

STREAM ID S-YZ1		STREAM NAME Doe Creek	
CLIENT MVP		PROJECT NAME MVP	
LAT 37.336487	LONG -80.61455	DATE 09/19/2016	COUNTY Giles
INVESTIGATORS S. Pilcher, S. Therkildson, S. Yarbrough			
WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>		FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>10.0</u> ft Top of Bank Height: LB <u>3.0</u> ft RB <u>4.0</u> ft Water Depth: <u>0.00</u> in Water Width: <u>0.0</u> ft Ordinary High Water Mark (Width): <u>10.0</u> ft Ordinary High Water Mark (Height): <u>24.0</u> in Flow Direction: <u>South</u>	Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input type="checkbox"/> Moderate (2 ft/100 ft) <input checked="" type="checkbox"/> Severe (10 ft/100 ft) Stream Erosion <input type="checkbox"/> None <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within Roadside Ditch <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Culvert Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Culvert Material: <u>Corrugated Metal</u> Culvert Size: <u>20</u> in
-------------------------	---	---

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle % Run % Pool % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____
-----------------------------	---	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ¹⁰⁰			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		20	Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	30			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	10			
Sand	0.06-2mm (gritty)		Marl	grey, shell fragments	
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)	5			

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> ROW <input type="checkbox"/> Other:	Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <15ft
	Canopy Cover <input type="checkbox"/> Open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded	

MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS

Ground squirrels in riparian area. Also pileated woodpecker nearby and potentially tree frogs.

Stream Photograph Page

Stream ID S-YZ1

Date: 09/19/2016



Photograph Direction SE

Comments:

STREAM ID S-A34	STREAM NAME UNT to Doe Creek
LAT 37.33772 LONG -80.605311	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Yarbrough, Stoliker, Heule	
FLOW REGIME Perennial___ Intermittent___ Ephemeral <input checked="" type="checkbox"/>	WATER TYPE TNW___ RPW___ NRPW <input checked="" type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: 7.0 ft Top of Bank Height: LB 1.0 ft RB 18.0 in Water Depth: 0.00 in Water Width: 0.0 ft High Water Mark: 1.0 ft Flow Direction: South	Stream Erosion ___ None <input checked="" type="checkbox"/> Moderate ___ Heavy
		Artificial, Modified or Channelized ___ Yes <input checked="" type="checkbox"/> No Dam Present ___ Yes <input checked="" type="checkbox"/> No Sinuosity <input checked="" type="checkbox"/> Low ___ Medium ___ High Gradient ___ Flat ___ Moderate <input checked="" type="checkbox"/> Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft)

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry ___ Stream bed moist ___ Standing water ___ Flowing water	Proportion of Reach Represented by Stream Morphology Types Riffle % Run % Pool %
	Velocity ___ Fast ___ Moderate ___ Slow	Turbidity ___ Clear ___ Slightly turbid ___ Turbid ___ Opaque ___ Stained ___ Other _____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		40	Detritus	sticks, wood, coarse plant materials (CPOM)	70
Boulder	> 256 mm (10")	15			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest ___ Commercial ___ Field/Pasture ___ Industrial ___ Agricultural ___ Residential ___ Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees ___ Shrubs ___ Grasses ___ Herbaceous
	Canopy Cover ___ Partly open ___ Partly shaded <input checked="" type="checkbox"/> Shaded ___ Open	Floodplain Width ___ Wide > 30ft ___ Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <16ft Wetland Present ___ Yes <input checked="" type="checkbox"/> No Wetland ID

AQUATIC VEGETATION	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 NOTES	2015 comment: Ephemeral stream channel with lots of leafy detritus. Information listed on this form represents the data collected in 2015. The stream was revisited on 10/28/2019. The presence of a stream channel and OHWM was confirmed.
---	--

Stream Photograph Page

Stream ID S-A34



Photograph Direction NE

Date: 04/06/2015

Comments: 2015 stream identification.



Photograph Direction ENE

Date: 10/28/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-A33	STREAM NAME UNT to Doe Creek
LAT 37.33772 LONG -80.605311	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Yarbrough, Stoliker, Heule	
FLOW REGIME Perennial___ Intermittent___ Ephemeral <input checked="" type="checkbox"/>	WATER TYPE TNW___ RPW___ NRPW <input checked="" type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>7.0</u> ft Top of Bank Height: LB <u>12.0</u> in RB <u>16.0</u> in Water Depth: <u>0.00</u> in Water Width: <u>0.0</u> ft High Water Mark: <u>12.0</u> ft Flow Direction: <u>West</u>	Stream Erosion ___ None <input checked="" type="checkbox"/> Moderate ___ Heavy
		Artificial, Modified or Channelized ___ Yes <input checked="" type="checkbox"/> No Dam Present ___ Yes <input checked="" type="checkbox"/> No Sinuosity <input checked="" type="checkbox"/> Low ___ Medium ___ High Gradient ___ Flat <input checked="" type="checkbox"/> Moderate ___ Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft)

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry ___ Stream bed moist ___ Standing water ___ Flowing water	Proportion of Reach Represented by Stream Morphology Types Riffle % Run % Pool %
	Velocity ___ Fast ___ Moderate ___ Slow	Turbidity ___ Clear ___ Slightly turbid ___ Turbid ___ Opaque ___ Stained ___ Other _____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	100
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest ___ Commercial ___ Field/Pasture ___ Industrial ___ Agricultural ___ Residential ___ Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees ___ Shrubs ___ Grasses ___ Herbaceous
	Canopy Cover ___ Partly open ___ Partly shaded <input checked="" type="checkbox"/> Shaded ___ Open	Floodplain Width ___ Wide > 30ft ___ Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <16ft Wetland Present ___ Yes <input checked="" type="checkbox"/> No Wetland ID

AQUATIC VEGETATION	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 NOTES	2015 comment: Ephemeral stream. No flow. Leaf-covered channel. Forested overstory. Information listed on this form represents the data collected in 2015. The stream was revisited on 10/28/2019. The presence of a stream channel and OHWM was confirmed.
---	---

Stream Photograph Page

Stream ID S-A33



Photograph Direction SE

Date: 04/06/2015

Comments: 2015 stream identification.



Photograph Direction ENE

Date: 10/28/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-A32	STREAM NAME UNT to Doe Creek
LAT 37.335181 LONG -80.59686	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Yarbrough, Stoliker, Heule	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>16.0</u> ft Top of Bank Height: LB <u>1.0</u> ft RB <u>2.0</u> ft Water Depth: <u>2.00</u> in Water Width: <u>5.0</u> ft High Water Mark: <u>1.0</u> ft Flow Direction: <u>Soyth</u>	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	---	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 40 % Run 30 % Pool 30 % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		30	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	20			
Cobble	64-256 mm (2.5"-10")	25	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other: _____	Indicate the dominant type (Check one) <input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input checked="" type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input checked="" type="checkbox"/> Open	Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland ID See below.

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	2015 comment: Perennial stream. Very minor wetland fringe development within bankfull width. Information listed on this form represents the data collected in 2015. The stream was revisited on 10/28/2019. The presence of a stream channel and OHWM was confirmed.
---	---

Stream Photograph Page

Stream ID S-A32



Photograph Direction South

Date: 04/06/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: 10/28/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-QQ2	STREAM NAME Sinking Creek
LAT 37.333112 LONG -80.429428	DATE 09/11/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A lands, S Therkildson	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>35.0</u> ft Top of Bank Height: LB <u>3.0</u> ft RB <u>4.0</u> ft Water Depth: <u>10.00</u> in Water Width: <u>25.0</u> ft High Water Mark: <u>1.0</u> ft Flow Direction: <u>West</u>	Stream Erosion <input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input checked="" type="checkbox"/> Flat <input type="checkbox"/> Moderate <input type="checkbox"/> Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft)
-------------------------	--	---

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 50 % Run 50 % Pool % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other: Canopy Cover <input type="checkbox"/> Partly open <input checked="" type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input type="checkbox"/> Open	Indicate the dominant type (Check one) <input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input checked="" type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous Floodplain Width <input checked="" type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland ID
---------------------------	---	--

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Small fish, water beetles, crawfish, clam shells, raccoon tracks observed. Water depths up to 2 ft were observed in stream, but outside corridor
---	---

Stream Photograph Page

Stream ID S-QQ2

Date: 09/11/2015



Photograph Direction West

Comments:

STREAM ID S-MN11-Upstream		STREAM NAME UNT to Sinking Creek	
CLIENT MVP		PROJECT NAME MVP	
LAT 37.332807	LONG -80.559237	DATE 09/14/2016	COUNTY Giles
INVESTIGATORS S Ryan, M Whitten, S Therkildson			
WATER TYPE TNW <input type="checkbox"/> RPW <input type="checkbox"/> NRPW <input checked="" type="checkbox"/>		FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>4.0</u> ft Top of Bank Height: LB <u>0.5</u> ft RB <u>0.5</u> ft Water Depth: <u>0.00</u> in Water Width: <u>0.0</u> ft Ordinary High Water Mark (Width): <u>2.0</u> ft Ordinary High Water Mark (Height): <u>3.0</u> in Flow Direction: <u>Southwest</u>	Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion <input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Within Roadside Ditch <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Culvert Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Culvert Material: <u>Corrugated Metal</u> Culvert Size: <u>18</u> in
-------------------------	--	--

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle % Run % Pool % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____
-----------------------------	---	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ¹⁰⁰			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	0
Gravel	2-64 mm (0.1"-2.5")	15			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	40			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> ROW <input type="checkbox"/> Other:	Floodplain Width <input type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <15ft
	Canopy Cover <input type="checkbox"/> Open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded	

MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS

Stream crosses AR in two locations. This is form for eastern (upstream) crossing. This is the head water origin of stream with culvert as source. Culvert emerges from under Mt Lake Road and flows over AR to where bed/bank begin.

Stream Photograph Page

Stream ID S-MN11-Upstream Date: 09/14/2016



Photograph Direction NE

Comments:

STREAM ID S-MN11-Downstream		STREAM NAME UNT to Sinking Creek	
CLIENT MVP		PROJECT NAME MVP	
LAT 37.332085	LONG -80.560323	DATE 09/14/2016	COUNTY Giles
INVESTIGATORS S Ryan, M Whitten, S Therkildson			
WATER TYPE TNW <input type="checkbox"/> RPW <input type="checkbox"/> NRPW <input checked="" type="checkbox"/>		FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>5.0</u> ft Top of Bank Height: LB <u>1.0</u> ft RB <u>1.0</u> ft Water Depth: <u>0.00</u> in Water Width: <u>0.0</u> ft Ordinary High Water Mark (Width): <u>3.0</u> ft Ordinary High Water Mark (Height): <u>5.0</u> in Flow Direction: <u>West</u>	Sinuosity ___ Low <input checked="" type="checkbox"/> Medium ___ High Gradient ___ Flat ___ Moderate <input checked="" type="checkbox"/> Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion <input checked="" type="checkbox"/> None ___ Moderate ___ Heavy Artificial, Modified or Channelized ___ Yes <input checked="" type="checkbox"/> No Within Roadside Ditch ___ Yes <input checked="" type="checkbox"/> No Culvert Present ___ Yes <input checked="" type="checkbox"/> No Culvert Material: _____ Culvert Size: _____ in
-------------------------	---	---

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry ___ Stream bed moist ___ Standing water ___ Flowing water Velocity ___ Fast ___ Moderate ___ Slow	Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle % Run % Pool % Turbidity ___ Clear ___ Slightly turbid ___ Turbid ___ Other _____
-----------------------------	---	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ¹⁰⁰			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	15			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	0
Gravel	2-64 mm (0.1"-2.5")	10			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	0
Silt	0.004-0.06 mm	40			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest ___ Commercial ___ Field/Pasture ___ Industrial ___ Agricultural ___ Residential ___ ROW ___ Other:	Floodplain Width ___ Wide > 30ft ___ Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <15ft
	Canopy Cover ___ Open ___ Partly shaded <input checked="" type="checkbox"/> Shaded	

MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS

Stream crosses AR in two locations. This is form for western (downstream) crossing. Variable bed/bank characteristics. Incised near existing road with a wider bed (nearing sheet flow) near the downstream edge of access road. Stream ID taken in middle to represent average. No culvert under access road - stream crosses over road.

Stream Photograph Page

Stream ID S-MN11-Downstream Date: 09/14/2016



Photograph Direction West

Comments:

STREAM ID S-Y03	STREAM NAME UNT to Doe Creek
LAT 37.331883 LONG -80.583153	DATE 07/11/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS D. Hadersbeck K. Lew G. Buda J. Swilik	
FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input type="checkbox"/> NRPW <input checked="" type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>10.0</u> ft Top of Bank Height: LB <u>2.0</u> ft RB <u>2.0</u> ft Water Depth: <u>0.00</u> ft Water Width: <u>0.0</u> ft High Water Mark: <u>10.0</u> ft Flow Direction: <u>Southwest</u>	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	--	--

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle % Run % Pool % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	15
Boulder	> 256 mm (10")	20			
Cobble	64-256 mm (2.5"-10")	15	Muck-Mud	black, very fine organic (FPOM)	10
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland ID
---------------------------	---	--

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Connects into S-Y02. This stream runs through ATWS_471
---	--

Stream Photograph Page

Stream ID S-Y03

Date: 07/11/2015



Photograph Direction SW

Comments:

STREAM ID S-Y02	STREAM NAME Doe Creek
LAT 37.331339 LONG -80.583546	DATE 07/11/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS LC, KG, KB	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>25.0</u> ft Top of Bank Height: LB <u>2.0</u> ft RB <u>2.0</u> ft Water Depth: <u>1.50</u> ft Water Width: <u>11.0</u> ft High Water Mark: <u>25.0</u> ft Flow Direction: <u>W/Sw</u>	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	--	---

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 20 % Run 60 % Pool 20 % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	10
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	20			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous Floodplain Width <input type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <16ft Wetland Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland ID
---------------------------	---	--

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Stream was revisited and extended on 4/15/2016. The presence of a stream channel and OHWM was confirmed.
---	--

Stream Photograph Page

Stream ID S-Y02

Date: 07/11/2015



Photograph Direction WSW

Comments:

STREAM ID S-PP04	STREAM NAME UNT to Sinking Creek
LAT 37.328285 LONG -80.42281	DATE 08/26/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS J. Swilik, D Hadersbeck, C. Carver	
FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: 2.0 ft Top of Bank Height: LB 6.0 in RB 6.0 in Water Depth: 1.00 in Water Width: 1.0 ft High Water Mark: 1.5 ft Flow Direction: North	Stream Erosion <input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	---	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 10 % Run 80 % Pool 10 % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other
-----------------------------	--	---

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	0			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	85			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft
	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input checked="" type="checkbox"/> Open	Wetland Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland ID W-PP04

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	2015 comment: Stream fed by spring and impacted by cattle. One braid also mapped Information listed on this form represents the data collected in 2015. The stream was revisited on 10/29/2019. The presence of a stream channel and OHWM was confirmed.
---	---

Stream Photograph Page

Stream ID S-PP04



Photograph Direction NW

Date: 08/26/2015

Comments: 2015 stream identification.



Photograph Direction NNW

Date: 10/29/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-PP03	STREAM NAME UNT to Sinking Creek
LAT 37.326821 LONG -80.426006	DATE 08/26/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS J. Swilik, D. Hadersbeck, C. Carver	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>3.0</u> ft Top of Bank Height: LB <u>6.0</u> in RB <u>6.0</u> in Water Depth: <u>1.00</u> in Water Width: <u>1.0</u> ft High Water Mark: <u>1.5</u> ft Flow Direction: <u>Northwest</u>	Stream Erosion <input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	--	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 20 % Run 70 % Pool 10 % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	---

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	35
Boulder	> 256 mm (10")	20			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	25	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other: _____	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input checked="" type="checkbox"/> Open	Floodplain Width <input type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <16ft Wetland Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland ID <small>W-PP03</small>

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	2015 comment: Stream fed by spring Information listed on this form represents the data collected in 2015. The stream was revisited on 10/29/2019. The presence of a stream channel and OHWM was confirmed.
---	---

Stream Photograph Page

Stream ID S-PP03



Photograph Direction NW

Date: 08/26/2015

Comments: 2015 stream identification.



Photograph Direction NW

Date: 10/29/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-RR4	STREAM NAME UNT to Sinking Creek
LAT 37.32604946 LONG -80.55678783	DATE 09/10/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS J. Cook, R. Keyser, D. McCullough	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: 3 ft Top of Bank Height: LB 5.0 in RB 5.0 in Water Depth: 3.00 in Water Width: 2.0 ft High Water Mark: 3.0 in Flow Direction: Southwest	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input checked="" type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	--	---

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 50 % Run % Pool 50 % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other
-----------------------------	---	---

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	30
Boulder	> 256 mm (10")				
Cobble	64-256 mm (2.5"-10")	35	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Other: Road/easment Canopy Cover <input type="checkbox"/> Partly open <input checked="" type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input type="checkbox"/> Open	Indicate the dominant type (Check one) <input type="checkbox"/> Trees <input checked="" type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland ID
---------------------------	--	--

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

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 10/28/2019. The presence of a stream channel and OHWM was confirmed.
---	---

Stream Photograph Page

Stream ID S-RR4



Photograph Direction SW

Date: 09/10/2015

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 10/28/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-E24	STREAM NAME UNT to Sinking Creek
LAT 37.325768 LONG -80.565048	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S. Ryan, A. Mengel, L. Sexton, S. Kelly	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>20.0</u> ft Top of Bank Height: LB <u>8.0</u> ft RB <u>10.0</u> ft Water Depth: <u>2.00</u> in Water Width: <u>4.0</u> ft High Water Mark: <u>5.0</u> in Flow Direction: <u>SW</u>	Stream Erosion <input checked="" type="checkbox"/> None <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input type="checkbox"/> Moderate (2 ft/100 ft) <input checked="" type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	---	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 80 % Run 20 % Pool % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	25
Boulder	> 256 mm (10")	25			
Cobble	64-256 mm (2.5"-10")	15	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded <input type="checkbox"/> Open	Floodplain Width <input type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <16ft Wetland Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland ID

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input checked="" type="checkbox"/> Attached algae
---------------------------	--

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	
---	--

Stream Photograph Page

Stream ID S-E24

Date: 04/06/2015



Photograph Direction South

Comments:

STREAM ID S-E25 Upstream	STREAM NAME UNT to Sinking Creek
LAT 37.325663 LONG -80.563954	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S. Ryan, A. Mengel, L. Sexton, S. Kelly	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>10.0</u> ft Top of Bank Height: LB <u>3.0</u> ft RB <u>3.0</u> ft Water Depth: <u>3.00</u> in Water Width: <u>4.0</u> ft High Water Mark: <u>8.0</u> in Flow Direction: <u>West</u>	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input type="checkbox"/> Moderate (2 ft/100 ft) <input checked="" type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	--	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 90 % Run 10 % Pool % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	---

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	15
Boulder	> 256 mm (10")	35			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other: _____	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Canopy Cover <input type="checkbox"/> Partly open <input checked="" type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input type="checkbox"/> Open	Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland ID W-E6

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input checked="" type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	--

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Two data forms because the stream is very diverse in characteristics.
---	---

Stream Photograph Page

Stream ID S-E25 Upst



Photograph Direction NE

Date: 04/06/2015

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/04/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-E25 Downstream	STREAM NAME UNT to Sinking Creek
LAT 37.325663 LONG -80.563954	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S. Ryan, A. Mengel, L. Sexton, S. Kelly	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>6.0</u> ft Top of Bank Height: LB <u>6.0</u> in RB <u>10.0</u> in Water Depth: <u>2.00</u> in Water Width: <u>2.5</u> ft High Water Mark: <u>10.0</u> in Flow Direction: <u>West</u>	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	---	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 55 % Run 30 % Pool 15 % Turbidity <input checked="" type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	--	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	15
Boulder	> 256 mm (10")	30			
Cobble	64-256 mm (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other:	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous
	Canopy Cover <input type="checkbox"/> Partly open <input checked="" type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input type="checkbox"/> Open	Floodplain Width <input checked="" type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland ID W-E6

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input checked="" type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	--

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Two data forms because the stream is very diverse in characteristics
---	--

Stream Photograph Page

Stream ID S-E25 Dowr



Photograph Direction NE

Date: 04/06/2015

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/04/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-PP01	STREAM NAME UNT to Sinking Creek
LAT 37.324752 LONG -80.431347	DATE 08/26/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS J. Swilik, D. Hadersbeck, C. Carver	
FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>2.5</u> ft Top of Bank Height: LB <u>1.0</u> ft RB <u>1.0</u> ft Water Depth: <u>0.00</u> in Water Width: <u>0.0</u> ft High Water Mark: <u>2.0</u> ft Flow Direction: <u>Northwest</u>	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input type="checkbox"/> Moderate (2 ft/100 ft) <input checked="" type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	--	--

FLOW CHARACTERISTICS	Water Present <input checked="" type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle % Run % Pool % Turbidity <input type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other _____
-----------------------------	---	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	70
Boulder	> 256 mm (10")				
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	25	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	25			
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other: _____	Indicate the dominant type (Check one) <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input type="checkbox"/> Herbaceous Floodplain Width <input type="checkbox"/> Wide > 30ft <input type="checkbox"/> Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <16ft
	Canopy Cover <input type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input checked="" type="checkbox"/> Shaded <input type="checkbox"/> Open	Wetland Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland ID

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	
---	--

Stream Photograph Page

Stream ID S-PP01

Date: 08/26/2015



Photograph Direction SE

Comments:

STREAM ID S-RR5	STREAM NAME UNT to Sinking Creek
LAT 37.32359137 LONG -80.55561674	DATE 09/10/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS J. Cook, R. Keyser, D. McCullough	
FLOW REGIME Perennial <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input type="checkbox"/>	WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: 10 ft Top of Bank Height: LB 1.0 ft RB 2.0 ft Water Depth: 3.00 in Water Width: 4.0 ft High Water Mark: 8.0 in Flow Direction: South	Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Dam Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sinuosity <input type="checkbox"/> Low <input checked="" type="checkbox"/> Medium <input checked="" type="checkbox"/> High Gradient <input checked="" type="checkbox"/> Flat (0.5/100 ft) <input type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft)
-------------------------	---	---

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types Riffle 30 % Run 30 % Pool 20 % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Opaque <input type="checkbox"/> Stained <input type="checkbox"/> Other
-----------------------------	---	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")				
Cobble	64-256 mm (2.5"-10")	25	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	50	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> Other:	Indicate the dominant type (Check one) <input type="checkbox"/> Trees <input type="checkbox"/> Shrubs <input type="checkbox"/> Grasses <input checked="" type="checkbox"/> Herbaceous
	Canopy Cover <input checked="" type="checkbox"/> Partly open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded <input type="checkbox"/> Open	Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <16ft Wetland Present <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland ID W-RR02

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present <input type="checkbox"/> Rooted emergent <input type="checkbox"/> Rooted submergent <input type="checkbox"/> Rooted floating <input type="checkbox"/> Free floating <input type="checkbox"/> Floating algae <input type="checkbox"/> Attached algae
---------------------------	---

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	
---	--

Stream Photograph Page

Stream ID S-RR5



Photograph Direction NNW

Date: 09/10/2015

Comments: 2015 stream identification.



Photograph Direction SSE

Date: 11/04/2019

Comments: 2019 stream identification confirmation.

STREAM ID S-PA07		STREAM NAME UNT to Sinking Creek	
CLIENT MVP		PROJECT NAME MVP	
LAT 37.323533	LONG -80.555257	STATE Virginia	COUNTY Giles
INVESTIGATORS KP RA		DATE 02/11/2020	
WATER TYPE TNW <input type="checkbox"/> RPW <input checked="" type="checkbox"/> NRPW <input type="checkbox"/>		FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/>	

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>2.0</u> ft Top of Bank Height: LB <u>1.0</u> ft RB <u>1.0</u> ft Water Depth: <u>2.50</u> in Water Width: <u>1.0</u> ft Ordinary High Water Mark (Width): <u>1.5</u> ft Ordinary High Water Mark (Height): <u>5.0</u> in Flow Direction: <u>Southwest</u>	Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within Roadside Ditch <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Culvert Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Culvert Material: _____ Culvert Size: _____ in
-------------------------	--	--

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input type="checkbox"/> Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle 100 % Run % Pool % Turbidity <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____
-----------------------------	--	---

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ¹⁰⁰			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")				
Cobble	64-256 mm (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	25			

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input checked="" type="checkbox"/> ROW <input type="checkbox"/> Other:	Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <15ft
	Canopy Cover <input checked="" type="checkbox"/> Open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded	

MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS
Note - heavy precipitation 24-36hrs prior to survey The Environmental Inspector on site, who spoke with the land tenant of the property, said that the stream is being sourced by a spring upslope, outside the current LOD. The stream has a defined bed and bank as well as an OHWM. Channelization appears to be present upslope and downslope, outside the LOD and ROW clearing. The stream meets the confluence with an adjacent perennial tributary (S-RR5). A shallow water line runs parallel with the stream channel as indicated by the placement of blue pin flags and a marked out sign. The stream currently flows under a aerial timber bridge span and its banks have being reinforced with ECD controls (silt fencing).

Stream Photograph Page

Stream ID S-PA07 Date 02/11/2020



Photograph Number 1

Photograph Direction SW

Comments: Facing downstream



Photograph Number 2

Photograph Direction NE

Comments: Facing upstream
Blue pin flags indicate shallow waterline location



Photograph Number 3

Photograph Direction North

Comments: Facing upstream



Photograph Number 4

Photograph Direction West

Comments: Substrate
OHWM present

STREAM ID S-IJ18-EPH		STREAM NAME UNT to Sinking Creek	
CLIENT MVP		PROJECT NAME MVP	
LAT 37.322743	LONG -80.552397	DATE 03/03/2018	COUNTY Giles
INVESTIGATORS S. Ryan			
WATER TYPE TNW <input type="checkbox"/> RPW <input type="checkbox"/> NRPW <input checked="" type="checkbox"/>		FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>6.0</u> ft Top of Bank Height: LB <u>2.5</u> ft RB <u>2.5</u> ft Water Depth: <u>4.00</u> in Water Width: <u>3.0</u> ft Ordinary High Water Mark (Width): <u>5.0</u> ft Ordinary High Water Mark (Height): <u>12.0</u> in Flow Direction: <u>South</u>	Sinuosity ___ Low <input checked="" type="checkbox"/> Medium ___ High Gradient ___ Flat <input checked="" type="checkbox"/> Moderate ___ Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion ___ None <input checked="" type="checkbox"/> Moderate ___ Heavy Artificial, Modified or Channelized ___ Yes <input checked="" type="checkbox"/> No Within Roadside Ditch <input checked="" type="checkbox"/> Yes ___ No Culvert Present ___ Yes <input checked="" type="checkbox"/> No Culvert Material: _____ Culvert Size: _____ in
-------------------------	---	---

FLOW CHARACTERISTICS	Water Present ___ No water, stream bed dry ___ Stream bed moist ___ Standing water <input checked="" type="checkbox"/> Flowing water Velocity <input checked="" type="checkbox"/> Fast ___ Moderate ___ Slow	Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle 75 % Run % Pool 25 % Turbidity ___ Clear <input checked="" type="checkbox"/> Slightly turbid ___ Turbid ___ Other _____
-----------------------------	---	--

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ¹⁰⁰			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		20	Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")	25			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

WATERSHED FEATURES	Predominant Surrounding Landuse <input checked="" type="checkbox"/> Forest ___ Commercial ___ Field/Pasture ___ Industrial ___ Agricultural ___ Residential ___ ROW ___ Other:	Floodplain Width ___ Wide > 30ft ___ Moderate 15-30ft <input checked="" type="checkbox"/> Narrow <15ft
	Canopy Cover ___ Open <input checked="" type="checkbox"/> Partly shaded ___ Shaded	

MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS

Flow is high and fast. Extension of previously identified stream S-IJ18 designated as Ephemeral based on previous assessments, recent heavy rains, and stream morphology.

Stream Photograph Page

Stream ID S-IJ18-EPH



Photograph Direction NE

Date: 03/03/2018

Comments:



Photograph Direction South

Date: 03/03/2018

Comments:

STREAM ID S-IJ19		STREAM NAME UNT to Sinking Creek	
CLIENT MVP		PROJECT NAME MVP	
LAT 37.321838	LONG -80.553129	DATE 04/14/2016	COUNTY Giles
INVESTIGATORS E. Foster, S. Lieb, J. Niergarth			
WATER TYPE TNW <input type="checkbox"/> RPW <input type="checkbox"/> NRPW <input checked="" type="checkbox"/>		FLOW REGIME Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/>	

CHANNEL FEATURES	Estimate Measurements Top of Bank Width: <u>4.0</u> ft Top of Bank Height: LB <u>2.0</u> ft RB <u>2.0</u> ft Water Depth: <u>1.00</u> in Water Width: <u>1.5</u> ft Ordinary High Water Mark (Width): <u>2.0</u> ft Ordinary High Water Mark (Height): <u>3.0</u> in Flow Direction: <u>South</u>	Sinuosity <input checked="" type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High Gradient <input type="checkbox"/> Flat (0.5/100 ft) <input checked="" type="checkbox"/> Moderate (2 ft/100 ft) <input type="checkbox"/> Severe (10 ft/100 ft) Stream Erosion <input type="checkbox"/> None <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy Artificial, Modified or Channelized <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within Roadside Ditch <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Culvert Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Culvert Material: _____ Culvert Size: _____ in
-------------------------	--	---

FLOW CHARACTERISTICS	Water Present <input type="checkbox"/> No water, stream bed dry <input type="checkbox"/> Stream bed moist <input checked="" type="checkbox"/> Standing water <input type="checkbox"/> Flowing water Velocity <input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow	Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle % Run % Pool % Turbidity <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Slightly turbid <input type="checkbox"/> Turbid <input type="checkbox"/> Other _____
-----------------------------	---	---

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ¹⁰⁰			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")				
Cobble	64-256 mm (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")				
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	30			

WATERSHED FEATURES	Predominant Surrounding Landuse <input type="checkbox"/> Forest <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Field/Pasture <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Residential <input type="checkbox"/> ROW <input type="checkbox"/> Other:	Floodplain Width <input type="checkbox"/> Wide > 30ft <input checked="" type="checkbox"/> Moderate 15-30ft <input type="checkbox"/> Narrow <15ft
	Canopy Cover <input checked="" type="checkbox"/> Open <input type="checkbox"/> Partly shaded <input type="checkbox"/> Shaded	

MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS
previously mapped as drainage change to ephemeral stream

Stream Photograph Page

Stream ID S-IJ19

Date: 04/14/2016



Photograph Direction NE

Comments: