

Site: Gum Spring Main

Date: 6/15/10

Investigator: L. Hestor
P. Madden

Transect (m)	Point 1=right 9=left	Algal Thickness (0 - 5)	Algae Type	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness (0 - 5)	Algae Type	Canopy Cover		
0	1		F D O		60	1		F D O			
	2		F D O								
	3		F D O								
	4		F D O								
	5		F D O								
	6		F D O								
	7		F D O								
	8		F D O								
	9		F D O								
10	1		F D O		70	1	6	(F) D O	52/96		
	2		F D O								
	3		F D O								
	4		F D O								
	5		F D O								
	6		F D O								
	7		F D O								
	8		F D O								
	9		F D O								
20	1		F D O		80	1	6	(F) D O	7/96		
	2		F D O								
	3		F D O								
	4		F D O								
	5		F D O								
	6		F D O								
	7		F D O								
	8		F D O								
	9		F D O								
30	1		F D O		90	1	6	(F) D O	0/96		
	2		F D O								
	3		F D O								
	4		F D O								
	5		F D O								
	6		F D O								
	7		F D O								
	8		F D O								
	9		F D O								
40	1		F D O		100	1	6	(F) D O	0/96		
	2		F D O								
	3		F D O								
	4		F D O								
	5		F D O								
	6		F D O								
	7		F D O								
	8		F D O								
	9		F D O								
50	1		F D O		Algal Thickness Rank						
	2		F D O		0	1	2	3	4	5	6
	3		F D O		0 mm	<0.5 mm	0.5 - 1	>1 to <6	6 - 20	2-10	>10
	4		F D O		rough	or slimy	mm	mm	mm	cm	cm
	5		F D O		Record an "X" for points where algae is not sampled because the substrate cannot be seen or reached with the hand.						
	6		F D O		Algae Type: F = Filamentous D = Diatoms O = Other						
	7		F D O		Record canopy cover as the number of small densiometer squares (out of 96) that HAVE TREE COVER. Measure while facing upstream.						
	8		F D O								
	9		F D O								

Notes: -lots of snail egg clusters

-only 4 transects because of Gaine
Gum Spring #1 flowing into Main

RUN -avg depth: 3.5 ft -avg width: 90 ft

HydroLab measurements (on back) →

Hydrolab measurements

Temp: 23.21 °C

SP.C: 350

D.O: 3.70

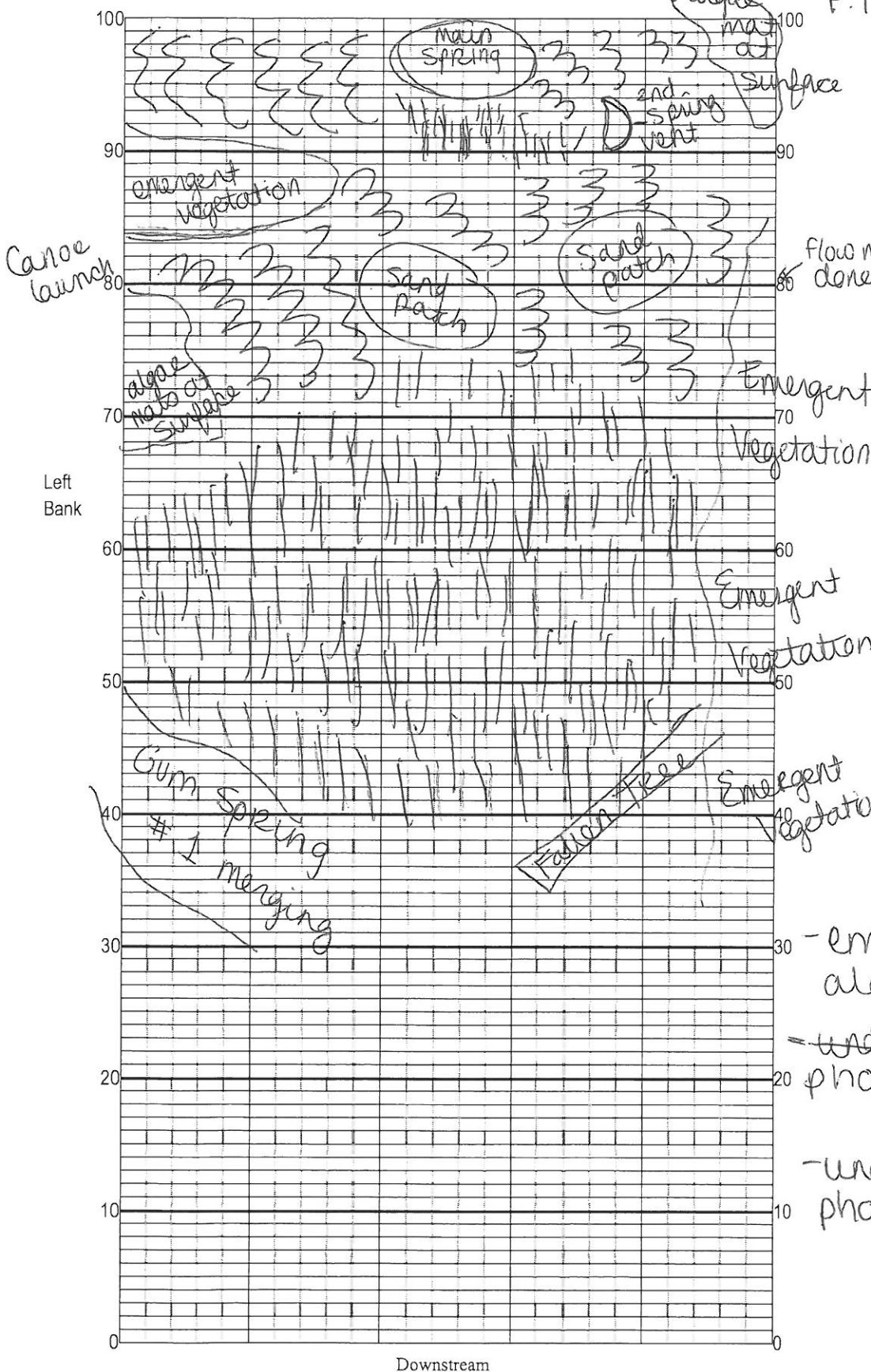
P.H: 6.86

% DO: 43.3

- measurements taken at point 5 on
transect 80(m)

DEP-SOP-001/01 Form FD 9000-4
Stream/River Habitat Sketch Sheet

Gum Spring Main
6/15/10
P. Madden, L. Hester



Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Emergent Vegetation
- ☐ Aquatic Macrophytes
- ☐ grass w/algae
- ☐ algae mat on ground

Velocity:
Note where velocity measures were taken.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

- emergent vegetation:
algae on roots

- ⁴¹underphoto underwater
photos taken of algae

- underwater
photos taken

- Gum Spring Main

- 6/16/10

- L. Hester;
P. Madden

- Run: 98 ft across
(4 feet from
shore to tree
not included)

- Readings every
4.9 ft

Ang Coef	Dist from init point	Width	Depth	Observation Depth (0.6)	Observation Depth Bottom (0.8)	Observation Depth Top (0.2)	Velocity		Adj for horiz angle or	Area	Discharge
							At point	Mean in vert			
REW	0.0										
1.00	4.00	0.00	0.60	0.00			-1.02		0.000	0.00	0.00
					0.00						
						0.00					
1.00	8.9	0.00	1.20	0.00			-1.02		0.000	0.00	0.00
					0.00						
						0.00					
1.00	13.8	0.00	1.70	0.00			-1.01		0.000	0.00	0.00
					0.00						
						0.00					
1.00	18.7	0.00	2.40	0.00			1.03		0.000	0.00	0.00
					0.00						
						0.00					
1.00	23.6	0.00	2.90	0.00					0.000	0.00	0.00
					0.00		0.00				
						0.00	-1.02				
1.00	28.5	0.00	2.30	0.00			1.05		0.000	0.00	0.00
					0.00						
						0.00					
1.00	33.4	0.00	3.50	0.00					0.000	0.00	0.00
					0.00		.03				
						0.00	1.01				
1.00	38.3	0.00	3.35	0.00					0.000	0.00	0.00
					0.00		.05				
						0.00	-1.02				
1.00	43.2	0.00	3.30	0.00					0.000	0.00	0.00
					0.00		0.15				
						0.00	0.14				
1.00	48.1	0.00	3.20	0.00					0.000	0.00	0.00
					0.00		0.20				
						0.00	0.10				
1.00	53.0	0.00	3.20	0.00					0.000	0.00	0.00
					0.00		0.24				
						0.00	0.12				
1.00	57.9	0.00	3.20	0.00					0.000	0.00	0.00
					0.00		0.18				
						0.00	0.09				
1.00	62.8	0.00	3.20	0.00					0.000	0.00	0.00
					0.00		0.13				
						0.00	0.04				
1.00	67.7	0.00	3.10	0.00					0.000	0.00	0.00
					0.00		0.14				
						0.00	0.09				
1.00	72.6	0.00	3.35	0.00					0.000	0.00	0.000
					0.00		.04				
						0.00	-0.04				
1.00	77.5	0.00	3.10	0.00					0.000	0.00	0.000
					0.00		.04				
						0.00	-1.02				
1.00	82.4	0.00	3.40	0.00					0.000	0.00	0.000
					0.00		-1.01				
						0.00	-1.01				
1.00	87.3	0.00	3.25	0.00					0.000	0.00	0.000
					0.00		-1.02				
						0.00	0.00				
1.00	92.2	0.00	2.40	0.00			-1.02		0.000	0.00	0.00

Form FD 9000-11: DISCHARGE MEASUREMENT NOTES - (BASED ON USGS FORM 9-275-7, MAY 1971)

(WATERBODY: Gum Spring Main)

Measurement No. _____ Date 6/16/10
 Recorded by _____ Project _____
 Checked by _____ Station No. _____
 Stream Description: _____
 Party: _____

Width 0.00 ft Area 0.00 ft² Vel. _____ ft/sec G.H. _____ Disch. 0.00 ft³/sec

Transect Location: X Latitude: N28°57.527' X Longitude: W082°13.885

Method _____ No. secs. _____ G.H. change _____ in _____ hrs. Susp. _____
 Method coef. _____ Hor. angle coef. _____ Susp. Coef. _____ Meter No. _____

GAGE READINGS					Type of Meter <u>Marsh-McBirney Flo-Mate 2000</u>	
Time		Recorder	Inside	Outside	Meter ID.	<u>2004494</u>
Begin	15:35	1.74			Date rated	_____ for rod, other.
End	16:15				Meter	_____ ft. above bottom of weight.
					Spin before measurement	_____ and
					after	_____
					Measurem. Plots	_____ % diff. from rating
					Wading, cable, ice, boat, upstr., downstr.,	
					side bridge	_____ feet, mile, above,
					below gage, and	_____
					Check-bar, found	_____
					changed to	_____ at _____
					Correct	_____
					Levels obtained	_____
Weighted M.G.H.						
G.H. Correction						
Correct M.G.H.						

Measurement rated ☐ excellent (2%), ☐ good (5%), ☐ fair (8%), ☐ poor (over 8%), based
 on following conditions: Cross section _____

Flow _____ Weather Clear 0% cloud coverage
 Other _____ Air Temp. _____ °F @ _____
 Gage _____ Water Temp. _____ °F @ _____
 Record moved _____ Intake flushed (U/L) _____

Control Calibrated before site.

Remarks very thick mats of algae

G.H. of zero flow _____ ft.

Gum Spring Main GPS coordinates:
N 28°57.527'
W 082°13.892'