Baseline Assessment – Stream Attributes

Reach S-E46 TM (Timber Mat Crossing) Perennial Spread D Webster County, West Virginia

Data	Included
Photos	✓
SWVM Form	✓
FCI Calculator and HGM Form	N/A – Perennial stream (not shadeable, slope <4%)
RBP Physical Characteristics Form	✓
Water Quality Data	✓
RBP Habitat Form	✓
RBP Benthic Form	✓
Benthic Identification Sheet	N/A – Lack of riffle habitat
Wolman Pebble Count	✓
Reference Reach Software Pebble Count Data	✓
Longitudinal Profile and Cross Sections	✓



Photo Type: DS, US View Location, Orientation, Photographer Initials: Downstream Edge of ROW, Upstream View, RC/CC Lat: 38.363374 Long: -80.617277



Photo Type: DS, DS View Location, Orientation, Photographer Initials: Downstream Edge of ROW, Downstream View, RC/CC Lat: 38.363374 Long: -80.617277



Photo Type: US View at Center Location, Orientation, Photographer Initials: Center ROW, Upstream View, RC/CC Lat: 38.363374 Long: -80.617277



Photo Type: DS View at Center Location, Orientation, Photographer Initials: ROW Center, Downstream View, RC/CC Lat: 38.363374 Long: -80.617277

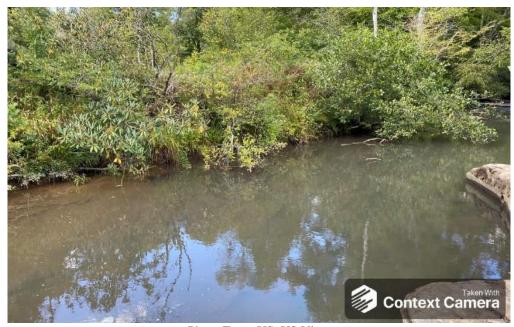


Photo Type: US, US View Location, Orientation, Photographer Initials: Upstream Edge of ROW, Upstream View, RC/CC Lat: 38.363374 Long: -80.617277



Photo Type: US, DS View Location, Orientation, Photographer Initials: Upstream Edge of ROW, Downstream View, RC/CC Lat: 38.363374 Long: -80.617277



Photo Type: Pool, DS View
Location, Orientation, Photographer Initials: Upstream of Pool, Downstream View, RC/CC
Lat: 38.363374 Long: -80.617277

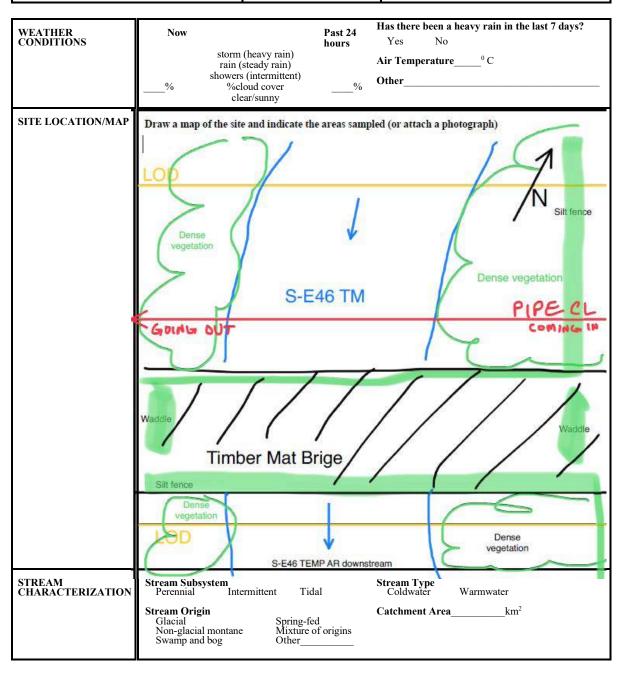


Photo Type: Pool, US View Location, Orientation, Photographer Initials: Downstream of Pool, Upstream View, RC/CC Lat: 38.363374 Long: -80.617277

USACE FILE NO./ Project Name: (v2.1, Sept 2015)	Mountain Valley Pipeline		Valley Pipeline	IMPACT COORDINATES: (in Decimal Degrees)		at. 38.363374 Lon80.617277		WEATHER:	50% cloud cover	DATE:	09/09/	/21	
IMPACT STREAM/SITE ID (watershed size (acreage),			S-E46 TM Timb	er Mat Crossing		MITIGATION STREAM CLASS./SITE II (watershed size (acreage), unalter		PTION:			Comments:		
STREAM IMPACT LENGTH:	22	FORM OF MITIGATION:	RESTORATION (Levels I-III)	MIT COORDINATES: Lat. Lon. PRECIPITATION PAST 48 HRS:		Mitigation Length:							
Column No. 1- Impact Existing	Condition (Deb	oit)	Column No. 2- Mitigation Existing C	ondition - Baseline (Credit)		Column No. 3- Mitigation Projected Post Completion (Cred			Column No. 4- Mitigation Proje Post Completion (C		Column No. 5- Mitigation Project	ed at Maturity (Cr	redit)
Stream Classification:	Pere	nnial	Stream Classification:			Stream Classification:	0		Stream Classification:	0	Stream Classification:	0	
Percent Stream Channel SI	рре	1.1	Percent Stream Channel Sle	оре		Percent Stream Channel Slope	0		Percent Stream Channel Slo	ope 0	Percent Stream Channel SI	оре	0
HGM Score (attach da	ita forms):		HGM Score (attach	data forms):		HGM Score (attach data fo	orms):		HGM Score (attach da	ita forms):	HGM Score (attach da	ata forms):	
Hydrology Biogeochemical Cycling Habitat PART I - Physical, Chemical and		Average 0	Hydrology Biogeochemical Cycling Habitat PART I - Physical, Chemical an	Average 0		Hydrology Biogeochemical Cycling Habitat PART I - Physical, Chemical and Biolo	Average 0	е	Hydrology Biogeochemical Cycling Habitat PART I - Physical, Chemical and E	Average 0	Hydrology Biogeochemical Cycling Habitat PART I - Physical, Chemical and		Average 0
PART I Priyatea, citemical and	Points Scale Range	Site Score	PACE I - Flysical, Chemical and	Points Scale Range Site Score		Point Sc			PACET - Physical, Glienical and L	Points Scale Range Site Score	PACE I Fritysical, Citemical and	Points Scale Range	Site Score
PHYSICAL INDICATOR (Applies to all streams	classifications)		PHYSICAL INDICATOR (Applies to all streams	classifications)		PHYSICAL INDICATOR (Applies to all streams classific	cations)		PHYSICAL INDICATOR (Applies to all streams	classifications)	PHYSICAL INDICATOR (Applies to all streams	classifications)	
USEPA RBP (High Gradient Data Sheet) 1. Epifaunal Substrate/Available Cover 2. Embeddedness	0-20	4	USEPA RBP (Low Gradient Data Sheet) 1. Epifaunal Substrate/Available Cover 2. Pool Substrate Characterization	0-20		USEPA RBP (High Gradient Data Sheet) 1. Epifaunal Substrate/Available Cover 0-20	0		USEPA RBP (High Gradient Data Sheet) 1. Epifaunal Substrate/Available Cover	0-20	USEPA RBP (High Gradient Data Sheet) 1. Epifaunal Substrate/Available Cover	0-20	
3. Velocity Depth Regime 4. Sedment Deposition 5. Channel Flow Status 6. Channel Flow Status 6. Channel Alenta 7. Frequency of Riffles (or bends) 8. Bank Stability (Is & RB) 9. Vegetative Protection (It & RB) 10. Reprint Vegetative Zore Width (It & RB) Total RBP Score Sub-Total CHEMICAL INDICATOR (Applies to Intermitter WYDEP Water Quality Indicators (General Specific Conductivity 100-199 - 85 points H 6.0-8.0 - 80 points 90		1 1 1 19 19 11 18 6 14 0.42 0.42 147 7.23	3. Pool Variability 4. Sediment Deposition 5. Channel Flow Status 6. Channel Ristration 7. Channel Smoosity 8. Bank Stability (LB RB) 9. Vegetable Protection (LB & RB) 10. Ripstant Vegetable Zore Width (LB & RB) 17 Idal RBP Score Sub-Total CHEMICAL INDICATOR (Apples to Intermittent WVDEP Water Quality Indicators (General) Specific Conductivity BH DO	0-20 0-		3. Velocity Depth Regime	0 0 0 1 0 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0		3. Velocity/ Depth Regime 4. Sediment Deposition 5. Channel Flow Status 6. Channel Flow Status 7. Frequency of Riffles (or bends) 8. Bank Stability (LB & RB) 9. Vegetative Protection (LB & RB) 10. Reparian Vegetative Zone Vivilih (LB & RB) Total RBP Score Sub-Total WYVDEP Water Quality Indicators (General) Specific Conductivity BH DO	,	3. Velocity/ Depth Regime 4. Sediment Deposition 5. Channel Flow Status 6. Channel Flow Status 7. Frequency of Riffles (or Dends) 8. Bank Stablity (E.B. & RB) 9. Vegetative Protection (I.B. & RB) 10. Regiant Vegetative Zine Width (I.B. & RB) Total RBP Score Sub-Total CHEMICAL INDICATOR (Applies to Intermitten WYDEP Water Quality Indicators (General Specific Conductivity) DH DO		0 0 0
Sub-Total BIOLOGICAL INDICATOR (Applies to Intermitti	ant and Decembed S	0.975	Sub-Total BIOLOGICAL INDICATOR (Applies to Intermitte	0		Sub-Total BIOLOGICAL INDICATOR (Applies to Intermittent ar	0		Sub-Total BIOLOGICAL INDICATOR (Applies to Intermi	0	Sub-Total BIOLOGICAL INDICATOR (Applies to Interm	ittent and Barannia	O O
WV Stream Condition Index (WVSCI)			WV Stream Condition Index (WVSCI)			WV Stream Condition Index (WVSCI)			WV Stream Condition Index (WVSCI)	r drama ordanoj	WV Stream Condition Index (WVSCI)	t uno i urdiinia	
0 Sub-Total	0-100 0-1	0	Sub-Total	0-100 0-1		Sub-Total	0 0-1		Sub-Total	0-100 0-1	Sub-Total	0-100 0-1	0
PART II - Index and U	nit Score		PART II - Index and	Unit Score		PART II - Index and Unit S	core		PART II - Index and Ur	nit Score	PART II - Index and U	nit Score	
Index	Linear Feet	Unit Score	Index	Linear Feet Unit Score		Index Line	ear Feet Unit Sco	ore	Index	Linear Feet Unit Score	Index	Linear Feet	Unit Score
0.698	22	15.345	0	0 0		0	0 0		0	0 0	0	0	0

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (FRONT)

STREAM NAME	LOCATION					
STATION # RIVERMILE	STREAM CLASS					
LAT LONG	RIVER BASIN					
STORET#	AGENCY					
INVESTIGATORS						
FORM COMPLETED BY	DATE	REASON FOR SURVEY				



PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERS FEATURI		Fores Field Agric	Pasture Industria	rcial	No evidence Sor Obvious sources Local Watershed Erosi None Moderate	some potential sources				
RIPARIA VEGETA (18 meter	ΓION	Trees	e the dominant type and Sl ant species present	hrubs	Grasses He	brbaceous				
INSTREA FEATURI		Estimat Samplin Area in Estimat	red Stream Depthm	m m² km² m	Canopy Cover Partly open Part High Water Mark Proportion of Reach R Morphology Types Riffle Pool 9 Channelized Yes Dam Present Yes	epresented by Stream Run% No				
LARGE V DEBRIS	VOODY		m² of LWDm	1 ² /km ² (LWD / 1	reach area)					
AQUATIO VEGETA		Domina			minant species present nt Rooted floating	Ü				
WATER ((DS, US)	QUALITY	Specific Dissolve pH Turbidi	rature0 C Conductance ed Oxygen ty trument Used		Water Odors Normal/None Sewage Petroleum Fishy Water Surface Oils Slick Sheen None Other Turbidity (if not measu Clear ☐ Slightly tu Opaque Stained	Chemical Other Globs Flecks				
SEDIMEN SUBSTRA		Odors Norm Chem Other Oils Abser	al Sewage nical Anaerobic 		are the undersides blac	th are not deeply embedded,				
INC	ORGANIC SUBS (should a		COMPONENTS 00%)		ORGANIC SUBSTRATE C (does not necessarily add					
Substrate Type	Diamet	er	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area				
Bedrock				Detritus	sticks, wood, coarse plant materials (CPOM)					
Boulder Cobble	> 256 mm (10") 64-256 mm (2.5			Muck-Mud	black, very fine organic					
Gravel	2-64 mm (0.1"-2			IVIUCK-IVIUU	(FPOM)					

Sand

Silt

Clay

0.06-2mm (gritty)

< 0.004 mm (slick)

0.004-0.06 mm

grey, shell fragments

Marl

HABITAT ASSESSMENT FIELD DATA SHEET - HG - USE ON ALL STREAMS (FRONT)

STREAM NAME	LOCATION				
STATION # RIVERMILE	STREAM CLASS				
LAT LONG	RIVER BASIN				
STORET#	AGENCY				
INVESTIGATORS					
FORM COMPLETED BY	DATE AM PM	REASON FOR SURVEY			

	Habitat		Condition	ı Category					
	Parameter	Optimal	Suboptimal	Marginal	Poor				
	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.				
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
n sampling reach	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25- 50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50- 75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.				
ted in	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
Parameters to be evaluated in sampling reach	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).				
ıram	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
Pa	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.				
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.				
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

	Habitat		Condition	n Category					
	Parameter	Optimal	Suboptimal	Marginal	Poor				
	6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.				
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
oling reach	7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.				
samp	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
Parameters to be evaluated broader than sampling reach	8. Bank Stability (score each bank) Note: determine left or right side by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.				
e eva	SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0				
to be	SCORE (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0				
Parameters	9. Vegetative Protection (score each bank)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one- half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.				
	SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0				
	SCORE (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0				
	10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6- 12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.				
	SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0				
ĺ	SCORE (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0				

Total	Caama	
i otai	Score	

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME		LOCATION						
STATION #	_ RIVERMILE	STREAM CLASS						
LAT	LONG	RIVER BASIN						
STORET#		AGENCY	AGENCY					
INVESTIGATORS			LOT NUMBER					
FORM COMPLETED	ВҮ	DATE REASON FOR SURVEY TIME						
HABITAT TYPES Indicate the percentage of each habitat type present Cobble % Snags % Vacatoted Banks % Sand %								

HABITAT TYPES	Indicate the percentage of each habitat type present Cobble% Snags% Vegetated Banks% Sand% Submerged Macrophytes% Other ()%
SAMPLE COLLECTION	Gear used D-frame kick-net Other
	How were the samples collected? wading from bank from boat
	Indicate the number of jabs/kicks taken in each habitat type. Cobble Snags Vegetated Banks Sand Submerged Macrophytes Other ()
GENERAL COMMENTS	

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0	1	2	3	4	Slimes	0	1	2	3	4
Filamentous Algae	0	1	2	3	4	Macroinvertebrates	0	1	2	3	4
Macrophytes	0	1	2	3	4	Fish	0	1	2	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3 = Abundant (>10 organisms), 4 = Dominant (>50 organisms)

Porifera	0	1	2	3	4	Anisoptera	0	1	2	3	4	Chironomidae	0	1	2	3	4
Hydrozoa	0	1	2	3	4	Zygoptera	0	1	2	3	4	Ephemeroptera	0	1	2	3	4
Platyhelminthes	0	1	2	3	4	Hemiptera	0	1	2	3	4	Trichoptera	0	1	2	3	4
Turbellaria	0	1	2	3	4	Coleoptera	0	1	2	3	4	Other	0	1	2	3	4
Hirudinea	0	1	2	3	4	Lepidoptera	0	1	2	3	4						
Oligochaeta	0	1	2	3	4	Sialidae	0	1	2	3	4						
Isopoda	0	1	2	3	4	Corydalidae	0	1	2	3	4						
Amphipoda	0	1	2	3	4	Tipulidae	0	1	2	3	4						
Decapoda	0	1	2	3	4	Empididae	0	1	2	3	4						
Gastropoda	0	1	2	3	4	Simuliidae	0	1	2	3	4						
Bivalvia	0	1	2	3	4	Tabinidae	0	1	2	3	4						
						Culcidae	0	1	2	3	4						

WOLMAN PEBBLE COUNT FORM

County: Webster Stream ID: S-E46 TM

Stream Name: Strouds Creek TM

HUC Code:

Basin:

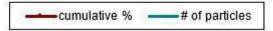
Survey Date: 9/9/2021

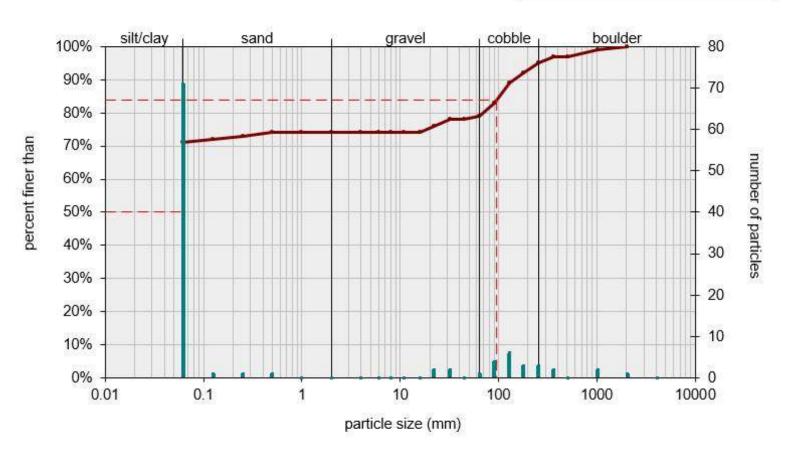
Surveyors: RFC, COC

Type: Bankfull Channel

Reach: 15.7 m

			LE COUNT				
Inches	PARTICLE	Millimeters		Particle Count	Total #	Item %	% Cun
	Silt/Clay	< .062	S/C	A	71	71.00	71.00
	Very Fine	.062125		-	1	1.00	72.00
	Fine	.12525]	A	1	1.00	73.00
	Medium	.255	SAND	*	1	1.00	74.00
	Coarse	.50-1.0		A	0	0.00	74.00
.0408	Very Coarse	1.0-2		-	0	0.00	74.00
.0816	Very Fine	2 -4	GRAVEL	•	0	0.00	74.00
.1622	Fine	4 -5.7		-	0	0.00	74.00
.2231	Fine	5.7 - 8		A	0	0.00	74.00
.3144	Medium	8 -11.3		A	0	0.00	74.00
.4463	Medium	11.3 - 16		A	0	0.00	74.00
.6389	Coarse	16 -22.6			2	2.00	76.00
.89 - 1.26	Coarse	22.6 - 32			2	2.00	78.00
1.26 - 1.77	Vry Coarse	32 - 45	1		0	0.00	78.00
1.77 -2.5	Vry Coarse	45 - 64	1		1	1.00	79.00
2.5 - 3.5	Small	64 - 90		-	4	4.00	83.00
3.5 - 5.0	Small	90 - 128	1		6	6.00	89.00
5.0 - 7.1	Large	128 - 180	COBBLE	^	3	3.00	92.00
7.1 - 10.1	Large	180 - 256	_		3	3.00	95.00
10.1 - 14.3	Small	256 - 362		A	2	2.00	97.00
14.3 - 20	Small	362 - 512	BOULDER		0	0.00	97.00
20 - 40	Medium	512 - 1024		A	2	2.00	99.00
40 - 80	Large	1024 -2048		^	1	1.00	100.0
80 - 160	Vry Large	2048 -4096		A	0	0.00	100.0
	Bedrock		BDRK	<u> </u>	0	0.00	100.0
				Totals:	100		

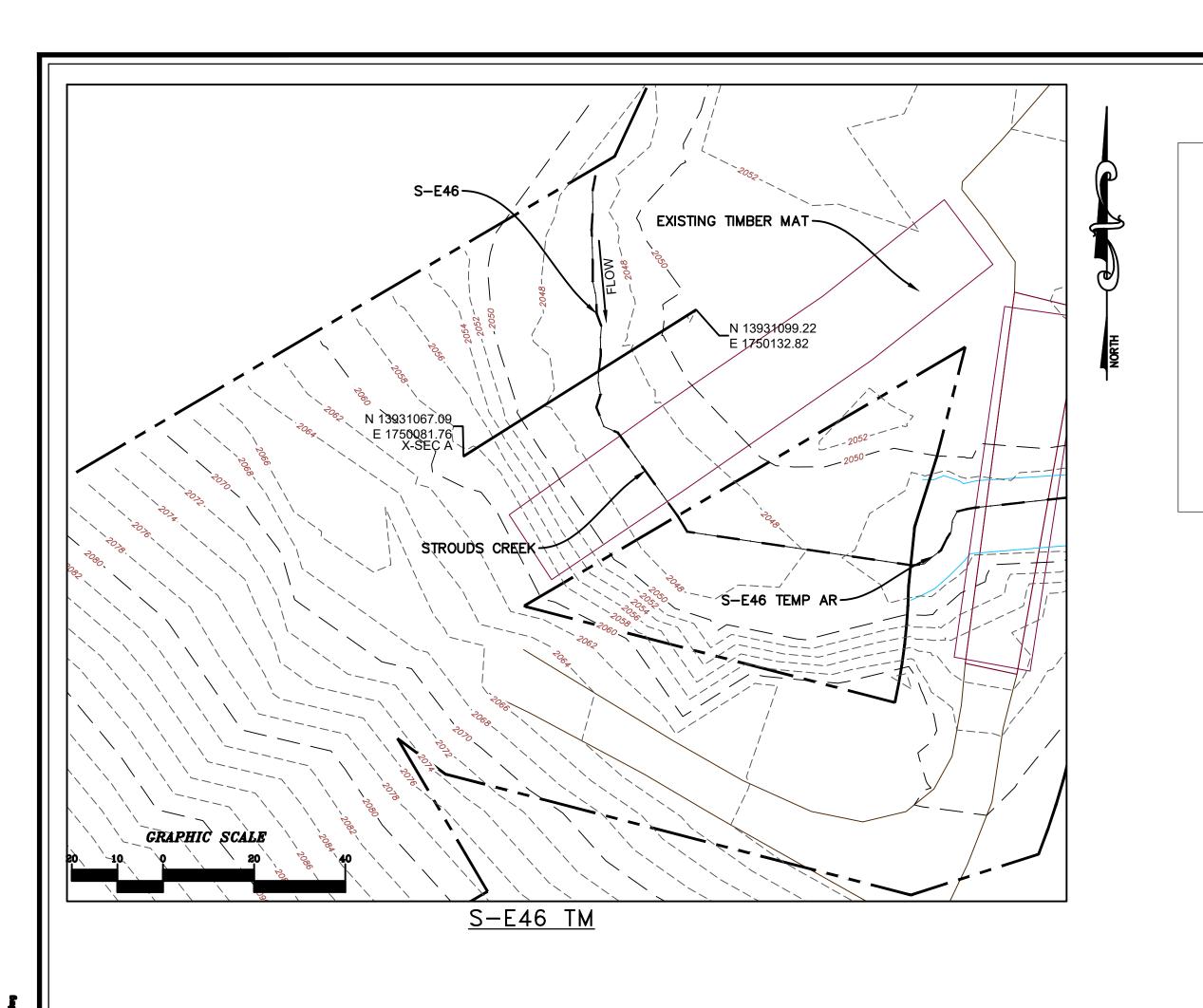


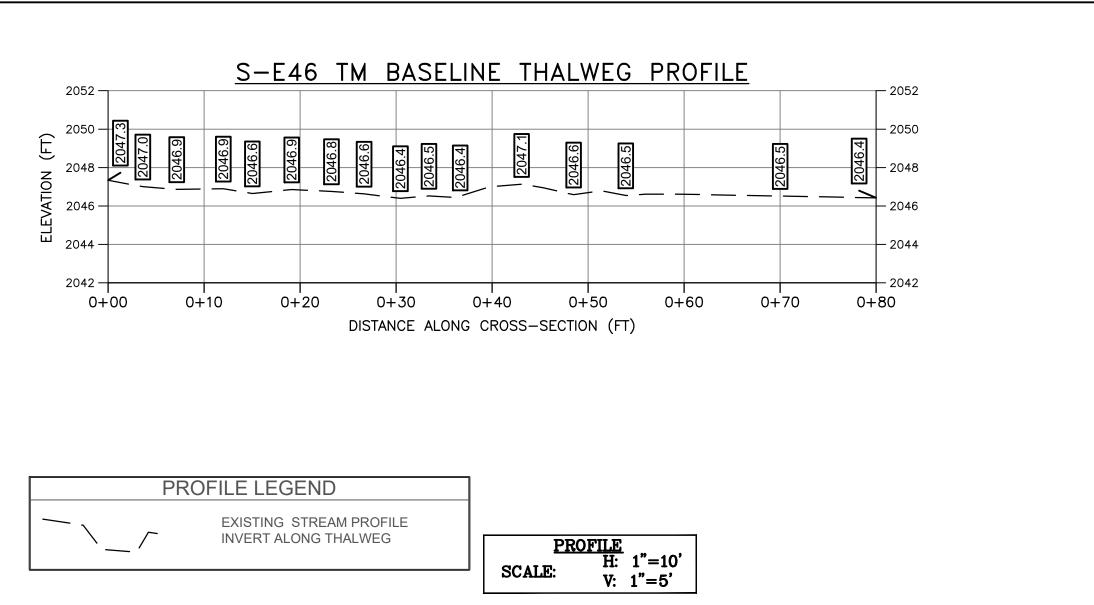


	Size (r	mm)	•
904	D16	0.062	-13
	D35	0.062	
	D50	0.062	
	D65	0.062	
	D84	95	
	D95	260	

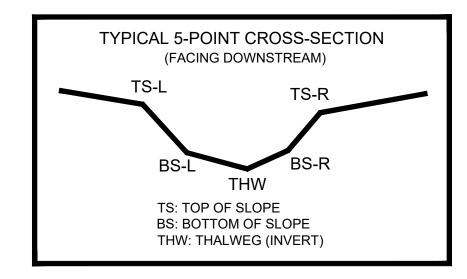
Size Distr	ribution
mean	2.4
dispersion	766.6
skewness	0.89

Туре		
silt/clay	71%	
sand	3%	
gravel	5%	
cobble	16%	
boulder	5%	





AS-BUILT TABLE: S-E46 TM CROSS SECTION A					
	PRE-CROSSING		AŞ-BUILT		
PT. LOC.	NORTHING	EASTING	ELEV	VERT. DIFF.	HORZ. DIFF.
TS-L	13931093.6300	1750125.8710	2050.156'		
BS-L	13931092.6200	1750123.58401	2048.834'		
THW	13931085.9900	1750111.4670	2047.135'		
BS-R	13931077.6700	1750094.3670	2048.839'		
TS-R	13931077.1500	1750093.35501	2050.306'		



SURVEY NOTES:

LEGEND

STUDY AREA (EASEMENT)

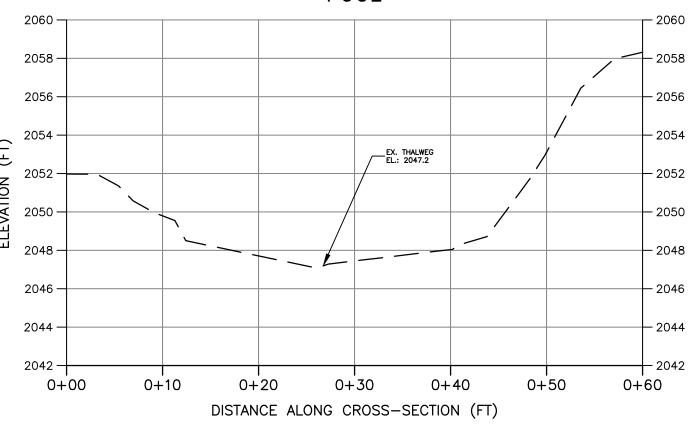
1176.87 十

EXISTING SURVEY-LOCATED THALWEG

EXISTING SURVEYED GROUND SHOT ELEVATION

- 1. THIS MAP HAS BEEN ORIENTED TO NAD 1983 UTM ZONE 17N, AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), USING REAL TIME DGPS. FIELD LOCATIONS WERE COMPLETED ON SEPTEMBER 9, 2021.
- 2. EASEMENT LINES SHOWN ON PLAN VIEW WERE PROVIDED BY MOUNTAIN VALLEY
- 3. SURVEY POINTS FOR CROSS SECTIONS AND THALWEG PROFILES COLLECTED IN 2021 HAVE BEEN USED IN COMBINATION WITH SURVEY POINTS COLLECTED PREVIOUSLY IN 2020 IN ORDER TO GENERATE THE PRE-CROSSING SURFACE SHOWN IN PLAN. DUE TO NATURAL EROSIONAL STREAM PROCESSES THAT CAN OCCUR OVER TIME, MINOR ADJUSTMENTS TO THE PROFILE ALIGNMENTS MAY HAVE BEEN REQUIRED IN ORDER TO GENERATE A CLEAN PRE-CROSSING SURFACE.
- 4. ALL SECTION VIEWS SHOWN LEFT TO RIGHT FACING DOWNSTREAM.
- 5. POST-CROSSING SURVEY INFORMATION SHOWN IN RED. DATA PENDING.
- 6. POST-CROSSING SURVEY POINTS FOR CROSS SECTIONS AND THALWEG ARE PROJECTED ONTO PRE-CROSSING SECTION AND PROFILE VIEWS FOR COMPARISON.

S-E46 TM BASELINE CROSS-SECTION A POOL 2058 -2050 -2044 -0+30 DISTANCE ALONG CROSS-SECTION (FT)



CROSS SECTION LEGEND — EXISTING GRADE CROSS SECTION
H: 1"=10'
V: 1"=5'

NOTE: ALL SECTIONS VIEWS SHOWN LEFT TO RIGHT FACING DOWNSTREAM.

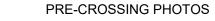




PHOTO TAKEN LOOKING DOWNSTREAM FROM UPSTREAM IMPACT LIMITS



PHOTO TAKEN LOOKING UPSTREAM FROM DOWNSTREAM IMPACT LIMITS

POST-CROSSING PHOTOS

PENDING CROSSING

PHOTO TAKEN LOOKING DOWNSTREAM FROM UPSTREAM IMPACT LIMITS

PENDING CROSSING

PHOTO TAKEN LOOKING UPSTREAM FROM

PRE-CROSSING

DOWNSTREAM IMPACT LIMITS

CAD File No.



Drawing No