Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek.

Date and Time (24hr): Jun. 13 / 2016.

Site ID: E1 (H). Prop #: 1

Station UTMs: N/A.

Left Bank (m)[1]: 2.00

Right Bank (m)[1]: 12.44

Wetted Width (m): 10.44

Staff Gauge (start): N/A.

Field Staff: AN, CH.

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 604

Start Time (24 hr): 1:00

End Time (24 hr): 7:45

Staff Gauge (end): N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	2.00	0	0			
2	2.5	10	0.11			
3	3.0	20	0.08			
4	3.8	28	0.24			
5	4.0	37	0.22			
6	4.5	38	0.23			
7	5.0	41	0.25			
8	5.5	43	0.22			
9	6.0	44	0.20			
10	6.5	40	0.22			
11	7.0	39	0.24			
12	7.5	48	0.18			
13	8.0	49	0.23			
14	8.5	47	0.23			
15	9.0	52	0.19			
16	9.5	47	0.17			
17	10.0	40	0.14			
18	10.5	34	0			Back Eddy.
19	11.0	28	0			
20	11.5	17	-0.01			
	12.0	6	0			
	12.44	0	0			

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	12.44	0	0			
2	12.25	1	0			Back eddy.
3	11.75	14	0			
4	11.25	21	0			
5	10.75	35	0			
6	10.25	41	0.06			
7	9.75	43	0.18			
8	9.25	51	0.20			
9	8.75	50	0.25			
10	8.25	49	0.22			
11	7.75	51	0.18			
12	7.25	44	0.25			
13	6.75	39	0.24			
14	6.25	38	0.23			
15	5.75	44	0.18			
16	5.25	40	0.20			
17	4.75	37	0.25			
18	4.25	34	0.22			
19	3.75	35	0.23			
20	3.25	25	0.18			
	2.75	20	0.06			
	2.25	3	0.01			
	2.00	0	0			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

elr

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek - June 2016

Date and Time (24hr): June 15 10:40

Site ID: E2 Prop #: 1

Station UTMs: N/A

Left Bank (m)[1]: 1.40

Right Bank (m)[1]: 7.75

Wetted Width (m): 6.35

Staff Gauge (start): N/A

Field Staff: CH AN

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 603

Start Time (24 hr): 10:40

End Time (24 hr): 11:20

Staff Gauge (end): N/A

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
(LB) / RB 1	1.40	0	0			
2	1.70	2	0			
3	2.00	7.5	0.06			
4	2.30	8.0	0.14			
5	2.60	15	0.15			
6	2.90	19	0.38			
7	3.20	20	0.35			
8	3.50	20	0.65			
9	3.80	23	0.58			
10	4.10	28	0.75			
11	4.40	27.5	0.45			
12	4.70	26	0.77			
13	5.00	25	0.72			
14	5.30	27.5	0.83			
15	5.60	27	0.65			
16	5.90	19	0.53			
17	6.20	22	0.46			
18	6.50	26.5	0.34			
19	6.80	30	0.25			
20	7.10	30	0.27			
	7.40	15	0.25			
RB	7.75	0	0			

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / (RB) 1	7.75	0	0			
2	7.6	5	0.21			
3	7.3	27	0.22			
4	7.0	24	0.43			
5	6.7	32	0.30			
6	6.4	24	0.36			
7	6.1	24	0.44			
8	5.8	26	0.46			
9	5.5	25	0.74			
10	5.2	24	1.03			
11	4.9	27.5	0.69			
12	4.6	25	0.79			
13	4.3	28	0.61			
14	4.0	24.5	0.69			
15	3.7	25	0.56			
16	3.4	22	0.60			
17	3.1	18	0.40			
18	2.8	18	0.38			
19	2.5	15	0.15			
20	2.2	9	0.15			
	1.9	8	0.03			
	1.6	1	0			
	1.4	0	0			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

7.75
1.40
6.35

20) 635
60
35

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek

Date and Time (24hr): Jun. 18/2016

Site ID: E3(H) Prop #: 1

Station UTMs: N/A

Left Bank (m)[1]: 3.94

Right Bank (m)[1]: 0.58

Wetted Width (m): 3.36

Staff Gauge (start): 0.252

Field Staff: AN, CH

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 304

Start Time (24 hr): 8:45

End Time (24 hr): 9:00

Staff Gauge (end): 0.252

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	3.95	0	0			
2	3.80	1	0			Rocks u/s
3	3.65	3	0			
4	3.5	1	0.01			
5	3.35	5.5	0.12			
6	3.20	6	0.21			
7	3.05	5	0.29			
8	2.9	5.5	0.04			
9	2.75	4.5	0.07			
10	2.6	9	0.12			
11	2.45	5	0.20			
12	2.3	6	0.25			
13	2.15	9	0.27			
14	2.0	8.5	0.21			
15	1.85	9.5	0.21			
16	1.7	9	0.25			
17	1.55	8.5	0.37			
18	1.4	14.5	0.31			
19	1.25	14	0.29			
20	1.10	13	0.20			
	0.95	16.5	0.12			
RB	0.58	15	0.04			

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	0.58	15	0.04			
2	0.75	18	0.04			
3	0.9	15.5	0.08			
4	1.05	9	0.25			
5	1.2	14.5	0.28			
6	1.35	15	0.34			
7	1.50	11.5	0.43			
8	1.65	11.5	0.33			
9	1.80	10.5	0.21			
10	1.95	9.5	0.23			
11	2.1	10	0.32			
12	2.25	8	0.28			
13	2.40	5.5	0.28			
14	2.55	6.5	0.10			
15	2.70	6	0.10			
16	2.85	6	0.01			Behind Rock.
17	3.0	5	0.01			
18	3.15	6	0.23			
19	3.3	6	0.1			
20	3.45	1	0			
	3.6	1	0			
	3.95	0	0			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

Hydrology Field Sheet

ELR PROJECT NUMBER: 14-183 Clinton Creek Monitoring

Date and Time (24hr): 13:00 June 15 Calibration No.: 603
Site ID: E4 Prop #: 1
Station UTMs: N/A.
Left Bank (m)[1]: 0.4
Right Bank (m)[1]: 6.5
Start Time (24 hr): 13:00
Staff Gauge (start): N/A.

Field Staff: AN, CH.
Type of meter used: SWOFFER.
Datum: NAD 83
Wetted width (m): 6.1
Calibration: 603
End Time (24 hr): 13:30
Staff Gauge (end): N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)
Divide the wetted width by 20 to establish the width of each flow gauging panel
If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)
If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only
If the stream is more than 0.75 m deep (at at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (m)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
(LB) RB 1	0.2	19	0.83			Vertical bank
2	0.5	17	0.93			
3	0.8	20	0.84			
4	1.1	22	0.85			
5	1.4	21.5	1.00			
6	1.7	25	1.06			
7	2.0	19	1.10			
8	2.3	25	0.80			
9	2.6	24	0.89			
10	2.9	22	0.94			
11	3.2	22	0.81			
12	3.5	21	0.80			
13	3.8	19	0.61			
14	4.1	19	0.75			
15	4.4	15	0.97			
16	4.7	13.5	0.45			
17	5.0	15	0.56			
18	5.3	19	0.50			
19	5.6	10	0.59			
20	5.9	9	0.01			Behind rock
	6.1	1	0			Behind rock
RB	6.5	3	0.23			Vertical bank

Crossing No. 2	Distance (m)	Depth (m)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB RB 1	6.5	3	0.19			
2	6.3	1	0.16			Behind Rock
3	6.0	2.5	0			Behind Rock
4	5.7	15	0.47			
5	5.4	9	0.06			Behind Rock
6	5.1	15	0.48			
7	4.8	12	0.70			
8	4.5	15	0.92			
9	4.2	15	0.87			
10	3.9	17.5	0.68			
11	3.6	24	0.88			
12	3.3	16	0.61			
13	3.0	20	1.08			
14	2.7	21	0.90			
15	2.4	25	0.93			
16	2.1	22	1.02			
17	1.8	24.5	0.71			
18	1.5	21.5	0.98			
19	1.2	21	0.80			
20	0.9	16.5	1.06			
	0.6	15	0.82			
LB	0.4	18	0.85			Vertical bank

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations:

6.5
0.2
6.3

30 √630 (21.5)
600
30

elr

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek - June 2016

Date and Time (24hr)	Jun 15/2016			Field Staff	CH & AN
Site ID	E4	Prop #	1	Type of meter Used	Swoffer
Station UTMs	N/A.			Datum	NAD 83
Left Bank (m)[1]	0.50m			Calibration No.	603
Right Bank (m)[1]	4.60m			Start Time (24 hr)	14:45
Wetted Width (m)	4.1			End Time (24 hr)	15:15
Staff Gauge (start)	N/A.			Staff Gauge (end)	N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
LB / (RB) 1	4.6	Ø	Ø			
2	4.4	11.5	0.20			
3	4.2	18	0.39			
4	4.0	22	0.47			
5	3.8	32	0.55			
6	3.6	39	0.51			
7	3.4	44	0.68			
8	3.2	45	0.87			
9	3.0	48	0.88			
10	2.8	47.5	0.97			
11	2.6	47.5	0.89			
12	2.4	48	0.75			
13	2.2	45.5	0.75			
14	2.0	44	0.67			
15	1.8	39	0.83			
16	1.6	40	0.84			
17	1.4	36	0.66			
18	1.2	34	0.48			
19	1.0	28	0.35			
20	0.8	21	0.35			
LB	0.5	Ø	Ø			

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
(LB) / RB 1	0.5	Ø	Ø			
2	0.7	15	0.29			
3	0.9	24	0.33			
4	1.1	30	0.36			
5	1.3	35	0.81			
6	1.5	36	0.75			
7	1.7	37.5	0.80			
8	1.9	44	0.69			
9	2.1	45	0.62			
10	2.3	45	0.74			
11	2.5	47.5	0.84			
12	2.7	47.5	0.98			
13	2.9	45	1.06			
14	3.1	49	0.93			
15	3.3	43	0.96			
16	3.5	40	0.70			
17	3.7	38.5	0.60			
18	3.9	28	0.53			
19	4.1	20.5	0.42			
20	4.3	15	0.30			
RB	4.6	Ø	Ø			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

4.60
0.50
4.10

If found, please call ELR: 867.668.6386

20.5
20 √ 410
40
10

Hydrology Field Sheet

ELR PROJECT NUMBER: 14-183 Clinton Creek Monitoring

Date and Time (24hr): Jun. 13/2016 | Calibration No.: 604
Site ID: GWCC-5 | Prop #: 1
Station UTMs: N/A.
Left Bank (m)[1]: 1.3
Right Bank (m)[1]: 2.2
Start Time (24 hr): 16:15
Staff Gauge (start): N/A

Field Staff: AN, CH.
Type of meter used: SWOFFER.
Datum: NAD 83
Wetted width (m): 0.9
Calibration: 603
End Time (24 hr): 16:35
Staff Gauge (end): N/A

Method Summary

Measure the width of the wetted cross section of the stream (m)
Divide the wetted width by 20 to establish the width of each flow gauging panel
If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)
If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only
If the stream is more than 0.75 m deep (at at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (m)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	1.3	0	0			
2	1.4	1.0	0			
3	1.5	1.0	0.01			
4	1.6	4	0.23			
5	1.7	4	0.06			
6	1.8	3	0.34			
7	1.9	3	0.23			
8	2.0	2	0.22			
9	2.1	1	0			
10	2.2	0	0			
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Crossing No. 2	Distance (m)	Depth (m)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	2.2	0	0			
2	2.1	1	0			
3	2.0	3	0.27			
4	1.9	4	0.28			
5	1.8	5	0.17			
6	1.7	3	0.14			
7	1.6	2	0.16			
8	1.5	2.0	0			
9	1.4	1	0			
10	1.3	0	0			
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Notes:

Left bank and right bank are always based on looking downstream.
[1] Use the width on the tape. No need to start at 0 m
[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

* velocity varies depending on angle of prop. Prop. needed to be filled due to Depth of water may account for variation between crossings.

Calculations:

If found, please call ELR: 867.668.6386

elr

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek June 16

Date and Time (24hr): Jun. 16/2016

Site ID: R1 Prop #: 1

Station UTMs: N/A.

Left Bank (m)[1]: 0.2

Right Bank (m)[1]: 6.3

Wetted Width (m): 6.1

Staff Gauge (start): N/A.

Field Staff: CH & AH

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 603

Start Time (24 hr): 14:45

End Time (24 hr): 15:15.

Staff Gauge (end): N/A

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	6.3	0	0			
2	6.0	3	0			
3	5.7	4	0.25			
4	5.4	5	0.27			
5	5.1	5.5	0.22			
6	4.8	7	0.26			
7	4.5	7.5	0.32			
8	4.2	8	0.41			
9	3.9	9	0.38			
10	3.6	11	0.40			
11	3.3	12	0.43			
12	3.0	14.5	0.44			
13	2.7	18	0.45			
14	2.4	21.5	0.46			
15	2.1	23	0.55			
16	1.8	26	0.58			
17	1.5	28	0.57			
18	1.2	28	0.59			
19	0.9	29	0.40			
20	0.6	21	0.15			
RB	0.2	0	0			

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	6.2	0	0			
2	0.5	19	0.09			
3	0.8	27	0.25			
4	1.1	30	0.58			
5	1.4	29	0.58			
6	1.7	26	0.54			
7	2.0	24	0.57			
8	2.3	21	0.49			
9	2.6	19	0.43			
10	2.9	16.5	0.44			
11	3.2	17.5	0.46			
12	3.5	12	0.32			
13	3.8	10	0.37			
14	4.1	9	0.40			
15	4.4	7.5	0.32			
16	4.7	7	0.33			
17	5.0	6.5	0.27			
18	5.3	5	0.30			
19	5.6	4	0.26			
20	5.9	3	0.13			
RB	6.3	0	0			

Notes:

Left/bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

Photos: 676 - 679

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek June 16

Date and Time (24hr): June 16 13:30

Site ID: R2 Prop #: 1

Station UTMs: N/A

Left Bank (m)[1]: 2.10

Right Bank (m)[1]: 0.43

Wetted Width (m): 1.67

Staff Gauge (start): N/A

Field Staff: CA & AW

Type of meter Used: Swoffer

Datum: NAD 83

Calibration No.: 603

Start Time (24 hr): 13:30

End Time (24 hr): 14:10

Staff Gauge (end): N/A

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / (RB) 1	0.43	0	0			
2	0.52	1	0.01			
3	0.61	1	0.01			
4	0.70	3	0.27			
5	0.79	4	0.31			
6	0.88	3	0.41			
7	0.97	4.5	0.51			
8	1.06	6.5	0.43			
9	1.15	10.5	0.59			
10	1.24	11	0.50			
11	1.33	15	0.58			
12	1.42	15.5	0.56			
13	1.51	16	0.54			
14	1.60	17	0.57			
15	1.69	19	0.60			
16	1.78	19	0.58			
17	1.87	23	0.45			
18	1.96	25	0.48			
19	2.10	0	0			
20						

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	2.1	0	0			
2	2.01	25.5	0.40			
3	1.92	24.5	0.44			
4	1.83	22	0.54			
5	1.74	19.5	0.54			
6	1.65	19	0.59			
7	1.56	19	0.53			
8	1.47	16	0.52			
9	1.38	15.5	0.63			
10	1.29	13	0.57			
11	1.20	11.5	0.52			
12	1.11	10.5	0.53			
13	1.02	8	0.50			
14	0.93	6	0.46			
15	0.84	4	0.35			
16	0.75	3	0.35			
17	0.66	3	0.19			
18	0.57	1	0			
19	0.46	1	0			
20	0.43	0	0			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

2.10
0.43
1.77

20 / 177

20 × 8 = 160

20 × 9 = 180

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek.

Date and Time (24hr): Jun. 17/2016

Site ID: R3 Prop #: 1

Station UTMs: N/A

Left Bank (m)[1]: 0.40

Right Bank (m)[1]: 1.96

Wetted Width (m): 1.56

Staff Gauge (start): N/A

Field Staff: AN, CH

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 803

Start Time (24 hr): 16:45

End Time (24 hr): 17:05

Staff Gauge (end): N/A

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
LB (RB) 1	1.96	0	0			
2	1.88	1	0			
3	1.80	2	0	0		
4	1.72	3	0.04			
5	1.64	3	0.16			
6	1.56	4	0.20			
7	1.48	4.5	0.25			
8	1.40	5.5	0.41			
9	1.32	6.0	0.46			
10	1.24	8.0	0.58			
11	1.16	9.5	0.64			
12	1.08	10	0.73			
13	1.0	11	0.71			
14	0.92	9.5	0.71			
15	0.84	8.5	0.70			
16	0.76	7	0.70			
17	0.68	5.5	0.64			
18	0.6	4	0.46			
19	0.52	2.0	0.18			
20	0.40	0	0			

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
LB / RB 1	0.4	0	0			
2	0.48	1	0.01			
3	0.56	3	0.36			
4	0.64	4.5	0.57			
5	0.72	6	0.79			
6	0.8	7.5	0.73			
7	0.88	9.5	0.76			
8	0.96	10	0.72			
9	1.04	9.5	0.73			
10	1.12	10.5	0.71			
11	1.20	9	0.61			
12	1.28	6.5	0.53			
13	1.36	7	0.45			
14	1.44	5.5	0.30			
15	1.52	5.5	0.30			
16	1.60	4.5	0.21			
17	1.68	4	0.15			
18	1.76	3	0.14			
19	1.84	1	0			
20	1.96	0	0			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

Hydrology Field Sheet

ELR PROJECT NUMBER: 14-183 Clinton Creek Monitoring

Date and Time (24hr): Jun. 15/2016 | Calibration No.: 603
Site ID: R4 | Prop #: 1
Station UTMs: N/A.
Left Bank (m)[1]: 0.24
Right Bank (m)[1]: 2.10
Start Time (24 hr): 12:10
Staff Gauge (start): N/A.

Field Staff: AN, CH.
Type of meter used: SWOFFER
Datum: NAD 83
Wetted width (m): 1.96
Calibration: 603
End Time (24 hr): 12:40
Staff Gauge (end): N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)
Divide the wetted width by 20 to establish the width of each flow gauging panel
If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)
If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only
If the stream is more than 0.75 m deep (at at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (m)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
(LB) / RB 1	0.24	0.5	0			
2	0.3	0.5	0			
3	0.4	1.0	0			
4	0.5	2.5	0.12			
5	0.6	4	0.16			
6	0.7	2	0.15			
7	0.8	1	0.16			
8	0.9	2.5	0.18			
9	1.0	1.0	0.12			
10	1.1	4	0.31			
11	1.2	6	0.39			
12	1.3	12.5	0.48			
13	1.4	13	0.28			
14	1.5	14	0.48			
15	1.6	12	0.68			
16	1.7	15.5	0.69			
17	1.8	16.5	0.50			
18	1.9	8	0.44			
19	2.0	8	0.52			
20	2.1	0	0			

Crossing No. 2	Distance (m)	Depth (m)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	2.1	0	0			
2	2.0	8	0.51			
3	1.9	7	0.37			
4	1.8	14	0.50			
5	1.7	12	0.65			
6	1.6	13.5	0.70			
7	1.5	13	0.40			
8	1.4	14	0.29			
9	1.3	12	0.40			
10	1.2	7.5	0.37			
11	1.1	4.5	0.29			
12	1.0	1.0	0.22			
13	0.9	4.0	0.15			
14	0.8	2.0	0.11			
15	0.7	3.5	0.15			
16	0.6	4.0	0.12			
17	0.5	2.0	0.12			
18	0.4	1.0	0.05			
19	0.3	0.5	0			
20	0.24	0	0			

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations:

elr

Hydrology Fiel[illegible] [illegible]et

PROJECT # AND NAME: Clinton Creek June 2016

Date and Time (24hr): June 17: 12:50

Site ID: R7 Prop #: 1

Station UTMs: N/A.

Left Bank (m)[1]: 0.50

Right Bank (m)[1]: 0.12

Wetted Width (m): 0.38

Staff Gauge (start): N/A.

Field Staff: CH & AW

Type of meter Used: Swoffer.

Datum: NAD 83

Calibration No. 603

Start Time (24 hr): 12:50

End Time (24 hr): 13:20

Staff Gauge (end): N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / (RB) 1	0.12	Ø	Ø			
2	0.20	11	Ø			
3	0.28	15.5	0.01			
(LB) 4	0.36	16.0	0.03			
(LB) 5	0.44	15.5	0.02			
6	0.50	11.	0.01			
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	0.50	11	0.01			
2	0.42	16	0.02			
3	0.34	16	0.02			
4	0.26	15.5	0.02			
5	0.18	12.5	0.00			
6	0.12	Ø	Ø			
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

0.50 − 0.34 = 16

0.50 − 0.12 = 38

If found, please call ELR: 867.668.6386

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek

Date and Time (24hr): Jun. 16/2016

Site ID: RB Prop #: 304

Station UTMs: N/A.

Left Bank (m)[1]: 0.19

Right Bank (m)[1]: 0.78

Wetted Width (m): 0.59

Staff Gauge (start): N/A.

Field Staff: AN, CH.

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 364

Start Time (24 hr): 12:50

End Time (24 hr): 1:10

Staff Gauge (end): N/A

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
LB / RB 1	0.19	1.0	0			
2	0.29	14	0			
3	0.39	12	0.02			
4	0.49	9.5	0.02			
5	0.59	9	0			
6	0.69	9	0			
7	0.78	0	0			
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
LB / RB 1	0.78	0	0			
2	0.70	8.5	0			
3	0.60	10	0.01			
4	0.5	9.5	0.02			
5	0.4	12.5	0.02			
6	0.3	14	0.01			
7	0.2	1	0			
8	0.19	1	0			
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

If found, please call ELR: 867.668.6386

Did not take photo of field sheet before site photos.

elr

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek June 2016

Date and Time (24hr): June 17 9:50

Site ID: RG

Prop #: 1

Station UTMs: N/A.

Left Bank (m)[1]: 1.05

Right Bank (m)[1]: 0.38

Wetted Width (m): 0.67

Staff Gauge (start): N/A

Field Staff: CH + AM

Type of meter Used: Swoffer

Datum: NAD 83

Calibration No.: 603

Start Time (24 hr): 9:50

End Time (24 hr): 10:20

Staff Gauge (end): N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
(LB) / RB 1	1.05	11	0			
2	0.95	11	0.01			
3	0.85	15.5	0.02			
4	0.75	16	0.05			
5	0.65	19	0.05			
6	0.55	18	0.06			
7	0.45	17	0			
8	~~0.33~~					
(RB) 9	0.38	15	0			
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 × depth)	Velocity (m/s) @ 20% depth[2] (0.5 × depth)	Comments
LB / (RB) 1	0.38	15	0			
2	0.48	17	0			
3	0.58	17	0.10			
4	0.68	17	0.06			
5	0.78	16	0.04			
6	0.88	12	0.01			
7	0.98	11	0			
8	~~1.08~~					
(LB) 9	1.05	11	0			
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):

1.05
0.38
.67

Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek

Date and Time (24hr): Jun. 17/2016

Site ID: R11 Prop #: 1

Station UTMs: N/A.

Left Bank (m)[1]: 0.5

Right Bank (m)[1]: 0.0

Wetted Width (m): 0.5

Staff Gauge (start): N/A.

Field Staff: AN, CH

Type of meter Used: SWOFFER

Datum: NAD 83

Calibration No.: 603

Start Time (24 hr): 17:55

End Time (24 hr): 18:20

Staff Gauge (end): N/A.

Method Summary

Measure the width of the wetted cross section of the stream (m)

Divide the wetted width by 20 to establish the width of each flow gauging panel

If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)

If the stream is less then 0.75 m deep take the average flow readings at 60% of the depth only

If the stream is more than 0.75 m deep (at least one location) then take readings at 80% and 20% depths only

Crossing No. 1	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / (RB) 1	~~-0.1~~	22.5	0.17			
2	0.0	34	0.18			
3	0.1	30	0.14			
4	0.2	29	0.1			
5	0.3	27	0.03			
6	0.4	25	0.06			
7	0.5	0	0			
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Crossing No. 2	Distance (m)	Depth (cm)	Velocity (m/s) @ 60% depth[2]	Velocity (m/s) @ 80% depth[2] (2 x depth)	Velocity (m/s) @ 20% depth[2] (0.5 x depth)	Comments
LB / RB 1	0.5	0	0			
2	0.4	25	0.05			
3	0.3	27	0.04			
4	0.2	30	0.14			
5	0.1	34	0.12			
6	0.0	35	0.15			
7	-0.1	22.5	0.17			
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Notes:

Left bank and right bank are always based on looking downstream.

[1] Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel.

[2] Depth is measured from the water surface down (top to bottom, not bottom to top)

Calculations (e.g., wetted width / 20 = panel width):