



Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek 16-240.4. Water Program

Date and Time (24hr) Sept 24, 2016
 Site ID 03/2853/7147418 Prop # 1
 Station UTM's E1 (H)
 Left Bank (m)' 12.11
 Right Bank (m)' 1.30
 Wetted Width (m) 10.81
 Staff Gauge (start) 0.730
 Field Photo # 7552-7557

Field Staff GR & NB
 Type of meter Used SWOOPER
 Datum NAD 83
 Calibration No. 605
 Start Time (24 hr) 08:50
 End Time (24 hr) 09:36
 Staff Gauge (end) 0729

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 than 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 | 12.11 | 0.0 | 0.00 | | | |
| 2 | 11.57 | 5.5 | 0.07 | | | On a rock |
| 3 | 11.03 | 19.0 | 0.17 | | | |
| 4 | 10.49 | 20.0 | 0.18 | | | |
| 5 | 9.95 | 33.0 | 0.15 | | | |
| 6 | 9.41 | 36.0 | 0.21 | | | |
| 7 | 8.87 | 35.0 | 0.22 | | | |
| 8 | 8.33 | 37.0 | 0.16 | | | |
| 9 | 7.79 | 40.0 | 0.16 | | | |
| 10 | 7.25 | 39.5 | 0.18 | | | |
| 11 | 6.71 | 42.0 | 0.16 | | | |
| 12 | 6.17 | 44.0 | 0.15 | | | |
| 13 | 5.63 | 40.0 | 0.20 | | | |
| 14 | 5.09 | 40.0 | 0.15 | | | |
| 15 | 4.55 | 35.0 | 0.13 | | | |
| 16 | 4.01 | 26.0 | 0.22 | | | |
| 17 | 3.47 | 17.0 | 0.13 | | | |
| 18 | 2.93 | 13.0 | 0.04 | | | |
| 19 | 2.39 | 10.0 | 0.04 | | | |
| 20 | 1.85 | 6.0 | 0.00 | | | slack water |
| 21 | 1.31 | 0.0 | 0.00 | | | |

| 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 | 1.31 | 0.0 | 0.00 | | | |
| 2 | 1.90 | 8.5 | 0.00 | | | Slack water |
| 3 | 2.44 | 10.0 | 0.03 | | | |
| 4 | 2.98 | 12.0 | 0.01 | | | |
| 5 | 3.52 | 18.0 | 0.15 | | | |
| 6 | 4.06 | 26.0 | 0.19 | | | |
| 7 | 4.60 | 35.0 | 0.17 | | | |
| 8 | 5.14 | 40.0 | 0.18 | | | |
| 9 | 5.68 | 40.5 | 0.20 | | | Erratic flow |
| 10 | 6.22 | 44.0 | 0.21 | | | |
| 11 | 6.76 | 44.0 | 0.17 | | | |
| 12 | 7.30 | 39.0 | 0.16 | | | |
| 13 | 7.84 | 39.0 | 0.12 | | | |
| 14 | 8.38 | 37.0 | 0.13 | | | |
| 15 | 8.92 | 36.0 | 0.23 | | | |
| 16 | 9.46 | 36.0 | 0.14 | | | |
| 17 | 10.0 | 31.5 | 0.17 | | | |
| 18 | 10.54 | 20.0 | 0.16 | | | |
| 19 | 11.08 | 14.5 | 0.18 | | | |
| 20 | 11.62 | 4.5 | 0.06 | | | |
| 21 | 12.11 | 0.0 | 0.00 | | | |

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):
 $10.81 / 20 = \sim 54 \text{ cm}$



Hydrology Field Sheet

Page 1 of 1

PROJECT # AND NAME: Clinton Creek. 16-240.4. Water Program

Date and Time (24hr) SEPT 20 2016
 Site ID E2 Prop # 1
 Station UTM's 07W 0514170 7147073
 Left Bank (m)' 7.92
 Right Bank (m)' 1.44
 Wetted Width (m) 6.48
 Staff Gauge (start) N/A
 Field Photo # 446-449

Field Staff GR + NB
 Type of meter Used SWOFFER
 Datum NAD 83
 Calibration No. 605
 Start Time (24 hr) 16:49
 End Time (24 hr) 17:28
 Staff Gauge (end) N/A

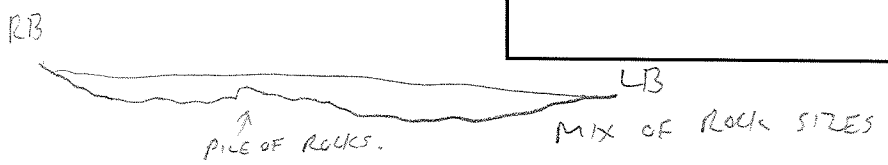
Method Summary
 Measure the width of the wetted cross section of the stream (m)
 Divide the wetted width by 20 to establish the width of each flow gauging panel
 If the width of each panel is less than 6 cm you can reduce the number of panels (and increase the width of each panel)
 If the stream is less than 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 | 1.44 | 0.0 | 0.00 | | | |
| 2 | 1.77 | 10.0 | 0.00 | | | Behind a rock |
| 3 | 2.10 | 16.0 | 0.34 | | | |
| 4 | 2.43 | 25.0 | 0.46 | | | |
| 5 | 2.76 | 27.0 | 0.31 | | | |
| 6 | 3.09 | 23.0 | 0.34 | | | |
| 7 | 3.42 | 10.5 | 0.58 | | | on a rock |
| 8 | 3.75 | 25.0 | 0.48 | | | |
| 9 | 4.08 | 26.5 | 0.77 | | | |
| 10 | 4.41 | 26.0 | 0.69 | | | |
| 11 | 4.74 | 28.5 | 0.72 | | | |
| 12 | 5.07 | 27.5 | 0.51 | | | |
| 13 | 5.40 | 26 | 0.68 | | | |
| 14 | 5.73 | 20 | 0.60 | | | |
| 15 | 6.06 | 17.5 | 0.45 | | | |
| 16 | 6.39 | 18.0 | 0.32 | | | |
| 17 | 6.72 | 16.0 | 0.25 | | | |
| 18 | 7.05 | 10.0 | 0.19 | | | |
| 19 | 7.38 | 7.5 | 0.05 | | | |
| 20 | 7.71 | 4.5 | 0.02 | | | slack water |
| 21 | 7.92 | 0.0 | 0.00 | | | |

| 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 | 7.92 | 0.0 | 0.00 | | | |
| 2 | 7.59 | 6.0 | 0.05 | | | slack water |
| 3 | 7.26 | 10.0 | 0.09 | | | |
| 4 | 6.93 | 14.0 | 0.24 | | | |
| 5 | 6.60 | 14.5 | 0.32 | | | |
| 6 | 6.27 | 19.0 | 0.36 | | | |
| 7 | 5.94 | 19.0 | 0.63 | | | |
| 8 | 5.61 | 24.0 | 0.57 | | | |
| 9 | 5.28 | 29.5 | 0.80 | | | |
| 10 | 4.95 | 28.0 | 0.44 | | | |
| 11 | 4.62 | 26.5 | 0.64 | | | |
| 12 | 4.29 | 26.0 | 0.77 | | | |
| 13 | 3.96 | 25.0 | 0.69 | | | |
| 14 | 3.63 | 11.0 | 0.59 | | | on a rock |
| 15 | 3.30 | 21.0 | 0.50 | | | |
| 16 | 2.97 | 25.0 | 0.33 | | | |
| 17 | 2.64 | 24.5 | 0.33 | | | |
| 18 | 2.31 | 17.0 | 0.35 | | | On a rock |
| 19 | 1.98 | 16.0 | 0.29 | | | |
| 20 | 1.65 | 10.0 | 0.00 | | | Behind a rock / slack water |
| 21 | 1.44 | 0.0 | 0.00 | | | |

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):
 $6.48 / 20 = \approx 0.33 \text{ m}$





Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek, I6-240.4, Water Program

Date and Time (24hr): 23 SEP 20 2016

Field Staff: GR+NIB

Site ID: E3(11)

Prop #: 1

Type of meter Used: SLOPPER

Station UTM: 0514182 7147599

Datum: NAD 83

Left Bank (m): 4.49

Calibration No.: 606

Right Bank (m): 0.46

Start Time (24 hr): 0859

Wetted Width (m): 4.03

End Time (24 hr): 0935

water is clearer than in August.

Staff Gauge (start): 0.331

Staff Gauge (end): 0.331

Field Photo #: 7422 - 7425

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 than 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. | 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 | 4.49 | ∅ | ∅ | | | |
| 2 | 4.29 | 4 | ∅ | | | SLACK WATER |
| 3 | 4.10 | 4.5 | 0.16 | | | |
| 4 | 3.90 | 5.5 | 0.25 | | | |
| 5 | 3.70 | 5.5 | 0.38 | | | |
| 3.49 6 | 3.49 | 7.0 | 0.40 | | | |
| 7 | 3.29 | 9.0 | 0.53 | | | ON A ROCK |
| 8 | 3.09 | 10.0 | 0.51 | | | |
| 9 | 2.89 | 13 | 0.52 | | | |
| 2.07 10 | 2.68 | 13 | 0.48 | | | |
| 11 | 2.48 | 12.5 | 0.54 | | | |
| 12 | 2.28 | 11 | 0.49 | | | |
| 2.07 13 | 2.07 | 12 | 0.60 | | | |
| 1.87 14 | 1.87 | 12 | 0.51 | | | |
| 15 | 1.67 | 11 | 0.49 | | | |
| 16 | 1.47 | 14 | 0.34 | | | |
| 1.26 17 | 1.26 | 13.5 | 0.22 | | | |
| 18 | 1.06 | 12 | 0.29 | | | |
| 19 | 0.86 | 10.5 | 0.26 | | | |
| 20 | 0.66 | 10 | 0.15 | | | |
| RB 21 | 0.46 | 2 | 0.04 | | | |

| Crossing No. | 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 | 0.46 | 2 | 0.04 | | | |
| 2 | 0.66 | 10 | 0.16 | | | |
| 51 3 | 0.87 | 10 | 0.27 | | | |
| 4 | 1.07 | 12 | 0.25 | | | |
| 21 5 | 1.27 | 13 | 0.23 | | | |
| 49 6 | 1.48 | 13 | 0.38 | | | |
| 7 | 1.68 | 10.5 | 0.48 | | | |
| 8 | 1.88 | 12 | 0.51 | | | |
| 9 | 2.09 | 13 | 0.62 | | | |
| 10 | 2.29 | 11.5 | 0.47 | | | |
| 49 11 | 2.49 | 12.5 | 0.50 | | | |
| 69 12 | 2.69 | 13 | 0.55 | | | |
| 90 13 | 2.90 | 12 | 0.50 | | | |
| 10 14 | 3.10 | 10.5 | 0.52 | | | |
| 30 15 | 3.31 | 9.0 | 0.49 | | | |
| 51 16 | 3.51 | 6.5 | 0.35 | | | |
| 17 | 3.71 | 5 | 0.36 | | | |
| .92 18 | 3.92 | 5.5 | 0.22 | | | |
| 19 | 4.12 | 4.5 | 0.12 | | | |
| 20 | 4.26 | 2.5 | ∅ | | | SLACK WATER |
| LB 21 | 4.48 | ∅ | ∅ | | | |

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)

LB RB.

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

~ 20 cm panels



Hydrology Field Sheet

Page 1 of 1

PROJECT # AND NAME: Clinton Creek, 16-240.4, Water Program

Form with fields for Date and Time (24hr), Site ID, Station UTM, Left Bank (m), Right Bank (m), Wetted Width (m), Staff Gauge (start), Field Photo #, Field Staff, Type of meter Used, Datum, Calibration No., Start Time (24 hr), End Time (24 hr), Staff Gauge (end).

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 than 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.

Table with columns: Crossing No. 1, Distance (m), Depth (cm), Velocity (m/s) @ 60% depth, Velocity (m/s) @ 80% depth, Velocity (m/s) @ 20% depth, Comments. Includes handwritten data for crossings 1 through 21.

Table with columns: Crossing No. 2, Distance (m), Depth (cm), Velocity (m/s) @ 60% depth, Velocity (m/s) @ 80% depth, Velocity (m/s) @ 20% depth, Comments. Includes handwritten data for crossings 1 through 20.

Notes: Left bank and right bank are always based on looking downstream. Use the width on the tape. No need to start at 0 m. Calculations will be completed in Excel. Depth is measured from the water surface down (top to bottom, not bottom to top).



Calculations (e.g., wetted width / 20 = panel width): 0.345 cm PANELS



Hydrology Sheet

Page 1 of 1

PROJECT # AND NAME: Clinton Creek, 16-240.4, Water Program

Date and Time (24hr) SEPT 22 2016
Site ID E7
Station UTMS 0579389 7142641
Left Bank (m) 8.94
Right Bank (m) 0.74
Wetted Width (m) 8.2
Staff Gauge (start) N/A
Field Photo # 7496-7499

Field Staff GR + NB
Type of meter Used SWOFFER
Datum NAD 83
Calibration No. 605
Start Time (24 hr) 1313
End Time (24 hr) 1356
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 than 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

Table with 6 columns: Crossing No., Distance (m), Depth (cm), Velocity (m/s) @ 60% depth, Velocity (m/s) @ 80% depth, Velocity (m/s) @ 20% depth, Comments. Contains 21 rows of data for Crossing No. 1.

Table with 6 columns: Crossing No., Distance (m), Depth (cm), Velocity (m/s) @ 60% depth, Velocity (m/s) @ 80% depth, Velocity (m/s) @ 20% depth, Comments. Contains 21 rows of data for Crossing No. 2.

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)

LESS LOWER WATER THAN AUGUST EVENT.



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

8.2 / 20 = 0.41 cm PANEL



Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek. 16-240.4. Water Program

Date and Time (24hr) SEPT 21 2016
Site ID GWLL-5
Station UTM 0513983 7147130
Left Bank (m) 1.82
Right Bank (m) 0.92
Wetted Width (m) 0.90
Staff Gauge (start) N/A
Field Photo # 7494-7495

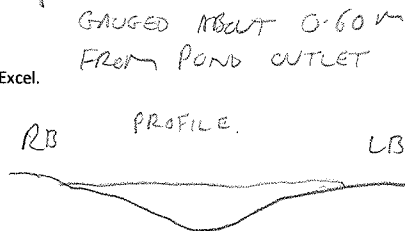
Field Staff CR + NB
Type of meter Used SWOFFER
Datum NAD 83
Calibration No. 605
Start Time (24 hr) 1542
End Time (24 hr) 1556
Staff Gauge (end) N/A

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 than 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

Table with 6 columns: Crossing No., Distance (m), Depth (cm), Velocity (m/s) @ 60% depth, Velocity (m/s) @ 80% depth, Velocity (m/s) @ 20% depth, Comments. Contains data for Crossing No. 1 with 11 points.

Table with 6 columns: Crossing No., Distance (m), Depth (cm), Velocity (m/s) @ 60% depth, Velocity (m/s) @ 80% depth, Velocity (m/s) @ 20% depth, Comments. Contains data for Crossing No. 2 with 10 points.

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):
~9cm panels



141

PROJECT # AND NAME: Clinton Creek. 16-240.4. Water Program

Date and Time (24hr) Rt. 16/09/23
 Site ID R1 Prop # 1
 Station UTMs 0310597/7148502
 Left Bank (m)' 7.98
 Right Bank (m)' 0.74
 Wetted Width (m) 7.24
 Staff Gauge (start) N/A
 Field Photo # 7532-7537

Field Staff GR & NB
 Type of meter Used SWOFFER
 Datum NAD 83
 Calibration No. 605
 Start Time (24 hr) 13:50
 End Time (24 hr) 14:28
 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 than 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 | 0.74 | 0.0 | 0.00 | | | |
| 2 | 1.10 | 4.0 | 0.15 | | | |
| 3 | 1.46 | 2.5 | 0.22 | | | |
| 4 | 1.82 | 2.5 | 0.25 | | | |
| 5 | 2.18 | 3.0 | 0.30 | | | |
| 6 | 2.54 | 5.0 | 0.32 | | | |
| 7 | 2.90 | 6.5 | 0.34 | | | |
| 8 | 3.26 | 7.5 | 0.34 | | | |
| 9 | 3.62 | 9.0 | 0.34 | | | |
| 10 | 3.98 | 9.5 | 0.36 | | | |
| 11 | 4.34 | 10.5 | 0.39 | | | |
| 12 | 4.70 | 10.5 | 0.43 | | | |
| 13 | 5.06 | 12.0 | 0.38 | | | |
| 14 | 5.42 | 17.0 | 0.38 | | | |
| 15 | 5.78 | 19.5 | 0.41 | | | |
| 16 | 6.14 | 23.0 | 0.49 | | | |
| 17 | 6.50 | 25.0 | 0.50 | | | |
| 18 | 6.86 | 28.0 | 0.52 | | | |
| 19 | 7.22 | 27.5 | 0.18 | | | Sandy bottom |
| 20 | 7.58 | 20.0 | 0.07 | | | Soft bottom - branches ahead |
| 21 | 7.97 | 0.0 | 0.00 | | | deflecting flow |

| 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 | 7.97 | 0.0 | 0.00 | | | |
| 2 | 7.61 | 19.0 | 0.05 | | | Soft bottom - branches ahead |
| 3 | 7.25 | 28.0 | 0.18 | | | deflecting flow |
| 4 | 6.89 | 29.0 | 0.51 | | | |
| 5 | 6.53 | 25.0 | 0.52 | | | |
| 6 | 6.17 | 23.0 | 0.48 | | | |
| 7 | 5.81 | 20.0 | 0.45 | | | |
| 8 | 5.45 | 17.0 | 0.38 | | | |
| 9 | 5.09 | 12.5 | 0.44 | | | |
| 10 | 4.73 | 11.0 | 0.42 | | | |
| 11 | 4.37 | 11.0 | 0.43 | | | |
| 12 | 4.01 | 10.0 | 0.42 | | | |
| 13 | 3.65 | 8.5 | 0.37 | | | |
| 14 | 3.29 | 8.0 | 0.37 | | | |
| 15 | 2.93 | 6.5 | 0.30 | | | |
| 16 | 2.57 | 5.0 | 0.30 | | | |
| 17 | 2.21 | 3.0 | 0.27 | | | |
| 18 | 1.85 | 2.0 | 0.26 | | | |
| 19 | 1.49 | 2.5 | 0.22 | | | |
| 20 | 1.13 | 3.0 | 0.17 | | | |
| 21 | 0.73 | 0.0 | 0.00 | | | |

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):
 7.24 / 20 = ~ 36 cm





Hydrology Field Sheet

Page 1 of 1

1 of 1

PROJECT # AND NAME: Clinton Creek, 16-240.4, Water Program

Date and Time (24hr) SEPT 23 2016

Field Staff GR + NB

Site ID RZ

Prop # 1

Type of meter Used SWOFFER

Station UTM: 6512028 7148065 07W

Datum NAD 83

Left Bank (m) 3.60

Calibration No. 605

Right Bank (m) 1.30

Start Time (24 hr) 1532

Wetted Width (m) 2.30

End Time (24 hr) 1555

Staff Gauge (start) N/A

Staff Gauge (end) N/A

Field Photo # 7539 - 7542

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 than 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 | 1.30 | ∅ | ∅ | | | |
| 2 | 1.45 | 1 | ∅ | | | SLACK WATER |
| 1.60 3 | 1.60 | 1 | 0.15 | | | ROCK TYPED BANK |
| 1.75 4 | 1.75 | 4.5 | 0.21 | | | |
| 1.90 5 | 1.90 | 5 | 0.22 | | | |
| 2.05 6 | 2.05 | 9 | 0.24 | | | |
| 2.20 7 | 2.20 | 10.5 | 0.28 | | | |
| 2.35 8 | 2.35 | 12.5 | 0.30 | | | |
| 2.50 9 | 2.50 | 15 | 0.34 | | | |
| 2.65 10 | 2.65 | 18 | 0.37 | | | |
| 2.80 11 | 2.80 | 22 | 0.40 | | | |
| 2.95 12 | 2.95 | 24.5 | 0.38 | | | |
| 3.10 13 | 3.10 | 25 | 0.36 | | | |
| 3.25 14 | 3.25 | 25 | 0.34 | | | |
| 3.40 15 | 3.40 | 24 | 0.32 | | | |
| LB 16 | 3.60 | ∅ | ∅ | | | |
| 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 | 3.60 | ∅ | ∅ | | | |
| 2 | 3.45 | 24 | 0.30 | | | |
| 3.30 3 | 3.30 | 25 | 0.33 | | | |
| 3.15 4 | 3.15 | 25 | 0.36 | | | |
| 3.00 5 | 3.00 | 24.5 | 0.38 | | | |
| 2.85 6 | 2.85 | 23 | 0.38 | | | |
| 2.70 7 | 2.70 | 19.5 | 0.38 | | | |
| 2.55 8 | 2.55 | 16 | 0.36 | | | |
| 2.40 9 | 2.40 | 14 | 0.33 | | | |
| 2.25 10 | 2.25 | 11 | 0.28 | | | |
| 2.10 11 | 2.10 | 9 | 0.26 | | | |
| 1.95 12 | 1.95 | 6 | 0.24 | | | |
| 1.80 13 | 1.80 | 4.5 | 0.21 | | | |
| 1.65 14 | 1.65 | 3 | 0.17 | | | |
| 1.50 15 | 1.50 | 1 | ∅ | | | SLACK WATER |
| RB 16 | 1.30 | ∅ | ∅ | | | |
| 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)

LB PROFILE RB



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

2.30 / 15 = ~15cm



Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek, 16-240.4, Water Program

Date and Time (24hr) SEPT 20 2016
 Site ID IR3 Prop # 1
 Station UTM's 0513950 7148673 07W
 Left Bank (m)¹ 3.36
 Right Bank (m)¹ 0.77
 Wetted Width (m) 2.59
 Staff Gauge (start) N/A
 Field Photo # 7439 - 7442

Field Staff GR/NB
 Type of meter Used SUBMER
 Datum NAD 83
 Calibration No. 605
 Start Time (24 hr) 14:26
 End Time (24 hr) 14:56
 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 than 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 | 0.77 | 8.0 | 0.06 | | | |
| 2 | 0.94 | 9.5 | 0.24 | | | |
| 3 | 1.12 | 10.0 | 0.27 | | | |
| 4 | 1.30 | 10.0 | 0.38 | | | |
| 5 | 1.48 | 10.0 | 0.51 | | | |
| 6 | 1.66 | 10.5 | 0.47 | | | |
| 7 | 1.84 | 12.5 | 0.54 | | | |
| 8 | 2.02 | 13.0 | 0.52 | | | |
| 9 | 2.20 | 12.5 | 0.41 | | | |
| 10 | 2.38 | 11.5 | 0.42 | | | |
| 11 | 2.56 | 11.0 | 0.37 | | | |
| 12 | 2.74 | 10.5 | 0.28 | | | |
| 13 | 2.92 | 8.0 | 0.24 | | | |
| 14 | 3.10 | 9.0 | 0.12 | | | Behind a sand bar |
| 15 | 3.26 | 10.5 | 0.06 | | | |
| 16 | 3.37 | 10.0 | 0.00 | | | flack water |
| 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 | 3.37 | 16.0 | 0.00 | | | flack water |
| 2 | 3.18 | 10.0 | 0.11 | | | |
| 3 | 3.00 | 8.00 | 0.18 | | | |
| 4 | 2.82 | 10.0 | 0.23 | | | |
| 5 | 2.64 | 11.0 | 0.32 | | | |
| 6 | 2.46 | 12.0 | 0.42 | | | |
| 7 | 2.28 | 13.0 | 0.42 | | | |
| 8 | 2.10 | 13.5 | 0.48 | | | |
| 9 | 1.92 | 13.0 | 0.52 | | | |
| 10 | 1.74 | 10.5 | 0.49 | | | |
| 11 | 1.56 | 11.0 | 0.51 | | | |
| 12 | 1.38 | 10.0 | 0.41 | | | |
| 13 | 1.20 | 10.5 | 0.28 | | | |
| 14 | 1.02 | 9.5 | 0.26 | | | |
| 15 | 0.90 | 9.5 | 0.17 | | | |
| 16 | 0.77 | 9.0 | 0.07 | | | |
| 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):
 2.59 / 15 = ~ 17 cm





Hydrology Field Sheet

Page 1 of 1

1/1

PROJECT # AND NAME: Clinton Creek. 16-240.4. Water Program

Date and Time (24hr) SEPT 22 2016
 Site ID R4 Prop # 1
 Station UTM's 0515980 / 7145353
 Left Bank (m)¹ 2.54
 Right Bank (m)¹ 0.33
 Wetted Width (m) 2.21
 Staff Gauge (start) N/A
 Field Photo # 7508-7512

Field Staff GR + NB
 Type of meter Used SWOFFER
 Datum NAD 83
 Calibration No. 605
 Start Time (24 hr) 15:41
 End Time (24 hr) 16:08
 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 than 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 | 2.54 | 0.0 | 0.00 | | | |
| 2 | 2.39 | 10.5 | 0.02 | | | |
| 3 | 2.24 | 14.0 | 0.21 | | | |
| 4 | 2.09 | 14.0 | 0.42 | | | |
| 5 | 1.94 | 11.0 | 0.13 | | | |
| 6 | 1.79 | 10.5 | 0.24 | | | |
| 7 | 1.64 | 13.0 | 0.58 | | | |
| 8 | 1.49 | 16.0 | 0.50 | | | |
| 9 | 1.34 | 18.0 | 0.59 | | | |
| 10 | 1.19 | 16.0 | 0.62 | | | |
| 11 | 1.04 | 16.0 | 0.87 | | | |
| 12 | 0.89 | 14.5 | 0.58 | | | |
| 13 | 0.74 | 12.0 | 0.48 | | | |
| 14 | 0.55 | 11.0 | 0.47 | | | |
| 15 | 0.35 | 0.0 | 0.00 | | | |
| 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 | 0.35 | 0.0 | 0.00 | | | |
| 2 | 0.50 | 10.5 | 0.37 | | | |
| 3 | 0.65 | 10.0 | 0.47 | | | |
| 4 | 0.80 | 15.0 | 0.40 | | | |
| 5 | 0.95 | 16.0 | 0.62 | | | |
| 6 | 1.10 | 14.5 | 0.83 | | | |
| 7 | 1.25 | 16.5 | 0.68 | | | |
| 8 | 1.40 | 16.0 | 0.48 | | | |
| 9 | 1.55 | 15.5 | 0.62 | | | |
| 10 | 1.70 | 12.0 | 0.52 | | | |
| 11 | 1.85 | 10.0 | 0.16 | | | Rocks in front/low stream |
| 12 | 2.00 | 12.0 | 0.34 | | | |
| 13 | 2.15 | 14.0 | 0.40 | | | |
| 14 | 2.30 | 13.0 | 0.13 | | | |
| 15 | 2.42 | 8.5 | 0.00 | | | lack water |
| 16 | 2.54 | 0.0 | 0.00 | | | |
| 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):
 $2.21 / 20 = \sim 11 \text{ cm}$



Hydrology Field Sheet

Page 1 of 1

1 of 1

PROJECT # AND NAME: Clinton Creek. 16-240.4. Water Program

Date and Time (24hr) Sept 21 2016 Field Staff GR / NB
 Site ID R7 Prop # 1 Type of meter Used SWOFFER
 Station UTMs 0513004 / 7145649 Datum NAD 83
 Left Bank (m) 1.84 Calibration No. 605
 Right Bank (m) 1.10 Start Time (24 hr) 9:13
 Wetted Width (m) 0.74 End Time (24 hr) 9:34
 Staff Gauge (start) N/A Staff Gauge (end) N/A
 Field Photo # 4755-4758

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 than 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 | 1.10 | 0.0 | 0.00 | | | |
| 2 | 1.18 | 9.0 | 0.00 | | | Slack water |
| 3 | 1.26 | 12.5 | 0.00 | | | Slack water |
| 4 | 1.34 | 16.0 | 0.01 | | | |
| 5 | 1.42 | 21.0 | 0.11 | | | Main flow |
| 6 | 1.50 | 25.5 | 0.07 | | | |
| 7 | 1.58 | 27.5 | 0.14 | | | |
| 8 | 1.66 | 27.0 | 0.10 | | | |
| 9 | 1.74 | 25.5 | 0.01 | | | |
| 10 | 1.84 | 0.0 | 0.00 | | | |
| 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 | 1.84 | 0.0 | 0.00 | | | |
| 2 | 1.76 | 25.0 | 0.01 | | | |
| 3 | 1.68 | 28.0 | 0.11 | | | |
| 4 | 1.60 | 28.0 | 0.12 | | | |
| 5 | 1.52 | 29.0 | 0.07 | | | |
| 6 | 1.44 | 24.0 | 0.10 | | | |
| 7 | 1.36 | 20.0 | 0.02 | | | |
| 8 | 1.28 | 14.5 | 0.01 | | | |
| 9 | 1.20 | 11.0 | 0.00 | | | Slack water |
| 10 | 1.10 | 0.0 | 0.00 | | | |
| 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):
 $0.74 / 10 \approx 7.4 \text{ cm}$



1 of 1

PROJECT # AND NAME: Clinton Creek. 16-240.4. Water Program

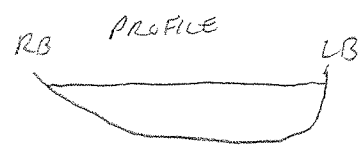
Date and Time (24hr) SEPT 23 2016 Field Staff GR + NB
 Site ID R8 Prop # 1
 Station UTM's 0511897 7147903 Type of meter Used SWOFFER
 Datum NAD 83
 Left Bank (m)' 1.85 Calibration No. 604
 Right Bank (m)' 0.90 Start Time (24 hr) 1659
 Wetted Width (m) 0.95 End Time (24 hr) 1706
 Staff Gauge (start) N/A Staff Gauge (end) N/A
 Field Photo # 7543 - 7547

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 than 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 | 0.90 | ∅ | ∅ | | | |
| 79.5 2 | 0.995 | 1.5 | ∅ | | | SLACK WATER |
| 3 | 1.09 | 6.5 | ∅ | | | " " |
| 1.18 4 | 1.18 | 9 | 0.10 | | | |
| 2.7 5 | 1.27 | 9 | 1.16 | | | |
| 36 6 | 1.36 | 10.5 | 0.15 | | | |
| 45 7 | 1.45 | 12 | 0.12 | | | |
| 54 8 | 1.54 | 11.5 | 0.08 | | | |
| 63 9 | 1.63 | 11 | 0.11 | | | |
| 72 10 | 1.72 | 10.5 | 0.05 | | | |
| LB 11 | 1.85 | 6.5 | ∅ | | | SLACK WATER |
| 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 | 1.85 | 6.5 | ∅ | | | SLACK WATER |
| 2 | 1.76 | 10 | ∅ | | | " " |
| 67 3 | 1.67 | 11.5 | 0.06 | | | |
| 58 4 | 1.58 | 11 | 0.12 | | | |
| 49 5 | 1.49 | 10.5 | 0.06 | | | |
| 40 6 | 1.40 | 11 | 0.14 | | | |
| 31 7 | 1.31 | 9.5 | 0.14 | | | |
| 22 8 | 1.22 | 9 | 0.11 | | | |
| 13 9 | 1.13 | 8.5 | 0.01 | | | |
| 04 10 | 1.04 | 4.5 | ∅ | | | SLACK WATER |
| RB 11 | 0.90 | ∅ | ∅ | | | |
| 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):
 $0.95 / 20 = 0.0475$



Hydrology Field Sheet

Page of 141

PROJECT # AND NAME: Clinton Creek, 16-240.4, Water Program

Date and Time (24hr) Sept 23, 2016
 Site ID RL9 Prop # 1
 Station UTMs 0572343 / 7146754
 Left Bank (m) 1.23
 Right Bank (m) 0.34
 Wetted Width (m) 0.89
 Staff Gauge (start) N/A
 Field Photo # 7548 - 7551

Field Staff GR & NB
 Type of meter Used SWOFFER
 Datum NAD 83
 Calibration No. 604
 Start Time (24 hr) 17:50
 End Time (24 hr) 18:07
 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 than 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 | 0.34 | 17.0 | 0.02 | | | |
| 2 | 0.43 | 20.5 | 0.03 | | | |
| 3 | 0.52 | 16.0 | 0.02 | | | Erratic flow |
| 4 | 0.61 | 12.5 | 0.40 | | | |
| 5 | 0.70 | 11.0 | 0.28 | | | |
| 6 | 0.79 | 9.0 | 0.35 | | | |
| 7 | 0.88 | 8.0 | 0.38 | | | |
| 8 | 0.97 | 8.0 | 0.19 | | | |
| 9 | 1.06 | 7.0 | 0.00 | | | Slack water |
| 10 | 1.15 | 4.0 | 0.00 | | | Slack water |
| 11 | 1.23 | 0.0 | 0.00 | | | |
| 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 | 1.23 | 0.0 | 0.00 | | | |
| 2 | 1.14 | 5.0 | 0.00 | | | Slack water |
| 3 | 1.05 | 6.5 | 0.00 | | | Slack water |
| 4 | 0.96 | 7.5 | 0.21 | | | |
| 5 | 0.87 | 7.5 | 0.41 | | | |
| 6 | 0.78 | 9.0 | 0.38 | | | |
| 7 | 0.69 | 10.0 | 0.25 | | | |
| 8 | 0.60 | 12.5 | 0.26 | | | Erratic flow |
| 9 | 0.51 | 15.5 | 0.02 | | | — u — |
| 10 | 0.42 | 20.0 | 0.06 | | | |
| 11 | 0.34 | 17.0 | 0.12 | | | |
| 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):
 $0.89 / 20 = \sim 90\text{cm}$



Hydrology Field Sheet

PROJECT # AND NAME: Clinton Creek. I6-240.4. Water Program

Date and Time (24hr) SEPT 20 2016 Field Staff GRT + NIS
 Site ID R11(H) Prop # 1 Type of meter Used SWOFFER
 Station UTM: 0514161 7147790 07W Datum NAD 83
 Left Bank (m) 1.97 Calibration No. 606
 Right Bank (m) 0.57 Start Time (24 hr) 1257
 Wetted Width (m) 1.40 End Time (24 hr) 1320
 Staff Gauge (start) N/A Staff Gauge (end) N/A
 Field Photo # 7436-7438

R11(H) SIGN INSTALLED ON ALDER TREE ON LB.

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 than 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 | 1.97 | 0 | 0 | | | |
| 1.60 2 | 1.60 | 5 | 0.34 | | | Too shallow to measure before this point |
| 3 | 1.55 | 5.5 | 0.44 | | | |
| 4 | 1.50 | 6.5 | 0.34 | | | |
| 5 | 1.40 | 10 | 0.49 | | | |
| 6 | 1.30 | 11.5 | 0.55 | | | |
| 7 | 1.20 | 11.5 | 0.57 | | | |
| 8 | 1.10 | 12.5 | 0.62 | | | |
| 9 | 1.00 | 13 | 0.65 | | | |
| 10 | 0.90 | 14 | 0.59 | | | |
| 11 | 0.80 | 12.5 | 0.18 | | | |
| 12 | 0.70 | 8.5 | 0.06 | | | |
| RB 13 | 0.57 | 5 | 0.03 | | | |
| 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 | 0.57 | 5 | 0.03 | | | |
| 2 | 0.67 | 8 | 0.05 | | | |
| 3 | 0.77 | 11.5 | 0.11 | | | |
| 4 | 0.87 | 13 | 0.60 | | | |
| 5 | 0.97 | 14 | 0.64 | | | |
| 6 | 1.07 | 13 | 0.63 | | | |
| 7 | 1.17 | 11 | 0.59 | | | |
| 8 | 1.27 | 11 | 0.54 | | | |
| 9 | 1.37 | 10.5 | 0.49 | | | |
| 10 | 1.47 | 8 | 0.40 | | | |
| 11 | 1.52 | 6.5 | 0.33 | | | |
| 12 | 1.57 | 5.5 | 0.42 | | | |
| 13 | 1.60 | 4 | 0.43 | | | Too shallow after this point to get readings < 3cm. |
| LB 14 | 1.97 | 0 | 0 | | | |
| 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):
 1.47 / 20 = 0.0735
 ~ 10cm