Present No water, stream Stream bed mois Standing water Velocity		stream bed dry d moist vater ter		Proportion of Reach Repres Morphology Types (Only ente Riffle 30 % Run 40 Pool 30 % Turbidity Clear Other Other	r if water present) %	
		Fast _ <u>/</u> Slow	_ Moderate		Other		
INOR	GANIC SI	JBSTRATE CO	MPONENTS		ORGANIC SUBSTRATE COM	PONENTS	
		d add up to 10			(does not necessarily add up		
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substrate Type	e Characteristic	% Composition in Sampling Area	
Bedrock			5	Detritus	sticks, wood, coarse		
Boulder	> 25	56 mm (10")	20	Detritus	plant materials (CPOM)	20	
Cobble	64-256	mm (2.5"-10")	30	Muck-Mud	black, very fine organic		
Gravel		nm (0.1"-2.5")	40	Widok Wido	(FPOM)		
Sand	0.06	-2mm (gritty)	5				
Silt	0.00	4-0.06 mm		Marl	grey, shell fragments		
Clay	< 0.00	04 mm (slick)					
WATERSHED FEATURES	Predominant Surrounding Landuse ✓ Forest Commercial — Field/Pasture Industrial — Agricultural Residential — ROWOther: Canopy Cover — Open ✓ Partly shaded _ Shaded Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <15ft					te 15-30ft	
MAC	ROINVER	TEBRATES/OT	HER WILDLIFE OBS	ERVED OR	OTHER NOTES AND OBSER	VATIONS	



Photograph Direction West

STREAM ID S-JJ01	STREAM NAME UNT to Keith Run
LAT 38.786665 LONG -80.530247	DATE 08/11/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS JC, GB, JA	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perenniai -		nt <u> </u>	erai INVV —	RPW —	NRPW —		
		F-414- 1			04		
CHANNEL FEATURES		Estimate Measurements Top of Bank Width: 14.0 ft			Stream Erosion None ✓ Moderate — Heavy		
		Top of Bank Height:				ricavy	
			· ·		Artificial, Modified or Char	nnelized	
		LB <u>3.0</u>	ft RB <u>3.0</u>	<u>ft</u>	Yes _ <u>✔</u> No		
		Water Dep	th: 3.00 in		Dam PresentYes _	∠ No	
		Water Widt	h: <u>6.0 ft</u>			<u>/ </u>	
		High Water	Mark: <u>17.0 in</u>		Sinuosity <u>v</u> Low	Medium High	
		Flow Direct	tion: ESE		Gradient		
					<u>✓</u> FlatModerate _	Severe	
					,	(10 ft/100 ft)	
		Water Pres			Proportion of Reach Repre Morphology Types	esented by Stream	
			r, stream bed dry bed moist		Riffle 50 % Run 35	%	
		Standing			Pool 15 %		
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	-				
		V-114			Turbidity <u>✓</u> ClearSlightly	turbidTurbid	
		Velocity Fast	Moderate		OpaqueStained		
		✓ Slow	Moderate		Other		
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	//PONENTS	
		add up to 10		_	does not necessarily add u		
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Dotritus	sticks, wood, coarse		
Boulder	> 256	mm (10")		Detritus	plant materials (CPOM)	15	
Cobble	64-256 m	m (2.5"-10")	30	Muck-Mud	black, very fine organic		
Gravel	2-64 mm	(0.1"-2.5")	30	WIUCK-WIUU	(FPOM)		
Sand	0.06-2n	nm (gritty)	40				
Silt	0.004-0	0.06 mm		Marl	grey, shell fragments		
Clay	< 0.004 ı	mm (slick)					
			ant Surrounding Lan		Indicate the dominant type		
		Forest	Commer		✓ TreesShrub		
		— Field/Pa	—		Grasses Herba	iceous	
WATERSHED			Property access	liai	Floodplain Width		
FEATURES					Wide > 30ft Mode Narrow <16ft Mode	rate 15-30ft	
		Canopy Cover			<u>▶</u> Narrow < roll		
		<u>✓</u> Partly o	. —	aded	Wetland PresentYes	<u>✓</u> No	
		ShadedOpen Wetland ID					
		Indicate the dominant type and record the dominant species present Rooted emergent Rooted floating Free floating					
AQUATIC VE	EIAIION	— Rooted	· —	Rooted subme Attached algae	<u> </u>	tingFree floating	
				Attacrica algai			
MACROINVER	TERDATES						
OR OTHER	VILDIVAILS						
WILDLIFE OBSERVED/C	THER						
OBSERVATION NOTES							
110120							



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

STREAM ID S-160	STREAM NAME UNT to Falls Run			
LAT 38.781079 LONG -80.524803	DATE 05/15/2015			
CLIENT MVP	CLIENT MVP			
INVESTIGATORS SET ,SJC, GS				
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —			

					Stream Erosion	
		·	k Width: 4.0 ft		None Moderate	Heavy
		Top of Bank Height:			Artificial, Modified or Char	nnelized
		LB <u>2.0</u>	ft RB <u>2.0</u>	<u>ft</u>	<u>✓</u> YesNo	
CHANNEL FEATURES		Water Dept	th: 1.00 in		Dom Brocent Voc	4 No
		Water Widt	h: 2.0 ft		Dam PresentYes _	Z NO
		High Water	Mark: <u>12.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: W		Gradient	
					Flat Moderate _	
					, ,	(10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	esented by Stream
			ped moist		Riffle % Run 10	0 %
FLOW		Standing	•		Pool %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ ClearSlightly	turbidTurbid
			Moderate		OpaqueStained	
		<u></u> ✓ Slow			Other	
INOR		STRATE CO add up to 10		_	RGANIC SUBSTRATE COM does 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")		Detilius	plant materials (CPOM)	0
Cobble	64-256 m	m (2.5"-10")		Muck-Mud	black, very fine organic	0
Gravel	2-64 mm	1 (0.1"-2.5")		Widok Wida	(FPOM)	U
Sand		nm (gritty)	90			0
Silt		0.06 mm	10	Marl	grey, shell fragments	
Clay	< 0.004 i	mm (slick)				
		Predomina Forest	minant Surrounding Landuse rest Commercial		Indicate the dominant type (Check one) Trees ✓ Shrubs	
			astureIndustrial		Grasses Herba	
WATERCHER		Agricultural Residential		tial	Floodplain Width	
WATERSHED FEATURES		Other:			Wide > 30ft Mode	rate 15-30ft
		Canopy Cover			✓ Narrow <16ft	
		Partly openPartly shaded		aded	Wetland PresentYes	✓ No
		Shadedv Open			Wetland ID	<u></u>
					dominant species present	
AQUATIC VE	GETATION			Rooted subme		tingFree floating
		Floating	y aigae	Attached alga	e 	
		1				
			ed by local landowne k characteristics.	r, access road	s built through and around st	ream has changed
MACROINVER	RTERRATES					
OR OTHER	LDIVATES					
WILDLIFE OBSERVED/C						
OBSERVATION NOTES	NS AND					



Photograph Direction West

STREAM ID S-J70	STREAM NAME Falls Run
LAT 38.78008 LONG -80.526491	DATE 05/14/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS R. Meeker, S. Kelly	
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW

			leasurements		Stream Erosion	
		Top of Ban	k Width: 30.0 ft		None/ Moderate	Heavy
		Top of Ban	k Height:		Artificial, Modified or Char	nelized
		LB <u>6.0</u>	ft RB <u>5.0</u>	<u>ft</u>	Yes _ <u>✓</u> No	
CHANNEL FE	ATURES	Water Dept	th: <u>6.00 in</u>		Dam Procent Vos	/ No
		Water Widt	h: 12.0 ft		Dam PresentYes	/_ NO
		High Water	Mark: <u>24.0 in</u>		Sinuosity ✓ Low	Medium High
		Flow Direct	tion: N		Gradient	
					✓ Flat Moderate (2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
		Stream b	r, stream bed dry oed moist		Morphology Types Riffle 30 % Run 60	%
F1 014		Standing			Pool 10 %	
FLOW CHARACTER	ISTICS	✓ Flowing	water		Turbidity	
		Velocity			✓ ClearSlightly	turbidTurbid
			✓ Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO		1	RGANIC SUBSTRATE CON	
O de etecto	(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")	25		plant materials (CPOM)	20
Cobble		ım (2.5"-10")	40	Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")	25		(I FOIVI)	
Sand Silt		nm (gritty) 0.06 mm	10	Marl grev, shell fragments		
Clay		mm (slick)		IVIAII	grey, shell fragments	
Clay	10.004	` ,	lant Surrounding Lan	duse	Indicate the dominant type	(Check one)
		<u>√</u> Forest	Commer		✓ Trees Shrub	
		_	astureIndustrial		GrassesHerba	ceous
WATERSHED	ı	Agricult Other:	ural Resident	tial	Floodplain Width	
FEATURES		Other.			✓ Wide > 30ft Moder	rate 15-30ft
		Canopy Co			Narrow <16ft	
		✓_Partly o Shaded	·	aded	Wetland PresentYes	✓ No
					Wetland ID	
AQUATIC VE	CETATION			d record the or Rooted subm	dominant species present ergent Rooted float	ing Free floating
AQUATIC VE	SEIATION	- Floating	_	Attached alga		
			- 			
		Small fish r	present in 2015.			

	Small fish present in 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 09/25/2019. The presence of a stream channel and OHWM was confirmed.



Photograph Direction NW

Date: 05/14/2015

Comments: 2015 stream identification.



Photograph Direction SE

Date: 09/25/2019

STREAM ID S-K34	STREAM NAME Hemp Patch Run
LAT 38.766123 LONG -80.520288	DATE 05/13/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Bensted, V. Prilepin, J. Bit	itner
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Perenniai –	<u> </u>	nt <u> —</u> Epnem	erai rivvv	RPW —	NRPW —		
1							
		Estimate Measurements Top of Bank Width: 5.0 ft			Stream Erosion None Moderate Heavy		
CHANNEL FEATURES		•	<u> </u>		NoneModerate	Heavy	
		Top of Bank Height:			Artificial, Modified or Char	nnelized	
		LB <u>2.0</u>	ft RB <u>2.0</u>	<u>ft</u> .	Yes <u>✓</u> No		
		Water Dep	th: 3.00 in		5 5		
		Water Widt	h: 3.0 ft		Dam PresentYes _	<u>∕</u> No	
		High Water	Mark: 3.0 in		Sinuosity Low	Medium <u></u> ✓ High	
		Flow Direct			- - -		
		Flow Direct			Gradient Flat✓ Moderate _	Severe	
					(0.5/100 ft (2 ft/100 ft)	(10 ft/100 ft)	
		Water Pres			Proportion of Reach Repre	esented by Stream	
			r, stream bed dry		Morphology Types	0/	
			bed moist		Riffle 65 % Run 5 Pool 30 %	%	
FLOW		Standing	•		Pool 30 %		
CHARACTER	ISTICS	<u>v</u> i lowing	water		Turbidity		
		Velocity			Clear Slightly		
			Moderate		OpaqueStained		
		<u>✓</u> Slow			Other		
INOR		STRATE CO add up to 10	MPONENTS 0%)	_	RGANIC SUBSTRATE COM loes not necessarily add u	-	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Dotrituo	sticks, wood, coarse		
Boulder	> 256 ı	mm (10")	10	Detritus	plant materials (CPOM)	10	
Cobble	64-256 m	m (2.5"-10")	25	Marala Maral	black, very fine organic		
Gravel	2-64 mm	(0.1"-2.5")	35	Muck-Mud	(FPOM)		
Sand	0.06-2m	nm (gritty)	20				
Silt	0.004-0).06 mm	10	Marl	grey, shell fragments		
Clay	< 0.004 r	mm (slick)					
		Predomina	ant Surrounding Lar	iduse	Indicate the dominant type	(Check one)	
		<u>✓</u> Forest	Commer		<u>✓</u> Trees Shrub		
		Field/P			Grasses Herba	ceous	
WATERSHED		Agricult Other:	tural Residen		Floodplain Width		
FEATURES		Ouler.			Wide > 30ft <u>✓</u> Mode	rate 15-30ft	
		Canopy Co			Narrow <16ft		
			pen	aded	Wetland Present ✓ Yes	No	
		Shaded	Open		Wetland ID w-K24		
		Indicate th	e dominant type and	d record the d	lominant species present		
AQUATIC VE	GETATION			Rooted subme	_	tingFree floating	
		Floatin	g algae	Attached algae	e		
		_					
		Red-tailed	hawk calling overhead	d. Wetland adj	acent to stream, on old flood	plain.	
MACROINVER OR OTHER	RTEBRATES						
WILDLIFE	THED						
OBSERVED/C							
NOTES							



Photograph Direction ESE

STREAM ID S-K33	STREAM NAME UNT to Hemp Patch Run
LAT 38.765425 LONG -80.519783	DATE 05/13/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Bensted, V. Prilepin, J. Bit	tner
FLOW REGIME Perennial — Intermittent— Ephemeral	WATER TYPE TNW RPW NRPW ✓

Perenniai _	Intermitte	nt Ephem	eral TNW	RPW —	NRPW	
			fleasurements k Width: 2.0 ft		Stream Erosion <u>✓ None</u> Moderate	Heavy
		Top of Ban	k Height:		Autitialal Madified on Ober	
		LB 0.5	ft RB 0.5	ft	Artificial, Modified or Char Yes ✓ No	menzea
	4.7.1.0.5.0		th: 0.00 in	_		
CHANNEL FE	ATURES		h: 0.0 ft		Dam PresentYes _	<u>∕</u> No
			Mark: 6.0 in		Sinuosity Low	Medium High
		Flow Direct				— °
		I low blice	iion		Gradient Moderate _	✓ Severe
						(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
		Stream I	r, stream bed dry		Morphology Types Riffle % Run	%
		Standing			Pool %	
FLOW CHARACTER	ISTICS	Flowing				
		Valasitu.			Turbidity ClearSlightly	turbidTurbid
		Velocity Fast	Moderate		Opaque Stained	
		Slow			Other	
INOR	GANIC SUB	STRATE CO	MPONENTS	_	RGANIC SUBSTRATE COM	
	(should a	add up to 10	, , , , , , , , , , , , , , , , , , ,		does 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")	10	Detritus	plant materials (CPOM)	15
Cobble		m (2.5"-10")	20	Muck-Mud	black, very fine organic	
Gravel		(0.1"-2.5")	30		(FPOM)	
Sand		nm (gritty)	20			
Silt		0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004 [mm (slick)		dua a		(0)
		✓ Forest	ant Surrounding Lar Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/P	astureIndustria	I	Grasses Herba	ceous
WATERSHED		Agricult	tural Residen	tial	Floodplain Width	
FEATURES		Other:				rate 15-30ft
		Canopy Co	over	✓ Narrow <16ft		
		<u></u> Partly c	penPartly sh	aded	Wetland Present Yes	✓ No
Sha		Shaded	Open		Wetland ID	<u> </u>
				dominant species present		
AQUATIC VEGETATION Rooted en Floating al		_	Rooted subme Attached algae	_	tingFree floating	
		1 10atil1	<u></u>	Allacited alga		
		Flowe into	S-K34 Channel hoos	mas diffusa ac	s it enters the valley bottom, t	nut nicke un again
			onfluence with S-K34		, a smore the validy bottom, t	out plotts up again
MACROINVER	RTEBRATES					
OR OTHER WILDLIFE						
OBSERVED/C						
NOTES	MIS AND					



Photograph Direction NW

STREAM ID S-H123	STREAM NAME UNT to Elliott Run			
LAT 38.76064 LONG -80.514266	DATE 05/13/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS A.Stott, A.Grech, D. McCullo	ough			
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW			

Perennial _	Intermitte	ntEpheme	eral	TNW	RPW <u></u> ✓	NRPW	
	-						
		Estimate Measurements				Stream Erosion	
		Top of Ban		υ π		None/ Moderate	Heavy
		Top of Ban	_			Artificial, Modified or Char	nnelized
		LB <u>7.0</u>	<u>in</u> R	B <u>6.0</u>	<u>in</u>	Yes <u></u> ✓No	
CHANNEL FE	ATURES	Water Depth: 2.00 in				Dam Brasant Vas	(No
		Water Width: 5.0 ft				Dam PresentYes	<u> </u>
		High Water	Mark: _2.0	in		Sinuosity ✓ Low	Medium High
		Flow Direct	ion: South	east		Gradient	
							Severe
						`	(10 ft/100 ft)
		Water Pres		d da.		Proportion of Reach Repre	sented by Stream
		No wate	r, stream be	a ary		Morphology Types Riffle 75 % Run	%
		Standing				Pool 25 %	
FLOW CHARACTER	ISTICS	✓ Flowing	-				
	.01.00					Turbidity ✓ ClearSlightly	turbidTurbid
		Velocity Fast	✓ Modera	ıte.		Opaque Stained	
	Fas		· Wodere			Other	
INOR	GANIC SUB	STRATE CO	MPONENT	S	0	RGANIC SUBSTRATE COM	/PONENTS
		add up to 10	_			does not necessarily add u	
Substrate Type	Diame	ter	ter % Composition Sampling Rea		Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock					Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	10		Detritus	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	15		Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	15		Mack Maa	(FPOM)	
Sand	0.06-2n	nm (gritty)	40				
Silt		0.06 mm	20		Marl	grey, shell fragments	
Clay	< 0.004 i	mm (slick)			-		
		Predomina ✓ Forest	ınt Surroui	nding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pasture Industrial				aceous	
		Agricultural Residential			tial		
WATERSHED FEATURES		Other:				Floodplain Width Wide > 30ft ✓ Mode	rate 15-30ft
		0				Narrow <16ft	10.0010
		Canopy Co Partly o		Partly sha	aded	_	
		✓ Shaded			Wetland Present _✓ Yes Wetland ID W-H90	No	
Indicate the domin		o dominan	t type and	d record the d	lominant species present		
AQUATIC VEGETATION Rooted emergen				Rooted subme		ting Free floating	
Floating algae			Attached algae	e <u>—</u>	_		
MACROINVER OR OTHER	RTEBRATES	on 09/26/20				ata collected in 2015. The st nel and OHWM was confirm	
WILDLIFE OBSERVED/C							
OBSERVATION NOTES	NS AND						

Stream ID S-H123



Photograph Direction North

Date: 05/13/2015

Comments: 2015 stream identification.



Photograph Direction SE

Date: 09/26/2019

STREAM ID S-H127	STREAM NAME UNT to Elliott Run			
LAT 38.75505 LONG -80.513669	DATE 05/13/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS A.Stott, A.Grech, D. McCullo	pugh			
FLOW REGIME Perennial Intermittent ✓ Ephemeral	WATER TYPE TNW RPW_✓ NRPW			

Perenniai —	_ intermitte	nt <u> — Epnem</u>	eral INVV	RPW -	NRPW	
1					<u> </u>	
			lleasurements k Width: 4.0 ft		Stream ErosionNone ✓ Moderate	Незуу
		l '			NoneNoderate	ricavy
		1 .			Artificial, Modified or Char	nnelized
		LB <u>4.0 in</u> RB <u>4.0 in</u>			Yes _ <u>✓</u> No	
CHANNEL FE	ATURES	Water Dept	th: <u>0.50 in</u>		Dom Brocent Voc	/ No
Wa		Water Widt	h: <u>1.0 ft</u>		Dam PresentYes	<u>/_</u> NO
High W		High Water	Mark: 5.0 in		Sinuosity Low	Medium High
		Flow Direct	ion· East		Cradiant	
		2			Gradient Flat✓ Moderate	Severe
						(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types Riffle 50 % Run	%
		✓ Stream I			Pool 50 % Kuii	70
FLOW	CTICC	Flowing			70 70	
CHARACTER	31103				Turbidity	
		Velocity			✓ Clear — Slightly — Opaque — Stained	turbidTurbid
		Fast ✓ Slow	Moderate		Other	
				_		
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)				RGANIC SUBSTRATE COM does not necessarily add u		
Substrate Type	Diame	eter % Composition		Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Dotritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	5	Detritus	plant materials (CPOM)	25
Cobble	64-256 m	m (2.5"-10")	10	Marala Maral	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	35	Muck-Mud	(FPOM)	
Sand	0.06-2r	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	(Check one)
		<u>√</u> Forest	Commer		✓ TreesShrub	
		Field/Pa			GrassesHerba	ceous
WATERSHED		Other:	.urai Resideiii	liai	Floodplain Width	
FEATURES						rate 15-30ft
		Canopy Co			✓ Narrow <16ft	
		Partly open ✓ Partly shaded			Wetland PresentYes	✓ No
ShadedOpe		OpenOpen		Wetland ID	_	
Indicate the dominant type and record the dominant species prese						
		Rooted subme Attached algae	_	ingFree floating		
		Floating algaeAttach				
*** ***						
MACROINVER OR OTHER	KIEBKAIES	'				
WILDLIFE OBSERVED/C	THER					
OBSERVATIO						
NOTES						
1		1				



Photograph Direction ENE

STREAM ID S-H132	STREAM NAME Little Kanawha River
LAT 38.751268 LONG -80.514402	DATE 05/14/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, D. McCullo	ough
FLOW REGIME Perennial / Intermittent _ Ephemeral	WATER TYPE TNW RPW_✓ NRPW

Perennial <u>*</u>	Intermitte	nt Ephem	eral	TNW	RPW <u>✓</u>	NRPW	
		Estimate N	<i>l</i> leasur	ements		Stream Erosion	
		Top of Ban	k Width	n: <u>120.0 ft</u>		NoneModerate	Heavy
		Top of Ban	k Heigl	ht:		Artificial, Modified or Char	analizad
		LB_10.0 ft RB 3.0 f			ft	Yes V No	menzeu
		Water Depth: 12.00 in			_		
CHANNEL FE	ATURES	Water Widt				Dam PresentYes	<u>∠</u> No
						Sinuosity Low	Medium High
		High Water				Silidosity v Low	Medidili riigii
		Flow Direct	tion: _N	lortnwest		Gradient	_
						<u>✓</u> Flat Moderate (2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres	cont			Proportion of Reach Repre	,
				m bed dry		Morphology Types	ssented by Stream
		Stream I				Riffle 50 % Run 25	%
FLOW		Standing	_	r		Pool 25 %	
CHARACTER	STICS	<u>✓</u> Flowing	water			Turbidity	
		Velocity				✓ ClearSlightly	turbidTurbid
			<u>•</u> Mo	oderate		OpaqueStained	
		Slow				Other	
INORGANIC SUBSTRATE COMPONENTS			ENTS	О	RGANIC SUBSTRATE COM	/IPONENTS	
	(should a	add up to 10	0%)		(0	does not necessarily add u	p to 100%)
Substrate Type	Diame	ter		Composition in mpling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock					Dotritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	2	20	Detritus	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	10		NA. ala Na. al	black, very fine organic	
Gravel	2-64 mm	ı (0.1"-2.5")	1	10	Muck-Mud	(FPOM)	
Sand	0.06-2n	nm (gritty)	5	50			
Silt	0.004-0	0.06 mm	1	10	Marl	grey, shell fragments	
Clay	< 0.004 ı	mm (slick)					
		Predomina	ant Su	rounding Lan	iduse	Indicate the dominant type	(Check one)
		<u>✓</u> Forest		Commer		<u>✓</u> Trees Shrub	
			ield/PastureIndustrial			Grasses Herba	iceous
WATERSHED		Other:	lurai	Residen	ııaı	Floodplain Width	
FEATURES		Other.			Wide > 30ft Moderate 15-		rate 15-30ft
Canopy Co					Narrow <16ft		
			Partly open Partly shaded		Wetland Present Yes	∠ No	
Shaded		1	Open		Wetland ID		
		Indicate th	e dom	inant type and	d record the o	dominant species present	
AQUATIC VEGETATIONRooted emergent		Rooted subme	<u> </u>	tingFree floating			
		Floating	g algae	<u> </u>	Attached alga	e	
MACROINVER OR OTHER	RTEBRATES						
WILDLIFE							
OBSERVED/C							
NOTES							



Photograph Direction $\underline{^{NW}}$

STREAM ID S-H129	STREAM NAME UNT to Little Kanawha River
LAT 38.748987 LONG -80.51497	DATE 05/13/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, D. McCullo	pugh
FLOW REGIME Perennial Intermittent February Ephemeral	WATER TYPE TNW RPW NRPW

Perenniai _	<u> </u>	nt <u> — Epnem</u>	erai INVV —	RPW —	NRPW	
			/leasurements k Width: 2.0 ft		Stream ErosionNone ✓ Moderate	Heavy
		·	<u> </u>			ricavy
		Top of Ban	-		Artificial, Modified or Char	nnelized
		LB <u>5.0</u>		<u>in</u>	Yes <u></u> ✓ No	
CHANNEL FE	ATURES		th: 0.00 in		Dam PresentYes _	✓ No
		Water Widt	h: 0.0 ft			_
		High Water	Mark: <u>4.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	tion: Northeast		Gradient	
						Severe
		14/ 4 B			, ,	(10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	esented by Stream
			ped moist		Riffle % Run	%
FLOW		Standing	g water		Pool %	
CHARACTER	ISTICS	<u></u> Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
		Fast	Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO	MPONENTS	_	RGANIC SUBSTRATE COM does not necessarily add u	
Substrate	(Siloulu d	add up to 10	% Composition in	· `	loes not necessarily add d	% Composition in
Type	Diame	ter	Sampling Reach	Type	Characteristic	Sampling Area
Bedrock	> 050	(40!)		Detritus	sticks, wood, coarse plant materials (CPOM)	25
Boulder Cobble		mm (10") m (2.5"-10")			, ,	25
			5	Muck-Mud	black, very fine organic (FPOM)	
Gravel Sand		nm (gritty)	5		(i i oiii)	
Silt		0.06 mm	35	Marl	grey, shell fragments	
Clay		mm (slick)	45 10	Iviaii	grey, shell fragilierits	
Olay	10.0041		ant Surrounding Lar	nduse	Indicate the dominant type	(Check one)
		<u>✓</u> Forest	Commer		<u>✓</u> Trees Shrub	
		Field/P			Grasses Herba	iceous
WATERSHED		— Agricult	tural Residen	tial	Floodplain Width	
FEATURES		Other:			Wide > 30ft Mode	rate 15-30ft
		Canopy Co	over		✓ Narrow <16ft	
		Partly o	· —	aded	Wetland PresentYes	✓ No
		Shaded	Open		Wetland ID	
					lominant species present	
AQUATIC VEGETATION Rooted emergent Floating algae		_	Rooted subme	_	tingFree floating	
		Floating	g algae	Attached algae	e 	
		T_				
		Connects to	o S-H127			
MACDOINVE	DTEDDATES					
MACROINVEI OR OTHER	VIEDKA IES	1				
WILDLIFE OBSERVED/C	THER					
OBSERVATION NOTES						
HOTES						



Photograph Direction WSW

STREAM ID S-H131	STREAM NAME UNT to Little Kanawha River				
LAT 38.749215 LONG -80.51437	DATE 05/14/2015				
CLIENT MVP	PROJECT NAME MVP				
INVESTIGATORS A.Stott, A.Grech, D. McCullo	ough				
FLOW REGIME Perennial Intermittent Ephemeral ✓	WATER TYPE TNW RPW NRPW_✓				

			leasurements		Stream Erosion	Hearry	
		'	k Width: 2.0 ft		None✓ Moderate	Heavy	
		Top of Bank Height:			Artificial, Modified or Char	nnelized	
		LB <u>4.0 in</u> RB <u>4.0 in</u>			Yes ´ <u></u> √ No		
CHANNEL FE	ATURES	Water Dept	h: <u>0.00 in</u>		Dam Brasant Vas	(Na	
		Water Widt	h: <u>0.0 ft</u>		Dam PresentYes	<u>/_ INO</u>	
		High Water	Mark: <u>2.0 in</u>		Sinuosity Low	Medium High	
		Flow Direct	ion: North		Gradient		
					FlatModerate _	✓ Severe	
					`	(10 ft/100 ft)	
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	esented by Stream	
			ned moist		Riffle % Run	%	
EL 014		Standing			Pool %		
FLOW CHARACTERI	STICS	Flowing	water		Turbidity		
		Velocity			Turbidity ClearSlightly	turbidTurbid	
			Moderate		OpaqueStained		
Slov					Other		
INOR	GANIC SUB	STRATE CO	TRATE COMPONENTS O		RGANIC SUBSTRATE CON	MPONENTS	
	(should a	add up to 100	0%)	(c	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")		Detritus	plant materials (CPOM)	40	
Cobble		m (2.5"-10")	5	Muck-Mud	black, very fine organic		
Gravel		1 (0.1"-2.5")	10		(FPOM)		
Sand		nm (gritty)	15				
Silt		0.06 mm	60	Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)	10	4	Indiante that devaluant tour	(0)	
		✓ Forest	int Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub		
		_	astureIndustrial		Grasses Herba		
WATEROUSER		Agricult	ural Resident	tial	Eloodalain Width		
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Moderate 15-30ft Varrow <16ft		
		Canopy Cover Partly open ✓ Partly shaded					
		Shaded Open			Wetland PresentYes Wetland ID	<u>√</u> No	
Indicate th		e dominant type and		dominant species present			
AQUATIC VEGETATION			emergent	Rooted subme	ergentRooted float	tingFree floating	
Floating a		g algae	Attached algae	e			
		Information	listed on this form re	presents the d	ata collected in 2015. The st	ream was revisited	
		on 09/25/20	19. The presence of	a stream chan	nnel and OHWM was confirm	ed.	
MACROINVERTEBRATES OR OTHER WILDLIFE		6					
		Ī					
WILDLIFE	THER	1					
WILDLIFE OBSERVED/O OBSERVATIO							
WILDLIFE OBSERVED/O							

Stream ID S-H131



Photograph Direction North

Date: 05/14/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: 09/27/2019

STREAM ID S-H117	STREAM NAME Stonecoal Run
LAT 38.73105 LONG -80.506181	DATE 05/12/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, D. McCullo	ough
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW

Perennial _	Intermitte	nt Ephem	eralTNW	RPW┵	NRPW	
		Estimate N	l easurements		Stream Erosion	
		Top of Ban	k Width: <u>15.0 ft</u>		None✓ Moderate	Heavy
		Top of Ban	k Height:		Artificial, Modified or Char	nnalizad
		LB 3.0	ft RB 3.0	ft	Yes ✓ No	menzeu
	ATUREO	Water Depth: 3.00 in			<u> </u>	
CHANNEL FE	ATURES	Water Width: 8.0 ft			Dam PresentYes	<u>∕</u> No
		High Water Mark: 12.0 in			Sinuosity ✓ Low	Medium High
		J				
		Flow Direct	tion: Northeast		Gradient	
						Severe (10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types	
		Stream l			Riffle 70 % Run 10	%
FLOW		Standing	•		Pool 20 %	
CHARACTER	ISTICS	✓ Flowing	water		Turbidity	
		Velocity			✓ ClearSlightly	
			✓ 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 in Sampling Reach		Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")	15	20	plant materials (CPOM)	10
Cobble		m (2.5"-10")	45	Muck-Mud	black, very fine organic	
Gravel		(0.1"-2.5")	20		(FPOM)	
Sand		nm (gritty)	20	_		
Silt		0.06 mm	,	Marl	Marl grey, shell fragments	
Clay	< 0.004 i	mm (slick)		<u> </u>		<u></u>
		Predominant Surrounding Landuse ✓ Forest Commercial			Indicate the dominant type ✓ Trees Shrub	
		✓ Forest Commer Field/Pasture Industrial				aceous
		Agricultural Residential		itial		
WATERSHED FEATURES		Other:	_		Floodplain Width Wide > 30ft Mode	rate 15-30ft
LATORES					✓ Narrow <16ft	rate 10-00it
		Canopy CoverPartly open Partly shaded			_	
		✓ Shaded Open		Wetland PresentYes _✓ No Wetland ID		
AQUATIC VEGETATION		Indicate th	e dominant type an	d record the d	Iominant species present	
			emergent	Rooted subme		tingFree floating
		Floating	g algae	Attached algae	e	
_						
		Information	listed on this form re	presents the d	ata collected in 2015. The st	ream was revisited
MACROINVERTEBRATES OR OTHER WILDLIFE		on 10/04/20	019. The presence of	f a stream chan	nnel and OHWM was confirm	ed.
OBSERVED/C						
NOTES						

Stream ID S-H117



Photograph Direction SW

Date: 05/12/2015

Comments: 2015 stream identification.



Photograph Direction SW

Date: 10/04/2019

STREAM ID S-L46	STREAM NAME UNT to Laurel Run
LAT 38.721935 LONG -80.499206	DATE 05/13/2015
PROJEC MVP	CLIENT MVP
INVESTIGATORS Ashley Hatfield, Sean Kelly,	Sean Kite, Rich Meeker
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW

i cicililai =	<u> </u>	nt <u> </u>	erai Invv	RPW *	NRPW		
		Estimate M	leasurements		Stream Erosion		
			k Width: 15.0 ft		None✓ Moderate	Heavy	
		Top of Bank	k Height:		Artificial, Modified or Chan	nolized	
		LB 15.0 ft RB 4.0 ft		<u>ft</u>	Yes ✓ No	menzeu	
CHANNEL FE	ATURES	Water Dept	h: <u>3.00 in</u>				
CHANNELTE	ATORES	Water Widt	h: <u>5.0 ft</u>		Dam PresentYes _✓ No		
		High Water	Mark: 48.0 in		Sinuosity Low	Medium High	
		Flow Direct	ion: NE		Gradient		
					Flat Moderate _	Severe	
		Water Pres	eant		(0.5/100 ft (2 ft/100 ft) Proportion of Reach Repre	(10 ft/100 ft)	
			r, stream bed dry		Morphology Types	sented by Stream	
			ped moist		Riffle 60 % Run 10 Pool 30 %	%	
FLOW	IOTIOO	Standing Flowing			Pool 30 %		
CHARACTER	151165	<u> </u>	···ato		Turbidity	nakia Tabid	
		Velocity Fast	✓ Moderate		✓ Clear — Slightly to — Opaque — Stained	turbidTurbid	
		Slow	Woderate		Other		
INOR	GANIC SUB	STRATE CO	MPONENTS	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	40	
Boulder		mm (10")	10		plant materials (CPOM)	10	
Cobble Gravel		ım (2.5"-10") n (0.1"-2.5")	60	Muck-Mud	black, very fine organic (FPOM)		
Sand		nm (gritty)	20 10		(1.1.5)		
Silt		0.06 mm	10	Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)					
Sico :		Predominant Surrounding Landuse ✓ Forest Commercial Field/Pasture Industrial		cial	Indicate the dominant type ✓ Trees Shrub — Grasses Herba	s	
WATERSHED FEATURES		Agricultural Residential Other:		liai	Floodplain Width ✓ Wide > 30ft Moderate 15-30ft		
		Canopy Co	over	adad	Narrow <16ft		
			Partly openPartly shadedOpen		Wetland PresentYes Wetland ID	<u>√</u> No	
AQUATIC VEGETATION				Rooted subme	ergentRooted float	ingFree floating	
Flo			g algae	Attached alga	e		
		1					
		Salamande	rs and fish observed	in 2015.			
		1					

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVATIONS AND NOTES

Salamanders and fish observed in 2015.

Information listed on this form represents the data collected in 2015. The stream was revisited on 10/04/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-L46



Photograph Direction NE

Date: 05/13/2015

Comments: 2015 stream identification.



Photograph Direction NE

Date: 10/04/2019

STREAM ID S-L44	STREAM NAME UNT to Laurel Run
LAT 38.716929 LONG -80.494663	DATE 05/12/2015
PROJEC MVP	CLIENT MVP
INVESTIGATORS Sean Kelly, Sean Kite, Rich	Meeker, Ashely Hatfield.
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW

Estimate Measurements Top of Bank Width: 10.0 ft Top of Bank Height Top of Bank Heigh	Perennial <u></u>	Intermitte	nt <u> — Ephem</u> e	eralTNW	RPW <u></u> ✓	NRPW	
Top of Bank Width: 10.0 ft Top of Bank Height: Late 4.0 ft RB 5.0 ft Water Poeth: 6.00 in Water Width: 3.0 ft High Water Mark: 12.0 in Flow Direction: NE Flow Direction: NE Flow Direction: NE Flow CHARACTERISTICS Water Present No water, stream bed dry Stream bed moist Slanding water Velocity Fast Slanding water Velocity Fast Slow Moderate Slanding water Velocity Fast Slanding water Velocity Fast Slanding water Velocity Fast Slow Direction: NE Flow Direction: NE Slanding water Velocity Fast Slanding water Velocity Fast Slanding water Velocity Fast Slow Direction: NE Slanding water Velocity Fast Slanding water Velocity Fast Slanding water Velocity Fast Slow Direction: NE Slanding water Velocity Fast Opaque Stained Other INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Type Diameter Sampling Reach Type Bedrock Doulder Velocity Fast Sampling Reach Type Bedrock Sampling Reach Type Bedrock Doulder Velocity Fast Sitcks, wood, coarse plant materials (CPOM) Velocity Froom Sampling Area Black, very fine organic Froom Flow Material Flow Moderate Flow Moderate Flow Moderate Flow Moderate Velocity Flow Moderate Velocity Flow Moderate Norderies Velocity Flow Moderate Velocity Flow Moderate Velocity Flow Moderate Velocity Flow Moderate Norderies Velocity Flow Moderate Velocity Flow Moderate Velocity Flow Moderate Norderies Norder							
Top of Bank Height: LB 4.0 ft RB 5.0 ft			Estimate Measurements			Stream Erosion	
CHANNEL FEATURES LB 4.0			Top of Ban	k Width: 10.0 ft		None/ Moderate	Heavy
LB 4.0			Top of Ban	k Height:		Artificial Modified or Char	anolizod
Water Number Substitute Characteristic Sampling Reach Sampling			LB 4.0	ft RB 5.0	ft	•	menzeu
Water Width: 3.0 ft High Water Mark: 12.0 in Flow Direction: NE Flow Direction: NE Gradient					_		
High Water Mark: 12.0 in Flow Direction: NE Gradient Flow Direction: NE Gradient Flow Direction: NE Gradient Flow Direction: NE Gradient	CHANNEL FE	ATURES				Dam PresentYes	<u>/_</u> No
Flow Direction: NE			I			Sinuscity Low (Modium High
Water Present			High Water Mark: 12.0 in			Silluosity Low	iviedium riigii
Water Present			Flow Direct	tion: NE			
## Proportion of Reach Represented by Stream Morphology Types Stream bed moist Standing water Proportion of Reach Represented by Stream Morphology Types							
No water, stream bed dry Stream bed moist Standing water Pool 40 % Run 10 %			Water Bree	a ont		, , ,	,
FLOW CHARACTERISTICS Standing water							sented by Stream
## Characteristics Flowing water							%
Velocity	E1 0)4/		Standing	g water		Pool 40 %	
Velocity		ISTICS	✓ Flowing	water		-	
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Type Diameter Bedrock Boulder > 256 mm (10") Cobble 64-256 mm (2.5"-10") Sand Gravel 2-64 mm (0.1"-2.5") Sand 0.06-2mm (gritty) Silt 0.004-0.06 mm Clay Predominant Surrounding Landuse ✓ Forest — Agricultural — Agricultural — Agricultural — Agricultural — Other: Canopy Cover — Partly open — Partly shaded ✓ Shaded — Open Mackendia Mackendia Wetland Present Wetland Present — Rooted floating — Rooted submergent — Rooted semergent — Rooted submergent — Rooted floating — Free floating —			Valasitu.				turbid Turbid
NORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Type Diameter % Composition in Sampling Reach Type Characteristic % Composition in Sampling Reach Type Detritus Sticks, wood, coarse plant materials (CPOM) 45				Moderate			
Substrate Diameter Sampling Reach Type Diameter Sampling Reach Type Detritus Sampling Reach Type Detritus Sampling Area Sampling Are				Woderate			
Substrate Diameter Sampling Reach Type Diameter Sampling Reach Type Detritus Sampling Reach Type Detritus Sampling Area Sampling Are	INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	IPONENTS
Sampling Reach Type Characteristic Sampling Area	iii oi		-				
Bedrock Sampling Reach Type Sampling Area Bedrock Boulder > 256 mm (10") 20 Detritus Sticks, wood, coarse plant materials (CPOM) 45 Cobble 64-256 mm (2.5"-10") 30 Muck-Mud Dlack, very fine organic (FPOM) 10 Sand 0.06-2mm (gritty) 10 Silt 0.004-0.06 mm 20 Marl grey, shell fragments Clay < 0.004 mm (slick) Predominant Surrounding Landuse	Substrate	Diama	tor	% Composition in	Substrate	Characteristic	% Composition in
Boulder > 256 mm (10") 20 Detritus plant materials (CPOM) 45 Cobble 64-256 mm (2.5"-10") 30 Muck-Mud black, very fine organic (FPOM) 10 Sand 0.06-2mm (gritty) 10 Silt 0.004-0.06 mm 20 Marl grey, shell fragments Clay < 0.004 mm (slick) Indicate the dominant type (Check one) ✓ Frees Shrubs — Shrub	Type	Diame	ter	Sampling Reach	Туре	Characteristic	Sampling Area
Soulder Source					Detritus		
Gravel 2-64 mm (0.1"-2.5") 20 Muck-Mud (FPOM) 10 Sand 0.06-2mm (gritty) 10 Silt 0.004-0.06 mm 20 Marl grey, shell fragments Clay < 0.004 mm (slick) Predominant Surrounding Landuse ✓ Forest Commercial — Field/Pasture Industrial — Agricultural Residential — Other: Canopy Cover — Partly open — Shaded Open Metland Present Yes ✓ No Wetland ID Indicate the dominant stype (Check one) Wetland Present Yes ✓ No Wetland ID Indicate the dominant species present — Rooted emergent Rooted submergent Rooted floating Free floating — Floating algae Attached algae Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed.			` '			piant materials (CPON)	45
Sand 0.06-2mm (gritty) 10 Silt 0.004-0.06 mm 20 Marl grey, shell fragments Clay < 0.004 mm (slick) Predominant Surrounding Landuse ✓ ForestCommercial Field/PastureIndustrialAgriculturalResidential — AgriculturalResidential — Other:Partly open — Partly openPartly shaded ✓ ShadedOpen Wetland ID AQUATIC VEGETATION Indicate the dominant type and record the dominant species present — Rooted emergentRooted submergentRooted floatingFree floating — Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed.	Cobble	64-256 m	m (2.5"-10")	30	Muck-Mud		10
Silt	Gravel	2-64 mm	(0.1"-2.5")	20		(FPOM)	10
Clay		0.06-2n	nm (gritty)	10			
WATERSHED FEATURES Predominant Surrounding Landuse	Silt	0.004-0	0.06 mm	20	Marl	grey, shell fragments	
WATERSHED FEATURES WATERSHED FEATURES WATERSHED FEATURES Field/Pasture	Clay	< 0.004 i	` ,				
WATERSHED FEATURES - Field/Pasture			Predominant Surrounding Landuse		Indicate the dominant type		
WATERSHED FEATURES Agricultural Other: Floodplain Width Wide > 30ft Moderate 15-30ft Canopy Cover Partly open Partly shaded Open Wetland Present Yes ✓ No Wetland ID Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Rooted floating Free floating Floating algae Attached algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND							
WATERSHED FEATURES Other: Canopy Cover Partly open Shaded Open Wetland Present Wetland ID Indicate the dominant type and record the dominant species present Rooted emergent Floating algae Attached algae Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed. WACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVED/OTHER OBSERVED/OTHER OBSERVATIONS AND			· — —				ccous
Canopy Cover							45.000
Partly openPartly shadedOpen	FEATURES						rate 15-30π
AQUATIC VEGETATION Indicate the dominant type and record the dominant species present Rooted emergent Floating algae Attached algae Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND					adod	<u>v</u> Narrow Toll	
AQUATIC VEGETATION Indicate the dominant type and record the dominant species present Rooted emergentRooted submergent _Rooted floating _Free floating Floating algaeAttached algae Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND						Wetland PresentYes	<u>√</u> No
AQUATIC VEGETATION Rooted emergent Attached algae Attached algae Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND							
Floating algae Attached algae Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	A OLIATIC VE	CETATION					ting Eroo floating
Information listed on this form represents the data collected in 2015. The stream was revisited on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	AQUATIC VEGETATION			· —		<u> </u>	ingFree libating
on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND					, ttaorioa aiga		
on 10/03/2019. The presence of a stream channel and OHWM was confirmed. MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND							
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND							
OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	OR OTHER			oro. The presence of	a stream chan	iner and Orivivi was commi	eu.
OBSERVED/OTHER OBSERVATIONS AND							
OBSERVATIONS AND		THER					
NOTES	OBSERVATIONS AND						

Stream ID S-L44



Photograph Direction SW

Date: 05/12/2015

Comments: 2015 stream identification.



Photograph Direction NE

Date: 10/03/2019

STREAM ID S-I57	STREAM NAME Mudlick Run		
LAT 38.697402 LONG -80.489592	DATE 05/13/2015		
CLIENT MVP	CLIENT MVP		
INVESTIGATORS SET, SJC, GS			
FLOW REGIME Perennial ✓ Intermittent— Ephemeral—	WATER TYPE TNW — RPW ✓ NRPW —		

	- intermitte	пс— српени				
CHANNEL FEATURES		Estimate Measurements Top of Bank Width: 30.0 ft Top of Bank Height: LB 4.0 ft RB 3.5 ft Water Depth: 8.00 in Water Width: 26.0 ft		ft_	Stream ErosionNone/ Moderate Heavy Artificial, Modified or ChannelizedYes/ No Dam PresentYes/ No	
		High Water Mark: 24.0 in Flow Direction: SW				Medium High Severe (10 ft/100 ft)
FLOW Standing Standing Flowing Velocity		r, stream bed dry bed moist g water		Proportion of Reach Representation Morphology Types Riffle 60 % Run 10 Pool 30 % Turbidity ✓ ClearSlightly — OpaqueStained — Other	%	
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)		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 Boulder	> 256	mm (10")	10 10	Detritus	sticks, wood, coarse plant materials (CPOM)	25
Cobble		nm (2.5"-10")	20		black, very fine organic	
Gravel	2-64 mm	n (0.1"-2.5")	30	Muck-Mud	(FPOM)	5
Sand	0.06-2r	mm (gritty)	25			
Silt		0.06 mm	5	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick) Predomina	int Surrounding Lan	duse	Indicate the dominant type	(Check one)
WATERSHED FEATURES WATERSHED FEATURES Canopy Cov Partly ope ✓ Shaded		Commer Industrial Resident Pover Pen Partly sh	cial l tial	✓ Trees Shrub Grasses Herba Floodplain Width ✓ Wide > 30ft Narrow <16ft Wetland Present Yes Wetland ID	s ceous	
Indicate the dominant type and record the dominant species present			ingFree floating			
Fish observed in pools of 2-2.5 ft depth. Macroinvertebrates present. Downstream/right bank						

tributary joins just outside ROW (2015). Information listed on this form represents the data collected in 2015. The stream was revisited on 11/01//2019. The presence of a stream channel and OHWM was unable to be confirmed because of construction activities within the LOD.

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES



Photograph Direction NE

STREAM ID S-A96/S-A103	STREAM NAME UNT to Left Fork Holly River			
LAT 38.688696 LONG -80.478523	DATE 05/05/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS Cook, Heule, Lew				
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW_✓			

Perennial —	_ Intermitte	nt Epheme	eral TNW	RPW	NRPW <u> </u>	
		Estimate Measurements Top of Bank Width: 5.0 ft		Stream Erosion None Moderate	Heavy	
		Top of Bank	k Height:		Artificial, Modified or Char	nolized
		LB 43.0	in RB 31.0 i		Yes ✓ No	menzeu
CHANNEL EE	ATURES		th: 0.00 ft	_		
CHANNEL FE	ATURES	Water Width: 0.0 ft			Dam PresentYes	<u>∕</u> No
					Sinuosity Low	Medium High
		Ŭ	tion: Northeast			
		1 1011 211000			Gradient Flat _✓ Moderate _	Severe
					(0.5/100 ft (2 ft/100 ft)	(10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
		Stream b			Riffle % Run	%
EL 014/		Standing			Pool %	
FLOW CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
			Moderate		OpaqueStained	
		Slow			✓ Other None	
INOR		STRATE CO			RGANIC SUBSTRATE CON	
0	(should a	add up to 100			does not necessarily add u	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			μ 3	,	sticks, wood, coarse	
Boulder	> 256	mm (10")	20	Detritus	plant materials (CPOM)	10
Cobble	64-256 m	ım (2.5"-10")	30	Muck Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	25	Muck-Mud	(FPOM)	
Sand	0.06-2n	nm (gritty)				
Silt	0.004-0	0.06 mm	10	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	15			
		Predomina	ant Surrounding Lan		Indicate the dominant type	
		Forest Commerc			✓ Trees Shrub Grasses Herba	
		Agricult	- · · · · · · - · · · · · · · · · · · ·	tial	al	
WATERSHED FEATURES		Other: Road			Floodplain Width Wide > 30ft Moderate 15-30	
		Canopy Cover			✓ Narrow <16ft	
		✓ Partly openPartly shaded		aded		
		Shaded	Shaded Open		Wetland PresentYes Wetland ID	<u>✓</u> No
Indicate th			e dominant type and	d record the d	Iominant species present	
AQUATIC VEGETATION		Rooted	Rooted emergentRooted subme		ergentRooted float	ingFree floating
Floating			g algae	Attached algae	e 	
Information listed on this form represents the data collected in 2015. The stream was revision						
)19. The presence of	a stream chan	nnel and OHWM was confirm	ed.
MACROINVERTEBRATES OR OTHER)				
WILDLIFE OBSERVED/C	THER					
OBSERVATIONS AND NOTES						

V5 2015

Stream Photograph Page

Stream ID S-A96/S-A103



Photograph Direction NE

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 10/02/2019

STREAM ID S-A97	STREAM NAME UNT to Left Fork Holly River
LAT 38.688415 LONG -80.478396	DATE 05/05/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Cook, Heule, Lew	
FLOW REGIME Perennial Intermittent ✓ Ephemeral	WATER TYPE TNW RPW_✓ NRPW

Estimate Measurements Top of Bank Width: 8.0 ft Top of Bank Height: LB 2.0 ft Water Depth: 1.00 in Water Width: 16.0 in Stream Erosion None ✓ Moderate — Heavy Artificial, Modified or Channelized — Yes ✓ No Dam Present — Yes ✓ No		
LB 2.0 ft RB 1.0 ft Yes ✓ No Water Depth: 1.00 in CHANNEL FEATURES Artificial, Modified of Channelized LB 2.0 ft RB 1.0 ft Yes ✓ No		
LB 2.0 ft RB 1.0 ft Yes ✓ No CHANNEL FEATURES LB 2.0 ft RB 1.0 ft Yes ✓ No Dam Present Yes ✓ No		
CHANNEL FEATURES Dam Present Yes V No		
Water Width: 16.0 in		
High Water Mark: <u>5.0 in</u> Sinuosity Low <u>✓</u> Medium	_ High	
Flow Direction: North Gradient		
FlatModerate v Severe (0.5/100 ft (2 ft/100 ft) (10 ft/100 ft)		
FLOW CHARACTERISTICS Water Present No water, stream bed dry Stream bed moist Standing water Flowing water Velocity Fast Slow Water Present Morphology Types Riffle 35 % Run 45 % Pool 20 % Turbidity Velocity Glear Opaque Stained Other Other	tream Turbid	
INORGANIC SUBSTRATE COMPONENTS ORGANIC SUBSTRATE COMPONENTS		
(should add up to 100%) (does not necessarily add up to 100%)		
Substrate Type Diameter % Composition in Substrate Type Characteristic % Composition in Sampling Reach Type Characteristic % Composition in Substrate Type		
Bedrock Detritus sticks, wood, coarse		
Boulder > 256 mm (10") plant materials (CPOM) 10		
Cobble 64-256 mm (2.5"-10") 30 Muck-Mud black, very fine organic		
Gravel 2-64 mm (0.1"-2.5") 40 (FPOM)		
Sand 0.06-2mm (gritty) 30 Silt 0.004-0.06 mm Marl grey, shell fragments		
Clay < 0.004 mm (slick)		
Predominant Surrounding Landuse ✓ Forest Commercial — Field/Pasture Industrial — Agricultural Residential ✓ Other: Road Canopy Cover — Partly open Partly shaded — Shaded Open Predominant Surrounding Landuse Indicate the dominant type (Check one) — Trees Shrubs ✓ Grasses Herbaceous Floodplain Width Wide > 30ft Moderate 15-30ft ✓ Narrow <16ft Wetland Present Yes No Wetland IDW-A21		
AQUATIC VEGETATION Indicate the dominant type and record the dominant species present Rooted emergent Floating algae Attached algae Indicate the dominant type and record the dominant species present Rooted floating Free floating		
Information listed on this form represents the data collected in 2015. The stream was rev	ioito d	

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 10/02/2019. The presence of a stream channel and OHWM was unable to be confirmed because of construction activities within the LOD.
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Stream ID S-A97



Photograph Direction North

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: 10/02/2019

STREAM ID S-A99	STREAM NAME UNT to Left Fork Holly River
LAT 38.688091 LONG -80.478352	DATE 05/05/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Cook, Heule, Lew	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW_✓

Perennial	_ Intermitte	ent — Epheme	eral TNW	RPW	NRPW	
					Stream Erosion	
		Top of Bank	k Width: 5.0 ft		None Moderate	Heavy
		Top of Bank	k Height:		Artificial, Modified or Char	nelized
		LB <u>1.0</u>	ft RB <u>2.0</u>	<u>ft</u>	Yes No	
CHANNEL FE	ATURES	Water Depth: 0.00 ft				
0.13 ((1)(22.12	7 (1 C) (2 C)	Water Widt	h: 0.0 ft		Dam PresentYes	<u>∕</u> No
		High Water	High Water Mark: 4.0 in		Sinuosity 🔽 Low	Medium High
		Flow Direct	ion: North		Gradient	
					Flat Moderate _	✓ Severe
					(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 35 % Run 40	%
		Standing			Pool 25 %	70
FLOW CHARACTER	ISTICS	Flowing	•			
OHARAGIER	01100				Turbidity	turbidTurbid
		Velocity Fast	Moderate		Clear Slightly = Spanned Stained	
		Slow	Woderate		✓ Other None	
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	IPONENTS
iii Oi		add up to 100			does not necessarily add u	
Substrate	Diame	otor	% Composition in	Substrate	Characteristic	% Composition in
Type	Diame	ilei	Sampling Reach	Туре	Characteristic	Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")		200.100	plant materials (CPOM)	
Cobble		nm (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel		n (0.1"-2.5")	30		(FPOM)	
Sand		mm (gritty)	45			
Silt		0.06 mm	15	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	0			
		Predomina Forest	ant Surrounding Lan Commer		Indicate the dominant type Trees Shrub	
		Field/Pa			✓ Grasses — Herba	
		Agricult	ural Resident	tial		
WATERSHED FEATURES		<u>✓</u> Other: ¡	Road		Floodplain Width Wide > 30ft Moder	rate 15-30ft
		Canany Cr	aver.		✓ Narrow <16ft	410 10 0011
		Canopy Co Partly o		aded	_	
		Shaded			Wetland Present _v_Yes Wetland IDW-A21	No
		Indicate th	e dominant type and	d record the c		
Indicate the dominant type and record the dominant species present AQUATIC VEGETATION Rooted emergent Rooted floating Free flo			ing Free floating			
Floating algae Attached			Attached alga	е —	_	
		Information	listed on this form re	presents the d	lata collected in 2015. The str	ream was revisited
					nnel and OHWM was confirm	
MACROINVER	RTEBRATES	;				
OR OTHER WILDLIFE						
OBSERVED/C						
NOTES						

Stream ID S-A99



Photograph Direction _____

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction West

Date: 10/02/2019

STREAM ID S-A98	STREAM NAME UNT to Left Fork Holly River
LAT 38.688523 LONG -80.478065	DATE 05/07/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Cook, Heule, Lew	
FLOW REGIME Perennial Intermittent ✓ Ephemeral	WATER TYPE TNW RPW ✓ NRPW

i cicililai—	_	пс— приспи	ciai— iivv—	111 77 —	MIXI W	
		Cotiments *	loogurams:t-		Streem Freeign	
			fleasurements k Width: <u>7.0</u> ft		Stream Erosion None Moderate	<u>✓</u> Heavy
		Top of Bank Height:		Artificial, Modified or Chan	nalizad	
		LB <u>13.0 in</u> RB <u>34.0 in</u>			Yes ✓ No	menzea
CHANNEL FE	ATURES	Water Depth: 1.00 in		Dam Present Yes	∠ No.	
		Water Widt	h: 15.0 in			_140
		High Water	Mark: <u>8.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: North		Gradient	
						Severe
		Water Dree			. ,	(10 ft/100 ft)
		Water Pres No wate	senτ r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
			ped moist		Riffle 20 % Run 50	%
FLOW		Standing	•		Pool 30 %	
CHARACTER	STICS	<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%)			
Substrate	Diame	ter	% Composition in	Substrate	Characteristic	% Composition in
Type	Biamo		Sampling Reach	Туре	Characteristic	Sampling Area
Bedrock	> 050	(40!)		Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder Cobble		mm (10") m (2.5"-10")	05			
Gravel		(0.1"-2.5")	25 25	Muck-Mud	black, very fine organic (FPOM)	
Sand		nm (gritty)	40		(- ,	
Silt		0.06 mm	10	Marl	grey, shell fragments	
Clay		mm (slick)	10		3 2,7, 2 2 3	
j		Predomina	ant Surrounding Lan	duse	Indicate the dominant type	(Check one)
		<u>✓</u> Forest	Commer		Trees Shrub	s
		Field/PastureIndustrial			✓ Grasses — Herba	ceous
WATERSHED		Agricultural Residential Other: Access road			Floodplain Width	
FEATURES		_	Access road		Wide > 30ft Moder ✓ Narrow <16ft	rate 15-30ft
		Canopy Co		adad	<u>▶</u> Narrow < rott	
		Partly of Shaded		aueu	Wetland PresentYes <u>✓</u> No	
— Wetland ID						
AQUATIC VEGETATION Indicate the dominant type and record the dominant species preser Rooted emergentRooted submergentRooted fiFloating algaeAttached algae			ing Free floating			
			_		<u>—</u>	
		Information	listed on this form re-	presents the c	data collected in 2015. The str	ream was revisited
Information listed on this form represents the data collected in 2015. The stream was revisited on 10/02/2019. The presence of a stream channel and OHWM was confirmed.						
MACROINVER	RTEBRATES	MACROINVERTEBRATES				

Information listed on this form represents the data collected in 2015. The stream was revisited on 10/02/2019. The presence of a stream channel and OHWM was confirmed.

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES



Photograph Direction NE

Date: 05/07/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: 10/02/2019

STREAM ID S-A100	STREAM NAME Left Fork Holly River
LAT 38.676599 LONG -80.478025	DATE 05/05/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Cook, Heule, Lew	
FLOW REGIME Perennial / Intermittent _ Ephemeral	WATER TYPE TNW RPW_✓ NRPW

Estimate Measurements Top of Bank Width: 80.0 ft Top of Bank Height:			Stream Erosion	Нозми		
				<u>✓</u> NoneModerate	пеаvy	
		-	-	£4	Artificial, Modified or Channelized	
		LB 10.0		<u>ft</u>	Yes No	
CHANNEL FE	ATURES	Water Depth: 4.00 ft		Dam PresentYes _	✓ No	
		Water Width: 60.0 π		_ _	<u> </u>	
		High Water Mark: 2.5 ft		Sinuosity <u>v</u> Low	Medium High	
		Flow Direction: Southwest		Gradient		
					✓ Flat Moderate (2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types	0/
		Stream I Standing	ped moist		Riffle 30 % Run 40 Pool 30 %	%
FLOW	ICTICS	Standing	•		70	
CHARACTER	131103				Turbidity	Annalis Transis
		Velocity ✓ Fast	Madarata		✓ Clear — Slightly — Opaque — Stained	
		<u>▼</u> Fast Slow	Moderate		Other	
INOR	GANIC SUR	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	IPONENTS
IIIOI		add up to 10		_	does 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	> 256	mm (10")	25	Detritus	plant materials (CPOM)	
Cobble	64-256 m	m (2.5"-10")	20	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	1 (0.1"-2.5")	10		(FPOM)	
Sand		nm (gritty)	35			
Silt		0.06 mm	10	Marl	grey, shell fragments	
Clay	< 0.004 i	mm (slick)			1 11 1 11 1 1 11	
		✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pa	astureIndustrial		Grasses Herba	
WATERSHED		Agricult	ural Resident	tial	Floodplain Width	
FEATURES		Other:			✓ Wide > 30ft Mode	rate 15-30ft
		Canopy Co	over		Narrow <16ft	
		Partly open		aded	Wetland PresentYes	✓ No
		Shaded	Open		Wetland ID	<u> </u>
Indica					dominant species present	
AQUATIC VEGETATION			Rooted emergentRooted submergentRooted floatingFree floating			
Floating algaeAttached algae						
		<u> </u>				
					ata collected in 2015. The st nnel and OHWM was confirm	
MACROINVE	MACROINVERTEBRATES			a on our orial	4114 07 144141 W445 0011111111	~~.
OR OTHER WILDLIFE						
OBSERVED/C						
OBSERVATION NOTES	OBSERVATIONS AND					
		1				

Stream ID S-A100



Photograph Direction SW

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction NW

Date: 10/02/2019

STREAM ID S-E78/E82/R1	STREAM NAME UNT to Left Fork Holly River
LAT 38.676165 LONG -80.478057	DATE 05/06/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS L Harloe, H Heist	
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

i cicilliai =		nt <u> </u>	erai — Tivvv —	RPW —	NRPW —	
	1	Fatherate *	1		Otroom Front	
			lleasurements k Width: <u>8.0</u> ft		Stream ErosionNone✓ Moderate	Heavy
		Top of Bank Height:			Artificial, Modified or Char	nelized
		LB <u>1.5</u>	ft RB <u>1.5</u>	<u>ft</u>	Yes _ No	
CHANNEL FE	ATURES	Water Dept	th: 5.00 in		_	
		Water Width: 4.0 ft			Dam PresentYes _	<u>∕</u> No
		High Water	Mark: <u>8.0 ft</u>		Sinuosity Low	Medium High
		Flow Direct	tion: W		Gradient	
						Severe
		Water Dree			` , ,	(10 ft/100 ft)
		Water Pres No wate	r, stream bed dry		Proportion of Reach Repre Morphology Types	esented by Stream
			ped moist		Riffle 10 % Run 90	%
FLOW		Standing	•		Pool %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ ClearSlightly	turbidTurbid
			✓ Moderate		OpaqueStained	
		Slow			Other	
INORGANIC SUBSTRATE COMPONENTS			0	RGANIC SUBSTRATE CON	IPONENTS	
	(should a	add up to 10	-	-	does 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	> 256	mm (10")		Detritus	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	5	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	35	Widok-Wida	(FPOM)	
Sand	0.06-2n	nm (gritty)	60			
Silt	0.004-0	0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004 i	mm (slick)				
			ant Surrounding Lan		Indicate the dominant type	
		✓ Forest ✓ Field/Pa	Commer asture Industrial	ial <u>v</u> Trees Shrubs Grasses <u>v</u> Herbaceou		
		Agricult		tial	<u> </u>	ccous
WATERSHED		Other:	_ -		Floodplain Width	45 20#
FEATURES					Wide > 30ft v Mode Narrow <16ft	rate 15-30ft
		Canopy CoverPartly open Partly shaded		aded	Nanow Tole	
		✓ Shaded			Wetland PresentYes	<u>✓</u> No
					Wetland ID	
AQUATIC VEGETATION Rooted em			a record the d Rooted subme	lominant species present ergent Rooted float	ting Free floating	
Floating		· —	Attached algae	<u> </u>		
		Information	listed on this form re	nresents the d	ata collected in 2015. The st	ream was revisited
					nnel and OHWM was confirm	
	MACROINVERTEBRATES					
OR OTHER WILDLIFE						
OBSERVED/OTHER OBSERVATIONS AND						
NOTES	ING AND					

Stream Photograph Page

Stream ID <u>S-E78/E82/R1</u>



Photograph Direction NE

Date: 05/06/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: <u>10/02/2019</u>

STREAM ID S-E76	STREAM NAME UNT to Left Fork Holly River
LAT 38.674961 LONG -80.477486	DATE 05/05/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS S Ryan, L Harloe, H Heist	
FLOW REGIME Perennial — Intermittent— Ephemeral ✓	WATER TYPE TNW RPW NRPW <u>✓</u>

			leasurements		Stream Erosion	Heave
		-	k Width: 3.0 ft		None Moderate	<u> —</u> пеаvy
		Top of Bank	J	. .	Artificial, Modified or Char	nnelized
		- I		YesNo		
CHANNEL FE	ATURES	Water Depth: 0.50 in		Dam PresentYes _	✓ No	
		Water Width: 1.0 π			_	
		High Water	Mark: 3.0 ft		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	ion: W		Gradient	
					Flat Moderate (2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle % Run 10	0 %
		Standing			Pool %	0 /0
FLOW CHARACTER	ISTICS	Flowing			-	
		Velocity			Turbidity Clear	
			✓ Moderate			
		Slow			Other	
INORGANIC SUBSTRATE COM				-	RGANIC SUBSTRATE CON	
	(should a	add up to 100		(does not necessarily add up to 100%)		
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")			plant materials (CPOM)	15
Cobble		m (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")			(FFOWI)	
Sand		nm (gritty)		Morl	arov shall fragments	
Silt Clay		0.06 mm mm (slick)	50 50	Marl	grey, shell fragments	
Clay	₹ 0.004	, ,	ant Surrounding Lan	Husp	Indicate the dominant type	(Chack ana)
		Forest	Commer	cial	Trees Shrub	
		<u>✓</u> Field/Pa				iceous
WATERSHED FEATURES		Agricult Other:	ural Resident	Floodplain Width		45 006
		Canopy Cover Partly open Partly shaded			Wide > 30ft Moderate 15-30ft ✓ Narrow <16ft	
				aded		
		Shaded			Wetland PresentYes Wetland ID	<u>✓</u> No
			e dominant type and	d record the	dominant species present	_
AQUATIC VEGETATION		Rooted Floating		Rooted subm Attached alga		tingFree floating
		<u>v</u> i-ioating		nuauneu aiga		

	Parallel to road, Trib to S-E74 (2015 note)
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this data form represents data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-E76



Photograph Direction West

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction SW

Date: 11/11/2019

STREAM ID S-KK02	STREAM NAME UNT to Left Fork Holly River				
LAT 38.672291 LONG -80.476391	DATE 08/08/2015				
CLIENT MVP	PROJECT NAME MVP				
INVESTIGATORS D.Hadersbeck, R.Sparhawk, A.Hatfield, C.Helfich					
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>				

			leasurements		Stream Erosion	Hoon
		'	k Width: 3.0 ft		<u>✓</u> NoneModerate	Heavy
		Top of Bank	· ·		Artificial, Modified or Char	nnelized
				Yes No		
CHANNEL FE	ATURES		h: <u>0.00 in</u>		Dam PresentYes _	✓ No
		Water Width: 0.0 π				<u> </u>
		Ü	Mark: 3.0 ft		Sinuosity Low	Medium High
		Flow Direct	ion: Northwest		Gradient	
						✓ Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
		Stream b	r, stream bed dry bed moist		Morphology Types Riffle % Run	%
EL OW		Standing	g water		Pool %	
FLOW CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
		Fast Moderate			OpaqueStained	
		Slow	Slow		Other	
INORGANIC SUBSTRATE CO					DRGANIC SUBSTRATE COMPONENTS	
Out at at	(snoula i	add up to 100			does not necessarily add u	
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)	35
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")	25		(I FOIVI)	
Sand Silt		nm (gritty) 0.06 mm	35	Marl	grey, shell fragments	
Clay		mm (slick)	20 10	iviaii	grey, shell fragilierits	
Olay	10.004	,	int Surrounding Lan	duse	Indicate the dominant type	(Check one)
		✓ Forest	Commer	cial	<u>✓</u> Trees Shrub	
		Field/Pa			Grasses Herba	ceous
WATERSHED FEATURES		Agricult	ural Resident	tial	Floodplain Width	
		Other:			Wide > 30ft Moderate 15-30ft	
		Canopy Cover			✓ Narrow <16ft	
		✓ Partly open — Partly sha Shaded — Open		aded	Wetland PresentYes	<u>✓</u> No
				4	Wetland ID	
AQUATIC VE	AQUATIC VEGETATION			d record the d Rooted subma	dominant species present ergent Rooted float	ting Free floating
AGOANO FEGERATION		Floating algae Attached algae				
	•					

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Feeds into S-E76-Ext-KK. Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-KK02



Photograph Direction SE

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

Comments: 2015 stream identification.



Photograph Direction SE

Date: 11/11/2019

STREAM ID S-KK3b	STREAM NAME UNT to Left Fork Holly River			
LAT 38.672124 LONG -80.476612	DATE 08/08/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS D.Hadersbeck, R.Sparhawk, A.Hatfield, C.Helfich				
FLOW REGIME Perennial — Intermittent— Ephemeral	WATER TYPE TNW RPW NRPW ✓			

		Estimate Measurements			Stream Erosion	
		Top of Banl	k Width: 3.0 ft		<u>✓</u> NoneModerate	Heavy
		Top of Bank	· ·		Artificial, Modified or Char	nnelized
		LB <u>1.5</u>	ft RB <u>2.0</u>	<u>ft</u>	Yes No	
CHANNEL FE	ATURES	Water Dept	h: <u>0.00 in</u>		Dam Present Yes	∠ No
		Water Width: 0.0 ft				_
		High Water	Mark: <u>1.0 ft</u>		Sinuosity Low	Medium High
		Flow Direct	ion: West		Gradient	
						✓ Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle % Run	%
O.W		Standing			Pool %	
FLOW CHARACTERI	ISTICS	Flowing	water		T. ahidib.	
		Velocity			Turbidity ClearSlightly	turbidTurbid
		Fast Moderate			OpaqueStained	
		Slow	Slow		Other	
INORGANIC SUBSTRATE					PRGANIC SUBSTRATE COMPONENTS	
0.1.1.1	(snould a	add up to 100			does 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")			plant materials (CPOM)	35
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	
Gravel Sand		n (0.1"-2.5") nm (gritty)	25		(ITOWI)	
Silt		0.06 mm	<u>35</u> 20	Marl	grey, shell fragments	
Clay		mm (slick)	10	IVICIT	grey, shell fragments	
		` '	nt Surrounding Lan	duse	Indicate the dominant type	(Check one)
		✓ Forest	Commer	cial	<u>✓</u> Trees Shrub	s ,
		Field/Pa			Grasses Herba	ceous
WATERSHED FEATURES		Agricultural Residential Other:		liai	Floodplain Width Wide > 30ft Moderate 15-30ft	
		Canopy Co	over		Narrow <16ft	
		<u>✓</u> Partly o		aded		
		ShadedOpen			Wetland PresentYes Wetland ID	<u>v</u> NU
					dominant species present	
AQUATIC VEGETATION		Rooted Floating	· —	Rooted subme Attached alga	<u> </u>	tingFree floating

	Feeds into S-E74-Ext-KK.
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 11/11/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-KK3b



Photograph Direction West

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

Comments: 2015 stream identification.



Photograph Direction NW

Date: 11/11/2019

STREAM ID S-KK4b	STREAM NAME UNT to Left Fork Holly River			
LAT 38.67193 LONG -80.47684	DATE 08/08/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS D.Hadersbeck, R.Sparhawk, A.Hatfield, C.Helfich				
FLOW REGIME Perennial — Intermittent— Ephemeral	WATER TYPE TNW — RPW — NRPW ✓			

			leasurements		Stream Erosion	
			k Width: 3.0 ft		<u>✓</u> NoneModerate	Heavy
		Top of Banl	· ·		Artificial, Modified or Char	nelized
					Yes _ <u>✓</u> No	
CHANNEL FEAT	TURES	Water Depth: 0.00 in		Dam PresentYes _	. No	
		water width: σ.σ π			Dani Flesent les	_110
		High Water	Mark: <u>1.0 ft</u>		Sinuosity Low	Medium High
		Flow Direct	ion: West		Gradient	
					Flat Moderate _ (0.5/100 ft	✓ Severe (10 ft/100 ft)
		Water Pres	ont		(0.5/100 ft (2 ft/100 ft) Proportion of Reach Repre	,
			r, stream bed dry		Morphology Types	sented by Stream
		Stream b	ped moist		Riffle % Run	%
FLOW		Standing	,		Pool %	
CHARACTERIST	TICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
		Fast Moderate			OpaqueStainedOther	
		Slow				
INORGA				RGANIC SUBSTRATE COMPONENTS does not necessarily add up to 100%)		
Substrate Type	Diame		% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock					sticks, wood, coarse	
Boulder	> 256 ı	mm (10")		Detritus	plant materials (CPOM)	40
Cobble	64-256 m	m (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	25	iviuck-iviuu	(FPOM)	
Sand	0.06-2n	nm (gritty)	35			
Silt	0.004-0).06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004 r	mm (slick)	10			
		Predomina ✓ Forest	int Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pa				
		Agricult	ural Resident	tial	al	
WATERSHED FEATURES		Other: Canopy Cover ✓ Partly open Partly shaded			Floodplain Width Wide > 30ft Moderate 15-30ft	
					✓ Narrow <16ft	
				aded	Wetland Present Yes ✔ No	
		ShadedOpen			Wetland ID	- NO
		Indicate th	e dominant type and	d record the d	lominant species present	
AQUATIC VEGE	TATION	Indicate th Rooted	emergent	d record the d Rooted subme Attached algae	ergentRooted float	ingFree floating

	Feeds into S-E74-Ext-KK.
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 11/11/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-KK4b



Photograph Direction South

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

Comments: 2015 stream identification.



Photograph Direction South

Date: 11/11/2019

STREAM ID S-E74	STREAM NAME UNT to Left Fork Holly River
LAT 38.674406 LONG -80.477455	DATE 05/05/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS S Ryan, L Harloe, H Heist	
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

			leasurements		Stream Erosion	
			k Width: 4.0 ft		NoneModerate	L Heavy
					Artificial, Modified or Char	nelized
		LB <u>1.5 ft</u> RB <u>1.5 ft</u>			Yes No	
CHANNEL FE	ATURES	Water Dept	h: 2.00 in		Dam Present Yes	∠ No
		Water Widt	h: <u>1.0 ft</u>			_
		High Water Mark: 6.0 in			Sinuosity Low	Medium High
		Flow Direct	ion: NW		Gradient	
						Severe
		Water Pres	ant .		(0.5/100 ft (2 ft/100 ft) Proportion of Reach Repre	(10 ft/100 ft)
			r, stream bed dry		Morphology Types	sented by Stream
		Stream b	ped moist		Riffle 60 % Run 40	%
FLOW		Standing			Pool %	
CHARACTERI	STICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ Clear — Slightly	
		Fast _ <u>v</u> Moderate			OpaqueStainedOther	
Slow			MACHENTO.			IDONENTO.
INORGANIC SUBSTRATE COMP (should add up to 100%				_	RGANIC SUBSTRATE COM	
Substrate Type	Diame		% Composition in Sampling Reach	Substrate Type	1	% Composition in Sampling Area
Bedrock				5.13	sticks, wood, coarse	
Boulder	> 256	mm (10")		Detritus	plant materials (CPOM)	40
Cobble	64-256 m	m (2.5"-10")	15	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	50	WIGGK-WIGG	(FPOM)	
Sand	0.06-2r	nm (gritty)	30			
Silt		0.06 mm	5	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
		Predominant Surrounding Landuse Forest Commercial			Indicate the dominant type Trees Shrub	
		Field/Pa			Grasses Herba	
WATERCHER		Agricult	ural Resident	tial	Floodplain Width	
WATERSHED FEATURES		Other:			Wide > 30ft Moderate 15-30ft	
		Canopy Cover			✓ Narrow <16ft	
		Partly openPartly sha		aded	Wetland Present Yes	✓ No
		Shaded	Open		Wetland ID	
			•		dominant species present	
AQUATIC VEGETATION		Rooted emergent Rooted submersion Attached alga			_	ingFree floating
				aoi ioa aiga	.~	

	Headcut present. Variable reach. Uppermost portion is narrower, with lower portion wider during 2015 survey. (2015 note)
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 11/11/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-E74



Photograph Direction NW

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction NW

Date: 11/11/2019

STREAM ID S-F40	STREAM NAME Oldlick Creek			
LAT 38.666402 LONG -80.477634	DATE 05/05/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS A. Flake, D. McCullough, E. Strohmaier				
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW			

Perenniai 💆	<u> </u>	nt <u> </u>	eral TNW	RPW <u>→</u>	NRPW	
		Estimate Measurements			Stream Erosion	
		Top of Bank	k Width: 25.0 ft		None Moderate .	Heavy
		Top of Bank	k Height:		Artificial, Modified or Chan	inelized
					Yes _✓ No	
CHANNEL FE	ATUDEO	Water Depth: 3.00 in				
CHANNEL FE	ATURES	Water Widtl			Dam PresentYes	<u><</u> No
		• • • • • • • • • • • • • • • • • • • •			Sinuosity Low	Medium High
			tion: N		Our diam.	
		I low blicet	1011.		Gradient Flat _✓ Moderate _	Severe
					(0.5/100 ft (2 ft/100 ft)	
		Water Pres			Proportion of Reach Repre	sented by Stream
			r, stream bed dry		Morphology Types	-
		Stream b			Riffle 30 % Run 70	%
FLOW		Standing	•		Pool %	
CHARACTER	ISTICS	Flowing \	water		Turbidity	
		Velocity			✓ Clear — Slightly f	
		<u>✓</u> Fast _	Moderate		OpaqueStained	
Slow		Slow			Other	
INORGANIC SUBSTRATE CON					RGANIC 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			40	Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	20	Detritus	plant materials (CPOM)	5
Cobble	64-256 m	ım (2.5"-10")	25	- Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	5	Wack-Waa	(FPOM)	
Sand	0.06-2r	mm (gritty)	5			
Silt	0.004-	0.06 mm	5	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	0			
		Predominant Surrounding Landuse			Indicate the dominant type	
		Forest Commerc			<u>✓</u> TreesShrub	
		Field/PastureIndustrialAgricultural Residential			Grasses Herba	ceous
WATERSHED		Agriculti Other:	Resident		Floodplain Width Wide > 30ft Moderate 15-30ft	
FEATURES		01101.				
		Canopy Cover			Narrow <16ft	
		<u>✓</u> Partly o		aded	aded Wetland Present Yes ✔ No	
-8		Shaded	ShadedOpen		Wetland ID	<u>- 110</u>
		Indicate the	Indicate the dominant type and record the dominant species present			
AQUATIC VEGETATION					ingFree floating	
Floating algae			g algae <u>✓</u>	Attached alga	e	
					ata collected in 2015. The str	
		on 10/02/20)19. The presence of	a stream char	nnel and OHWM was confirmed	ed.

	Information listed on this form represents the data collected in 2015. The stream was revisited on 10/02/2019. The presence of a stream channel and OHWM was confirmed.
MACROINVERTEBRATES OR OTHER WILDLIFE	
OBSERVED/OTHER OBSERVATIONS AND NOTES	
NOTES	

Stream ID S-F40



Photograph Direction North

Date: 05/05/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: 10/02/2019

STREAM ID S-S1	STREAM NAME UNT to Oldlick Creek
LAT 38.667013 LONG -80.479570	DATE 06/12/2015
PROJEC MVP	CLIENT MVP
INVESTIGATORS J.Cook, K. Lew, N.Sovner	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW

Perenniai —	 intermitte 	nt — Epneme	erai invv —	RPW —	NRPW —	
		Estimate Measurements Top of Bank Width: 2.0 ft			Stream Erosion None Moderate	Heavy
		Top of Bank Height:			Artificial, Modified or Chan	-
CHANNEL FE	ATURES	Water Depth: 0.00 ft Water Width: 0.0 ft			Dam PresentYes	<u>∕</u> No
					Sinuosity <u>v</u> Low	Medium High
		Flow Direct	ion: West		Gradient	_
						Severe (10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
		✓ Stream b			Riffle % Run	%
FLOW		Standing			Pool %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		VelocityFast Moderate			ClearSlightly turbidTurbidOpaqueStainedOther	
		Slow				
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)			
0.1.1.1	(Siloulu 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				Detritus	sticks, wood, coarse	00
Boulder Cobble		mm (10")			plant materials (CPOM)	20
Gravel		m (2.5"-10") ı (0.1"-2.5")	15 15	Muck-Mud	black, very fine organic (FPOM)	
Sand		nm (gritty)	30		, ,	
Silt		0.06 mm	30	Marl	grey, shell fragments	
Clay	< 0.004 ı	mm (slick)	10			
WATERSHED		Predominant Surrounding Landuse _ Forest		cial	Indicate the dominant type Trees Shrub Grasses Herba Floodplain Width	S
FEATURES		Other:			Wide > 30ft Moderate 15-30ft	
		Canopy Co	over	adod	<u>✓</u> Narrow <16ft	
		Partly open Shaded Partly shaded Open			Wetland Present Wetland ID W-R2	No
AQUATIC VEGETATION				d record the o Rooted subme Attached alga	ergentRooted float	ingFree floating
	Information listed on this form represents the data collected in 2015. The stream was revisited on 10/05/2019. 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 10/05/2019. The presence of a stream channel and OHWM was confirmed.



Photograph Direction South

Date: <u>06/12/2015</u>

Comments: 2015 stream identification.



Photograph Direction SE

Date: 10/05/2019

STREAM ID S-S4	STREAM NAME UNT to Oldlick Creek
LAT 38.664389 LONG -80.484709	DATE 06/12/2015
PROJEC MVP	CLIENT MVP
INVESTIGATORS N Sovner, J Cook, K Lew	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW_✓

Perenniai —	_ memilie	nt — Epneme	erai invv —	RPW —	NRPW <u> </u>	
		Estimate Measurements Top of Bank Width: 2.0 ft			Stream Erosion ✓ None Moderate	Неауу
		Top of Bank Height:			Violeiviouciate	Ticavy
			-		Artificial, Modified or Char	nelized
		LB <u>4.0</u>		<u>n</u>	<u>✓</u> YesNo	
CHANNEL FE	ATURES	Water Depth: 0.00 ft			Dam PresentYes _	∠ No
		Water Width: 0.0 ft			Dami Tesent 163 _	_140
		High Water	Mark: <u>1.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	ion: West		Gradient	
					Flat Moderate _	
					. , ,	(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre Morphology Types	sented by Stream
			r, stream bed dry bed moist		Riffle % Run	%
		Standing			Pool %	
FLOW CHARACTER	ISTICS	Flowing	water			
					Turbidity ClearSlightly	turbidTurbid
		Velocity Fast	Moderate		ClearSlightly turbidTurbi OpaqueStained	
		Slow	Moderate		Other	
INORGANIC SUBSTRATE COMPONENTS ORGANIC SUBSTRATE COMPONENTS			IPONENTS			
			does not necessarily add u	p to 100%)		
Substrate	I Hameter		% Composition in	Substrate	Characteristic	% Composition in
Туре			Sampling Reach	Туре		Sampling Area
Bedrock	. 050	(40II)		Detritus	sticks, wood, coarse plant materials (CPOM)	70
Boulder		mm (10")				70
Cobble		ım (2.5"-10")	50	Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")	10		(I FOW)	
Sand		nm (gritty)	20	Mand		
Silt		0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	20			, <u> </u>
		✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pa			Grasses Herba	
		Agricult	ural Resident	tial		
WATERSHED FEATURES		Other:	_		Floodplain Width Wide > 30ft Moderate 15-30ft	
LATORES					✓ Narrow <16ft	410 10 0011
		Canopy Co Partly o		aded		
		✓ Shaded Open				<u>✓</u> No
			a deminent tune on	d roomed the s	Wetland ID	
AQUATIC VEGETATION				Rooted subm	dominant species present ergent Rooted float	ing Free floating
		Floating algaeAttached algae				
			<u> </u>			
		Information	listed on this form re	presents the d	lata collected in 2015. The stu	ream was revisited

Information listed on this form represents the data collected in 2015. The stream was revisited on 10/05//2019. The presence of a stream channel and OHWM was unable to be confirmed because of construction activities within the LOD.

Stream ID s-s4



Photograph Direction East

Date: <u>06/12/2015</u>

Comments: 2015 stream identification.



Photograph Direction East

Date: 10/05/2019

STREAM ID S-F43	STREAM NAME UNT to Oldlick Creek				
LAT 38.663440 LONG -80.478812	DATE 05/06/2015				
CLIENT MVP	PROJECT NAME MVP				
INVESTIGATORS A. Flake, D. McCullough, E. Strohmaier					
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW RPW_✓ NRPW				

r el el li li al 2	_	nt <u> </u>	erai INVV	RPW —	NRPW	
					<u> </u>	
		Estimate Measurements Top of Bank Width: 10.0 ft			Stream Erosion None Moderate Heavy	
		·	<u> </u>			
		Top of Ban	ŭ		Artificial, Modified or Char	nelized
		LB <u>3.0</u>		<u>ft</u>	Yes _ <u>✓</u> No	
CHANNEL FE	ATURES	Water Dep	th: 0.50 in		Dam PresentYes _	∠ No
		Water Widt	h: <u>5.0 ft</u>			_140
		High Water	Mark: <u>2.0 ft</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: N		Gradient	
					Flat Moderate _	Severe
					`	(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre Morphology Types	sented by Stream
			r, stream bed dry bed moist		Riffle 85 % Run 15	%
		Standing			Pool 0 %	
FLOW CHARACTER	ISTICS	Flowing	-			
					Turbidity <u>✓</u> ClearSlightly	turbidTurbid
		Velocity Fast	✓ Moderate		OpaqueStained	
		Slow			Other	
INOR	GANIC SUB	SSTRATE COMPONENTS		0	ORGANIC SUBSTRATE COMPONENTS	
			d up to 100%)		loes not necessarily add u	
Substrate	Diameter		% Composition in	Substrate	Characteristic	% Composition in
Туре	Diame		Sampling Reach	Туре	Characteristic	Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")	30		plant materials (CPOM)	15
Cobble	64-256 m	m (2.5"-10")	30	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	25		(FPOM)	
Sand	0.06-2r	nm (gritty)	10			
Silt		0.06 mm	5	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	- · · · · · · - · · · · · · · · · · · ·			ccous
WATERSHED FEATURES		Other:		Floodplain Width		45 005
FEATURES					Wide > 30ft Model	rate 15-30ft
		Canopy Co		aded	_	
		Partly open Partly shaded ✓ Shaded Open				<u>✓</u> No
		— wedand ib				
AOUATIC VE	CETATION	Indicate the dominant type and record the dominant species present				
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating Floating algae Attached algae				
				,a		
		1.6	Parada and Co.		are collected. Code The co	
					ata collected in 2015. The stance and OHWM was confirm	
MACROINVER	RTFRRATES		.c.ro. The prosence of	a official official	mior and Orivivi was collilli	
OR OTHER						
WILDLIFE OBSERVED/C						
OBSERVATION NOTES	NS AND					
		1				

Stream ID S-F43



Photograph Direction SW

Date: 05/06/2015

Comments: 2015 stream identification.



Photograph Direction East

Date: 10/05/2019

STREAM ID S-E67	STREAM NAME Right Fork Holly River
LAT 38.648023 LONG -80.48970	DATE 05/04/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS S Ryan, L Harloe, H Heist	
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

		Estimate Measurements			Stream Erosion	
		Top of Bank Width: 85.0 ft			None Moderate	Heavy
		Top of Bank Height:			Artificial, Modified or Channelized	
		LB <u>4.0</u>	ft RB <u>4.0</u>	<u>ft</u>	Yes ✓ No	
CHANNEL FEATURES		Water Dep	th: 2.00 ft		<u> </u>	
CHANNEL FE	ATURES	Water Widt	th: 65.0 ft		Dam PresentYes _	<u>∠</u> No
		High Water	Mark: <u>4.0 ft</u>		Sinuosity Low	Medium High
		Flow Direct			Gradient	
		200				Severe
					(0.5/100 ft (2 ft/100 ft)	(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle 40 % Run 60	%
FI 0W		Standin			Pool %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
		<u>✓</u> Fast	Moderate		✓ OpaqueStained	
		Slow			Other	
INOR		BSTRATE COMPONENTS add up to 100%)		_	ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)	
Substrate	,	•	% Composition in	·		% Composition in
Туре	Diame	eter	Sampling Reach	Туре	Characteristic	Sampling Area
Bedrock	. 050	(40II)	0.5	Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder		mm (10")	25		` ` ` `	10
Cobble Gravel		m (2.5"-10")	45	Muck-Mud	black, very fine organic (FPOM)	
Sand		n (0.1"-2.5") 15			(i i oiii)	
Silt		nm (gritty) 0.06 mm	15	Marl	grey, shell fragments	
Clay		mm (slick)		IVIGIT	grey, shell magnicines	
		` ′	ant Surrounding Lar	nduse	Indicate the dominant type	(Check one)
		✓ Forest	Commer		<u>✓</u> Trees Shrub	s
		— Field/P			Grasses Herba	iceous
WATERSHED	ı	Agricultural Residential Other:			Floodplain Width	
FEATURES		Other:			✓ Wide > 30ft Moderate 15-30ft	
		Canopy Cover			Narrow <16ft	
		✓ Partly open — Partly shaded Open			Wetland PresentYes	<u>✓</u> No
		— Wetland ID				
AOUATIC VE	SETATION				dominant species present ergent Rooted float	ting Free floating
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating Floating algae Attached algae				
			- <u>-</u>			
		Information	listed on this form re	nresents the d	ata collected in 2015. The st	ream was revisited
MACROINVERTEBRATES					nnel and OHWM was confirm	
		;				
OR OTHER WILDLIFE						
OBSERVED/C						
NOTES	= : :: :=					
		Ī				

Stream ID S-E67



Photograph Direction SW

Date: 05/04/2015

Comments: 2015 stream identification.

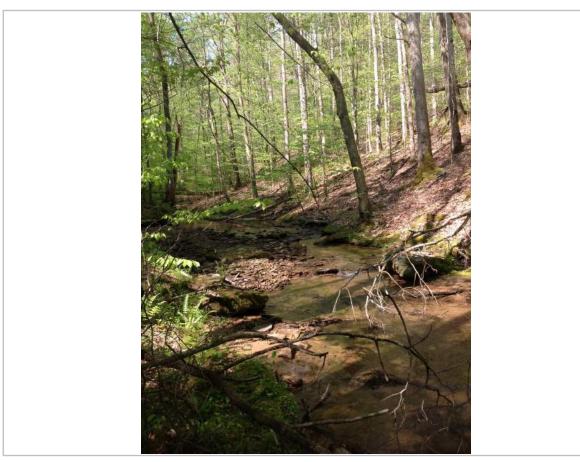


Photograph Direction NE

Date: 10/05/2019

STREAM ID S-B62	STREAM NAME Narrows Run
LAT 38.642046 LONG -80.484571	DATE 05/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS E. Foster, K. Lamontagne, C	C. Ansari
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perenniai -		nt <u> </u>	erai Tivvv	RPW —	NRPW —		
		F-4'4- B			Ota		
					Stream Erosion None Moderate	<u>✓</u> NoneModerateHeavy	
		·	<u> </u>		woderate		
		Top of Ban	ŭ		Artificial, Modified or Char	nnelized	
		LB <u>5.0</u>	ft RB <u>15.0</u>	<u>rt</u>	Yes No		
CHANNEL FE	ATURES	Water Dep	th: 3.00 in		Dam PresentYes _	∠ No.	
		Water Widt	th: 15.0 ft		Dam Flesent 165 _	<u>/ </u>	
		High Water	Mark: <u>7.0 in</u>		Sinuosity 🔽 Low	Medium High	
		Flow Direct	tion: Northeast		Gradient		
					Flat Moderate _	✓ Severe	
					, , ,	(10 ft/100 ft)	
		Water Pres			Proportion of Reach Repre	esented by Stream	
			r, stream bed dry bed moist		Morphology Types Riffle 40 % Run 40	%	
		— Stream			Pool 20 %	70	
FLOW CHARACTER	ISTICS	Flowing	-				
011111111111111111111111111111111111111					Turbidity <u>✓</u> ClearSlightly	turbidTurbid	
		Velocity Fast	✓ Moderate		Opaque Stained		
		Slow	<u> </u>		Other		
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	IPONENTS	
iii oi		add up to 100%)			(does not necessarily add up to 100%		
Substrate	Diame	ter	% Composition in	Substrate	Characteristic	% Composition in	
Туре	Diamo		Sampling Reach	Туре	- Characteriotic	Sampling Area	
Bedrock	. 050	(4011)	70	Detritus	sticks, wood, coarse plant materials (CPOM)	10	
Boulder		mm (10")	10		. , ,	10	
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)		
Gravel		1 (0.1"-2.5")	10		(I FOW)		
Sand		nm (gritty)		Mand			
Silt		0.06 mm		Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)		.1	In dia station of a value and to an	(2)	
		✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub		
		Field/P	_			ceous	
		Agricul	tural Resident	tial	_		
WATERSHED FEATURES		Other:			Floodplain Width ✓ Wide > 30ft Mode	rate 15-30ft	
		Canopy Co	over.		Narrow <16ft		
		Partly of		aded			
		Shaded Open			Wetland PresentYes Wetland ID	<u>✓</u> No	
		Indicate th	o dominant type and	d record the c			
AQUATIC VE	GETATION	Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Rooted floating Free floating					
						· <u> </u>	
MACROINVERTEBRATES OR OTHER WILDLIFE							
		3					
OBSERVED/C							
NOTES	NO AND						



Photograph Direction SW

Comments:

STREAM ID S-E68	STREAM NAME Elk River
LAT 38.615057 LONG -80.506116	DATE 05/04/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS S Ryan, L Harloe, H Heist	
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW RPW NRPW NRPW

Type Diameter Sampling Reach Type Characteristic Sampling Area Bedrock Boulder > 256 mm (10") 10 Cobble 64-256 mm (2.5"-10") 40 Gravel 2-64 mm (0.1"-2.5") 20 Sand 0.06-2mm (gritty) 30 Silt 0.004-0.06 mm	Perenniai -	<u> </u>	nt <u> </u>	erai rivvv <u> </u>	RPW —	NRPW —		
Top of Bank Width: 150.0 ft Top of Bank Height: Top of Bank Height: RB 12.0 ft RB 12.0 ft Water Poeth: 5.00 ft Water Width: 150.0 ft High Water Mark: 9.0 ft Flow Direction: NW Water Present No water, stream bed dry Sizean bed moist Standing water CHARACTERISTICS Water Poeth: 5.00 ft Flow Direction: NW Water Present No water, stream bed dry Sizean bed moist Standing water Velocity Flowing water Velocity Flow John Holling Water Standing water Velocity Flow John Holling Water Velocity Fast Moderate Severe (0.57100 ft (2.ft/100 ft) (10 ft/100 ft) Proportion of Reach Represented by Stream Morphology Types Riflle % Run % Flow Pool % Velocity Clear CompoNents Close Characteristic Sampling Reach Type Bedrock Defitius Sitcks, wood, Coarse plant materials (CPOM) Cobble 64-256 mm (25'-10") AD Cobble Clay Clear Clear Clear Clear Clear Clear CompoNents Clear						~ - ·		
Top of Bank Height: LB 12.0 ft RB 12.0 ft Water Depht: 5.00 ft Water Work 150.0 ft High Water Mark: 9.0 ft Flow Direction: NW Water Present How water, stream bed dry Stream bed moist Stram bed moist Pool % Velocity Stram bed moist Stra								
CHANNEL FEATURES LB 12.0 ft RB 12.0 ft Water Depth: 5.00 ft Water Width: 150.0 ft High Water Mark: 9.0 ft Sinuosity Low Medium High Flow Direction: NW Gradient Los Flait Los F			-			Woderate	ricavy	
Water Now; 5.00 ft Water Width: 150.0 ft High Water Mark: 9.0 ft Sinusoity ✓ Low	CHANNEL FEATURES			ŭ			nnelized	
Water Width: 150.0 ft High Water Mark: 9.0 ft Flow Direction: NW					<u>tt</u>	Yes _ <u>✔</u> No		
High Water Mark: 9.0 ft Flow Direction: NW			Water Dep	th: 5.00 ft		Dam Present Ves	No	
FLOW Direction: NW Gradient			Water Widt	h: 150.0 ft		Dani Tesent V 103	_110	
Water Present			High Water	Mark: <u>9.0 ft</u>		Sinuosity <u>v</u> Low	Medium High	
Line Moderate Severe Co.54700 th Cit Prito 0 th			Flow Direc	tion: NW		Gradient		
Water Present						✓ FlatModerate _		
No water, stream bed dry Stream bed moist Standing water Pool % Riffle						, , ,	,	
Stream bed moist Riffle % Run %							esented by Stream	
Standing water Flowing water Flowing water Flowing water Velocity Fast Moderate Slow Flowing water Fast Moderate Slow NORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Type Diameter Sampling Reach Flowing Reach Flowi				•			%	
CHARACTERISTICS Flowing water Velocity Fast Slow Moderate Slow Departue Stained Departue Substrate Type Diameter Sampling Reach Sampling Reach Sampling Reach Sampling Reach Departue Departue Detritus Diack, very fine organic (FPOM) Detritus Diack, very fine organic (FPOM) Marl Gravel 2-64 mm (0.1**-2.5**) 20 Muck-Mud Diack, very fine organic (FPOM) Sand Detritus Diack, very fine organic (FPOM) Marl Gravel 2-64 mm (0.1**-2.5**) 20 Muck-Mud Diack, very fine organic (FPOM) Sand Detritus Diack, very fine organic (FPOM) Marl Gravel 2-64 mm (0.1**-2.5**) 20 Silt Double Agricultural Detritus Diack, very fine organic (FPOM) Marl Gravel 2-64 mm (0.1**-2.5**) 20 Silt Diack, very fine organic (FPOM) Marl Gravel 2-64 mm (0.1**-2.5**) 20 Trees Shrubs Grasses Herbaceous Floodplain Width Wide > 30ft Welland ID Moderate 15-30ft Welland ID Mack-Mud Diack the dominant type and record the dominant species present Partly open Partly open Partly shaded Departure Depart			_				, ,	
Velocity		ISTICS		-				
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Type Diameter Bedrock Boulder - 256 mm (10") Cobble 64-256 mm (2.5"-10") Caravel 2-64 mm (0.1"-2.5") Sand 0.06-2mm (gritty) Sand Silt 0.004-0.06 mm Clay Predominant Surrounding Landuse Field/Pasture Agricultural Agricultural Agricultural Agricultural Canopy Cover Partly open Partly open Shaded Agricultural Agricultural Canopy Cover Partly open Shaded Agricultural Agricultural Characteristic Substrate Type Characteristic Sticks, wood, coarse plant materials (CPOM) Black, very fine organic (FPOM) Black, very fine organic (FPOM) Marl Grey, shell fragments Indicate the dominant type (Check one) Frees Shrubs Grasses Herbaceous Herbaceous Herbaceous Floodplain Wide > 30ft Wetland Present Wide > 30ft Narrow <16ft Wetland Present Floodplain Moderate 15-30ft Narrow <16ft Narrow <16ft Rooted emergent Rooted emergent Floating algae Attached algae MACROINVERTEBRATES OR OTHER MACROINVERTEBRATES OR OTHER MACROINVERTEBRATES OR OTHER MACROINVERTEBRATES OR OTHER BESERVED/OTHER OBSERVED/OTHER	01344010121					Turbidity Clear Slightly	turbid Turbid	
Slow				✓ Moderate				
Should add up to 100% Composition in Substrate Type Diameter Sampling Reach Sampling Reach Type Characteristic Sampling Area				Woderate				
Should add up to 100% Composition in Substrate Type Diameter Sampling Reach Sampling Reach Type Characteristic Sampling Area	INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	/PONENTS	
Bedrock Sampling Reach Type Characteristic Sampling Area Bedrock Double Sampling Reach Type Sticks, wood, coarse plant materials (CPOM) Cobble 64-256 mm (10") 10 Detritus Sticks, wood, coarse plant materials (CPOM) Cobble 64-256 mm (2.5"-10") 40 Muck-Mud (FPOM) Sand 0.06-2mm (gritty) 30 Silt 0.004-0.06 mm Marl grey, shell fragments Clay < 0.004 mm (slick) Predominant Surrounding Landuse								
Bedrock Boulder > 256 mm (10") 10 Cobble 64-256 mm (2.5"-10") 40 Gravel 2-64 mm (0.1"-2.5") 20 Sand 0.06-2mm (gritty) 30 Silt 0.004-0.06 mm Clay < 0.004 mm (slick) WATERSHED FEATURES WATERSHED FEATURES WATERSHED A Grand Canada Mark Muckensular Shaded Open Partly open Shaded Open Partly open Shaded Open Metand ID AQUATIC VEGETATION MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER O		Diame	eter			Characteristic		
Boulder > 256 mm (10") 10 Detitus plant materials (CPOM)						sticks wood coarse		
Gravel 2-64 mm (0.1"-2.5") 20 Muck-Mud (FPOM) Sand 0.06-2mm (gritty) 30 Silt 0.004-0.06 mm Marl grey, shell fragments Clay < 0.004 mm (slick) Predominant Surrounding Landuse Commercial Field/Pasture Industrial Agricultural Residential Other: Canopy Cover Partly open Ploating algae Attached algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	Boulder	> 256	mm (10")	10	Detritus			
Sand 2-64 mm (0.1"-2.5") 20 (FPOM)	Cobble	64-256 m	m (2.5"-10")	40	Muck Mud	black, very fine organic		
Mark Grey, shell fragments Grey, shell fragments	Gravel	2-64 mm	n (0.1"-2.5")	20	IVIUCK-IVIUU			
Clay < 0.004 mm (slick)	Sand	0.06-2n	nm (gritty)	ı (gritty) 30				
WATERSHED FEATURES Predominant Surrounding Landuse	Silt	0.004-0	0.06 mm		Marl	grey, shell fragments		
WATERSHED FEATURES WATERSHED FEATURES WATERSHED FEATURES WATERSHED FEATURES WATERSHED FEATURES WATERSHED FEATURES Residential Other: Canopy Cover Partly open Shaded Open Wetland Present Wetland ID Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Floating algae Attached algae WACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	Clay	< 0.004	mm (slick)					
WATERSHED FEATURES Field/Pasture Industrial Grasses Herbaceous Agricultural Residential Residential Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <16ft Partly open Partly shaded Yes No Wetland Present Yes No Wetland ID Free floating				•		Indicate the dominant type		
WATERSHED FEATURES Agricultural Other: Floodplain Width Wide > 30ft Moderate 15-30ft Canopy Cover Partly open Partly shaded Open Wetland ID Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Rooted floating Free floating Floating algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVED/OTHER OBSERVATIONS AND			_	_				
## Canopy Cover Partly open Partly shaded Shaded Open Wetland ID Macroinvertebrates Property Property						GrassesHerba	iceous	
Canopy Cover Partly open Partly shaded Shaded Open Wetland Present Yes No Wetland ID Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Rooted floating Free floating Floating algae Attached algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND				itesideiii	iai			
Partly open Partly shaded Wetland Present Yes No Wetland ID Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Rooted floating Free floating Indicate the dominant species present Attached algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	FEATURES		_				rate 15-30ft	
AQUATIC VEGETATION Indicate the dominant type and record the dominant species present Rooted emergent Floating algae Attached algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND						<u>V</u> Narrow < 1611		
AQUATIC VEGETATION Indicate the dominant type and record the dominant species present Rooted emergent Floating algae Attached algae MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVED/OTHER OBSERVATIONS AND				: — ·	aded	Wetland PresentYes	<u>✓</u> No	
AQUATIC VEGETATIONRooted emergentRooted submergentRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingRooted floatingFree floatingRooted floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floatingRooted floatingFree floating			— Wetland ID					
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND								
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	AQUATIC VE	GETATION	—					
OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND				<u></u>	Allacried alga	<u> </u>		
OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND			ı					
OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND								
OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND	OR OTHER							
OBSERVED/OTHER OBSERVATIONS AND			<u>'</u>					
OBSERVATIONS AND		THER						
NOTES	OBSERVATIO							
	NOTES							



Photograph Direction ESE

Comments:

STREAM ID S-E71	STREAM NAME UNT to Elk River
LAT 38.614416 LONG -80.505983	DATE 05/04/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS S Ryan, L Harloe, H Heist	
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW RPW ✓ NRPW

			/leasurements k Width: 2.0 ft		Stream ErosionNone <u>✓</u> Moderate	Heavy	
		Top of Ban	k Height:		Artificial, Modified or Char	nolizod	
		LB_ <u>4.0 i</u> n RB_ <u>4.0 i</u> i		•	Yes _∠No	menzea	
CHANNEL FE	ATLIDES	Water Dep	th: 0.00 in	•	<u> </u>		
CHANNELTE	ATORES	Water Widt	th: 0.0 in		Dam PresentYes _	<u>∕</u> No	
		High Water	Mark: <u>3.0 in</u>		Sinuosity 🔽 Low	Medium High	
		Flow Direc	tion: NE		Gradient		
					Flat Moderate _	✓ Severe (10 ft/100 ft)	
		Water Pres	sent		Proportion of Reach Repre	,	
		No wate	r, stream bed dry		Morphology Types	•	
		Stream			Riffle % Run Pool %	%	
FLOW		✓ Standing			Pool %		
CHARACTER	ISTICS	1 lowing	water		Turbidity		
		Velocity			ClearSlightly		
			Moderate		OpaqueStainedOther		
		Slow					
INOR		SSTRATE COMPONENTS add up to 100%)		_	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				Detritus	sticks, wood, coarse		
Boulder		mm (10")		Dounted	plant materials (CPOM)	95	
Cobble		m (2.5"-10")	40	Muck-Mud	black, very fine organic		
Gravel		1 (0.1"-2.5")	20		(FPOM)		
Sand		nm (gritty)	20				
Silt		0.06 mm	10	Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)	10				
		Predominant Surrounding Lan ✓ Forest Commer					
		Field/P	astureIndustria				
WATERSHED		Agricultural Resident					
FEATURES	'	Other:		Wide > 30ft Moderate 15-30ft Narrow <16ft Metland Present Yes No.		rate 15-30ft	
		Canopy Co	over				
		Partly o				✓ No	
					Wetland ID		
					ominant species present		
AQUATIC VE	GETATION	Rooted emergentRooted subj			<u> </u>	tingFree floating	
		Floating algaeAttached algae					
		Channel is	old road, spring/grou	nd water fed	Toad observed		
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER		Onamicis	ola road, spring/grod	na water rea.	Toda obscivca.		
OBSERVATION NOTES	NS AND						



Photograph Direction SW

Comments:

STREAM ID S-H111	STREAM NAME UNT to Elk River
LAT 38.613576 LONG 80.504158	DATE 05/06/2015
CLIENT MVP	CLIENT MVP
INVESTIGATORS A. Grech, S. Kelly, M. Whitte	en
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perennial _	Intermitte	nt <u> L</u> Epheme	eral —	TNW	RPW 👱	NRPW	
		Estimate Measurements				Stream Erosion	
		Top of Bank Width: 4.0 ft				None Moderate	Heavy
		Top of Bank Height:				Autificial Madified on Chan	
		LB 1.0 ft RB 1.0 ft			ft	Artificial, Modified or Char <u>v</u> Yes No	inelizea
			_			<u></u>	
CHANNEL FE	ATURES	Water Dept				Dam Present Yes	✓ No
		Water Widt					
		High Water	Mark:	6.0 in		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	ion: N	orthwest		Gradient	
						Flat Moderate _	Severe
						`	(10 ft/100 ft)
		Water Pres		m had da.		Proportion of Reach Repre	sented by Stream
		Stream b		m bed dry		Morphology Types Riffle 95 % Run	%
		Standing				Pool 5 %	
FLOW CHARACTER	ISTICS	Flowing	_				
CHARACTER	131103	—				Turbidity	Accordadian Tecombatical
		Velocity				Clear Slightly Opaque Stained	
		Fast . ✓ Slow	IVIC	oderate		Other	
INOR		BSTRATE COMPONENTS add up to 100%)		_	ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrato	(Siloulu e	add up to 100		Composition in	`	T	% Composition in
Substrate Type	Diame	ter		mpling Reach	Substrate Type	Characteristic	Sampling Area
Bedrock				<u></u>	.,,,,,	sticks, wood, coarse	
Boulder	> 256	mm (10")	F	5	Detritus	plant materials (CPOM)	10
Cobble		ım (2.5"-10")	60			black, very fine organic	
Gravel		n (0.1"-2.5")		25	Muck-Mud	(FPOM)	
Sand		nm (gritty)		<u>-5</u> 10		, ,	
Silt		0.06 mm	<u>'</u>	0	Marl	grey, shell fragments	
Clay		mm (slick)			Widii	grey, shell fragments	
Clay	10.0041	` ′	nt Su	rrounding Lan	duco	Indicate the dominant type	(Cheek ene)
		✓ Forest	ılıt Sul	Commer		<u>✓</u> Trees Shrub	
		Field/Pa	asture			Grasses Herba	
		Agricult	ural	Resident	tial		
WATERSHED FEATURES	,	Canopy Cover Partly open Partly shaded				Floodplain Width Wide > 30ft Moder	rate 15-30ft
					✓ Narrow <16ft		ato to con
					aded	_	
		Shaded Open Open		aaoa	Wetland PresentYes	<u>✓</u> No	
						Wetland ID	
		Indicate the dominant type and record the dominant species present					
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating Floating algae Attached algae					
Attached algae							
						lata collected in 2015. The str	
)19. Th	ie presence of	a stream char	nnel and OHWM was confirm	ed.
MACROINVER OR OTHER	RTEBRATES	· [
WILDLIFE	XTED						
OBSERVED/C							
NOTES							