CROOKED RIVER

WATERSHED

INVENTORY AND ASSESSMENT

This information is based on the

Crooked River Watershed Inventory and Assessment

prepared by

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EXECUTIVE SUMMARY

The Crooked River is a sixth order river located east of Kansas City, Missouri. The Crooked River originates north of Lawson, Missouri and flows southeastward for about 70 miles where it empties into the Missouri River south of Hardin, Missouri. The watershed drains 335 square miles. The Crooked River basin lies near the transition area between the glaciated plains and the Osage plains. The average

annual discharge for the Crooked River measured at Richmond, Missouri (48% of the basin) is 99 cubic feet per second. There are 59 third order and larger streams within the basin. Major tributaries of the Crooked River are East Fork Crooked River and West Fork Crooked River. Drainages in the lower two-thirds of the basin are turbid and silt laden. Drainages in the upper third of the basin are rocky and clear.

The basin is rural with Richmond (population 5,738; 1990 U.S. Census) being the largest city in the watershed. Population in the basin is growing as Kansas City suburbs expand. Land use in the basin is dominated by agriculture. Only one percent (2,182 acres) of the watershed is in public ownership.

Water quality is affected by soil erosion, sediment deposition, turbidity, nutrients, and periodic low dissolved oxygen concentrations. The majority of livestock have access to streams in the basin potentially increasing bank erosion and nutrient levels. Coal was mined from the 1870's to the 1950's. Most of the basin is underlain by the Lexington coal field and may be mined again in the future. These non-point sources of pollution are the major threat to the diversity and abundance of aquatic fauna. Less channelization has occurred in the basin, when compared with other basins in Northwest Missouri. Point source pollution concerns come from wastewater treatment facilities located near the communities of Lawson, Richmond and Polo. Increasing numbers of confined animal feeding operations are a new threat to basin streams.

Forty species of fish have been collected in the basin from 1941 to 1998. Topeka shiners were collected in 1965, but not in 1995 or 1998 samples and are assumed to have been extirpated from the Crooked River basin. In recent surveys, wide ranging, tolerant species were the most commonly sampled fish, with minnows from the Cyprinidae family the most prevalent. Statewide creel surveys from 1969 indicated that common carp, bullhead and channel catfish are the most frequently harvested fish. Recent angler and creel surveys for the Crooked River basin are lacking.

Private ownership accounts for 99% of basin lands, making private landowners the critical link in improving stream habitat and water quality. The main objective is to increase public awareness and responsibility in improving the stream resources within the basin. This would allow the goals in this plan to be met. The main goals are: Improve water quality and quantity, improve riparian and aquatic habitats, maintain diverse and abundant populations of native aquatic organisms, meet angler demand for quality fishing, increase public appreciation for stream resources and increase recreational use.