Water Resource Conditions

The Kickapoo River has a marginal warmwater sport fishery consisting of smallmouth bass, channel catfish, northern pike and panfish. The stream also has some brown trout and numerous rough and forage species. The 1990 fish survey found 16 brown trout (9.5 - 25 inches in length) and 7 forage species in the Kickapoo River. Most of the trout were found in pools below the confluence with major tributaries.

The Kickapoo primarily has a shifting sand substrate with some rubble near bridge abutments. The river experiences severe annual flooding which causes extensive erosion of the streambank and channel, and sedimentation of pools and riffles. The river streamflow Q7,2(*) is 28 cubic feet per second at Ontario and 77 cubic feet per second at LaFarge, and Q7,10(**) is 21 cubic feet per second at Ontario and 63 cubic feet per second at LaFarge.

Water resource problems in the Kickapoo River include flooding, streambank and channel erosion, sedimentation of pools and riffles, lack of suitable fish habitat and organic and bacterial loading from livestock waste. Bacteriological sampling conducted in 1990 found fecal coliform levels frequently above 400 colonies/100 ml, which is the water quality standard for body contact recreational use (table 3-6). Bacteria levels were generally higher at the upstream end of the watershed in Ontario than downstream at LaFarge. It is evident that the river receives considerable bacterial loading from the upstream watershed.

table 3-6. Kickapoo River 1990 Bacteriological Sampling Results

Sample Site	Date	Fecal Coliform Colonies/100mL	Fecal Streptococci Colonies/100mL
Ontario STH 33 Bridge	6/19/90	4300	610
	7/17/90	1400	90
	7/31/90	5700	380
	8/15/90	1100	---
	8/28/90	190	250
	9/11/90	8200	370
	9/25/90	740	50
	10/9/90	660	90
		Mean = 2786	Mean = 263
LaFarge STH 82 Bridge	6/12/90	380	60
	7/11/90	780	320
	7/24/90	300	210
	8/07/90	3000	750
	9/06/90	220	50
	10/9/90	140	80
		Mean = 803	Mean = 245

Water Resource Objectives

The following water resource management objectives are recommended for the Kickapoo River and all subwatersheds in the Middle Kickapoo River Priority Watershed:

1. Improve warmwater fishery habitat in the Kickapoo River by reducing sediment and organic loading from subwatershed streams.

2. Reduce fecal coliform bacteria levels in the Kickapoo River to provide a more favorable environment for recreational users.

Pollutants from Nonpoint Sources

Eroding and Trampled Streambanks (sediment and direct habitat impairment)

Streambank erosion along the Kickapoo River accounts for 25% of the total sediment loading from streambanks in the watershed. This erosion causes a significant water quality impact as well as a detrimental effect on the recreational and aesthetic value of the river. Much of this erosion occurs on public lands managed by the U.S. Army Corps of Engineers.

All other nonpoint sources along the Kickapoo River were inventoried as a part of adjacent subwatershed inventories.

(*) Q7,2 is the annual minimum 7-day mean flow below which the flow will fall on the average of once in 2 years.

(**) Q7,10 is the annual minimum 7-day mean flow below which the flow will fall on the average of once in 10 years.

Bear Creek Subwatershed (BE)

Subwatershed Description

The Bear Creek subwatershed drains an area of 22.9 square miles and is divided into 4 streams; North Bear Creek, Middle Bear Creek, South Bear Creek and Bear Creek (see map 2). North Bear Creek and South Bear Creek join together to form Bear Creek near the junction of Highway 82 and County Highway D. Bear Creek flows from that point until it empties into the Kickapoo River near the Highway 131 bridge south of LaFarge. Middle Bear Creek is a tributary of South Bear Creek.