

Instructions: Bold fields must be completed. Record all measurements in metric units.

Station Summary

Stream Name <i>N. Br. Cedar Creek</i>	Waterbody ID Code <i>22500</i>	SWIMS Station ID <i>10022038</i>	FH Database ID <i>20653993</i>
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Date (MMDDYYYY) <i>06 27 2017</i>	Station Name <i>N. Br. Cedar Cr. @ NN</i>
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Latitude - Longitude Determination Method Used <i>Swims</i>	Datum Used <i>1983</i>
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Start Latitude <i>43.3622</i>	Start Longitude <i>-88.0097</i>	End Latitude _____	End Longitude _____	County <i>Washington</i>
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Water Characteristics

Time (24-hr clock) <i>1300</i>	Air Temperature (C) <i>22.0</i>	Water Temperature (C) <i>14.26</i>	Conductivity (µs/cm) <i>801</i>	Transparency (cm) <i>120</i>
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Dissolved Oxygen (mg/l) <i>9.49</i>	Dissolved Oxygen % Saturation <i>92.1</i>	pH <i>7.11</i>
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Flow (m³/sec) (from Flow Data sheet) <i>0.079</i>	Water Level (check one - measure distance if Above or Below Normal): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Below: _____ (m) <input type="checkbox"/> Above: _____ (m)	Water Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> Stained
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Channel and Basin Characteristics

Stream Widths (m) *3.8 3.5 4.2 3.1 4.1 4.5 5.9 4.1 7.0 4.7 4.3, 4.0*

Mean Stream Width (m) <i>6</i>	Transect Spacing (m) <i>18</i>	Station Length (m) <i>203</i>
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Channel Condition: (check one) Natural > 20-year-old Channelization 10- to 20-year-old Channelization < 10-year-old Channelization Concrete Channel

Percent Channelization <i>0</i>	Sinuosity <i>1.33</i>	Gradient (m/km) <i>0.02</i>	Stream Order <i>3</i>	Basin Area (km²) <i>34.77</i>
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(from Map Data Sheet)

Mean Distance (m) Between:	Bends: <i>27.2 m</i>	Riffles: _____
Total (Sum) Length (m) of All:	Riffles: _____	Pools: <i>7 m</i> Runs: <i>190</i>
Mean Length (m) of Individual:	Riffles: _____	Pools: <i>7 m</i> Runs: <i>95</i>

Person(s) Who Collected Data (Full Names)
Erin Cox, Dylan Olson

Comments / Notes
TDS = 513

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Map Data

Stream Name <i>N. Br. Cedar Creek</i>	Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06272017</i>
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Dist. from Start (m)	Stream Feature (Bend, Riffle, Pool, Run, Log Jam, etc.)
6	<i>Run . T1</i>
	<i>+14.5 start left bend</i>
24	<i>T2 run</i>
	<i>+10.5 Right bend</i>
34	<i>+9 start pool + 16 end pool / start run</i>
42	<i>T3 run</i>
60	<i>T4 run</i>
78	<i>T5 run</i>
96	<i>T6 run</i>
	<i>+8.5 left bend</i>
114	<i>T7 run</i>
132	<i>T8 run</i>
	<i>+6.8 right bend + 14.6 right bend</i>
150	<i>T9 run</i>
	<i>+7.3 bend left</i>
168	<i>T10 run</i>
	<i>+15.8 left bend</i>
186	<i>T11 run</i>
204	<i>T12 run</i>

Distance Summary	
Distance Between Riffles (m)	
Measurements from the Upstream end of one Riffle to the Downstream end of the next Riffle Upstream	
Distance Between Bends (m) Measured from Center of Bend	
<i>20.5 → 34.5</i>	
Downstream - 1st:	<i>(14)</i>
1st - 2nd:	<i>34.5 → 104.5 = (70)</i>
2nd - 3rd:	<i>104.5 → 138.8 = (34.3)</i>
3rd - 4th:	<i>138.8 → 146.6 = (7.8)</i>
4th - 5th:	<i>146.6 → 157.3 = (10.7)</i>
5th - 6th:	<i>157.3 → 183.8 = (26.5)</i>
6th - 7th:	_____
7th - 8th:	_____
8th - 9th:	_____
9th - 10th:	_____
10th - 11th:	_____
11th - Upstream:	_____
Sum:	<i>163.3</i>
Mean:	<i>27.22</i>

Length (m) of Individual Riffles, Pools and Runs		
1st Riffle:	1st Pool: <i>33 → 40 = 7</i>	1st Run: <i>6 → 33 = 27</i>
2nd Riffle:	2nd Pool:	2nd Run: <i>10 → 203 = 193</i>
3rd Riffle:	3rd Pool:	3rd Run:
4th Riffle:	4th Pool:	4th Run:
5th Riffle:	5th Pool:	5th Run:
6th Riffle:	6th Pool:	6th Run:
7th Riffle:	7th Pool:	7th Run:
8th Riffle:	8th Pool:	8th Run:
9th Riffle:	9th Pool:	9th Run:
10th Riffle:	10th Pool:	10th Run:
11th Riffle:	11th Pool:	11th Run:
Sum:	<i>7</i>	<i>190</i>
Mean:	_____	<i>95</i>

Draw map of station on back of this sheet (optional)

A large, empty grid of graph paper, consisting of many small squares, intended for data entry or calculations.



Transect Data

Stream Name <i>N. Br. Cedar Creek</i>	Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06272017</i>	Transect No. <i>1</i>
Distance from Start (m) <i>6</i>	Stream Width (m) <i>3.8</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>.16</i>
		Bankfull Width (m) (optional) <i>5.6</i>	

3.8

Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m)	<i>.43</i>	<i>.33</i>	<i>.40</i>	<i>.43</i>
Depth of Fines and Water (m)	<i>.40</i>	<i>.43</i>	<i>.45</i>	<i>.44</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	<i>100</i>	<i>80</i>	<i>60</i>	<i>70</i>

Percent (nearest 5%) of Stream Bottom Covered **Section Total Must = 100%**

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	<i>30</i>	<i>50</i>	<i>60</i>	<i>20</i>
Sand (0.062 - 1.9 mm)	<i>30</i>	<i>50</i>	<i>40</i>	<i>80</i>
Silt (0.004 - 0.061 mm)	<i>20</i>			
Clay				
Detritus	<i>20</i>			
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
Macrophytes	<i>—</i>	<i>20</i>	<i>—</i>	<i>—</i>
Canopy / Shading (circle one)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
<i>.20</i>	<i>.44</i>						

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m) % of Eroded Bank to the crest or within 5 m of stream edge
Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect **Section Total Must = 100%**

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)

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Transect Data

Stream Name <i>N Branch Cedar Creek</i>		Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06 27 2017</i>	Transect No. <i>T-2</i>
Distance from Start (m) <i>24</i>	Stream Width (m) <i>3.5</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>.32</i>	Bankfull Width (m) (optional) <i>3.8</i>

	Deepest Point	Channel Position (Fifths of Current Stream Width)-			
		1/5 .7	2/5 1.4	3/5 2.1	4/5 2.8
Water Depth (m)	<i>.48</i>	<i>.42</i>	<i>.48</i>	<i>.47</i>	<i>.43</i>
Depth of Fines and Water (m)		<i>.47</i>	<i>.50</i>	<i>.51</i>	<i>.47</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<i>70</i>	<i>90</i>	<i>100</i>	<i>—</i>

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	<i>20</i>	<i>10</i>	<i>20</i>	
Sand (0.062 - 1.9 mm)	<i>35</i>	<i>50</i>	<i>35</i>	<i>45</i>
Silt (0.004 - 0.061 mm)	<i>35</i>	<i>40</i>	<i>35</i>	<i>45</i>
Clay				
Detritus				<i>10</i>
Other - Specify: _____	<i>10 wood</i>		<i>10 wood</i>	

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)		<i>—</i>	<i>—</i>	<i>—</i>
Macrophytes			<i>80</i>	<i>80</i>
Canopy / Shading (circle one)	<i>80 shade</i>	<i>—</i>	<i>—</i>	<i>—</i>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
<i>.41</i>	<i>.40 + .55</i>				<i>1.4</i>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m)

% of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)

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Transect Data

Stream Name <i>N Br Cedar Creek</i>	Waterbody ID Code <i>22800</i>	Date (MMDDYYYY) <i>06 27 2012</i>	Transect No. <i>T3</i>
Distance from Start (m) <i>42</i>	Stream Width (m) <i>4.7</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>0.44</i>
		Bankfull Width (m) (optional) <i>7.9</i>	

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5	2/5	3/5	4/5
Water Depth (m)	<i>.42</i>	<i>.25</i>	<i>.25</i>	<i>.32</i>	<i>.29</i>
Depth of Fines and Water (m)		<i>.34</i>	<i>.37</i>	<i>.43</i>	<i>.58</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<i>—</i>	<i>—</i>	<i>—</i>	<i>100</i>

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				<i>10</i>
Sand (0.062 - 1.9 mm)	<i>20</i>	<i>20</i>		<i>4</i> <i>25</i>
Silt (0.004 - 0.061 mm)	<i>50</i>	<i>80</i>	<i>90</i>	<i>35</i>
Clay				
Detritus	<i>10</i>		<i>10</i>	
Other - Specify: <u><i>Wood</i></u>	<i>20</i>			<i>30</i>

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)	<i>10</i>	<i>10</i>	<i>10</i>	<i>10</i>
Macrophytes	<i>40</i>	<i>100</i>	<i>100</i>	<i>70</i>
Canopy / Shading (circle one)	<i>—</i>	<i>—</i>		

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
<i>.26</i>	<i>.62</i>				<i>3.80</i>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: <u><i>0</i></u> (m) Right: <u><i>0</i></u> (m)	% of Eroded Bank to the crest or within 5 m of stream edge Left: <u><i>0</i></u> (%) Right: <u><i>0</i></u> (%)
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Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *> 10* (m) Right: *> 10* (m)

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Transect Data

Stream Name <i>N Branch Cedar Creek</i>		Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06 27 2017</i>	Transect No. <i>T4</i>
Distance from Start (m) <i>60</i>	Stream Width (m) <i>7.0</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>0.40</i>	Bankfull Width (m) (optional) <i>9.0</i>

	Deepest Point	Channel Position (Fifths of Current Stream Width) -			
		1/5 <i>1.4</i>	2/5 <i>2.8</i>	3/5 <i>4.2</i>	4/5 <i>5.6</i>
Water Depth (m)		<i>.39</i>	<i>.34</i>	<i>.19</i>	<i>.24</i>
Depth of Fines and Water (m)		<i>.45</i>	<i>.41</i>	<i>.31</i>	<i>.39</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		10 <i>10</i>	<i>—</i>		

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	<i>70</i>			
Sand (0.062 - 1.9 mm)	<i>30</i>	<i>10</i>	<i>10</i>	
Silt (0.004 - 0.061 mm)		<i>80</i>	<i>40</i>	<i>80</i>
Clay				
Detritus		<i>10</i>	<i>50</i>	<i>20</i>
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)	<i>70</i>	<i>—</i>	<i>—</i>	<i>20</i>
Macrophytes	<i>—</i>	<i>40</i>	<i>—</i>	<i>50</i>
Canopy / Shading (circle one)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m) % of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *> 10* (m) Right: *> 10* (m)

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Transect Data

Stream Name <i>N Br Cedar Creek</i>	Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06/27/2017</i>	Transect No. <i>T5</i>
Distance from Start (m) <i>78</i>	Stream Width (m) <i>5.9</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	
Bankfull Depth (m) (optional) <i>.39</i>		Bankfull Width (m) (optional) <i>9.7</i>	

	Deepest Point	Channel Position (Fifths of Current Stream Width)			
		1/5 1.2	2/5 2.4	3/5 3.6	4/5 4.8
Water Depth (m)		<i>.11</i>	<i>.28</i>	<i>.46</i>	<i>.55</i>
Depth of Fines and Water (m)		<i>.35</i>	<i>.42</i>	<i>.53</i>	<i>.59</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble					<i>20%</i>

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				<i>40</i>
Sand (0.062 - 1.9 mm)		<i>10</i>	<i>80</i>	<i>40</i>
Silt (0.004 - 0.061 mm)	<i>90</i>	<i>80</i>	<i>10</i>	
Clay				
Detritus	<i>10</i>	<i>10</i>	<i>10</i>	
Other - Specify: _____				<i>20 sand</i>

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)		<i>10</i>	_____
Macrophytes	<i>10</i>	<i>10</i>	_____
Canopy / Shading (circle one)			

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
	<i>.55</i>						

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m)

% of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *> 10* (m) Right: *> 10* (m)

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Transect Data

Stream Name <i>N Branch Cedar Creek</i>		Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06 27 2017</i>	Transect No. <i>T.6</i>
Distance from Start (m) <i>96</i>	Stream Width (m) <i>4.1</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run		Bankfull Depth (m) (optional) <i>0.43</i>
		Bankfull Width (m) (optional) <i>3.2</i>		

	Deepest Point	Channel Position (Fifths of Current Stream Width)-			
		1/5 <i>0.8</i>	2/5 <i>1.6</i>	3/5 <i>2.4</i>	4/5 <i>3.2</i>
Water Depth (m)		<i>0.26</i>	<i>0.47</i>	<i>0.48</i>	<i>0.47</i>
Depth of Fines and Water (m)		<i>0.50</i>	<i>0.52</i>	<i>0.52</i>	<i>0.50</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble			<i>90</i>	<i>80</i>	<i>70</i>

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)		<i>20</i>	<i>50</i>	<i>25</i>
Sand (0.062 - 1.9 mm)		<i>50</i> <i>55</i>	<i>50</i>	<i>25</i>
Silt (0.004 - 0.061 mm)	<i>60</i>	<i>20</i>		<i>50</i>
Clay				
Detritus	<i>40</i>	<i>5</i>		
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
Macrophytes	<i>20</i>	<i>—</i>	<i>—</i>	<i>—</i>
Canopy / Shading (circle one)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
	<i>0.54</i>						

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m) % of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)



Transect Data

Stream Name <i>N. Br Cedar Creek</i>	Waterbody ID Code <i>22800</i>	Date (MMDDYYYY) <i>06 27 2017</i>	Transect No. <i>T7</i>
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Distance from Start (m) <i>114</i>	Stream Width (m) <i>4.5</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>0.39</i>	Bankfull Width (m) (optional) <i>6.3</i>
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Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5 <i>.9</i>	2/5 <i>1.8</i>	3/5 <i>2.7</i>	4/5 <i>3.6</i>
Water Depth (m)	<i>.27</i>	<i>.33</i>	<i>.40</i>	<i>.27</i>
Depth of Fines and Water (m)	<i>.36</i>	<i>.39</i>	<i>.43</i>	<i>.33</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble			<i>100</i>	

Percent (nearest 5%) of Stream Bottom Covered **Section Total Must = 100%**

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)			<i>10</i>	
Sand (0.062 - 1.9 mm)	<i>10</i>	<i>20</i>	<i>80</i>	<i>30</i>
Silt (0.004 - 0.061 mm)	<i>80</i>	<i>80</i>	<i>10</i>	<i>60</i>
Clay				
Detritus				<i>10</i>
Other - Specify: _____	<i>10wd</i>			

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<i>20</i>			<i>50</i>
Macrophytes	<i>90</i>	<i>80</i>		<i>40</i>
Canopy / Shading (circle one)	<i>0</i>			

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
					<i>1.9</i>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m) % of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect **Section Total Must = 100%**

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)

Wadable Stream Quantitative Habitat Evaluation

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Transect Data

Stream Name <u>N Branch Cedar Creek</u>		Waterbody ID Code <u>22500</u>	Date (MMDDYYYY) <u>06232017</u>	Transect No. <u>T-8</u>
Distance from Start (m) <u>132</u>	Stream Width (m) <u>4.1</u>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run		Bankfull Depth (m) (optional) <u>.39</u>
			Bankfull Width (m) (optional) <u>5.1</u>	

	Deepest Point	Channel Position (Fifths of Current Stream Width) -			
		1/5 .8	2/5 1.6	3/5 2.4	4/5 3.2
Water Depth (m)		<u>.37</u>	<u>.48</u>	<u>.45</u>	<u>.34</u>
Depth of Fines and Water (m)		<u>.43</u>	<u>.47</u>	<u>.51</u>	<u>.45</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<u>50</u>	<u>50</u>	<u>90</u>	<u>---</u>

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	<u>40</u>	<u>60</u>	<u>25</u>	
Sand (0.062 - 1.9 mm)	<u>35</u>	<u>25</u>	<u>35</u>	<u>20</u>
Silt (0.004 - 0.061 mm)	<u>15</u>	<u>10</u>	<u>30</u>	<u>60</u>
Clay				
Detritus		<u>5</u>		<u>10</u>
Other - Specify: _____	<u>10 mud</u>	<u>---</u>	<u>10 mud</u>	<u>20 mud</u>

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)		<u>---</u>	<u>---</u>	<u>---</u>
Macrophytes		<u>---</u>	<u>---</u>	<u>---</u>
Canopy / Shading (circle one)	<u>80</u>	<u>---</u>	<u>---</u>	<u>---</u>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
	<u>.58</u>						

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: 0 (m) Right: 1 (m)

% of Eroded Bank to the crest or within 5 m of stream edge

Left: 0 (%) Right: 0 (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<u>100</u>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: >10 (m) Right: >10 (m)

Y

Transect Data

Stream Name <i>N Br Cedar Creek</i>	Waterbody ID Code <i>22800</i>	Date (MMDDYYYY) <i>06 27 2017</i>	Transect No. <i>19</i>
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Distance from Start (m) <i>150</i>	Stream Width (m) <i>3.4</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>0.44</i>	Bankfull Width (m) (optional) <i>4.7 3.9</i>
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Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m)	<i>0.30</i>	<i>0.46</i>	<i>0.47</i>	<i>0.47</i>
Depth of Fines and Water (m)	<i>0.45</i>	<i>0.50</i>	<i>0.53</i>	<i>0.54</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble			<i>90</i>	<i>90</i>

Percent (nearest 5%) of Stream Bottom Covered **Section Total Must = 100%**

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)			<i>10</i>	<i>10</i>
Sand (0.062 - 1.9 mm)		<i>20</i>	<i>10</i>	<i>10</i>
Silt (0.004 - 0.061 mm)	<i>45</i>	<i>65</i>	<i>65</i>	<i>65</i>
Clay				
Detritus	<i>45</i>	<i>15</i>	<i>15</i>	<i>15</i>
Other - Specify: <i>10 ud</i>				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>
Macrophytes	<i>—</i>	<i>—</i>	<i>10</i>	<i>—</i>
Canopy / Shading (circle one)	<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
<i>0.27</i>	<i>0.37</i>				<i>0.2 + 0.3</i>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m)

% of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect **Section Total Must = 100%**

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)

Wadable Stream Quantitative Habitat Evaluation

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Transect Data

Stream Name <u>N Branch Cedar Creek</u>		Waterbody ID Code <u>22500</u>	Date (MMDDYYYY) <u>06 27 2017</u>	Transect No. <u>T 10</u>
Distance from Start (m) <u>168</u>	Stream Width (m) <u>4.2</u>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run		Bankfull Depth (m) (optional) <u>.41</u>
			Bankfull Width (m) (optional) <u>4.1</u>	

	Deepest Point	Channel Position (Fifths of Current Stream Width) -			
		1/5 <u>.8</u>	2/5 <u>1.6</u>	3/5 <u>2.4</u>	4/5 <u>3.2</u>
Water Depth (m)		<u>.22</u>	<u>.24</u>	<u>.26</u>	<u>.23</u>
Depth of Fines and Water (m)		<u>.25</u>	<u>.28</u>	<u>.29</u>	<u>.25</u>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble		<u>100</u>	<u>90</u>	<u>70</u>	<u>50</u>

Percent (nearest 5%) of Stream Bottom Covered **Section Total Must = 100%**

	1/5	2/5	3/5	4/5
Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	<u>50</u>	<u>10</u>	<u>20</u>	<u>60</u>
Sand (0.062 - 1.9 mm)	<u>5</u>	<u>80</u>	<u>70</u>	<u>30</u>
Silt (0.004 - 0.061 mm)	<u>40</u>	<u>10</u>	<u>10</u>	<u>10</u>
Clay				
Detritus	<u>5</u>			
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

	1/5	2/5	3/5	4/5
Algae (attached & fila.)	<u>—</u>	<u>—</u>	<u>—</u>	<u>60</u>
Macrophytes	<u>—</u>	<u>50</u>	<u>—</u>	<u>—</u>
Canopy / Shading (circle one)	<u>40</u>	<u>—</u>	<u>—</u>	<u>—</u>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
					<u>0.5</u>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: _____ (m) Right: 0 (m)

% of Eroded Bank to the crest or within 5 m of stream edge

Left: 0 (%) Right: 0 (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect **Section Total Must = 100%**

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<u>100</u>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: > 100 (m) Right: > 10 (m)

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X

Transect Data

Stream Name <i>N Br Cedar Creek</i>	Waterbody ID Code <i>22800</i>	Date (MMDDYYYY) <i>06 27 2014</i>	Transect No. <i>T 11</i>
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Distance from Start (m) <i>186</i>	Stream Width (m) <i>4.0</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>.41</i>	Bankfull Width (m) (optional) <i>7.9</i>
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Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m)	<i>.25</i>	<i>.28</i>	<i>.25</i>	<i>.23</i>
Depth of Fines and Water (m)	<i>.28</i>	<i>.29</i>	<i>.28</i>	<i>.27</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	<i>80</i>	<i>0</i>	<i>30 (EC)</i>	<i>70 (EC)</i>

Percent (nearest 5%) of Stream Bottom Covered **Section Total Must = 100%**

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)	<i>60</i>	<i>90</i>	<i>85</i>	<i>80</i>
Sand (0.062 - 1.9 mm)	<i>30</i>		<i>5</i>	<i>15</i>
Silt (0.004 - 0.061 mm)	<i>20</i>	<i>10</i>	<i>10</i>	<i>5</i>
Clay				
Detritus				
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)				<i>40</i>
Macrophytes	<i>10</i>	<i>100</i>	<i>100</i>	
Canopy / Shading (circle one)				

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
					<i>1.8</i>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m) % of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect **Section Total Must = 100%**

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)

P

Transect Data

Stream Name <i>N Branch Cedar Creek</i>		Waterbody ID Code <i>22500</i>	Date (MMDDYYYY) <i>06272011</i>	Transect No. <i>T-12</i>
Distance from Start (m) <i>204</i>	Stream Width (m) <i>4.3</i>	Habitat Type: <input type="checkbox"/> Riffle <input type="checkbox"/> Pool <input checked="" type="checkbox"/> Run	Bankfull Depth (m) (optional) <i>.40</i>	Bankfull Width (m) (optional) <i>5.1</i>

Deepest Point	Channel Position (Fifths of Current Stream Width)			
	1/5	2/5	3/5	4/5
Water Depth (m)	<i>.48</i>	<i>.46</i>	<i>.27</i>	<i>.25</i>
Depth of Fines and Water (m)	<i>.51</i>	<i>.54</i>	<i>.42</i>	<i>.40</i>
Embeddedness (nearest 10%) of Course Gravel and Rubble/Cobble	<i>—</i>			

Percent (nearest 5%) of Stream Bottom Covered Section Total Must = 100%

Bedrock (solid slab)				
Boulder (261 mm - 4.1 m)				
Rubble / Cobble (65 - 260 mm)				
Gravel (2 - 64 mm)				
Sand (0.062 - 1.9 mm)	<i>45</i>	<i>20</i>	<i>30</i>	<i>5</i>
Silt (0.004 - 0.061 mm)	<i>50</i>	<i>80</i>	<i>60</i>	<i>45</i>
Clay				
Detritus	<i>5</i>		<i>10</i>	<i>50</i>
Other - Specify: _____				

Percent (nearest 10%) of Stream Bottom Covered

Algae (attached & fila.)	<i>10</i>	<i>—</i>	<i>—</i>	<i>20</i>
Macrophytes		<i>—</i>	<i>60</i>	<i>—</i>
Canopy / Shading (circle one)			<i>—</i>	<i>—</i>

Cover for Adult Gamefish: Length (nearest 0.01 m) of transect within 0.15 m upstream or downstream in water at least 0.20 m in depth

Undercut Banks	Overhanging Vegetation at least 0.20 m overhang	Woody Debris	Other Debris	Boulder	Submerged Macrophytes	Emergent Macrophytes at least 0.20 m deep	Other - Specify:
<i>.50</i>	<i>.20</i>				<i>.70</i>		

Bank Erosion: Length of Continuous Bare Soil (nearest 0.01 m) within 1 m of stream

Left: *0* (m) Right: *0* (m)

% of Eroded Bank to the crest or within 5 m of stream edge

Left: *0* (%) Right: *0* (%)

Riparian Land Use: Percent (nearest 10%) of Bank within 5 m of stream edge, along transect Section Total Must = 100%

Cropland	Pasture	Barnyard	Developed	Meadow	Shrubs	Woodland	Wetland	Exposed Rock	Other - Specify:
							<i>100</i>		

Riparian Buffer Width: Length (nearest 1.0 m) of Undisturbed Land Uses along transect, within 10 m of stream

Left: *>10* (m) Right: *>10* (m)