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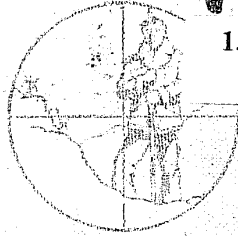
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L. Williamson R.

Spring Cr. to Sprague R.

1331.02.1720 - E:3



WESCO

WLMATH

WEATHERPROOF

LEVEL BOOK

550-530

WM-3

6-21-90

Lower Williams R.
immediately above Chiloguin,
Reach: Spring Creek to Sprague R.

Directions:

Hiway 97 North to
Spring Creek camping area,
lunch at Collier states park
day use area

Vegetation:

Willow, pines + sod
rich riparian

Weather:

Sunny + warm

Crew: MRG, ROB, SWM, LWA

Start Finish

Time 9:00 16:30

GH 0 0

Meter used

Level used:

Model 201-D Pentax 781444 AL-

Serial #70137
Calibration 9/98

M2

9-21-90

Lower Williamson R.

MRG
SW/NE
FW

Habitat type Debarre
Run 4070 100%

Selection of Habitat locations
Random #'s 7, 8, 9

~~TR-1 .7 X 4070 = 2849.0~~

~~TR-2 .8 X 4070 = 3256.0~~

~~TR-3 .9 X 4070 = 3663.0~~

* only one habitat to sample *

Selection of transect placements
Random #'s 7, 8, 9

TR-3 = .7 X 4070 = 2849 ft

TR-2 = .8 X 4070 = 3256 ft

TR-1 = .9 X 4070 = 3663 ft

MR6, JIM
LW, RSB

Williamson R.

7-21-90

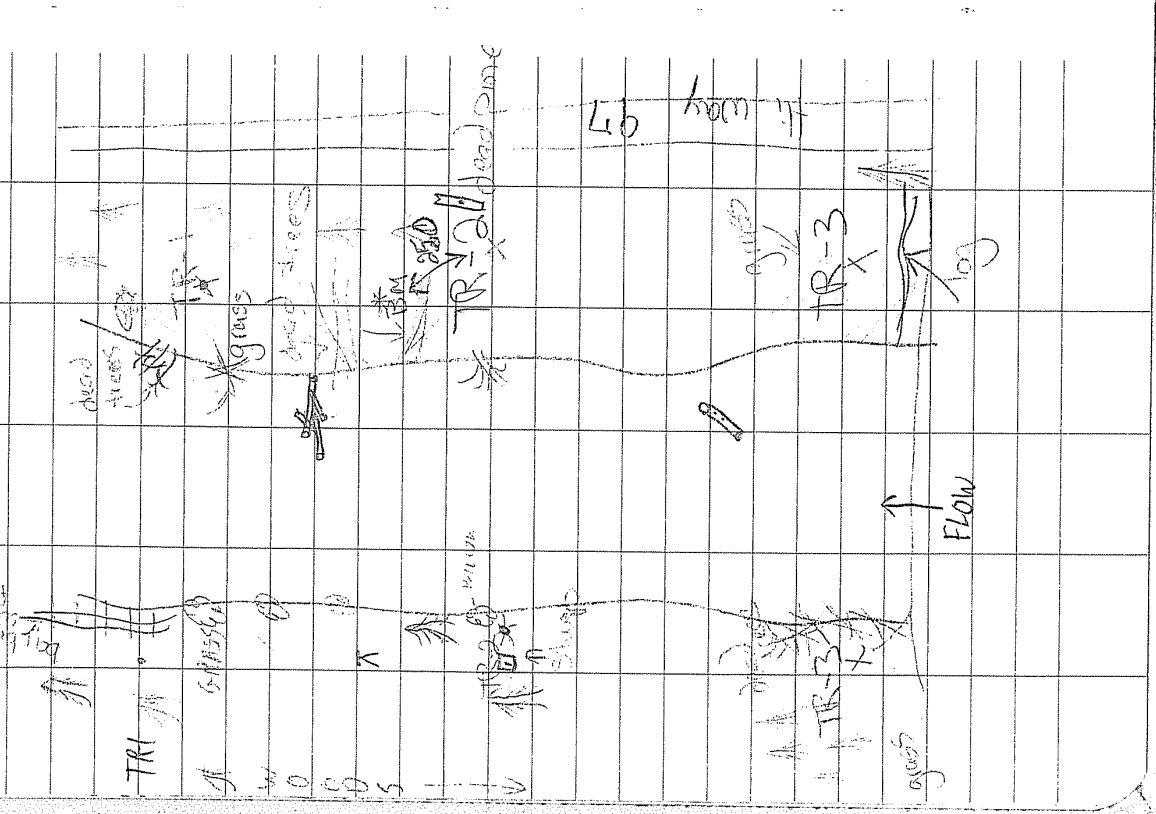
MR6, JIM
LW, RSB

Williamson R.
Map

Lower
Site

7-21-90

STA	BS	HI	FS	elev
BM	3.16	103.16		100.00
TR-1			4.68	98.48
TR-2			4.60	98.56
TR-3			4.80	98.36
GP				
TR-3	4.66	103.02		98.36
TR-2			4.46	98.56
TR-1			4.54	98.48
BM	3.02			100.00



BM at 25 feet O/S of TR-3
BM at 20 feet up site bank from water edge

Photo #	PHOTO LOC	Description
17		looking upstream from TR-1
18		looking across TR-1 from R to L
19		looking across TR-2 from R to L
20		looking across TR-3 from R to L
21		looking downstream from TR-3

9-21-90	TR1	MRG LSW	9-21-90	Low	TR-1	MRG LWS	9-21-90	Low	TR-1	MRG LWS	9-21-90	Low	TR-1	MRG LWS
STATION	W. Name	FS	ELEV	R	SUM	R5B	Vel	Sub	%D	%E	R	MRG LWS	9-21-90	Low
B.S.	HPI				Depth						Causes			
LHP														
3.0		6.21						Sod						
4.0		6.60						Sod						
5.0		7.32						ST						
7		7.40					0	ST	100	0	None			
17							0	ST	100	0	NC			
27							.82	ST/WD	75	0	obs			
37							.60	SD/CG	75	0	NC			
47							.75	SD/CG	50	0	NC			
57							.55	SD/CG	75	0	NC			
67							.71	SD/RB	65	85	NC			
77							.72	SD/CG	75	85	NC			
87							.97	Bed/CG	75	85	NC			
97							.96	B/FG	50	0	NC			
107							.85	Bed	100	0	NC			
117							1.00	Bed/Fg	50	0	NC			
127							1.0	Bed/Fg	75	0	NC			
137							.89	Bed/Fg	75	0	NC			
147							.97	Bed	100	0	NC			
157							1.20	Bed/Fg	50	0	NC			
167							1.25	Bed/Fg	75	0	NC			
177							1.20	sand	100	0	NC			
187							1.27	Sand/bed	50	0	NC			
							.25	ST/Agul	65	0	NC			

9-21-70	MRG, JUM ROE, L30	Lower Williamson R-2	Depth	9-21-70	Lower (Run)	Williamson R	Phosphorus wt. %
STA		FS		1.1	sub	TR-2	
LHP							
LWP-0.0		7.00					
1.05		7.33					
40.00		7.00					
9.0			.60	.10	ST/ML	100	both
19.0			1.1	.26	ST/bed	100	both
29.0			1.2	.80	ST/FG	75	both
39.0			1.4	.83	FG/bed	75	ML
49.0			1.4	.85	ST/FG	75	ML
59.0			1.6	.86	ST/ML	75	ML
69.0			1.5	.99	ST/ML	75	ML
79.0			1.5	.84	Bed/SD	75	ML
89.0			1.5	1.12	Bed/SD	75	ML
99.0			1.2	1.02	Bed/SD	75	ML
109.0			1.3	.99	Bed/FG	60	ML
119.0			1.3	1.31	Bed/FG	75	ML
129.0			1.5	1.22	Bed/FG	75	ML
139.0			1.9	1.26	Bed/FG	50	ML
149.0			2.2	1.24	Bed/FG	50	ML
159.0			2.8	1.26	Bed/CG	70	ML
169.0			2.9	1.57	SD/FG	60	ML
179.0			2.8	1.41	SD/FG	75	obs
189.0			2.2	0.93	SD/FG	75	ML
199.0			.9	0.16	ST	100	ML

9-21-90	Location (Run)	Station TR-2	Station R	IRG, pH, NE, SW	9-21-10	Lower (Run)	Whitman TR-2	IRG (looked)	11-21-90
STA	BS	HT	HT	Depth	vel	Sub	%D	%E	
RWS		7.32				Sod			
200RWS		7.22				Sod			
207.0		7.31				Sod			
219.0		5.69				Sod			
200RWS		5.39				Sod			
200RHP		5.02							
	Distance between		RWS + RHP						
			15.1 ft						
	between		WES + HHP = 7.8						

9-21-90	Lower Williamson R.	HR63WH R30, L50
(Run)	TR-3	
STA	BS	HI
LHP	FS	elev
LWR=0.0		Depth
6.63	7.52	
	7.86	
	8.13	
	8.43	0
10.0		1.5
19.0		1.0
28.0		1.3
37.0		1.6
46.0		2.1
55.0		2.2
64.0		1.7
73.0		1.9
82.0		1.9
91.0		1.9
100.0		2.0
109.0		1.9
118.0		1.9
127.0		1.9
136.0		1.7
145.0		2.0
154.0		2.05
163.0		1.7
172.0		1.5

1-21-90	Lower Williamson R.	HR63WH R30, L50
(Run)	TR-3	
Vel	Sub	%D
Dist	detention	LHP+LWS
	SOD	12.5 ST
	SOD	
	ST	MC
		obs
0	100	0
0.55	50	25
0.83	75	0
0.50	100	0
0.62	50	0
1.07	50	0
1.16	75	0
1.34	75	0
1.24	75	0
1.16	75	0
1.29	75	0
1.31	75	0
1.30	75	0
1.40	75	0
1.48	75	0
0.99	75	0
1.40	75	0
0.75	75	0
0.58	100	0

9-21-90

Valley Profile

STA	BS	HI	FS	elev
LVP ^{top}	1.75			
LVP=0			2.16	
10.0			5.89	
23.0			7.82	
BM			3.79	
216.0			7.82	
236.7			5.36	
300.0			4.37	
LVP ^{top}			2.16	

Stationing

Distances between:

right bank TR-1 + TR-2 = 380

right bank TR-2 + TR-3 = 410

left bank TR-1 + TR-2 = 390

left bank TR-2 + TR-3 = 413

9/21/90

Channel Stability

1.	2
2.	2
3.	5
4.	4
5.	2
6.	6
7.	4
8.	5
9.	4
10.	3
11.	2
12.	6
13.	4
14.	6
15.	2
Total	57 MRG

MKG
RLP

Level loop
LHP

4-9-91

ST BS HgI FS elev

100.00

98.48

98.58

98.37

98.37

98.57

98.47

99.99
RLP

MKG
RLP

L. Williamson

Crew: MRG, RLP

Weather: Overcast 45°-50°
skewers

Start Finish

Time 9:40

GH 0 0

Level Used Meter Used

Point A-Ma Marsh MCB
SM: 721444 Mada 201 SM:

Photo log

- #7 - RLP w/site book + tripod
- #8 - TRI (right to left)
- #9 - TRA "
- #10 - TR3 "

ST	BS	Hy I	FS	Elv	Depth
LHP	4.75	105.22		78.47	
LWP=00					
LWS			7.10	76.12	
3.2 LWE					0.2
7.0					0.8
17.0					1.8
27.0					2.3
37.0					2.4
47.0					2.6
57.0					2.4
67.0					2.5
77.0					2.0
87.0					1.8
97.0					2.6
107.0					2.4
117.0					2.4
127.0					2.3
137.0					2.15
147.0					2.35
157.0					2.0
167.0					2.0
177.0					1.8
187.0					1.3
197.0					0.8

Vel	Sub	Cov	% D	% E
0				
0				
0.4				
0.5				
0.7				
0.9 0.9				
1.0				
1.2 1.2				
1.2				
1.25				
1.5 1.5				
1.4				
1.4				
1.1				
1.15				
1.65				
1.5				
1.5				
1.4				
0.4				
0.5				

4/7/91 L. Williamson River RLP MRG TR

4/a/a/91	L. Williamson R. TR (cont.)	BS	H _g I	FS	Elev	RLP MRG	Vel	Sub	Cov	% D	% E
ST											
RWS			7.11				0				
2034 RWE							0				
201.0							0.5				
207.0											
205.0											
210.0											
228.9											
RHP											

4/9/91	L. Williams R, TR 2	BS	H ₀ I	FS	Elev	RLP MRC	Depth	Vel	Sub.	Cov.	% O	% E
ST		5.33	103.90		98.57							
TR LHP												
LWP=0.0												
LWS				7.65	96.25							
LWF=1.6							0	0				
4.0							0.3	0				
9.0							1.1	0				
19.0							1.4	0.3				
29.0							1.5	0.9				
39.0							1.6	1.0				
49.0							1.7	1.05				
59.0							1.9	1.0				
69.0							1.8	1.3				
79.0							1.8	1.3				
89.0							2.0	1.3				
99.0							1.6	1.0				
109.0							1.55	1.2				
119.0							1.6	1.5				
129.0							1.7	1.5				
139.0							2.15	1.4				
149.0							2.4	1.5				
159.0							3.0	1.5				
169.0							3.1	top 1.8 top 1.8 top 1.7 top 1.35				
179.0							3.1	1.0				
189.0							2.5	1.45				

4/9/91	L. Williams TR3	R.	RLP MRG	Depth	Vel	Sub	Cov.	%D	%E
ST	BS	HI	FS	Elev					
LHP	6.66	105.63		98.37					
LWP=0.0									
LWS			8.69	76.34	0				
5.0 LWE					0				
5.5					0.3				
10.0					0.7				
19.0					1.4				
28.0					1.65				
37.0					1.8				
46.0					2.4				
55.0					2.5				
64.0					2.0				
73.0					2.1				
82.0					2.1				
91.0					2.1				
100.0					2.3				
109.0					2.1				
118.0					2.3				
127.0					2.1				
136.0					2.1				
145.0					2.4				
154.0					2.3				
163.0					2.0				
172.0					1.9				
					1.1				
					1.2				
					1.4				
					1.4				
					1.5				
					1.6				
					1.65				
					1.6				
					1.9				
					1.7				
					1.7				
					1.85				
					0.65				
					0.65				
					1.3				
					1.0				

MRG
RLP

L. Williamson River

TR3 (cont)

4/9/91
ST
181.0
189.5
191.0
RWS
RHP
RWB
275.4

BS
HI
FS

Elev

Depth

Vel.

Sub.

Con.

%D

%E

1.4
0.3
0

0.4
0
0

8.74

WM-3 L. Williamson R 5/12/93

Crew: AUNT, MRS P, DUB ILL

Meter Used: Swaffer #1
Cal 1.85

Level Used: Pentax
72 444

~~Photo Log~~
~~X Books~~
~~TR~~
Time: In / out
4:50 / 6:30

No photos taken at site. Will return to get photos at a later date.

WM-3 5/12/93

STA BS FS ELEV

BM 19.01 100.00

TR1 119.01 20.55 90.46

TR2 (TP) 20.40 98.61
~~20.58 90.63~~

TR2 17.95 116.56

TR3 (TP) 18.57 97.99

TR3 18.56 116.55

TR2 17.87 98.68

WM-3 STA ROOF	Discharge	TR-3	5/12/93	WM-3 STA ROOF	Discharge	TR-3	5/12/93
4.3	0	1.		193.0	0		
5.0	0						
5.5	0						
10.0	0						
19.0	0.67						
28.0	0.27						
37.0	1.13						
46.0	1.33 / 1.10						
55.0	1.6 / 1.11						
64.0	1.51						
73.0	1.47						
82.0	1.57						
91.0	1.73						
100.0	2.04						
109.0	1.87						
118.0	1.67						
127.0	1.88						
136.0	2.01						
145.0	2.04 / 2.03						
154.0	2.03 / 1.93						
163.0	1.02						
172.0	0.65						
181.0	0.2						
189.5	0.4						
191.0	0.3						

WILLIAMSON R.

WM-3



"Rite in the Rain"

ALL-WEATHER
Environmental
FIELD BOOK

No. 550

2006



ALL-WEATHER
ENVIRONMENTAL FIELD BOOK

Name _____
 Address _____
 Phone _____
 Project _____

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:		Cover Options	
Left Page	Right Page	Proforma Cover	Fabricated Cover
Columnar	6 1/2" Grid	Item No. 550	Item No. 550F

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PAGE	REFERENCE	DATE
	Willamson	
	CUM-3	
	Riffite (TR1#2)	
	#	
	Passage Transect (TR3)	
	High Flow Measurement	6/15/66
	ADW, GSA, NFI, MRG	

Reference Page Index

147	Error codes, Hazardous classifications, Container types
148	Sampling guidelines (Liquids)
149	Sampling guidelines (Solids)
150	Approximate Volume of Water in Casing or Hole, Ground Water Monitoring Well
151	PVC Pipe casing tables
152	Soil Classification
153	Soil Classification
154	Conversions (Length, Weight, Volume, Temp. etc.)
155	Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
156	Maximum Concentration of Contaminants for the Toxicity Characteristic

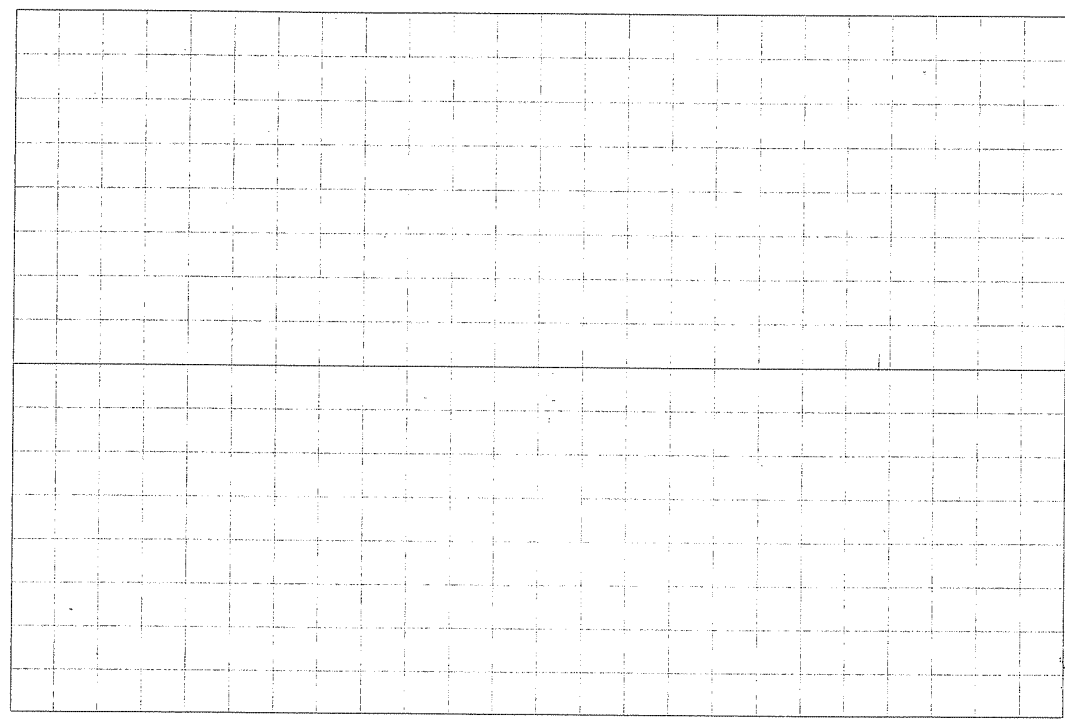
6 WM-3
 Location Riffle Date 6/21/06

Location _____ Date _____

Project / Client _____

Level Loop

STA	BS	HI	FS	ELEV	Depth
BM	4.32	104.32		100.00	
HP 2			4.79	99.53	
HP 1	5.04	104.41	4.95	99.37	
BM			4.41	100.00 ✓	
HP 2			4.88	99.53 ✓	
<hr/>					
HP 2	4.51	104.04		99.53	
TR 2	RUSE		6.80	98.09	0.85
TR 1	RUSE		7.69	97.41	1.06
WSE	mouth of R. side channel between TR 1 & 2		6.86	97.94	0.76
TR 2	LWSE	Main	6.95	97.94	0.85
TR 1	LWSE (R-Chan)		8.26	97.03	1.25
TR 1	RUSE (side Chan)		8.15	96.81	0.92
TR 1	LWSE (side Chan)		8.25	96.76	0.97



Location WM-3 Riffle Date 10/21/06
Project / Client _____

Photo Log

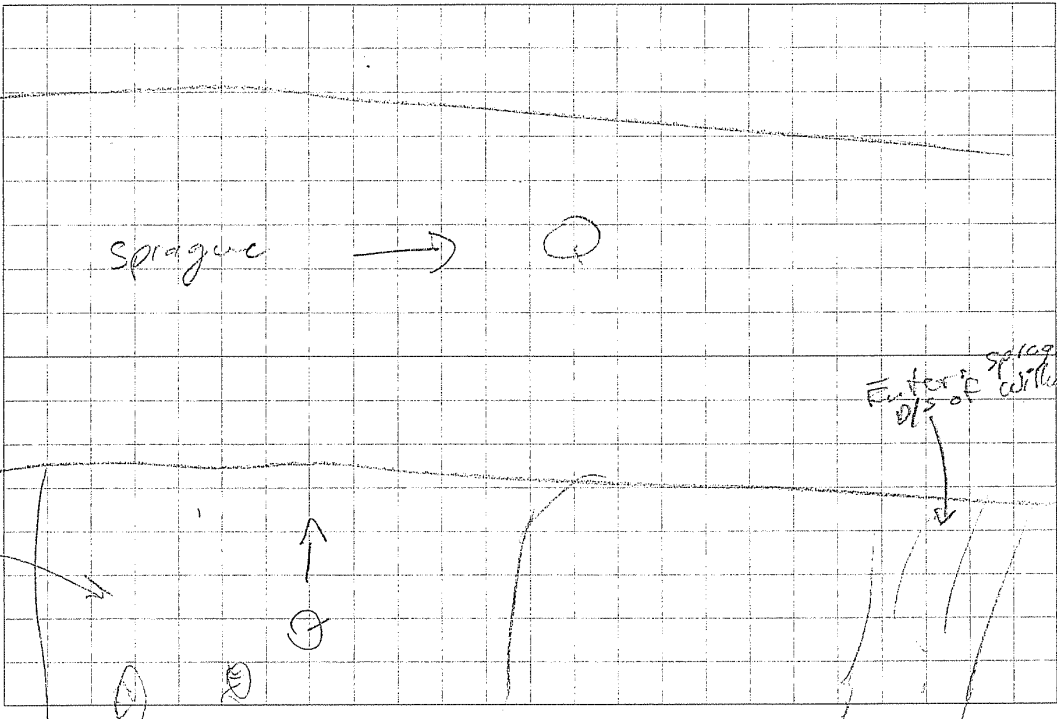
Right side Chan looking D/S
 TR 2 R-L
 TR 2 U/S
 TR 2 D/S (R)
 " " (L)
 TR 1 R-L
 TR 1 U/S (Looking @ TR 2)
 TR 1 D/S (Looking @ Conf. w/ Springs)
 D/S from above TR 2
 TR 3 D/S
 " U/S Left
 " U/S Middle
 " U/S Rt.
 " L-R from Center
 " R-L
 TR 3 R-L from Rt. WP

Location _____ Date _____
Project / Client _____

TR 1 - 2 Rt. Bank 9'
 Rt Side Chan - 3' - 6'
 (~451 down TR 2 - TR 3)

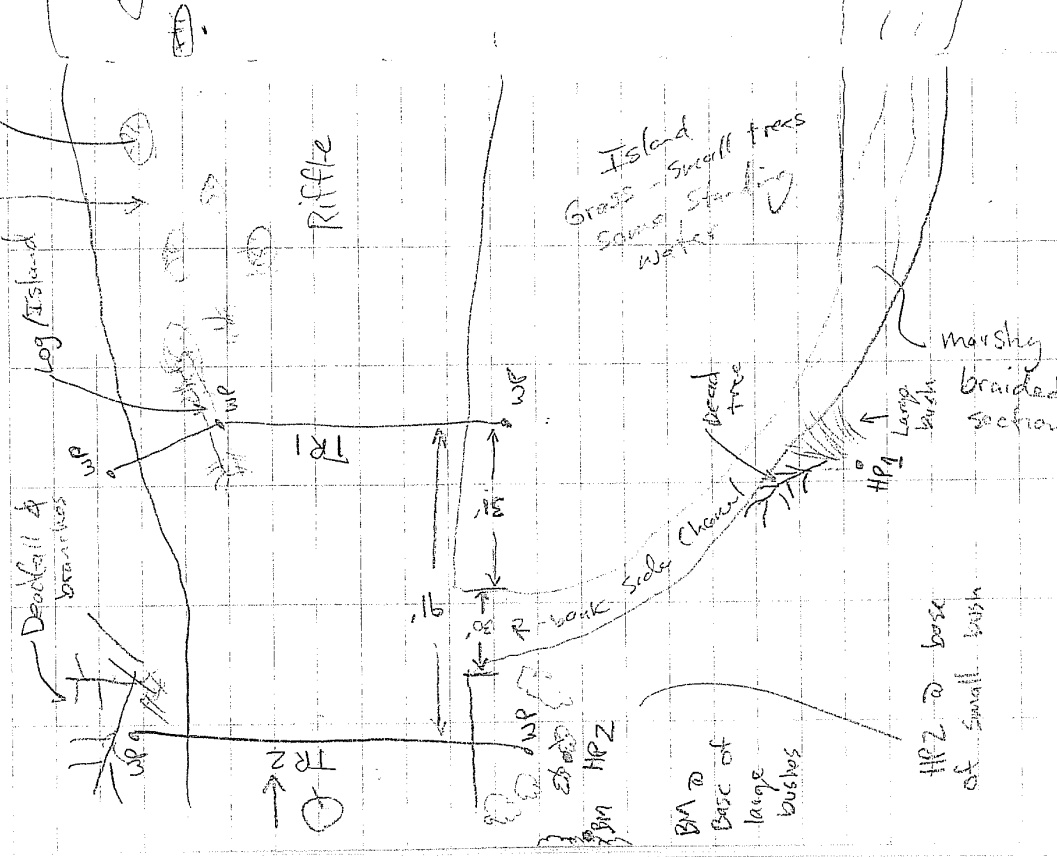
Date _____

Project / Client
Grassy Islands



Location
10 WM-3 Riffle

Project / Client



Left side = Comp tex braided section w/ small grassy islands

Deadfall & branches

Log Island

Riffle

Island Grass - Small trees Same Standing water

marshy braided section

beard tree

Side Channel

TR1
TR2

HP1
HP2

BM HPZ
BN to base of large bushes

HPZ to base of small bush

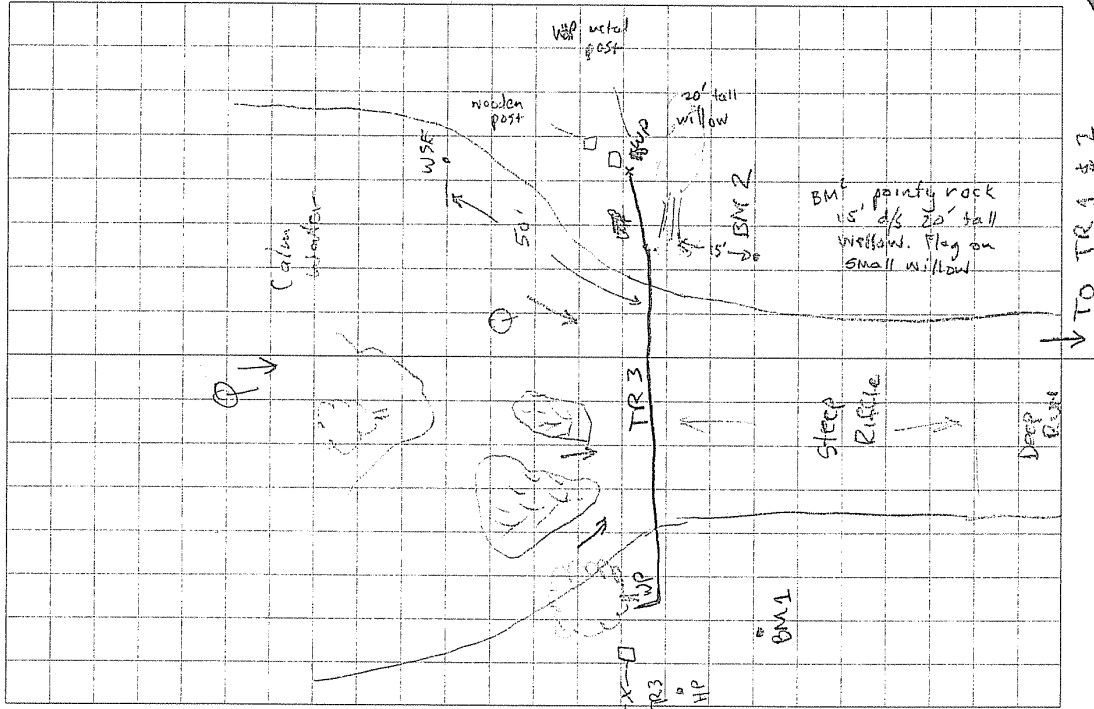
Enter E of Sprague willow

Location WM-3 Passage Transit Date 9/21/06
 Project / Client High

STA	BS	Level	Loop
		HI	FS
		ELEV	ELEV
BM 2	7.56	107.56	100.00
BM 1			101.83
HP TR3	4.45	107.51	103.06
BM 1		5.68	
TR 3 RWSE		9.07	

TR 3 LWSE
 HI 107.56
 9.06
 LWSE (bal up of TR3) 8.15
 ~50'

Location WM-3 Passage Date 9/21/06
 Project / Client High



16 Location WM-3 Date 7/25/06 Project / Client _____

Level Loop	TR 1	FS	BSU	Depth
STA	BS	FS	BSU	Depth
BM	4.31	101.51	100.00	
HP2		4.77	99.54	
HP1	4.85	104.23	99.38	
HP2		4.69	99.54	✓
BM		4.22	100.01	✓
HP2	4.52	104.06	99.54	
RWSE (~100' @ 5 TRI)	9.45		95.93	1.32
TRI RWSE	6.96		97.21 90.60	0.06
" MWSE (75')	7.95		97.16	1.05
" LWSE (48')	8.15		96.84	0.93
TRI-Sch. RWSE (41.6')	7.79		96.72	0.45
" " LWSE (9')	8.17		96.69	0.80
TRI RWSE (2 nd Shot in Current)	8.58		97.38	1.90
TR2 LWSE (17.8')	7.95 6.95		97.75	0.64
" RWSE (109')	7.04		97.82	0.80
LWSE (~100' @ 5 TRI)	6.62		98.39	0.95

WSE @ Mouth of Side Chan when TRI RWSE 7.45 97.70 1.09

17 Location _____ Date 7/25/06 Project / Client _____

Staff Gauge	IN	OUT
Reading	0.2'	0.2'
Time	1:45pm	5:30pm

Reced depth during first time - ~~see~~ ✓ o.k.

Location WM 3 Date 7/25/06

Project / Client _____

Level Loop TR 3 (Fish ponds)

DATA	BS	HI	FS	ELEV	DEPTH
BM 1	5.91	107.74		101.83	✓
HP 3	4.87	107.94	4.67	103.07	✓
BM 1			6.10	101.84	✓
TR 3	RISE (141.2')		11.56	97.99	1.61
"	" (133')		11.78	97.75	1.59
"	MUSE (110')		11.54	97.66	1.26
Pool	WSE (~50' x 5 TR 3)		11.52	99.12	2.70
TR 3	WSE (56')		11.07	98.20	1.33

BM 2 7.93 100.01 ✓

Location _____ Date _____

Project / Client _____

