

Instructions: **Bold** fields must be completed.

**Station Summary**

<b>Waterbody Name</b> CHRISTMAS CREEK	<b>Waterbody ID Code</b> 2158200	<b>Sample ID (YYYYMMDD-CY-FD)</b> 20191120-09-03
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<b>Sampling Location</b> DS culvert ~40m	<b>Database Key</b> 215849286
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<b>SWIMS Station ID</b> 10052894	<b>SWIMS Station Name</b> CHRISTMAS CREEK @ 360TH ST
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<b>Latitude</b>	<b>Longitude</b>	<b>Lat/Long Determination Method (circle)</b> SWIMS SWDV GPS	<b>Datum Used if using GPS</b> WGS84 or NAD83
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<b>Basin (WMU)</b> LOWER CHIPPEWA	<b>Watershed Name</b> UPPER YELLOW (TAYLOR CO.) RIVER	<b>County</b> CHIPPEWA
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**Sample and Site Descriptors**

<b>Sample Collector (Last Name, First)</b> Mycah Raleigh, Kristen Rathbun	<b>Project Name</b> LOTZ CREEK-YELLOW RIVER/PIKE CREEK TWA 2019
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**Sampling Device**

D-Frame Kick Net     
  Surber Sampler     
  Eckman  
 Ponar     
  Artificial Substrate     
  Hess Sampler     
  Other: \_\_\_\_\_

**Habitat Sampled**

Riffle     
  Run     
  Pool  
 Other     
  Shoreline Composite     
  Proportionally-Sampled Habitat  
 Littoral Zone     
  Profundal Zone     
  Wetland

<b>Total Sampling Time (min)</b> 1	<b>Estimated Area Sampled (m<sup>2</sup>)</b> 1	<b>Number of Samples in Composite</b> 1	<b>Replicate No.</b> 1 <b>of</b> 1
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**Reason For Sampling**

Least Impacted Reference     
  Baseline     
  Impact / Treatment Site  
 Control Site     
  Trend     
 Other: TWA

<b>Water Temp. (C)</b> 7.11°C	<b>D.O. (mg/l)</b>	<b>D.O. (% sat.)</b>	<b>pH (su)</b>	<b>Conductivity (umhos/cm)</b>	<b>Transparency (cm)</b>
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<b>Water Color</b> <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained	<b>Estimated Stream Velocity (m/s)</b> <input checked="" type="checkbox"/> Slow (< 0.15 m/s) <input type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input type="checkbox"/> Fast (> 0.5 m/s)
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<b>Measured Velocity</b> circle units m/s or f/s	<b>Average Stream Depth of reach (m)</b> .2	<b>Average Stream Width of reach (m)</b> 3
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**Composition of Substrate Sampled (Percent):**

Bedrock: \_\_\_\_\_     
 Boulders (basketball or larger): \_\_\_\_\_     
 Rubble (tennisball to basketball): 20     
 Gravel (ladybug to tennisball): 70  
 Sand: 10     
 Clay: \_\_\_\_\_     
 Silt/Muck: \_\_\_\_\_     
 Overhanging Vegetation: \_\_\_\_\_  
 Aquatic Macrophytes: \_\_\_\_\_     
 Leaf Snags: \_\_\_\_\_     
 Coarse Woody Debris: \_\_\_\_\_     
 Other ( ): \_\_\_\_\_

**Embeddedness of Substrate at Sample Site (%)** 5     
**Canopy Cover at Sample Site (%)** 30

**Stream and Watershed Descriptors**

N = Not a problem  
 U = Uncertain  
 PL = Present, Low Impact  
 PH = Present, High Impact

Factors that may be influencing Water Resource Integrity	Local	Water-shed	Factors that may be influencing Water Resource Integrity	Local	Water-shed
<b>Biological</b>			<b>Chemical</b>		
Algae: - Diatoms / Periphyton	N	U	Chlorine	U	U
- Filamentous Algae	N	U	Dissolved Oxygen	U	U
- Planktonic Algae	N	U	Nutrients (P, N...)	U	U
Iron Bacteria	N	U	Toxics: - Inorganic (Metals)	U	U
Macrophytes	N	U	- Organic (PCBs, pesticides...)	U	U
Slimes	N	U	Other - Specify:		
Other - Specify:			<b>Sources of Stream Impacts</b>		
			Bank Erosion	PL	U
			Point Source - Specify:		
<b>Physical</b>			Pasturing of Livestock	PL	U
Bank Erosion	PL	U	Runoff: - Barnyard	N	U
Channelization: - Upstream	N	N	- Construction	N	U
- Downstream	N	N	- Cropland	N	U
Hydraulic Scour / Channel Incision	N	N	- Urban	N	U
Impoundment: - Upstream	N	N	Septic Systems	U	U
- Downstream	N	N	Tile Drainage - Organic Soils	U	U
Low Flow	U	U	- Mineral Soils	U	U
Sedimentation	N	U	Springs	U	U
Sludge	N	U	Tributary(s)	U	U
Thermal	U	U	Wetland	PL	U
Turbidity	U	U	Other - Specify:		
Other - Specify:					

Comments Stream is 0.5m wide upstream of culvert and runs through wetlands. Completely frozen upstream at time of sample. Downstream of culvert, stream is 2.3m wide with evidence of some pasturing at some point earlier.

Special Instructions for Laboratory

43 IC = 43

3B = 41

IE = 59

TOTAL = 143

**For Lab Use Only**

Sample Sorter MURPHY STEINBERG	Taxonomist Dimitry Jeffrey	Estimated Percent of Sample Sorted 20%
Date Processed 2/3/2020	Specimens Saved Subsample archived in ABL until Apr 2023	

Taxa	Life Stage	Bench Tally	Count	Taxonomic Reference	Condition	Unique Taxon
<i>Aesopina macedunoughi</i>	L	1	1	Klob 2016		
<i>A. pygmaea</i>	L	1	1	"		
<i>Maccaffertium vicarium</i>	L	1	1	"		
Leptaphlebiidae	L	1	1	"	imm	N
<i>Leptaphlebia</i>	L	-1	6	"	imm	N
<i>L. cyrca</i>	L	III	4	"		
<i>Cheumatopsyche</i>	L	1	1	Hils 1995		
<i>Allocapnia</i>	L	-III	8	"		
<i>Optiosenus</i>	L	1	1	Hils Schm 1992	imm	
<i>Bezzia/palpenomyia</i>	L	1	1	Hils 1995		
Cyclopididae	A	1	1	Thorp Reg 2016		
<del>Split A3 Chironomidae</del>	<del>L</del>	<del>III</del>	<del>10</del>			
Chironomidae 08250000	L	1	1	Cant Merr 2008	mt in det	N
<i>Conchapelopia</i> 08270700	L	1	1	Cran Epl 2013		
Orthocladiinae 08300000	L	"	2	Cranston 2013	mt in det imm	N
<i>Corynoneura</i>	L	"	2	And + 3 2013		
<i>Diptocladius</i>	L	XIII	13	"		
<i>Hydrobaenus</i>	L	1	1	"		
<i>Orthocladius (Evoorthocladius)</i>	L	III	4	"		
<i>O. (Orthocladius)</i>	L	1	1	"		Y
<i>O. (O.) oliveri</i>	L	0II	22	Bolton 2012		
<i>Parametriocnemus</i>	L	XI	11	And + 3 2013		
<i>Thienemanniella</i>	L	-1	6	"	imm	N
<i>Th. xena</i>	L	-	5	Bolton 2012		
Chironominae 08330000	L	1	1	Cranston 2013	dam	N
<i>Cladotanytarsus</i>	L	1	1	Epl et al 2013		
<i>Cryptochironomus</i>	L	1	1	"		
<i>Paratendipes</i>	L	"	2	"		
<i>Polypedilum</i>	L	III	4	"	mt in det imm	N
<i>P. (Polypedilum) illinoense group</i>	L	"	2	Bolton 2012		
<i>P. (Unresipidilum) flavum</i>	L	1	1	"		
<i>Znootanytarsus</i>	L	-III	8	Epl et al 2013		
<i>Stempellinella</i>	L	"	2	"		
<i>Tanytarsus</i>	L	0I	21	"		