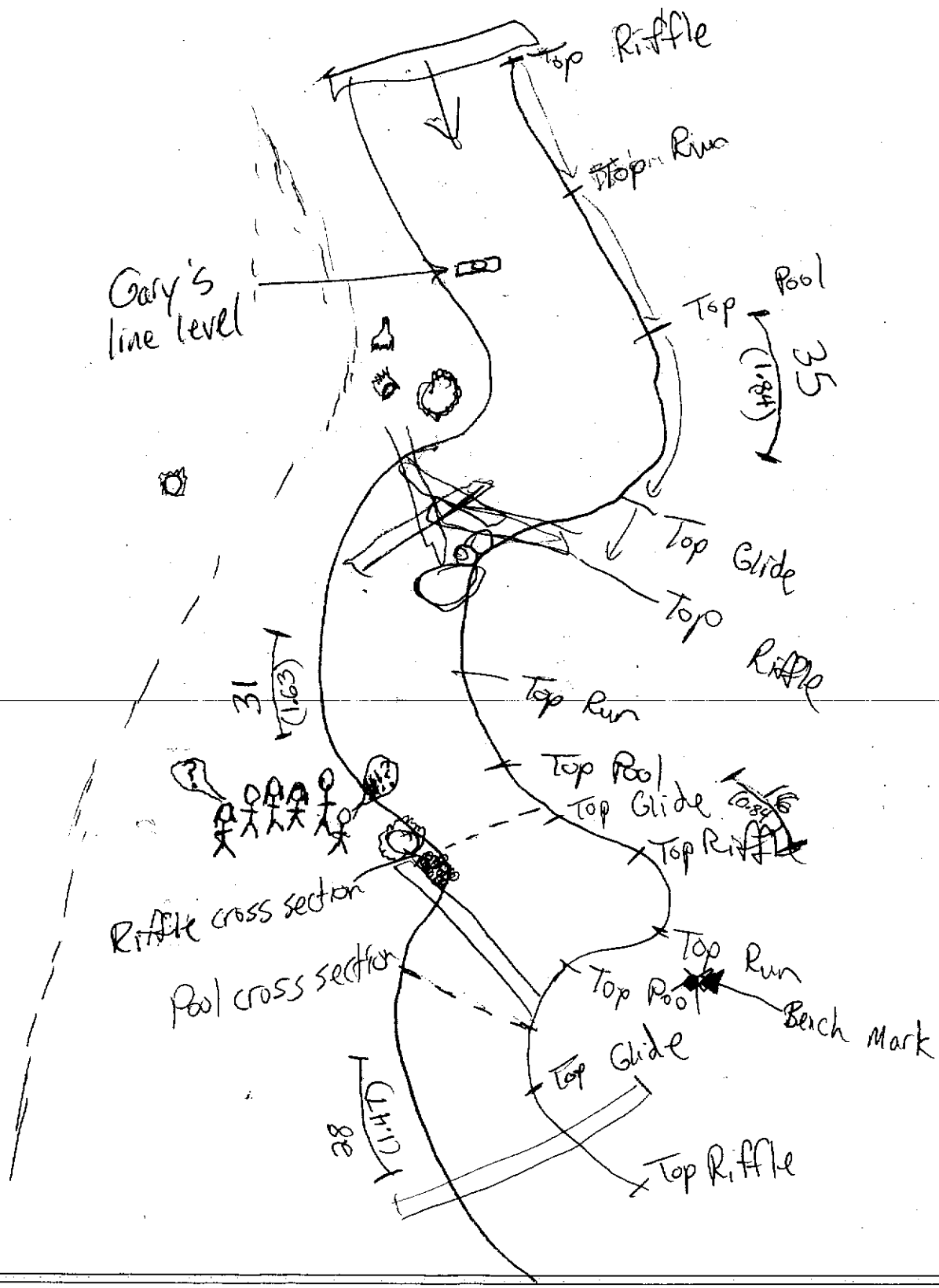
AREA-SITE LOCATION...REACH MAP

Stream: Sweet Run Reach:

Drawn By: Dustin Cassady Date: 3/Day/18



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SURVEY DATA ⟶ **CROSS - SECTION** 1

SITE: Swat Run Stream Date: 03/27/18

Location: Reach 2 - Pool Cross Section

Party / Notes: Team 2 HUC:

Item	Distance, Point, or STATION (ft)	Back-Sight BS (ft)	Height of Instrument HI (ft)	Fore-Sight FS (ft)	Elevation (ft)	REMARKS / COMMENTS / NOTES
1	BM	5.17	105.47			
2				4.91		top of pin - Left
3	0			5.39		
4	1			5.44		
5	2.5			6.02		
6	4			7.57		
7	6			7.94		
8	7			8.19		
9	8.6			8.38		
10	10			8.35		
11	11			8.24		
12	12			8.10		
13	13			7.99		
14	14			7.92		
15	15			7.82		
16	16.3			7.01		
17	18			5.92		
18	19			5.45		
19	20			5.26		
20	15.7			7.37		top of water - right
21	BM	5.18				
22						
23						
24						
25						
26						
27						
28						

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SURVEY DATA → **CROSS - SECTION 1**

SITE: Sweet Run Date: 3/27/18

Location: Stream Reach 2 @ Riffle

Party / Notes: Team 2 HUC:

Item	Distance, Point, or STATION ft	Back-Sight BS ft	Height of Instrument HI ft	Fore-Sight FS ft	Elevation ft	REMARKS / COMMENTS / NOTES
1	BM1	5.64	1	~~5.34~~		
2	0			5.34		on Monument start LS
3	0			5.48		LS on Bank - ground
4	2			5.96		LS on Bank
5	4			6.32		LS on Bank
6	6			6.44		LS on Bank
7	8.2			6.37		Bank Full - LS
8	11			6.66		LS on Bank
9	12			7.05		LS on Bank
10	12.7			7.28		~~RS~~ LS Water edge
11	14			7.54		in stream
12	15.5			7.67		in stream
13	16.5			7.60		LS of Rock in stream
14	17.3			7.26		on Rock in stream
15	18.4			7.79		RS of Rock in stream
16	19.5			7.85		in stream
17	21			8.08		in stream
18	22			7.86		in stream
19	23.4			7.25		edge of water on rock RS
20	24			6.09		RS - on Bank
21	25			5.71		RS - on Bank
22	26.4			5.74		Ground RS Bank
23	26.4			5.35		on Monument RS
24	BM1	5.64				
25						
26						Flood Prone Width - 65.5
27						
28						

Jan left

.82

7
~~8~~.08
-6.37
1.71
x 2
3.42

7
~~8~~.08
-3.42
4.66
Rod reading of a ground shot

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SURVEY DATA ⟶ **LONGITUDINAL PROFILE 2**

SITE: Sweet Run Date: 3/27/18

Location: Stream Reach 2

Party / Notes: Team 2 HUC:

	Distance, Point, or STATION ft	Back-Sight BS ft	Height of Instrument HI ft	Thalweg Fore-Sight FS ft	Thalweg Elevation Elev. ft	Water Surface Fore-Sight FS ft	Water Surface Elevation Elev. ft	Bankfull Fore-Sight FS ft	Bankfull Elevation Elev. ft	Low Bank HI Fore-Sight FS ft	Low Bank HI Elevation Elev. ft	NOTES e.g. Riffle Run Pool Glide	
28	BM1	7.22	107.22			~~7.26~~							
29	0			7.96		7.26				5.93		TO Riffle	LS
30	9.0			7.81		7.30				5.70		middle riffle	LS
31	16.1			7.94		7.27				5.85		TO Run	LS
32	26.5			8.44		7.30		6.44		4.98		in Run & BF LS	~~BK-RS~~
33	29.0			8.33		7.29		6.41		4.80		BF-RS	in Run
34	37			8.41		7.29				5.10		in Run	LS
35	45.4			8.48		7.28				5.92		TO Pool	LS
36	55			8.66		7.25				6.25		in Pool	LS
37	63			9.34		7.27				6.30		in Pool	LS
38	84.3			8.96		7.37				5.64		TO Glide	LS
39	87			8.57		7.29				6.40		middle Glide	RS
40	90.2			8.84		8.40				6.37		TO Riffle	RS – above log
41	95			9.25		8.41				6.55		in riffle	RS – below log
42	107			9.14		8.71				6.27	←	RS	Bottom of Rocks
43	111			9.57		8.75				6.90	←	RS	
44	114.3			9.81		8.81				6.54	←	RS	Top of Run
45	121			9.96		8.82				7.59	←	RS	
46	129					8.83							
47	BM	7.22											Top of Pool
48	BM	5.38	105.38										
49													
50													
51													
52													
53													
54													

TP1

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SURVEY DATA ⟶ **LONGITUDINAL PROFILE 1**

SITE: Sweet Run Date: 3/27/18

Location: Reach 2

Party / Notes: Team 2 HUC:

	Distance, Point, or STATION ft	Back-Sight BS ft	Height of Instrument HI ft	Thalweg Fore-Sight FS ft	Thalweg Elevation Elev. ft	Water Surface Fore-Sight FS ft	Water Surface Elevation Elev. ft	Bankfull Fore-Sight FS ft	Bankfull Elevation Elev. ft	Low Bank HI Fore-Sight FS ft	Low Bank HI Elevation Elev. ft	NOTES e.g. Riffle Run Pool Glide
1	BM1	7.22	107.22									
2	258.6			10.11		9.55				7.93		top of riffle
3	250.5			10.57		9.42				7.99		mid glide
4	242			10.47		9.40				7.87		top of glide
5	240							8.79				bankfull
6	235	angle →		11.12		9.44				7.86		mid pool
7	225.5			10.40		9.42				7.92		mid-pool
8	217			10.56		9.45				7.63		mid-pool
9	207			10.75		9.38				7.18		top of pool
10	202			10.06		9.41				7.58		mid-run
11	195			10.05		9.39				7.07		top of run
12	172			9.75		9.14		8.36		7.26		bankfull/mid-riffle
13	153.25			9.61		8.90		8.03		7.26		top of riffle
14	148.5			9.83		8.83		7.90		7.35		mid-glide
15	144.65			10.03		8.83		7.85		6.42		top-glide
16	138.2			9.48		8.84		7.92		6.55		mid-pool
17	133			9.62		8.82		8.11		6.55		mid-pool
18	129			9.91		8.84				6.55		top-pool
19	BM1	7.22										
20	235	5.38	105.38	8.94								
21												
22												
23												
24												
25												
26												
27												

← [illegible] rver [illegible]

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ROSGEN REPRESENTATIVE REACH PEBBLE COUNT

STREAM: Sweet Run | **DATE:**

REACH: 2 | **CREW:** Team 2

PARTICLE TALLY COUNTS BY TRANSECT

ft	PARTICLE	mm		10 / 1	14 / 2	20 / 3	79 / 4	88 / 5	128 / 6	141 / 7	176 / 8	208 / 9	254 / 10	Tot Pool	Tot Riff	Comb Tot	%CUM
	Silt/Clay	< .062	S/C				1		1					2			
	Very Fine	.062 - .125	S	111			11			111				8			
	Fine	.125 - .25	A							11	1	1		4			
	Medium	.25 - .50	N	1					11111	11	1		1	10			
	Coarse	.50 - 1.0	D		2	5	1	1	1	11			1	13			
	Vry Coarse	1.0 - 2	S				11	111				1111	1	10			
	Very Fine	2 - 4		1	3	2				1				7			
	Fine	4 - 6	G					1			11	1		4			
	Fine	6 - 8	R								1	1		2			
	Medium	8 - 12	A	1	1	1	1						1	5			
	Medium	12 - 16	V	1	2	2					1	1		7			
	Coarse	16 - 24	E		1		1							2			
	Coarse	24 - 32	L	1							1			2			
	Vry Coarse	32 - 48	S										1	1			
	Vry Coarse	48 - 64						1	1				1	3			
0.21-0.31	Small	64 - 96	C					1	1		11			4			
0.31-0.42	Small	96 - 128	O	1				1			1		1	4			
0.42-0.63	Large	128 - 192	B	1	1						1	1	111	7			
0.63-0.84	Large	192 - 256	L				1					1		1			
0.84-1.26	Small	256 - 384	B									1		1			
1.26-1.68	Small	384 - 512	L														
1.68-3.36	Medium	512 - 1024	D				1							1			
3.36-6.72	Lrg	1024 - 2048	R														
6.72-13.43	Vry Lrg	2048-4096						11						2			
	Bedrock	>4096	BDRK														

FEATURE SAMPLED

	Length	Proportion	No. Units	Sampled
REACH				
POOL				
RIFFLE				
RUN				

Transect	Feature	Length	Width
1	Riffle	10	21
2	Run	14	20
3	Run	20	18.6
4	Pool	79	15.5
5	Top of Glide	88	9.5
6	Run	128	13.5
7	Pool	141	15
8	Riffle	176	10
9	Pool	208	10
10	Glide	254	9.5

roughness

145
152
43

RIFFLE PEBBLE COUNT AND LARGEST PARTICLE ON BAR COUNT

STREAM: Sweets Run **DATE:** 3/28/18

REACH: 2 team 2 **CREW:** team 2 The wonder crew

XS No.: **Riffle Location (also mark on reach sketch):** For other sheet

ft	PARTICLE	mm		1	2	3	4	5	6	7	8	9	10	Tot #	% Cum
				Particle Count 20ft					14ft					TOTALS	
	Silt/Clay	< .062	S/C											0	
	Very Fine	.062 - .125	S		1									1	
	Fine	.125 - .25	A			III		1						4	
	Medium	.25 - .50	N					II						2	
	Coarse	.50 - 1.0	D	I	II	I	IIII IIIII	II		IIIII	II			14	
	Vry Coarse	1.0 - 2	S											0	
	Very Fine	2 - 4												0	
	Fine	4 - 6	G		1		1							2	
	Fine	6 - 8	R			1		1		II	III			2	
	Medium	8 - 12	A	1	1	II	II			1	1			6	
	Medium	12 - 16	V	1	II	III	1	1		II	III			6	
	Coarse	16 - 24	E	1	II	1	1	II			I			6	
	Coarse	24 - 32	L	1	1	1		1						4	
	Vry Coarse	32 - 48	S	II	II		III							7	
	Vry Coarse	48 - 64		II	II			1						5	
0.21-0.31	Small	64 - 96	C	IIII	1	II	1	IIII						13	
0.31-0.42	Small	96 - 128	O			1	1							2	
0.42-0.63	Large	128 - 192	B	II	III	1	1	IIII						11	
0.63-0.84	Large	192 - 256	L	II		1	1				1			5	
0.84-1.26	Small	256 - 384	B	III		1		1						5	
1.26-1.68	Small	384 - 512	L			II								2	
1.68-3.36	Medium	512 - 1024	D	I	II									2	
3.36-6.72	Lrg	1024 - 2048	R												
6.72-13.43	Vry Lrg	2048-4096													
	Bedrock	>4096	BDRK												

LARGEST PARTICLES ON BAR

Bar Location (also mark on reach sketch):

Bar Length:
Bar Width (Thalweg - BF):
Sketch bar profile (Thalweg - BF)

Part. #	mm	Part. #	mm	Part. #	mm
1		6		11	
2		7		12	
3		8		13	
4		9		14	
5		10		15	

@Station 146

Worksheet 26. Bar sample form

Point / Side BAR-BULK MATERIALS SAMPLE DATA: Size Distribution Analysis

Party: Team 2

Location: –

Date:

Notes:

each is ½ bucket

SUB SAMPLES	Sieve SIZE 63mm		Sieve SIZE 31.5 mm		Sieve SIZE 16.0mm		Sieve SIZE 8.0mm		Sieve SIZE 4.0mm		Sieve SIZE 2.0mm		Sieve SIZE		Sieve SIZE		Sieve SIZE	
Tare Weight	1600g		1650g		1,750g		1,600g		1,550g		1,450g							
Sample Weights	Total	Net	Total	Net	Total	Net	Total	Net	Total	Net	Total	Net	Total	Net	Total	Net	Total	Net
1	5775	4175	2200	550	2300	550	2200	600	2050	600	1810	360						
2	3350	1750	3025	1375	2900	1150	2900	1300	2825	1375	2325	875						
3	0	0	2000	350	1900	150	2000	400	1950	400	1725	275						
4	9125		7225		7100		7100		6825		5860							
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
Net Wt. Total	5825		2475		1850		2300		2275		1610							
% Grand Tot.																		
Accum. % =<																		

SURFACE MATERIALS DATA
(Two Largest Particles)

No.	Dia.	WT.
1	45mm	100g
2	74mm	375g

Bucket + Materials Weight 7600g

Bucket Tare Weight 1050g

Materials Weight 6550g
(Materials less than: 2.0 mm.)

Be Sure to Add Separate Material Weights to Grand Total

GRAND TOTAL SAMPLE WEIGHT

NOTES

$131 - 136 = 15$

Riffle #1

Team 2

Riffle Stability Index

Start @ 6

Material	Size Range (mm)		Pebble Counts	% in Class	Cumulative
silt/clay	0	0.062			
very fine sand	0.062	0.13			
1 fine sand	0.13	0.25	I		
6 medium sand	0.25	0.5	~~IIII~~ I		
6 coarse sand	0.5	1	II		
very coarse sand	1	2			
4 very fine gravel	2	4	I		
6 fine gravel	4	6	III		
6 fine gravel	6	8	~~IIII~~		
3 medium gravel	8	11	I		
10 medium gravel	11	16	~~IIII~~		
1 coarse gravel	16	22	I		
5 coarse gravel	22	32	I		
9 very coarse gravel	32	45	~~IIII~~		
4 very coarse gravel	45	64	I		
8 small cobble	64	90	IIII		
4 medium cobble	90	128	II		
9 large cobble	128	180	~~IIII~~		
6 very large cobble	180	256	III		
6 small boulder	256	362			
small boulder	362	512			
6 medium boulder	512	1024	IIII		
large boulder	1024	2048			
very large boulder	2048	4096			

Total

Total Particles =

Enter intermediate diameters (mm) of 10 – 30 particles on bar:

1	55	11	90	21	55
2	28	12	60	22	40
3	50	13	30	23	50
4	60	14	70	24	80
5	100	15	30	25	55
6	30	16	50	26	60
7	50	17	65	27	
8	32	18	80	28	
9	70	19	55	29	
10	33	20	70	30	

Geometric Mean Grain Size (mm) =

Riffle #2

Riffle Stability Index

191, 187, 183, 179, 175

Material	Size Range (mm)		Pebble Counts	% in Class	Cumulative
silt/clay	0	0.062			
very fine sand	0.062	0.13			
fine sand	0.13	0.25			
medium sand	0.25	0.5			
coarse sand	0.5	1	|||| 4		
very coarse sand	1	2			
very fine gravel	2	4	||| 3		
fine gravel	4	6	||| 3		
fine gravel	6	8	| 1		
medium gravel	8	11	|| 2		
medium gravel	11	16	||||| 5		
coarse gravel	16	22			
coarse gravel	22	32	| ||| 4		
very coarse gravel	32	45	|| || 4		
very coarse gravel	45	64	||| 3		
small cobble	64	90	|| || 4		
medium cobble	90	128	|| 2		
large cobble	128	180	| ||| 4		
very large cobble	180	256	|||| 5		
small boulder	256	362	|||||| 6		
small boulder	362	512			
medium boulder	512	1024	|| 2		
large boulder	1024	2048			
very large boulder	2048	4096			

Total Particles =

Enter intermediate diameters (mm) of 10 – 30 particles on bar:

1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	

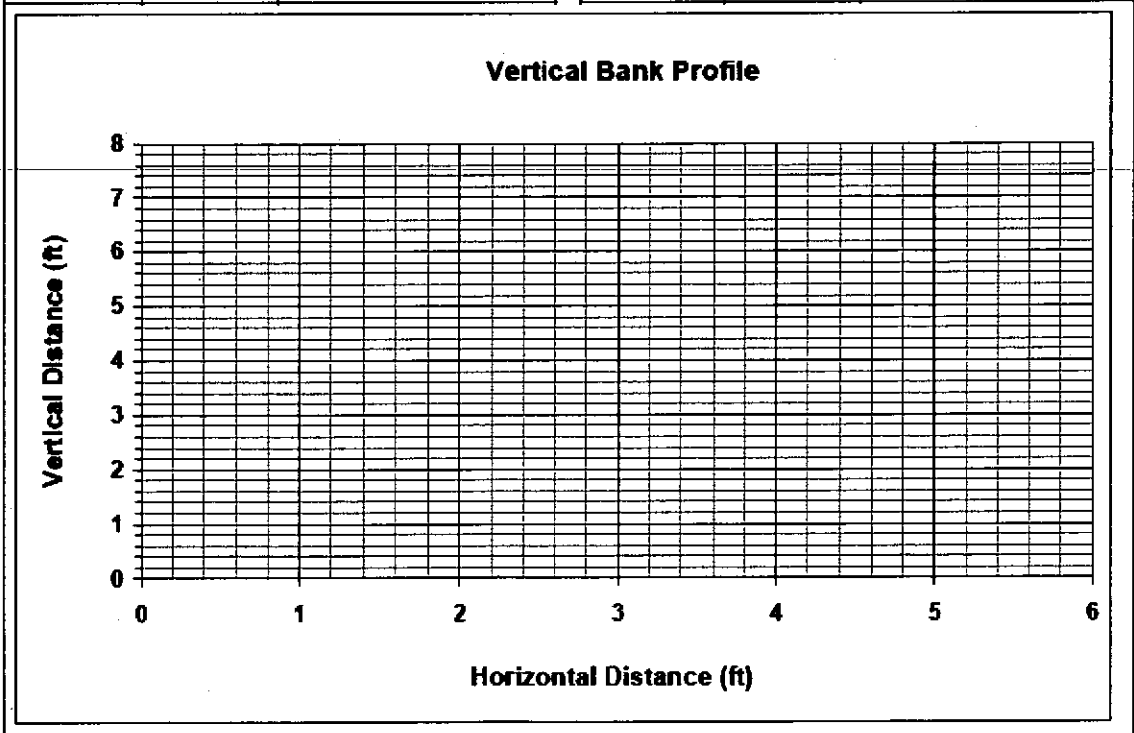
Geometric Mean Grain Size (mm) =

Overhanging #1

Worksheet 6-2. Bank profile and bank erosion summary data form.

Stream: Sweet Run	Observers:
Location:	Date: 3/29/18
Cross-section:	BEHI adjective:
Bank: Overhanging	NBS adjective:
Toe pin station (ft):	Predicted erosion (ft):
Toe pin elevation (ft):	Measured erosion (ft):

Date:			Date: Under hang		
1.32' ← 13.8"	.13'		2.55'	1.46'	
1.91 ← 22.9"	.24'		2.45'	1.56'	
2.30'	.45'		2.70'	1.26'	
2.60'	.65'	Water surface	2.75'	1.30'	
2.95'	.96'	Start of overhang	2.05'	1.37'	
1.70'	2.12'		1.95'	1.44'	
1.66'	2.29'		1.85'	1.44'	
1.82'	2.40'	on bank	1.75'	1.48'	
2.26'	2.67'	on bank	1.65'	1.75'	
3.09'	2.80'	on bank			
2.99'	.83'				



V	HB
~~1.09~~	~~2.90~~
~~+.34~~	~~-.26~~
~~1.43~~	~~2.64~~
.96	2.95
+.50	-.40
1.46	2.55
.96	2.95
+.60	-.50
1.56	2.45
.96	2.95
+.30	-.25
1.26	2.70
.96	2.95
+.34	-.80
1.30	2.15
.96	2.95
+.41	-.90
1.37	2.05
.96	2.95
+.48	-1.00
1.44	1.95
.96	2.95
+.48	-1.10
1.44	1.85
.96	2.95
+.52	-1.20
1.48	1.75
.96	2.95
+.79	-1.30
1.75	1.65

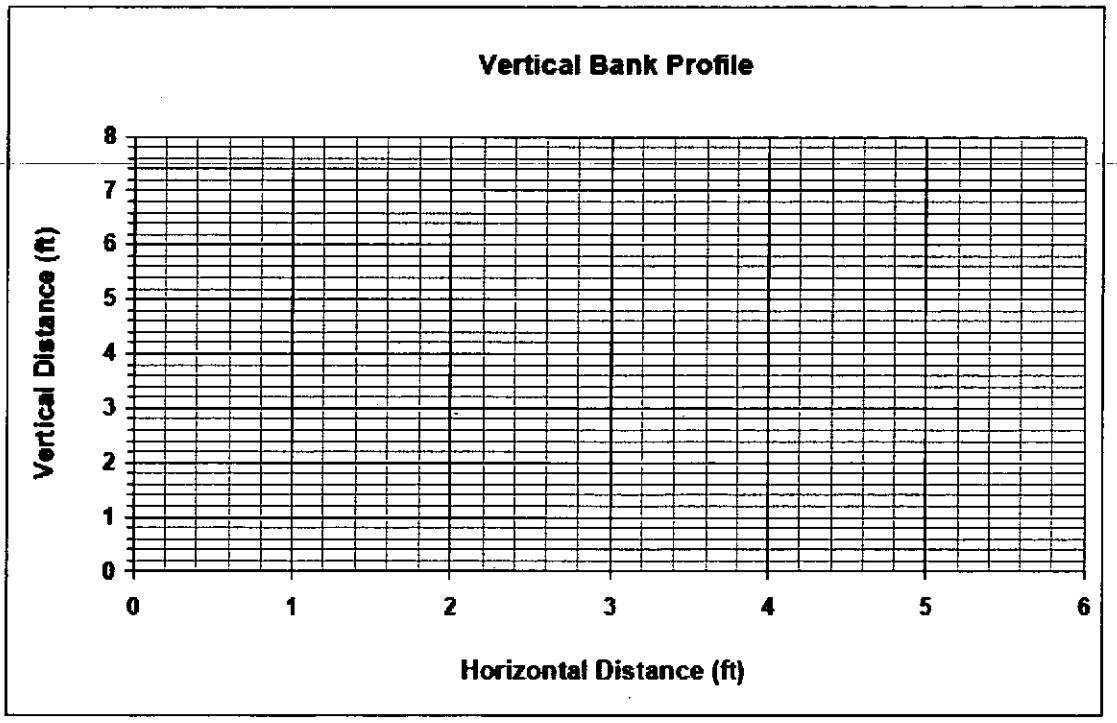
1.4

Straight Bank #1

Worksheet 6-2. Bank profile and bank erosion summary data form.

Stream: Sweet Run	Observers: Marty, Dawn & Me
Location:	Date:
Cross-section:	BEHI adjective:
Bank:	NBS adjective:
Toe pin station (ft):	Predicted erosion (ft):
Toe pin elevation (ft):	Measured erosion (ft):

Date: Day after Yesterday			Date:		
0.65	0.10	Dawn's hands are cold			
1.30	0.16	still cold			
1.65	0.35	now numb			
2.14	0.55	still complaining			
2.71	0.77	water surface			
3.02	1.00				
3.25	1.20				
3.45	1.44				
3.45	1.66				
3.52	1.97				
3.62	2.16				
3.77	2.46				
5.06	2.97				



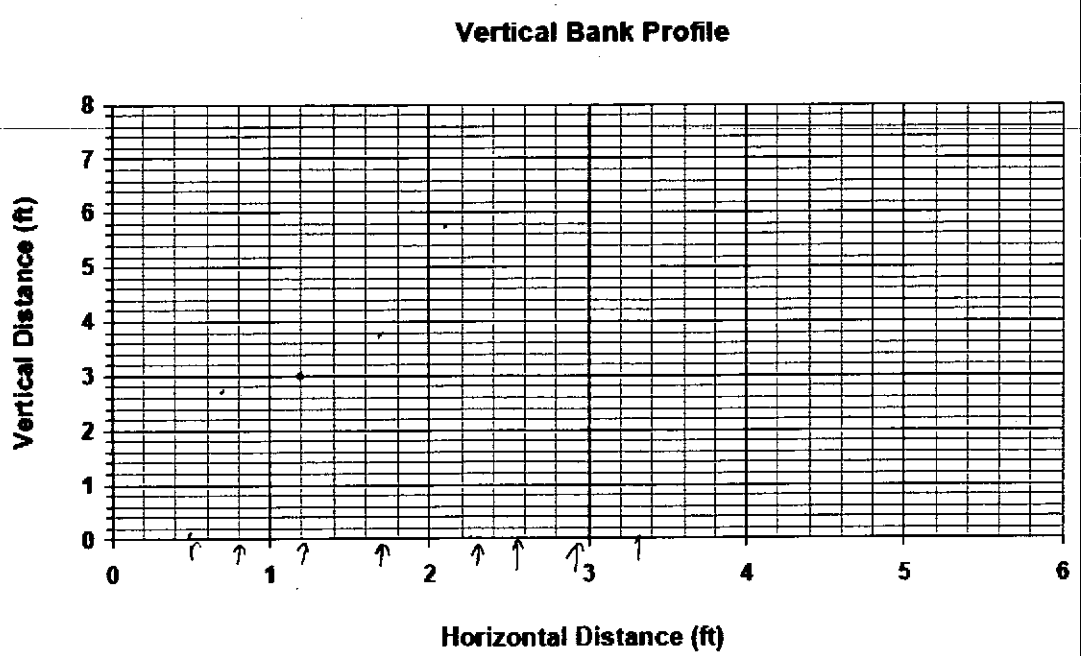
Straight #2

Worksheet 6-2. Bank profile and bank erosion summary data form.

Stream: Rootwad just DS of site - potential buildup of materials	Observers:
Location: Reach #2	Date: 3/29/18
Cross-section:	BEHI adjective:
Bank: Right Bank - straight bank	NBS adjective:
Toe pin station (ft):	Predicted erosion (ft):
Toe pin elevation (ft):	Measured erosion (ft):

Date:			Date:		
0.49	0.05				
0.69	0.27				
1.11	0.30				
1.65	0.38				
2.14	0.58				
2.52	0.78				
2.94	1.08				
3.26	1.28	small overhang end			
3.22	1.6				
3.48	1.88				
3.70	2.2				
4.00	2.51				
5.10	2.92				
6.04	3.22				

3.22



Field Data Sheet for Discharge Measurements

Stream Discharge Measurement Sheet

Site ID #: 38.85 Station / Reach #2
Name and Location: Sweet Run
Date: 3/29/18 Crew: Team 2

County:
Weather:
Cross-section Location: 38.85
Meter:

Station	Width	Depth	Area (Width x Depth)	Run Length	Secs	Velocity (fs)	Average Velocity Use with 2pt method (0.2+0.8)/2	Discharge (Area x Velocity) (cfs)
0.0	0.4	0	0			0		0
1.4	0.4	0.5	0.2			0.01	0.002	0.002
2.2	0.8	0.6	0.48			0.13		0.0624
3.0	0.8	0.6	0.48			0.09		0.0432
3.8	0.8	0.7	0.56			0.52		0.2912
4.6	0.8	0.7	0.56			0.43		0.2408
5.4	0.8	0.7	0.56			0.48		0.2688
6.2	0.8	0.6	0.48			0.57		0.2736
7.0	0.8	0.7	0.56			0.75		0.42
7.8	0.8	0.7	0.56			0.66		0.3696
8.6	0.8	0.8	0.64			0.57		0.3648
9.4	0.8	0.8	0.64			0.41		0.2624
10.2	0.8	0.9	0.72			0.29		0.2088
10.0	0.8	0.9	0.72			0.12		0.0864
11.8	0.8	1.0	0.8			0.09		0.072
12.6	0.8	1.0	0.8			0		0
13.4	.8	0.8	0.64			0		0
13.8	.4	.8	0.32			0		0

2.966

Total Discharge: 2.966 CFS (oMeasured, o Estimated)

Comments:

Field Data Sheet for Discharge Measurements

Stream Discharge Measurement Sheet

Site ID #: Reach #2/#3
Name and Location: Sweet Run
Date: 3/29/18 Crew: Awesome sauce

County:
Weather: cloudy
Cross-section Location: 44 FT
Meter:

every .7

	Station	Width	Depth	Area (Width x Depth)	Run Length	Secs	Velocity (fs)	Average Velocity Use with 2pt method (0.2+0.8)/2	Discharge (Area x Velocity) (cfs)
1	1.4	.7	.05	0.035			0	0	0
2	2.1	.7	.2	.098			.34		.03
3	2.8	.7	.3	.21			.35		.07
4	3.5	.7	.38	.27			.58		.16
5	4.2	.7	.48	.34			.32		.11
6	4.9	.7	.55	.39			.53		.21
7	5.6	.7	.6	.42			.69		.29
8	6.3	.7	.54	.38			.42		.16
9	7	.7	.65	.46			.53		.24
10	7.7	.7	.73	.51			.88		.45
11	8.4	.7	.62	.43			.68		.29
12	9.1	.7	.61	.43			.59		.25
13	9.8	.7	.48	.34			.79		.27
14	10.5	.7	.49	.34			.21		.07
15	11.2	.7	.40	.28			0		0

2.6

Total Discharge: 2.6 CFS (oMeasured, o Estimated)

Comments:

12.5

1 2 3 4 5 6 7 8 9 10
Y Y Y Y Y Y Y Y Y Y

team AWESOME

Transect location (feet)	Wetted Width	Velocity (ft/sec)	Depth (in)	Substrate	Embedded	Mesohabitat Type (riffle, run, pool, glide)	Instream Cover	Bank angle L	Bank angle R	Canopy Cover	Rip density L	Rip density R	Stem density	Basal area
218	12.5					Pool	12 ~~12.5~~ .95?	38	32	10/10	15/17	15/17	22	140 ft² Peracre

D 140
In B
~~IIII~~ ~~IIII~~ 11
11

~~IIII~~ ~~IIII~~
T 130
11

~~IIII~~ ~~IIII~~
5 | 11
150
T
11

@ Riffle

Both sides

Transect location (feet)	Wetted Width	Velocity (ft/sec)	Depth (in)	Substrate	Embedded	Mesohabitat Type (riffle, run, pool, glide)	Instream Cover	Bank angle (L)	Bank angle (R)	Canopy Cover	Rip density L	Rip density R	Stem density	Basal area
	10'					Riffle	1 surface/ 10 ft	10° / 15°	50° / 65°	In Stream P / A 100%	15/17 Presence 88%	14/17 Presence 82%	3/10 ft² 6 total	120 sq ft/ acre

Team 2 - Combined Data

Large Woody Debris Measurement

Three types of LWD: logs, rootwads, and jams

Criteria:
Logs: dead, 5 cm minimum diameter at mid-point, 2 meters minimum length, 10 cm minimum within bankfull channel.
Rootwads: dead root system fully detached from original position, 20 cm minimum diameter, less than 2 meters length, 5 cm minimum within bankfull channel
Jams: accumulation of 3 or more qualifying logs physically touching at one or more points, 5 cm minimum within bankfull channel; (data- count number of jams and number of logs within a jam)

Length:
Logs: from end to end, include root system if present
Rootwads: from end to end

Diameter:
Logs: measure diameter to nearest cm at the log midpoint (if branches occur at the midpoint of length, measure diameter just below)
Rootwads: measure diameter to nearest cm at the point where the trunk (bole) meets the roots

Conduct a count of all large woody debris and root wads within the reach that meet dimensions described above. Assign to class categories.

Size classes of LWD (logs and rootwads)

	Diameter (centimeters)			
Length (meters)	5-10	11-50	>50	Rootwad
2-5	Class 1	Class 2	Class 3	Class 7
>5	Class 4	Class 5	Class 6	

Data (counts)

Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7 (RW)	Jam*
	II		I	II		I	I (3) I (5)

Total

*Count the number of jams and the number of logs per jam (count rootwads as rootwads, even if associated)

Example:
Basinwide Visual Estimation Technique (Dolloff, D.C. et al. 1993. Basinwide Estimation of Habitat and Fish Populations in Streams. Gen. Tech. Rep. SE-83. Asheville, NC, U.S. Department of Agriculture, Forest Service.

Worksheet A-1. Field Form for Level II Stream Classification.

Stream: Sweet Run (Team 2)			
Basin:	Drainage Area:	acres	mi^2
Location:			
Twp.&Rge:	Sec.&Qtr.:		
Cross-Section Monuments (Lat./Long.):		Date:	
Observers:		Valley Type:	

Bankfull WIDTH (W_{bkf}) WIDTH of the stream channel at bankfull stage elevation, in a riffle section.	19	ft
Bankfull DEPTH (d_{bkf}) Mean DEPTH of the stream channel cross-section, at bankfull stage elevation, in a riffle section ($d_{bkf} = A_{bkf} / W_{bkf}$).	0.08	ft
Bankfull X-Section AREA (A_{bkf}) AREA of the stream channel cross-section, at bankfull stage elevation, in a riffle section.	15.6	ft^2
Width/Depth Ratio (W_{bkf} / d_{bkf}) Bankfull WIDTH divided by bankfull mean DEPTH, in a riffle section.	23.2	ft/ft
Maximum DEPTH (d_{max}) Maximum depth of the bankfull channel cross-section, or distance between the bankfull stage and Thalweg elevations, in a riffle section.	1.7	ft
WIDTH of Flood-Prone Area (W_{fpa}) Twice maximum DEPTH, or ($2 \times d_{mbkf}$) = the stage/elevation at which flood-prone area WIDTH is determined in a riffle section.	65.5	ft
Entrenchment Ratio (ER) The ratio of flood-prone area WIDTH divided by bankfull channel WIDTH (W_{fpa} / W_{bkf}) (riffle section).	3.4	ft/ft
Channel Materials (Particle Size Index) D_{50} The D_{50} particle size index represents the median or dominant diameter of channel materials, as sampled proportionately from the channel surface, between the bankfull stage and Thalweg elevations. Material Riffle	35	mm
Water Surface SLOPE (S) Channel slope = "rise over run" for a reach approximately 20–30 bankfull channel widths in length, with the "riffle-to-riffle" water surface slope representing the gradient at bankfull stage.	0.89% .0089	ft/ft
Channel SINUOSITY (k) Sinuosity is an index of channel pattern, determined from a ratio of stream length divided by valley length (SL / VL); or estimated from a ratio of valley slope divided by channel slope (S_{val} / S).	259/188 =1.38	

Stream Type C4. **See Classification Key (Figure A-2)**

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Geometry Measurements

Stream name/location: Team 2 Downstream

Date: 3/27/18 Team members: Marty, Dustin, Sean

Attribute	Measurement 1 (Furthest Downstream)	Measurement 2 (Downstream 2)	Measurement 3	Measurement 4	Measurement 5	Range	Average
Radius of Curvature **(R_c)**	28 28	16 16					
Arc Length **(A_L)**	outside 43 ~~41 inside 44~~	39					
Linear Wavelength **(λ)**	54	71					
Stream Meander Length **(L_m)**	103	174					
Belt Width **(W_{blt})**	~~44~~	32	48	35			

Sinuosity

Stream length =

Valley length =

Sinuosity =

(every tight bend)

Checking other groups

Using 20° instead of 350°

20°

Geometry Measurements

Stream name/location: Sweet Branch / Reach 2

Date: 3/27/18 Team members:

start @ 126 end @ 146 / start @ 97 end @ 58

Attribute	Measurement 1	Measurement 2	Measurement 3	Measurement 4	Measurement 5	Range	Average
Radius of Curvature **(R_c)**	31'	35'					
Arc Length **(A_L)**	46.8'	39'					
Linear Wavelength **(λ)**		86'					
Stream Meander Length **(L_m)**	~~174~~'	174'					
Belt Width **(W_{blt})**		41.6					

Sinuosity

Stream length = 259'

Valley length = 188'

Sinuosity =

350°

Team 2

What does the coolest restaraunt on the river have?
- Hip Waiters

What keeps a dock floating above water?
- Pier Pressure

How do you make holy water?
- You boil the hell out of it.

What vegetable is forbidden on ships?
- leeks

Where do fish keep their money?
River banks.

What happened when the scientist tried to capture some fog?
- She mist

Why are fish so smart
They live in schools

Why didn't the hipster swim in the river?
It is too - mainstream

What do you call small tributaries in Egypt
- Juvaniles

Why did the river need religion
- It was damaged