

Instructions: Bold fields must be completed.

Station Summary			
Waterbody Name RUSH RIVER		Waterbody ID Code 2440300	Sample ID (YYYYMMDD-CY-FD) 20171115-56-01
Sampling Location DS of bridge 1110m, past Deaver dams			Database Key 151068289
SWIMS Station ID 10008921		SWIMS Station Name 19 - RUSH RIVER - 18TH AVE. [19]	
Latitude	Longitude	Lat/Long Determination Method (circle) SWIMS SWDV GPS	Datum Used if using GPS WGS84 or NAD83
Basin (WMU) LOWER CHIPPEWA		Watershed Name RUSH RIVER	County SAINT CROIX

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) 0.5 min (30s)	Estimated Area Sampled (m <sup>2</sup> ) 1m <sup>2</sup>	Number of Samples in Composite 1	Replicate No. <u>1</u> of <u>1</u>
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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)
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Water Color <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Stained	Estimated Stream Velocity (m/s) <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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Measured Velocity circle units m/s or f/s	Average Stream Depth of reach (m) 15	Average Stream Width of reach (m) 4m
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Composition of Substrate Sampled (Percent):

Bedrock: \_\_\_\_\_ Boulders (basketball or larger): \_\_\_\_\_ Rubble (tennisball to basketball): 20 Gravel (ladybug to tennisball): 80  
 Sand: \_\_\_\_\_ Clay: \_\_\_\_\_ Silt/Muck: \_\_\_\_\_ Overhanging Vegetation: \_\_\_\_\_  
 Aquatic Macrophytes: \_\_\_\_\_ Leaf Snags: \_\_\_\_\_ Coarse Woody Debris: \_\_\_\_\_ Other (\_\_\_\_): \_\_\_\_\_

Embeddedness of Substrate at Sample Site (%) 0      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	
<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	N	U
			Point Source - Specify: <i>Beavers</i>	PH	U
			Pasturing of Livestock	PL	U
			Runoff: - Barnyard	N	U
			- Construction	N	U
			- Cropland	PL	U
			- Urban	N	U
			Septic Systems	U	U
			Tile Drainage - Organic Soils	U	U
			- Mineral Soils	U	U
			Springs	U	U
			Tributary(s)	PL	U
			Wetland	U	U
			Other - Specify:		
<b>Physical</b>					
Bank Erosion	N	U			
Channelization: - Upstream	N	U			
- Downstream	N	U			
Hydraulic Scour / Channel Incision	N	U			
Impoundment: - Upstream	N	U			
- Downstream	N	U			
Low Flow	N	U			
Sedimentation	PL	U			
Sludge	N	U			
Thermal	U	U			
Turbidity	PL	U			
Other - Specify:					

Comments Upstream of beaver dams, stream has very slow velocity and has areas of heavy sedimentation. Water has slightly turbid appearance above dams, but DS of dams, water clarity is clear, more velocity and exposed gravel/rubble. Good woodland buffer on both sides (WB-10+m) then cropland and pastures.

Special Instructions for Laboratory

For Lab Use Only		
Sample Sorter <i>Kayla Wilcox</i>	Taxonomist <i>Dimick Ledwith</i>	Estimated Percent of Sample Sorted <i>70%</i>
Date Processed <i>8/16/18</i>	Specimens Saved <i>Subsample archived in ABI until Dec 2021</i>	

*BI-128*

