

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

Station Summary			
Waterbody Name HAY CREEK		Waterbody ID Code 2151500	Sample ID (YYYYMMDD-CY-FD) 20171031-09-04
Sampling Location US bridge ~150m		Database Key 150431326	
SWIMS Station ID 10011032		SWIMS Station Name HAY CREEK - HAY CREEK 3 HABLE PROPERTY	
Latitude	Longitude	Lat/Long Determination Method (circle) SWIMS SWDV GPS	Datum Used if using GPS WGS84 or NAD83
Basin (WMU) LOWER CHIPPEWA		Watershed Name DUNCAN CREEK	County CHIPPEWA

Sample and Site Descriptors	
Sample Collector (Last Name, First) MYCAL RALEIGH	Project Name WEST DISTRICT NC STREAM STRATIFIED SITES 2017

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

Total Sampling Time (min) 1/2 min (30 sec)	Estimated Area Sampled (m ²) 1m ²	Number of Samples in Composite 1	Replicate No. <u>1</u> of <u>1</u>
---	---	-------------------------------------	------------------------------------

Reason For Sampling

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

Water Temp. (C)	D.O. (mg/l)	D.O. (%sat.)	pH (su)	Conductivity (umhos/cm)	Transparency (cm)
-----------------	-------------	--------------	---------	-------------------------	-------------------

Water Color <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained	Estimated Stream Velocity (m/s) <input type="checkbox"/> Slow (< 0.15 m/s) <input checked="" type="checkbox"/> Moderate (0.15 m/s - 0.5 m/s) <input type="checkbox"/> Fast (> 0.5 m/s)
---	---

Measured Velocity circle units m/s or f/s	Average Stream Depth of reach (m) .25	Average Stream Width of reach (m) 4.5m
---	--	---

Composition of Substrate Sampled (Percent):

Bedrock: _____ Boulders (basketball or larger): 5 Rubble (tennisball to basketball): 35 Gravel (ladybug to tennisball): 50
 Sand: 5 Clay: _____ Silt/Muck: _____ Overhanging Vegetation: 5
 Aquatic Macrophytes: _____ Leaf Snags: _____ Coarse Woody Debris: _____ Other (____): _____

Embeddedness of Substrate at Sample Site (%) 5 Canopy Cover at Sample Site (%) 0

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			Factors that may be influencing Water Resource Integrity		
	Local	Water-shed		Local	Water-shed
Biological			Chemical		
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:			Sources of Stream Impacts		
			Bank Erosion	N	U
Physical			Point Source - Specify:		
Bank Erosion	N	U	Pasturing of Livestock	N	U
Channelization: - Upstream	N	U	Runoff: - Barnyard	N	U
- Downstream	N	U	- Construction	N	U
Hydraulic Scour / Channel Incision	N	U	- Cropland	PL	U
Impoundment: - Upstream	N	U	- Urban	N	U
- Downstream	N	U	Septic Systems	U	U
Low Flow	N	U	Tile Drainage - Organic Soils	U	U
Sedimentation	PL	U	- Mineral Soils	U	U
Sludge	N	U	Springs	U	U
Thermal	N	U	Tributary(s)	U	U
Turbidity	N	U	Wetland	U	U
Other - Specify:			Other - Specify:		

Comments Most of stream is deep runs/pools with large amounts of aquatic veg. R little
 sample consisted of few boulders, cobbles, gravel, sand and overhanging veg.
 Cropland all around stream, but well buffered. Most of substrate is sand/silt

Special Instructions for Laboratory

For Lab Use Only

Sample Sorter <i>Karlowicz</i>	Taxonomist <i>Dimick Jeffrey</i>	Estimated Percent of Sample Sorted <i>70%</i>
Date Processed <i>8/15/18</i>	Specimens Saved <i>Subsample archived in OBL until Dec 2021</i>	

BD = 128

Taxa	Life Stage	Bench Tally	Count	Taxonomic Reference	Condition	Unique Taxon
<i>Amphitemysa</i>	L	III	4	Hils 1985	imm	
<i>Podostoma</i>	L	I	1	"	imm	
<i>Isopoda</i>	L	"	2	"	imm	N
<i>I. glossonae</i>	L	I	1	Hils 1982		
<i>I. transmarina</i>	L	-III	9	"		
<i>Trematodyx</i>	L	XIII	14	Hils 1985	imm	
<i>Ephemera</i>	L	I	1	Klob 2016	imm	N
<i>E. excavans</i>	L	"	2	"		
<i>Stenonema</i>	L	I	1	"		
<i>Maccaffertium vicarium</i>	L	I	1	"		
<i>Brachycentrus americanus</i>	L	III	4	Hils 1985		
<i>B. occidentalis</i>	L	I	1	"		
<i>Cnemidopyche</i>	L	-	5	Hils 1985		
<i>Hydropsyche</i>	L	I	1	"	imm	
<i>Ceratopsyche glossonae</i>	L	IV	3	Schm Hils 1986		
<i>Nesobryx</i>	L	I	1	Hils 1985	imm	
<i>Oligoneurus</i>	L	III	4	Hils Schm 1982	imm	N
<i>O. fastiditus</i>	L	II	2	"		
<i>Simulium vittatum</i> species complex 08110218	L	III	3	Adl et al 2004		
<i>Dicranota</i>	L	II	2	Hils 1985		
<i>Tupia</i>	L	II	2	"		
<i>Caecidota racovitzae racovitzae</i>	A	X-II	17	Will 1972		
<i>Mermithidae</i>	A	I	1	Thorp Fog 2016	imm	
<i>Dugesiiidae</i>	A	I	1	"		
<i>Naididae</i>	A	I	1	Bronk 1991		
<i>Tubificonae</i> (without hairs)	A	I	1	Klemm 1985		
<i>Pisidium</i>	A	I	1	Burch 1972		
<i>Spitt A3 Chironomidae</i>	L	I	1			
<i>Tanyptera</i> 06270000	L	I	1	Cranston 2013	imm	N
<i>Conchapelona</i>	L	III	3	Cranston 2013		
<i>Diamasa</i>	L	I	1	Seethaler 2013		
<i>Ditrichidae</i> 06300000	L	I	1	Cranston 2013	mt det	N
<i>Eukiefferiella claripennis</i> group	L	I	1	Order+3 2013		
<i>Parametaneumus</i>	L	III	4	"		
<i>Thienemanniella</i>	L	I	1	"	imm	
<i>Nanocladius</i>	L	I	1	"	imm	

> 3 taxa, TVAL ≤ 2.0

32 > (0.1 x III)

