

12-4-2009

Ex. 280-US-445

Mike Gagner
R2 Resource Consultants

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SP-7



"Rite in the Rain"
ALL-WEATHER
LEVEL BOOK
No. 310 F

Book 13



ALL-WEATHER
LEVEL BOOK

Name Mike Gagner
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Project 1418.01 PHABSIM Site

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:

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Fabikoid Cover
Columnar	Columnar	Item No. 310	Item No. 310F

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PAGE REFERENCE DATE

High Flow Sampling 04/10/04

SP-7

Crew: Mike Gagner
Marcus Appy

weather: sunny & warm, no
precip. in past 24 hrs

	In	Out
Time	9:30	3:00
S.G	2.0	2.0

no change

Equipment: Nikon level SN: 2005068
Marsh McBirney Model 2000
SN: 2005068

04/10/04

SP-7 High Flow

Directions: From K-Falls trail
NE on Hwy 140 toward Beatty. Stay on Hwy 140
heading east of out of Beatty. A piece 4 miles
outside of Beatty look for small dirt turnout
on left side of Hwy just past small house/shack.
The transects are located ~1000 ft S of this
turnout/parking area

Notes: This site was habitat
mapped on 10/23/03 by M. Gagner
& M. Appy. The site contains
only riparian habitat - no other
habitat types were present within
the 1500' mapping reach.
Will randomly select a start
location and place the transects
~75' apart. For this sampling
we will establish transects, survey
HP & water surface elevation, and
measure discharge at one location

SP-7 Photo Log 04/10/04

Photo #

Description

R11 #3 looking LT -> RT across TR-4
 #11 " v/s from TR-4
 #10 " d/s from TR-4
 #9 @ SP-7 data bank
 #8 " across TR-3
 #7 " across TR-2
 #6 " d/s from TR-2
 #5 @ BM-1 willow stump/bush
 #4

SP-7

04/10/04

Random #s for placement
 of first transect (1-10)
 (* use fraction)
 Random # Unit Length Location of
 first transect
 0.6 X 1500 = 900

Will measure v/s from start of
 habitat mapping reach

Transect #	Distance v/s	measured v/s from start of habitat mapping
1	900	
2	975	
3	1050	
4	1125	

SP-7 High Flow 04/10/04

SP-7 WSE 04/10/04

Level Loop

STA BS HI FS Eleva

B.M.-1 4.08

104.08

B.M.-2

0.51

103.57

TR-1 WSP

0.46

103.62

TR-1 WSP

0.75

103.62

B.M.-2

0.79

103.58

B.M.-1

4.37

100.00



* no HPS were placed at this site - unable to find firm location to place pins *

* Use B.M.s for site elevations *

STA BS HI FS Eleva Rod

TR-4 LWS

RWS

104.37

7.89

97.10

0.62

TR-3 LWS

RWS

7.31

97.11

0.59

TR-2 LWS

RWS

7.91

97.08

0.80

TR-1 LWS

RWS

8.23

97.04

0.90

TR-1 WSP

0.75

103.62

* Left & Right Designations are made looking d/s *

* mud channel bottom & banks make it difficult to find secure location for sheet WSEs

STA	GRF Deg	Dist Vel	4/10/04 Notes	Continued
20	29	1.1 -03	" upstream in bed	
17	165	-14	" Break - continued	
14	13	-19	"	
RUE 110	0	0	SD	

SP-7 Sprague R. 06/27/04

	In	Out
Time	7:00	12:30
S. 6	1.0	1.0

Crew: M. Gaynor
C. Movelto

Equipment - Lietz B1 SN: 8918
Marsh M-Binary Model 2000
SN: 2605068

Photo Log:

7	TR-4 R-L
8	Looking d/s
9	TR-3 R-L
10	d/s thru TR-3
11	TR-2 R-L
12	d/s thru TR-2
13	TR-1 R → L
14	Looking d/s thru 1
15	

SP-7 Level Loop 06/27/04

STA	BS	HI	FS	Elev
BM-1	5.32	105.32		100.00 ^{has moved} BM-1 ≠ 100.00
BM-2			1.87	103.45
TR-1 wp			1.83	103.49
TR-1 wp	1.69			103.49
BM-2		105.18	1.74	103.44
BM-1		5.18		100.00
BM-2	1.66			103.57 ^{use}
TR-1 wp		105.23	1.61	103.62
TR-2 wp			3.78	101.45 ^{new point}

* BM-1 elevation has changed
use BM-2 elevation of 103.57 to calculate
HI for all measurements during this survey

06/27/04

SP-7 TR-2 Bank Survey E WSE

STA HI FS Substr. % Dam. Rod

101.10 RWP	105.23	5.28	veg/soil	90	
89.0		6.52	"	90	
78.0		8.65	"	70	
76.3		9.76	"	60	
75.5 RWE		10.78	soil/veg	70	
		11.02	(94.94)		0.24
15.8 LWS		12.60	(94.94)		1.81
14.3 LWE		10.60	veg/soil	70	
11.0		8.60	veg/soil	80	
7.2		8.40	"	90	
5.5		6.38	"	"	
1.0 LWP		6.43	"	"	

SP-7 TR-1 Bank Survey E WSE

STA HI FS Substr. % Dam. Rod

78.1 RWP	105.23	5.62	veg/soil	90	
68.0		5.51	"	"	
66.7		8.57	soil/veg	90	
63.7		9.93	"	"	
62.5 RWE		10.88	"	90	
		10.88	(94.38)		0.0
14.3 LWS		12.09	(94.34)		1.20
12.1 LWE		10.72	veg/soil	70	
10.50 RWS of TR-1		13.51	(94.28)		2.56
7.8		7.77	veg/soil	70	
4.3		5.30	veg/soil	90	
1.0 LWP		4.25	veg/soil	70	

SP-7	TR-4	RUN	6/26/04
STA	D	V	SUB
31.1 W/E	φ	φ	SD/ST
33.0	0.70	-0.04	"
35.0	1.05	-0.08	ST/SD
37.0	1.50	-0.10	"
39.0	2.13	0.06	"
41.0	2.24	0.31	"
43.0	2.40	0.56	"
45.0	2.43	0.62	ST/SD
47.0	2.50	0.62	SD/ST
49.0	2.68	0.65	"
51.0	3.10	0.62	"
53.0	3.60	0.89	SD/SD
55.0	3.55	0.88	"
57.0	3.58	0.90	"
59.0	3.70	0.76	"
61.0	3.70	0.49	LB/SD
63.0	4.10	0.82	"
65.0	4.15	0.92	"
67.0	4.10	0.70	ST/SD
69.0	3.50	0.65	"
71.0	0.30	0.26	"
73.0	0.40	0.01	"
74.9 W/E	φ	φ	"

SP-7	TR-3	RUN	6/26/04
STA	D	V	SUB
21.0 W/E	φ	φ	ST/SD
23.0	0.35	0.00	ST/SD
25.0	1.06	0.01	"
27.0	2.00	0.12	"
29.0	1.96	0.72	SD/ST
31.0	2.45	0.30	"
33.0	2.10	0.68	"
35.0	2.07	0.89	"
37.0	2.00	0.87	"
39.0	1.82	0.87	SD/SD
41.0	1.63	0.94	"
43.0	1.60	0.91	SD/SD
45.0	1.53	1.04	"
47.0	1.50	0.99	"
49.0	1.52	0.94	SD/SD
51.0	1.61	1.00	"
53.0	1.77	0.92	SD/SD
55.0	2.00	0.97	SD/SD
57.0	2.20	0.98	SD/SD
59.0	2.45	1.00	"
61.0	2.70	0.73	SD/SD
63.0	2.98	0.87	ST/SD
65.0 W/E	3.45	0.18	"

TR-1		SP-7		- BEST Q -		6/26/04
STA	D	V	SOB	COVER	% DOM	
63.1 WE	φ	φ	ST/VEG		80	
61.0	0.84	0.05	"		"	
59.0	1.32	0.26	ST/SD		60	
57.0	1.65	0.46	SD/ST		60	
55.0	1.50	0.76	"		70	
53.0	1.74	0.80	"		"	
51.0	1.78	0.31	"	VEG	"	
49.0	2.22	0.84	"	"	"	
47.0	2.40	0.91	SD/ST		80	
45.0	2.70	0.71	SD/SG		60	
43.0	2.65	0.99	SG/SD		60	
41.0	2.50	0.90	LG/CS		80	
39.0	2.45	1.06	LG/SG		70	
37.0	2.50	0.92	LG/SG		60	
35.0	2.50	1.13	LG/SG		70	
33.0	2.45	0.66	LG/SG		60	
31.0	2.30	0.86	LG/SG		60	
29.0	2.10	0.81	CG/SG		60	
27.0	1.92	0.87	CG/SG		80	
25.0	1.87	0.86	CG/CG		80	
23.0	1.70	0.82	CG/CG		"	
21.0	1.68	0.78	CG/CG		70	
19.0	1.40	0.62	CG/SG		"	
17.0	1.47	0.67	CG/BLD	BLD	80	
15.0	1.15	0.03	"	"	60	
13.5	0.21	0.21	BLD/CG	"	70	
12.1 WE	φ	0.16	"	"	70	
		φ	CG/BLD		70	

08/17/04

D.E.V

Notes

TR-4

SP-17

Depth

Vel.

LWE

LWE

0.0

0.0

LWE

0.32

-0.05

LWE

0.70

-0.04

LWE

1.22

0.0

LWE

1.76

0.0

LWE

1.92

0.05

LWE

2.08

0.17

LWE

2.16

0.29

LWE

2.27

0.37

LWE

2.38

0.41

LWE

2.82

0.47

LWE

3.20

0.42

LWE

3.32

0.46

LWE

3.20

0.53

LWE

3.47

0.51

LWE

3.47

0.60

LWE

4.70

0.60

LWE

4.80

0.59

LWE

3.80

0.34

LWE

3.20

0.33

LWE

2.90

0.05

LWE

0.40

-0.04

LWE

0.0

0.0

LWE

74.3

0.0

LWE

RWE

08/17/04

D.E.V

Notes

TR-3

SP-17

Depth

Vel.

Notes

LWE

0.0

0.0

LWE

0.05

0.0

LWE

0.90

0.0

LWE

1.50

0.03

LWE

1.83

0.38

LWE

2.00

0.34

LWE

1.70

0.22

LWE

1.65

0.67

LWE

0.65

0.64

LWE

1.50

0.71

LWE

1.30

0.74

LWE

1.28

0.73

LWE

1.20

0.66

LWE

1.20

0.73

LWE

1.20

0.71

LWE

1.26

0.69

LWE

1.42

0.68

LWE

1.68

0.66

LWE

1.90

0.61

LWE

2.12

0.62

LWE

2.40

0.64

LWE

2.70

0.43

LWE

2.90

0.12

LWE

0.58

LWE

0.12

LWE

0.12

LWE

AG. VEG.

"

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08/17/04

D.E.V

Notes

TR-4

SP-17

Depth

Vel.

LWE

LWE

0.0

0.0

LWE

0.32

-0.05

LWE

0.70

-0.04

LWE

1.22

0.0

LWE

1.76

0.0

LWE

1.92

0.05

LWE

2.08

0.17

LWE

2.16

0.29

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2.27

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2.38

0.41

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2.82

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3.20

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3.32

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4.70

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4.80

0.59

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3.80

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2.90

0.05

LWE

0.40

-0.04

LWE

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LWE

RWE

RWE

08/17/04

DEV

TR-2

SP-17

08/17/04

Notes

DEV

TR-3

SP-17

08/17/04

Notes

Notes

Depth

Vel

STA

0.0

0.0

0.0

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SP-17	TR-1	0.5 V	Notes
STA	Depth	Vel	
12.5	0.0	0.0	LWE
13.5	0.20	0.0	
15	0.72	0.06	
17	1.18	-0.05	
19	1.22	0.34	
21	1.20	0.37	
23	1.48	0.58	
25	1.57	0.46	
27	1.60	0.51	
29	1.82	0.51	
31	2.02	0.27	
33	2.00	0.61	
35	2.16	0.51	
37	2.0	0.59	
39	2.16	0.58	
41	2.20	0.65	
43	2.30	0.65	
45	2.30	0.63	
47	2.00	0.68	
49	1.60	0.70	
51	1.50	0.60	
53	1.45	0.55	
55	1.20	0.45	

SP-17	Depth	Vel	TR-1	10% V	capd.	Notes
57	1.18	0.73				
59	1.0	0.65				AQ. VEG.
61	0.45	-0.02				RAE " "
61.4	0.0	0.0				RWE