



**MINNESOTA DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF FISH AND WILDLIFE**  
**STREAM ASSESSMENT REPORT**

Region	Area	Stream Name	Tributary No.	Stream Length
3	Lake City	Mazeppa Creek	M-34-49-1	7.9 miles
County			Source (T, R, S)	Mouth (T, R, S)
Wabasha, Goodhue			110N15W25	109N14W9

**Date(s) of Assessment:** September 16, 2014

**Assessment Purpose:** Fish population assessment in recently acquired angler access easement.

Station	Similar Reach	Stream Mile	Length (ft)	Mean Width (ft)	Acres	Water Temp (°F)	Air Temp (°F)	Downstream UTM's	
								utm <sub>x</sub> (↔)	utm <sub>y</sub> (↓)
1.5	1	1.5	900	30	0.61			539558	4901383

**Summary:**

Station 1.5 runs alongside Wabasha County 7 and through a horse/cattle pasture on the property of Dennis Post. It connects to the North Fork of the Zumbro River just downstream. An angling easement was acquired on this property by MNDNR in 2014. Only one electrofishing run was completed due to equipment failure. Using a minimum estimate approach, there were 141 adult Brown Trout/mile. The size structure of Brown Trout was excellent, with 88/mile  $\geq$  12 inches, 35/mile  $\geq$  14 inches, and 18/mile  $\geq$  16 inches. There were an estimated 18 recruit Brown Trout/mile. Brook Trout were not sampled in this survey but have been found in upstream portions of Mazeppa Creek.

Several warmwater species were sampled in this reach of Mazeppa Creek. The resulting low IBI score of 20 and MSHA score of 50.4 are indicative of a degraded coldwater reach of stream. This reach is very wide, braided, and sandy. However, wherever there is good cover, there are large Brown Trout present.

**Fishery Characteristics – Population Estimates**

Station: 1.5      Date: 9/16/2014      Gear: Stream Shocking Barge      Method: One Pass Electrofishing      Station length (ft): 900

<b>Brown Trout</b>			
In Station			
	Recruits	Adults	Total
n	3	24	27
95% CI	0.00	0.00	
Per Mile			
	Recruits	Adults	Total
n	18	141	158
	≥ 12 inches	≥ 14 inches	≥ 16 inches
n	88	35	18
95% CI	0.00	0.00	0.00
Per Acre			
	Recruits	Adults	Total
n	5	39	44
lbs	--	--	--

Length (in)	Brook Trout	Brown Trout	White Sucker
1			
2			
3			
4		1	
5		2	
6			
7		1	
8			
9		1	
10		1	
11		6	
12		7	
13		2	
14		2	
15		1	
16		2	
17		1	
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30+			
<b>Total</b>	0	27	0

**Other Species Sampled:**

Common Name	Number Sampled
White Sucker	44
Longnose Dace	23
Central Stoneroller	16
Blacknose Dace	13
Common Shiner	6
Creek Chub	4
Northern Hogsucker	1
American Brook Lamprey	1

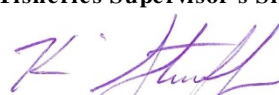
**Coldwater Index of Biotic Integrity (Mundahl and Simon 1998)**

Total Captured	135
Number of Species (10)	9 (5)
Number of Coldwater Species (10)	2 (5)
Number of Minnow Species (10)	5 (0)
Number of Benthic Species (10)	3 (0)
Number of Tolerant Species (10)	3 (5)
Percent Salmonids as Brook Trout (10)	0 (0)
Percent Intolerant Individuals (10)	1.48 (0)
Percent Coldwater Individuals (10)	20.74 (0)
Percent White Suckers (10)	32.59 (0)
Percent Top Carnivores (10)	20 (0)
Number of Coldwater Individuals per 150m (10)	15.31 (0)
Number of Warmwater Individuals per 150m (10)	58.5 (5)
<b>TOTAL IBI SCORE (120 maximum)</b>	<b>20</b>
Percent of maximum score:	16.67%

**Stream Characteristics – Minnesota Stream Habitat Assessment (MSHA)**

<b>MSHA Metric</b>	<b>Component score maximum</b>	<b>Component score</b>
Surrounding Land Use	5	2
Riparian Zone	15	6.5
Instream Zone - Substrate	27	12.9
Instream Zone - Cover	17	10
Channel Morphology	36	19
	100	<b>MSHA Score</b> (Max = 100) <b>50.4</b>

**Credits and Signatures:**

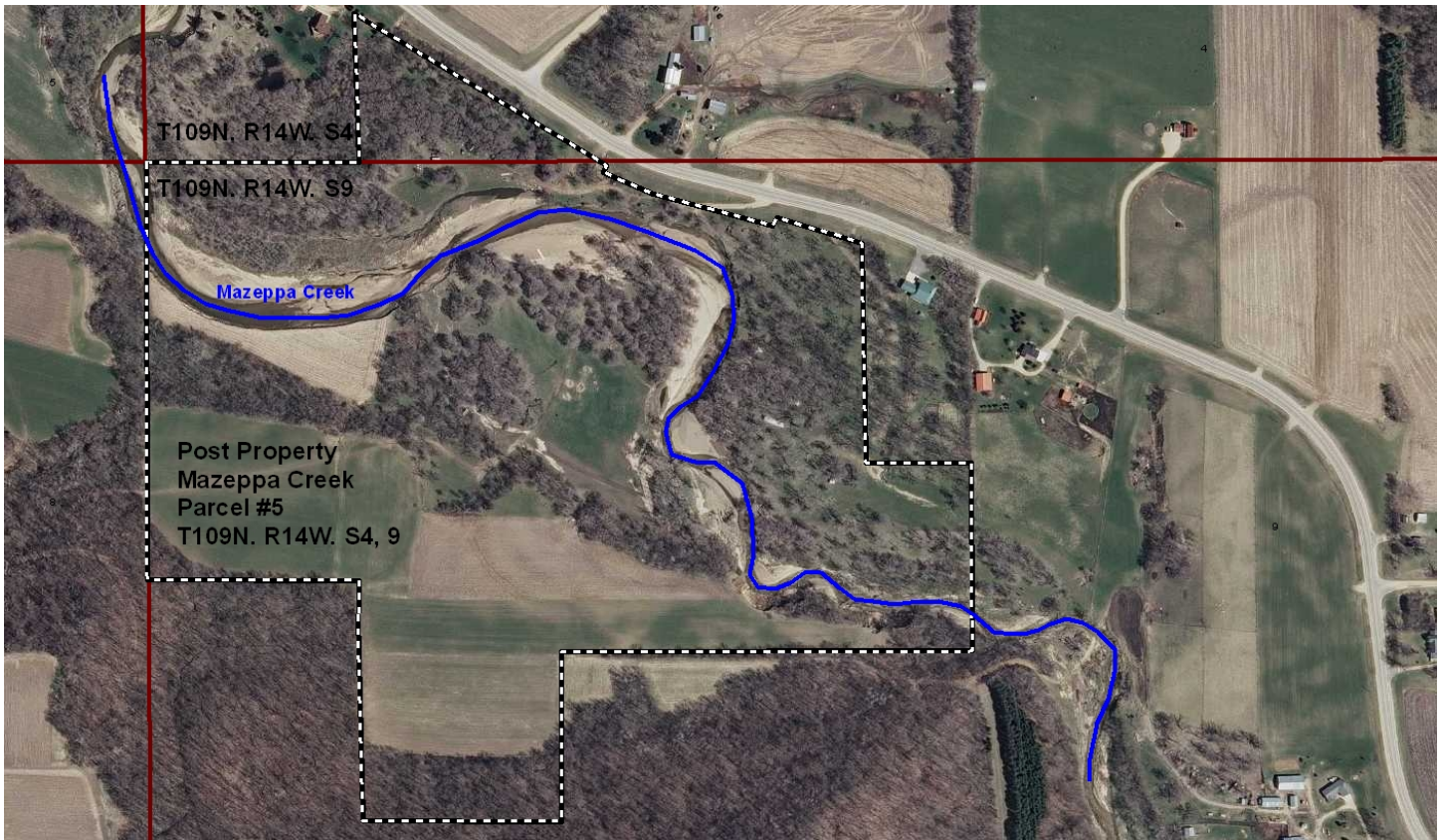
<b>Field Crew:</b>		
Randy Binder, Cal Oldenburg, Daniel Spence		
<b>Report completed by:</b>		
<b>Name:</b>	<b>Title:</b>	<b>Date:</b>
Daniel Spence	Fisheries Specialist	1/7/2015
<b>Approved by:</b>		
<b>Area Fisheries Supervisor's Signature</b>	<b>Regional Fisheries Manager's Signature</b>	<b>Date:</b>
		

**References**

Fisheries Stream Survey Manual. 2007. Special Publication No. 165. Minnesota Department of Natural Resources.



Mundahl, N.D., and T.P. Simon. 1998. Development and application of an index of biotic integrity for coldwater streams of the upper Midwestern United States. Pages 383-415 In Thomas P. Simon (ed.). Assessing the Sustainability and Biological Integrity of Water Resources Using Fish Communities. CRC Press, Boca Raton, Florida.

Map of Dennis Post property where an easement was purchased on Mazeppa Creek.



Stream: Mazeppa Creek  
Tributary: M-34-49-1  
Survey Year: 2014

**Credits and Signatures:**

<b>Field Crew:</b>		
Randy Binder, Cal Oldenburg, Daniel Spence		
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		4-14-15

**References**

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