



# FISHERIES & HABITAT MANAGEMENT REPORT Little Elk Creek, Dunn Co., 2004

## Stream Description and Management:

Little Elk Creek (T27N, R13W, Section 27) is a moderate to high gradient, cold to cool water stream, approximately 8 miles long, located just south of Menomonie, Wisconsin. The watershed is predominately farmland with wetlands in the headwater region. Little Elk Creek is currently not listed as trout water, although native brook were found throughout the system. Trout regulations are Category 4 (the bag limit is three, the minimum length limit for brook trout is eight inches and brown trout is 12 inches). The Department of Natural Resources recently surveyed Little Elk Creek in order to obtain baseline fisheries data to determine the status and health of the fishery.

## The Fish and Habitat Conditions:

Six species of fish were collected from three sampling sites (**Figure 1 & Table 1**). Little Elk Creek is best characterized as a cool to coldwater stream. Wild brook trout were found throughout the stream.

The Coldwater and Warmwater Index of Biotic Integrity is a ranking system used to evaluate the health or quality of the native coldwater or warmwater fish community. Little Elk Creek ranked “Good” to “Excellent”.

The Habitat Rating System provides a measure of habitat quality and/or quantity available for fish to utilize within a stream. Little Elk Creek habitat ranked “Poor to Fair”. Heavy bank erosion and fine sediments were the primary limiting factors throughout most of the stream.

Optimal water temperature for growth and survival of brook trout ranges from 51.8 to 60.8 °F. The upper limiting (near lethal) water temperature is 74.8 °F. Mean, maximum and minimum summer water temperatures at Site 1 on Little Elk Creek are 56.5 F, 66.9 F and 49.6 F respectively. Water temperature for brook trout survival and natural reproduction is not considered a limiting factor in most of Little Elk Creek.

## The Sport Fishery:

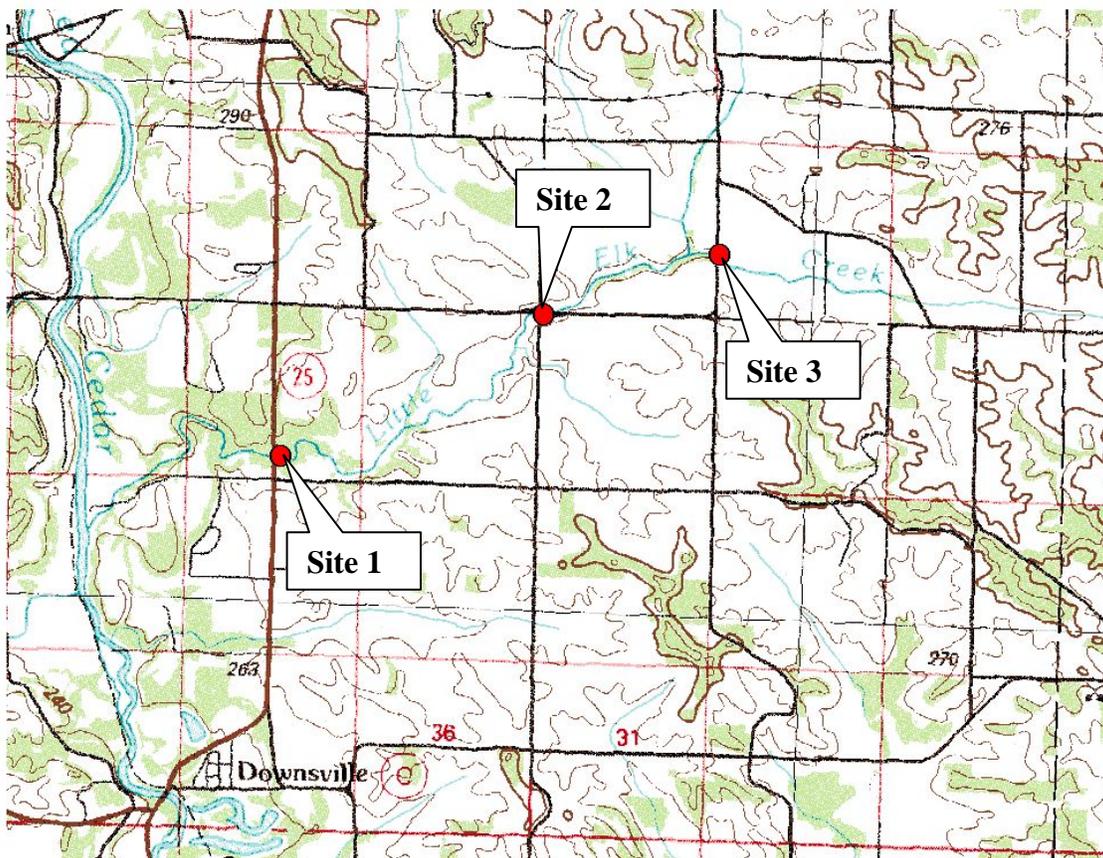
Trout abundance (Catch per Unit Effort or C.P.U.E.), expressed, as number of trout per mile of stream is a simple quantitative measurement of trout density. Trout densities of 250 - 1500 per mile are considered “Moderate” in western Wisconsin. Little Elk Creek contains “Low” to “Moderate” densities (80 to 662 trout/mi.) of native brook trout (**Table 2**). The size structure of Little Elk Creek’s trout population is composed of at least three year classes. Young-of-year trout are present at all three sites. Fishable populations of legal sized brook trout are limited by poor habitat, particularly heavy bedloads of sand.

Fishing pressure on Little Elk Creek is believed to be extremely “Light” or nonexistent throughout most of the year.

## Future Management:

Little Elk Creek contains a low to moderately dense, native brook trout fishery. Natural reproduction of trout is impaired by poor habitat. Heavy sand loads from erosion cover spawning gravel and limit adult trout cover or pools. Habitat is severely impaired by sedimentation from bank erosion and intense farming practices. Narrow vegetative buffers have done little to eliminate this problem. Agricultural best management practices are needed in the area to reduce stream sedimentation and allow good habitat to develop. The department should manage Little Elk Creek as a native brook trout fishery and classify the entire stream as Class II trout water (7.6 miles).

Figure 1. Fish and Habitat Survey Sites on Trout Creek, Dunn and Chippewa Counties.



**For more information on Little Elk Creek you can contact the following person:**

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Table 1. Relative Abundance of Fish Species Found in Little Elk Creek, Dunn Co., 2004.

Species	Site 1	Site 2	Site 3
	191 m	166 m	100 m
Ammocete Lamprey	5	3	
Blacknose Dace		35	
Brook Stickleback		4	
Brook Trout	79	21	5
Creek Chub		1	
Mottled Sculpin	4		

Table 2. Length Distribution of Trout Found in Little Elk Creek, Dunn Co., 2004.

Length (in.)	Site 1	Site 2	Site 3
	191 m	166 m	100 m
1			
2	5	1	2
3	60	9	2
4	2		
5			
6			
7			1
8	5	5	
9	6	3	
10		2	
11	1		
12		1	
13			
14			