

12-4-2009

Ex. 281-US-425

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Stream: Crooked Creek
 Site: WD-3
 Date: 5/15/2004
 Habitat: Glide

Flow: Low

(1) Level Loop Survey (BM & HP)

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	2.91	102.91		100.00
HP1			3.10	99.81
HP2				
HP3			3.45	99.46
TP				
HP3	3.49	102.95		
HP2				
HP1			3.14	99.81
BM			2.95	100.00

Comment: No HP for TR2

Date: 6/27/2004
 Habitat: Glide

Flow: High

(1) Level Loop Survey

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	3.56	103.56		100.00
HP1			3.74	99.82
HP2				
HP3			4.09	99.47
TP				
HP3	3.93	103.40		
HP2				
HP1			3.58	99.82
BM			3.40	100.00

Comment: No TR2 HP

Date: 8/19/2004
 Habitat: Glide

Flow: Mid

(1) Level Loop Survey

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	3.62	103.62		100.00
HP1			3.79	99.83
HP2				
HP3			4.15	99.47
TP				
HP3	4.22	103.69		
HP2				
HP1			3.86	99.83
BM			3.69	100.00

Comment: No TR2 HP

(2) Water Surface Elevation (WSE) Survey

TR	Sta L/R bank (ft)	Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0.00	102.73	5.87	0.00	96.86	96.86	39.2
1-R	0			5.87	0.00	96.86	96.86	
2-L	32	75.00	102.95	6.07	0.00	96.88	96.88	37.7
2-R	118			6.08	0.00	96.87	96.87	
3-L	134	167.00	102.95	6.05	0.00	96.90	96.90	37.9
3-R	200			6.06	0.00	96.89	96.89	

Note: HI for TR1 is 102.73 (instr was moved)
 WSE slope = 0.021%
 Ave Q = 38.3

(3) Meter and propeller ID for Velocity Correction

Meter ID: 4099
 Propeller ID: 1b

(2) Water Surface Elevation (WSE) Survey

TR	Sta L/R bank (ft)	Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0.00	103.40	6.62	0.00	96.78	96.78	41.3
1-R	0			6.62	0.00	96.78	96.78	
2-L	32	75.00	103.40	6.59	0.00	96.81	96.81	40.3
2-R	118			6.60	0.00	96.80	96.80	
3-L	134	167.00	103.40	6.57	0.00	96.83	96.83	37.4
3-R	200			6.58	0.00	96.82	96.82	

Note: Addit. survey pts d/s of TR1, u/s of TR3
 WSE slope = 0.027%
 Ave Q = 39.7

(3) Meter and propeller ID for Velocity Correction

Meter ID: 5750
 Propeller ID: 2b

(2) Water Surface Elevation (WSE) Survey

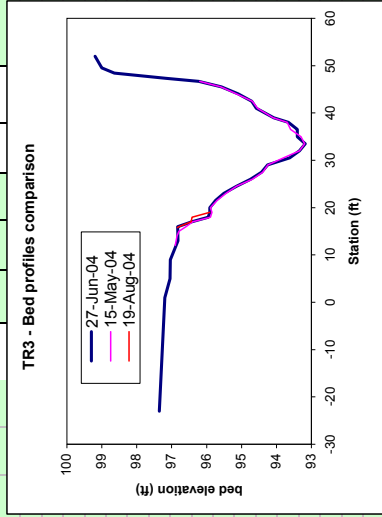
TR	Sta (ft)		HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
	L/R bank	Ave						
1-L	0	0.00	103.69	6.87		96.82	96.82	39.7
1-R	0			6.87		96.82	96.82	
2-L	32	75.00	103.69	6.86		96.83	96.83	38.7
2-R	118			6.86		96.83	96.83	
3-L	134	167.00	103.69	6.85		96.84	96.84	
3-R	200			6.85		96.84	96.84	

Note: WSE slope = 0.012%
 Ave Q = 39.2

(3) Meter and propeller ID for Velocity Correction

Meter ID: 5750
 Propeller ID: 2b

Crooked Creek				15-May-04					27-Jun-04					19-Aug-04										
Stream: WD-3	Site: 3	Habitat: Glide		Sta (ft)	FS (ft)	Ground (ft)	Depth (ft)	Vel (ft/s)		Vel (ft/s)		Vel (ft/s)		Depth (ft)		Vel (ft/s)		Depth (ft)		Vel (ft/s)		q		
Transect:	3							$V_{0.206}$	$V_{0.8}$	Ave	$V_{0.206}$	$V_{0.8}$	Ave	$V_{0.206}$	$V_{0.8}$	Ave	$V_{0.206}$	$V_{0.8}$	Ave	$V_{0.206}$	$V_{0.8}$	Ave	q	substrate
				RWP	12.0	96.90	0.00	0.00	0.00	0.00														
				RWE	14.0	96.85	0.05	0.01	0.01	0.00														
					15.0	96.80	0.10	0.01	0.01	0.00														
					16.0	96.60	0.30	0.01	0.01	0.00														
					17.0	96.40	0.50	0.01	0.01	0.01														
					18.0	95.90	1.00	0.05	0.12	0.12														
					19.0	95.85	1.05	0.34	0.37	0.39														
					20.0	95.90	1.00	0.56	0.58	0.73														
					21.5	95.70	1.20	0.76	0.79	1.42														
					23.0	95.45	1.45	0.90	0.93	2.02														
					24.5	95.15	1.75	0.91	0.94	2.47														
					26.0	94.70	2.20	0.77	0.80	2.63														
					27.5	94.40	2.50	0.65	0.92	3.05														
					29.0	94.25	2.65	0.83	0.65	0.77	3.05													
					30.5	93.80	3.10	0.80	0.40	0.63	2.91													
					32.0	93.35	3.55	0.71	0.46	0.61	3.24													
					33.5	93.20	3.70	0.67	0.10	0.42	2.36													
					35.0	93.30	3.60	0.66	0.16	0.44	2.39													
					36.5	93.60	3.30	0.58	0.19	0.42	2.06													
					38.0	93.70	3.20	0.61	0.24	0.45	1.82													
					39.0	94.10	2.80	0.61	0.25	0.46	1.93													
					41.0	94.55	2.35	0.45	0.47	1.94														
					42.5	94.70	2.20	0.54	0.56	1.85														
					44.0	95.15	1.75	0.32	0.35	0.92														
					45.5	95.60	1.30	0.28	0.31	0.55														
				LWE	46.7	96.20	0.70	0.11	0.16	0.07														
				LWP																				



Swoffer meter quit working. WISE and Q almost identical to first trip. So, use velocity distribution from first trip.

GLIDE HGH TRANSECT 1
 IOC 1101100100001000101000
 QARD 30.0
 QARD 32.0
 QARD 34.0
 QARD 36.0
 QARD 38.3
 QARD 39.2
 QARD 39.7
 QARD 41.0
 QARD 43.0
 QARD 44.0
 QARD 45.0
 QARD 46.0
 QARD 47.0
 QARD 48.0
 QARD 49.0
 QARD 51.0
 QARD 52.0
 QARD 54.0
 QARD 55.0
 QARD 56.0
 QARD 57.0
 QARD 58.0
 QARD 59.0
 QARD 60.0
 QARD 61.0
 QARD 62.0
 QARD 64.0
 QARD 66.0
 QARD 68.0
 QARD 70.0
 XSEC 0.0 0.0 1.0 94.85 0.000340
 0.0-15.0100.1 -7.0100.1 1.0 98.2 3.0 97.5 8.0 97.2 13.5 97.0
 0.0 14.0 96.8 15.0 94.2 16.0 94.1 17.0 93.9 18.0 93.8 19.0 93.8
 0.0 20.0 93.9 21.0 93.9 22.0 94.0 23.0 94.1 24.0 94.2 25.0 94.4
 0.0 26.5 94.5 28.0 94.8 29.5 94.9 31.0 95.0 32.5 95.2 34.0 95.3
 0.0 35.5 95.4 37.0 95.3 38.5 95.2 40.0 95.2 41.5 95.8 41.8 96.8
 0.0 43.0 96.8 48.0 96.9 53.0 97.2 58.0 97.4 61.1 97.6 73.1 97.8
 NS 0.0 1.3 1.3 1.3 1.2 1.2 1.2
 NS 0.0 1.2 .08 3.2 3.4 3.4 3.4 3.4
 NS 0.0 3.4 3.4 3.4 3.4 3.4 3.4
 NS 0.0 3.3 3.3 3.3 3.2 3.2 3.2
 NS 0.0 3.2 3.2 .20 3.2 3.2 1.2 1.2
 NS 0.0 2.1 1.2 1.2 1.2 1.2 1.2
 WSL 0.0 96.50 96.57 96.64 96.71 96.78 96.80
 WSL 0.0 96.81 96.85 96.91 96.93 96.96 96.98
 WSL 0.0 97.00 97.03 97.05 97.10 97.12 97.16
 WSL 0.0 97.18 97.20 97.22 97.23 97.25 97.26
 WSL 0.0 97.28 97.30 97.33 97.37 97.40 97.44
 CAL1 0.0 96.78 39.7
 VEL1 0.0 0.00 0.22 0.77 0.85 0.93 0.91
 VEL1 0.0 0.85 0.83 0.86 0.86 0.84 0.88 0.87 0.87 0.83 0.76 0.71 0.67
 VEL1 0.0 0.70 0.53 0.10 0.28-0.03 0.00
 CAL2 0.0 96.86 38.3
 VEL2 0.0
 VEL2 0.0
 VEL2 0.0
 CAL3 0.0 96.82 39.2
 VEL3 0.0
 VEL3 0.0
 VEL3 0.0
 ENDJ

GLIDE HGH TRANSECT 2
 IOC 1101100100001000101000
 QARD 30.0
 QARD 32.0
 QARD 34.0
 QARD 36.0
 QARD 38.3
 QARD 39.2
 QARD 39.7
 QARD 41.0
 QARD 43.0
 QARD 44.0
 QARD 45.0
 QARD 46.0
 QARD 47.0
 QARD 48.0
 QARD 49.0
 QARD 51.0
 QARD 52.0
 QARD 54.0
 QARD 55.0
 QARD 56.0
 QARD 57.0
 QARD 58.0
 QARD 59.0
 QARD 60.0
 QARD 61.0
 QARD 62.0
 QARD 64.0
 QARD 66.0
 QARD 68.0
 QARD 70.0
 XSEC 0.0 0.0 1.0 95.16 0.000340
 0.0 0.0 97.6 1.0 97.5 6.0 97.2 11.0 97.1 16.0 96.9 19.0 97.0
 0.0 19.5 96.8 19.7 96.6 20.1 96.8 20.6 96.8 21.0 96.2 22.5 96.1
 0.0 24.0 95.9 25.5 95.6 27.0 95.6 28.5 95.6 30.0 95.6 31.5 95.5
 0.0 33.0 95.4 34.5 95.3 36.0 95.2 37.5 94.9 39.0 94.6 40.5 94.3
 0.0 42.0 94.1 43.5 94.1 45.0 93.8 46.5 93.7 48.0 93.6 49.0 93.7
 0.0 50.0 94.1 51.0 94.0 51.7 94.0 52.0 95.6 53.0 96.2 53.8 96.8
 0.0 54.5 97.0 59.0 97.3 64.3 97.4 94.3 97.3
 NS 0.0 1.3 1.3 1.3 1.2 1.2 1.2
 NS 0.0 2.1 0.3 2.1 1.2 1.2 0.3 2.1 2.3
 NS 0.0 0.3 2.3 2.3 2.3 2.3 2.3 2.3
 NS 0.0 2.3 3.2 3.2 3.2 3.2 2.3
 NS 0.0 2.3 2.3 3.2 3.2 3.4 3.4
 NS 0.0 3.2 0.2 3.2 0.3 3.2 0.30 2.1 0.3 1.2 2.1
 NS 0.0 1.2 1.2 1.2 1.2
 WSL 0.0 96.52 96.60 96.66 96.73 96.80 96.83
 WSL 0.0 96.84 96.88 96.93 96.96 96.98 97.01
 WSL 0.0 97.03 97.05 97.07 97.12 97.14 97.19
 WSL 0.0 97.20 97.22 97.24 97.26 97.27 97.29
 WSL 0.0 97.31 97.32 97.36 97.39 97.43 97.46
 CAL1 0.0 96.81 39.7
 VEL1 0.0 0.00 0.01 0.00 0.00 0.01 0.05
 VEL1 0.0 0.01 0.44 0.64 0.63 0.80 0.65 0.67 0.71 0.72 0.79 0.83 0.90
 VEL1 0.0 0.86 0.81 0.87 0.89 0.90 0.64 0.33 0.03 0.01 0.01 0.01 0.00
 VEL1 0.0
 CAL2 0.0 96.88 38.3
 VEL2 0.0
 VEL2 0.0
 VEL2 0.0
 VEL2 0.0
 CAL3 0.0 96.83 39.2
 VEL3 0.0
 VEL3 0.0
 VEL3 0.0
 VEL3 0.0
 ENDJ

GLIDE HGH TRANSECT 3
 IOC 1101100100001000101000
 QARD 30.0
 QARD 32.0
 QARD 34.0
 QARD 36.0
 QARD 38.3
 QARD 39.2
 QARD 39.7
 QARD 41.0
 QARD 43.0
 QARD 44.0
 QARD 45.0
 QARD 46.0
 QARD 47.0
 QARD 48.0
 QARD 49.0
 QARD 51.0
 QARD 52.0
 QARD 54.0
 QARD 55.0
 QARD 56.0
 QARD 57.0
 QARD 58.0
 QARD 59.0
 QARD 60.0
 QARD 61.0
 QARD 62.0
 QARD 64.0
 QARD 66.0
 QARD 68.0
 QARD 70.0
 XSEC 0.0 0.0 1.0 95.16 0.000340
 0.0 0.0 97.3 1.0 97.2 5.0 97.1 9.0 97.0 13.0 96.8 16.0 96.8
 0.0 17.0 96.4 18.0 96.0 19.0 95.9 20.0 95.9 21.5 95.7 23.0 95.5
 0.0 24.5 95.2 26.0 94.7 27.5 94.4 29.0 94.3 30.5 93.6 32.0 93.3
 0.0 33.5 93.2 35.0 93.4 36.5 93.4 38.0 93.7 39.0 94.1 41.0 94.6
 0.0 42.5 94.7 44.0 95.1 45.5 95.6 46.7 96.2 47.3 97.2 48.4 98.6
 0.0 49.5 99.0 52.0 99.2
 NS 0.0 1.3 1.3 1.2 1.2 2.1 2.1
 NS 0.0 .25 2.1 .15 2.3 2.3 2.3 3.2 .046 3.2
 NS 0.0 .047 3.2 3.2 3.2 3.2 3.2 3.4
 NS 0.0 3.4 3.2 3.2 3.2 3.2 3.2
 NS 0.0 3.4 3.4 3.8 1.3 1.3 1.3
 NS 0.0 1.3 1.3
 WSL 0.0 96.55 96.62 96.69 96.75 96.83 96.85
 WSL 0.0 96.86 96.90 96.96 96.98 97.01 97.03
 WSL 0.0 97.05 97.07 97.10 97.14 97.16 97.21
 WSL 0.0 97.23 97.25 97.26 97.28 97.30 97.31
 WSL 0.0 97.33 97.35 97.38 97.42 97.45 97.49
 CAL1 0.0 96.83 39.7
 VEL1 0.0 0.00 0.01 0.05 0.22 0.44 0.73 0.82
 VEL1 0.0 0.88 0.72 0.82 0.62 0.62 0.59 0.49 0.58 0.59 0.53 0.63 0.50
 VEL1 0.0 0.56 0.26 0.14-0.09
 CAL2 0.0 96.90 38.3
 VEL2 0.0
 VEL2 0.0
 VEL2 0.0
 CAL3 0.0 96.84 39.2
 VEL3 0.0
 VEL3 0.0
 VEL3 0.0
 ENDJ