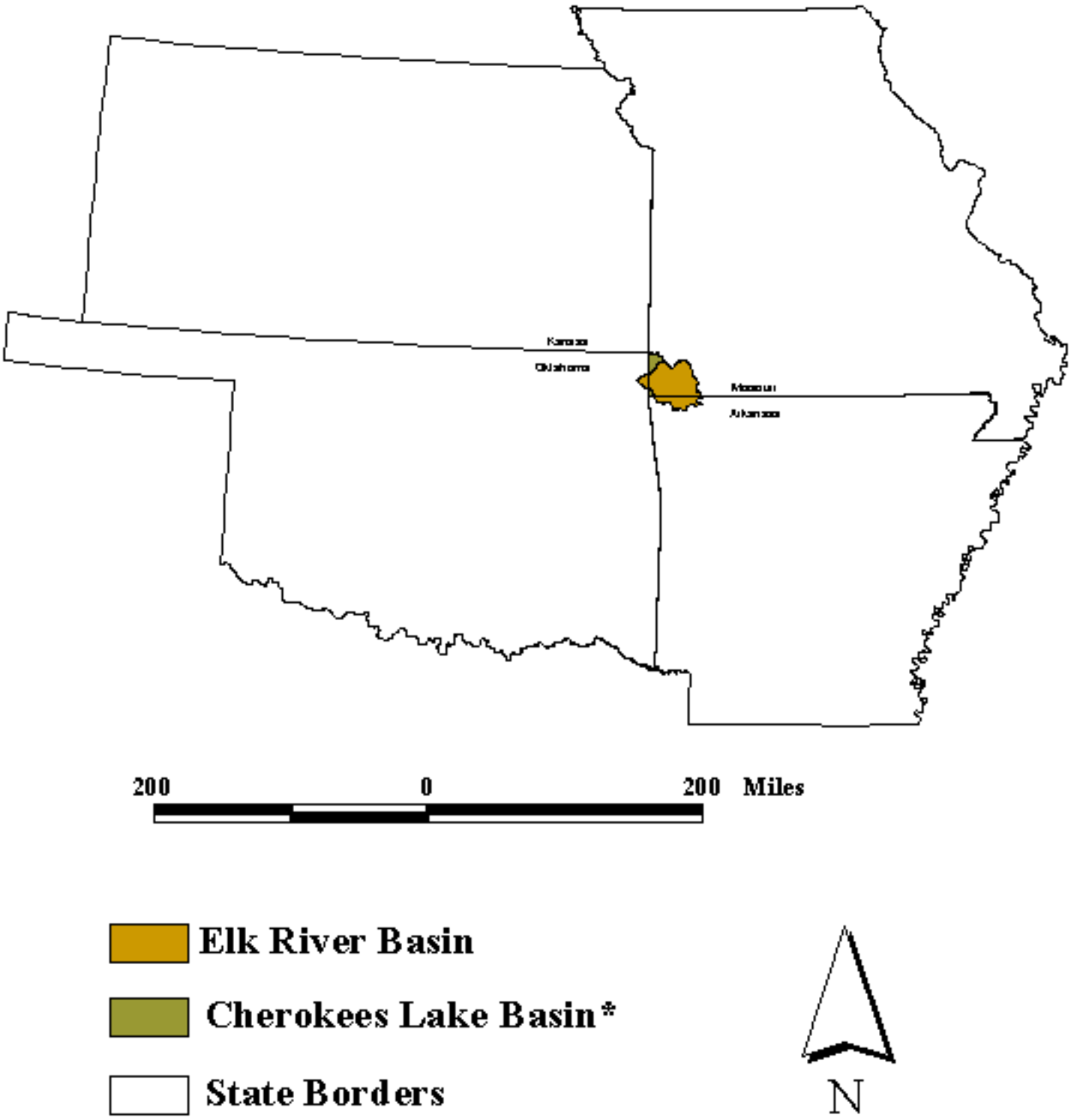
LOCATION

The Elk River watershed (basin) encompasses 1,032 square miles in area (U.S. Environmental Protection Agency website, 1999) of which 866 square miles are in southwest Missouri (MDNR 1985). The basin runs in a westerly direction. It is bound to the east by the James River basin and the White River basin, bound on the north by the Shoal Creek and the Spring River basins (MDNR 1986), and bound on the south and west by the Cherokees Lake basin (U.S. Environmental Protection Agency website, 1999). The Elk River basin is part of the Arkansas-White-Red River basin (MDNR 1986). The largest municipalities which are partially or entirely within the basin are Bentonville (AR), Sulphur Springs (AR), Noel (MO), Anderson (MO), Goodman (MO), and Neosho (MO) (U.S. Environmental Protection Agency website, 1999). Counties that are included in the basin are Benton County in Arkansas, Crawford County in Kansas, Barry, McDonald, and Newton counties in Missouri, and Delaware and Ottawa counties in Oklahoma (U.S. Environmental Protection Agency website, 1999). Population in the Elk River basin in Missouri is about 27,760 (21,100 in Elk River basin, 6,660 in Lost Creek sub-basin) (DuCharme and Miller 1996). The basin is subject to intense water-based recreational use in the warmer months. Intensive animal based agriculture and poor land use are the primary water quality related problems in the watershed.

The Elk River basin takes in the corners of four states, northwest Arkansas, southwest Missouri, southeast Kansas, and northeast Oklahoma (Figure 1). The flow in the basin is westerly. The headwaters originate in several locations including Little Sugar Creek near Rogers, Arkansas, Big Sugar Creek near Seligman, Missouri, and Indian Creek near Fairview, Missouri. Big Sugar Creek and Little Sugar Creek join to form the Elk River near Pineville, Missouri, from which it flows west, terminating in Grand Lake O' the Cherokees in Oklahoma. The Elk River basin, for the purposes of this watershed inventory and assessment, will include two small stream systems (Honey Creek and Lost Creek) that are part of the Cherokees Lake Basin. Figure 2 shows how the Cherokees Lake basin and Elk River basin join. Whenever possible in this document, maps and information for the Elk River basin include Honey Creek and Lost Creek in addition to the streams of the Elk River system. There are only small reaches of these streams in Missouri and the information for the Elk River basin is applicable to them. Portions of Honey Creek, Butler Creek, Little Sugar Creek, and Big Sugar Creek flow into Missouri from Arkansas. Figure 3 demonstrates how the sub-basins are delineated and fit together to form the Elk River basin in Missouri. Figure 4 displays major streams in the Elk River basin. The Elk River basin as outlined drains all of McDonald County (540 sq mi), 38% of Newton County (237 sq. mi.) and 11% of Barry County (89 sq. mi.) in southwest Missouri (MDNR 1986).

There are a number of communities partially or entirely within the Elk River basin (Figure 5). The largest city in the Elk River basin is Bentonville, Arkansas. Neosho is the largest city in the basin in Missouri. Other communities in the Missouri portion of the Elk River basin are Seneca, Stark City, Fairview, Wheaton, Stella, Goodman, Anderson, Lanagan, Pineville, Washburn, Seligman, Noel, and Southwest City. Arkansas communities found in the basin are Sulphur Springs, Bella Vista, Gravette, Pea Ridge, Garfield, Avoca, Little Flock City, Centerton, and the northern edge of Rogers. Several of these communities are only partially within the confines of the Elk River basin. The major roadways found in the Missouri portion of the basin are U.S. Highway 71 and Missouri state highways 43, 59, 76, and 90 (Figure 6). Many other smaller state and county roadways allow access to most parts of the basin.

Figure 1. Elk River basin location.



* - Portions in Missouri included in the Elk River basin plan

Figure 2. USGS eight digit hydrologic units that are used in the Elk River Watershed Inventory and Assessment

State Borders

Cherokees Lake Basin

Elk River Basin

N

Figure 3. Eleven digit hydrologic units that make up the Elk River basin in Missouri.

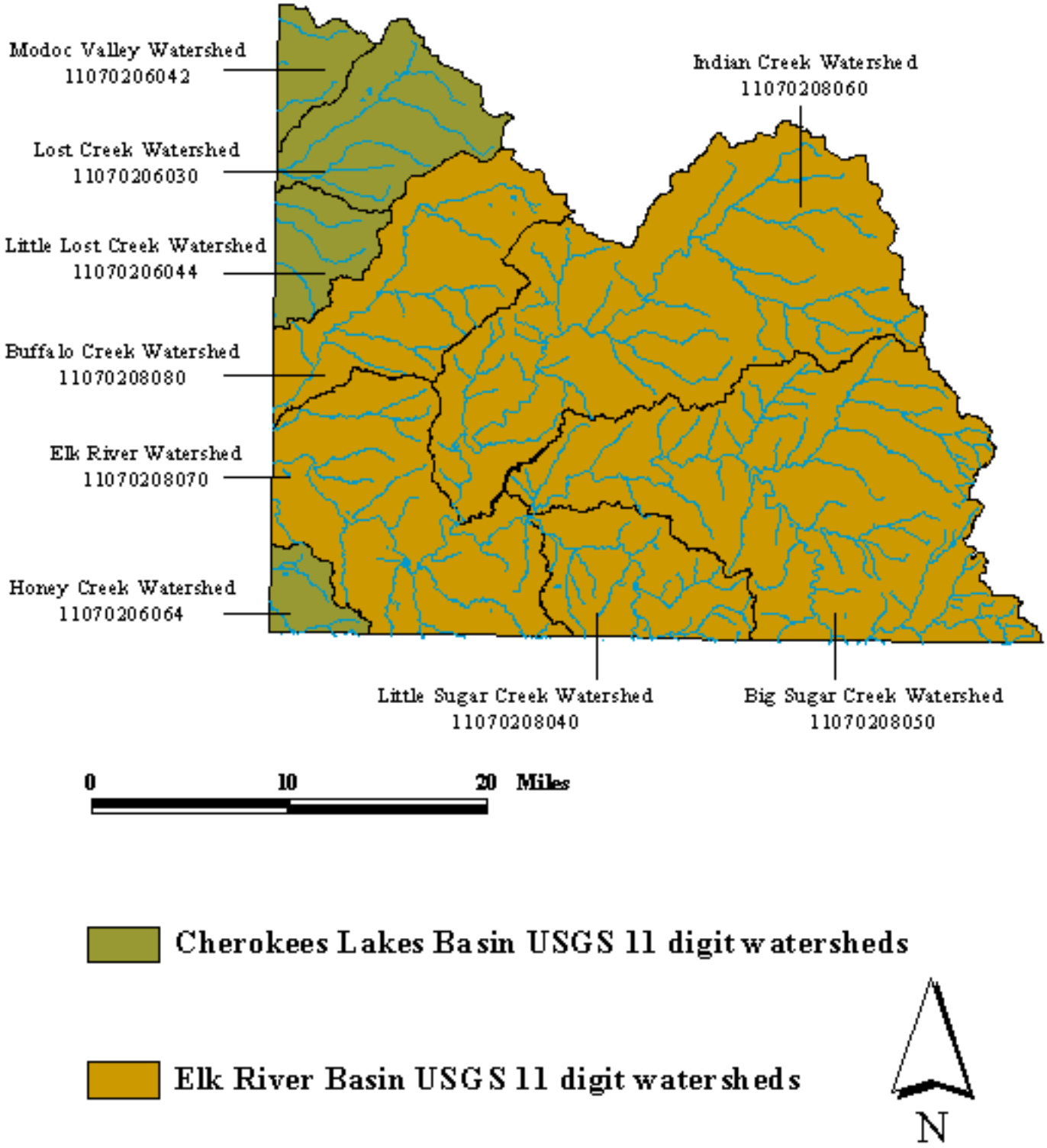


Figure 4. Major Streams in the Elk River basin.

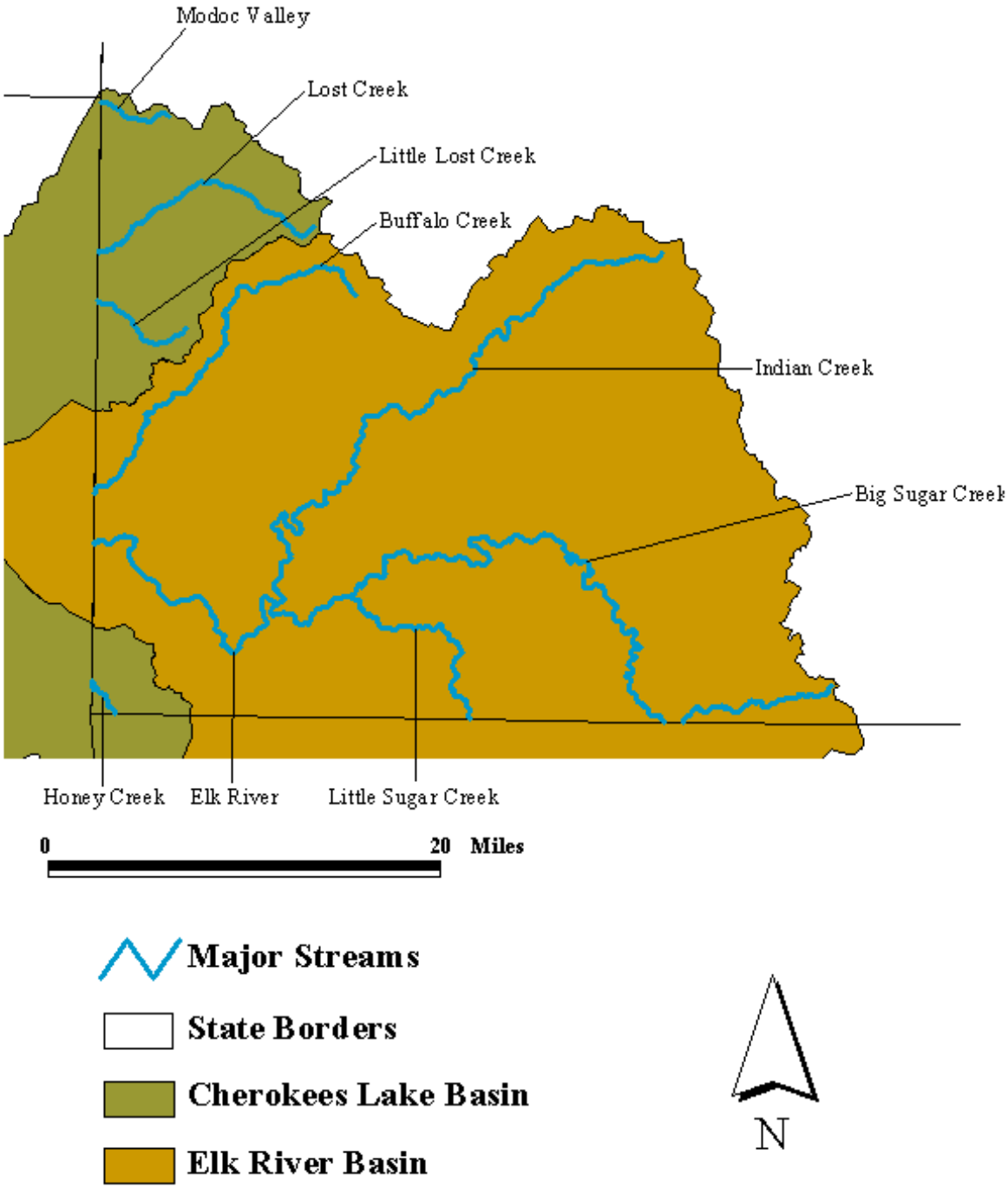
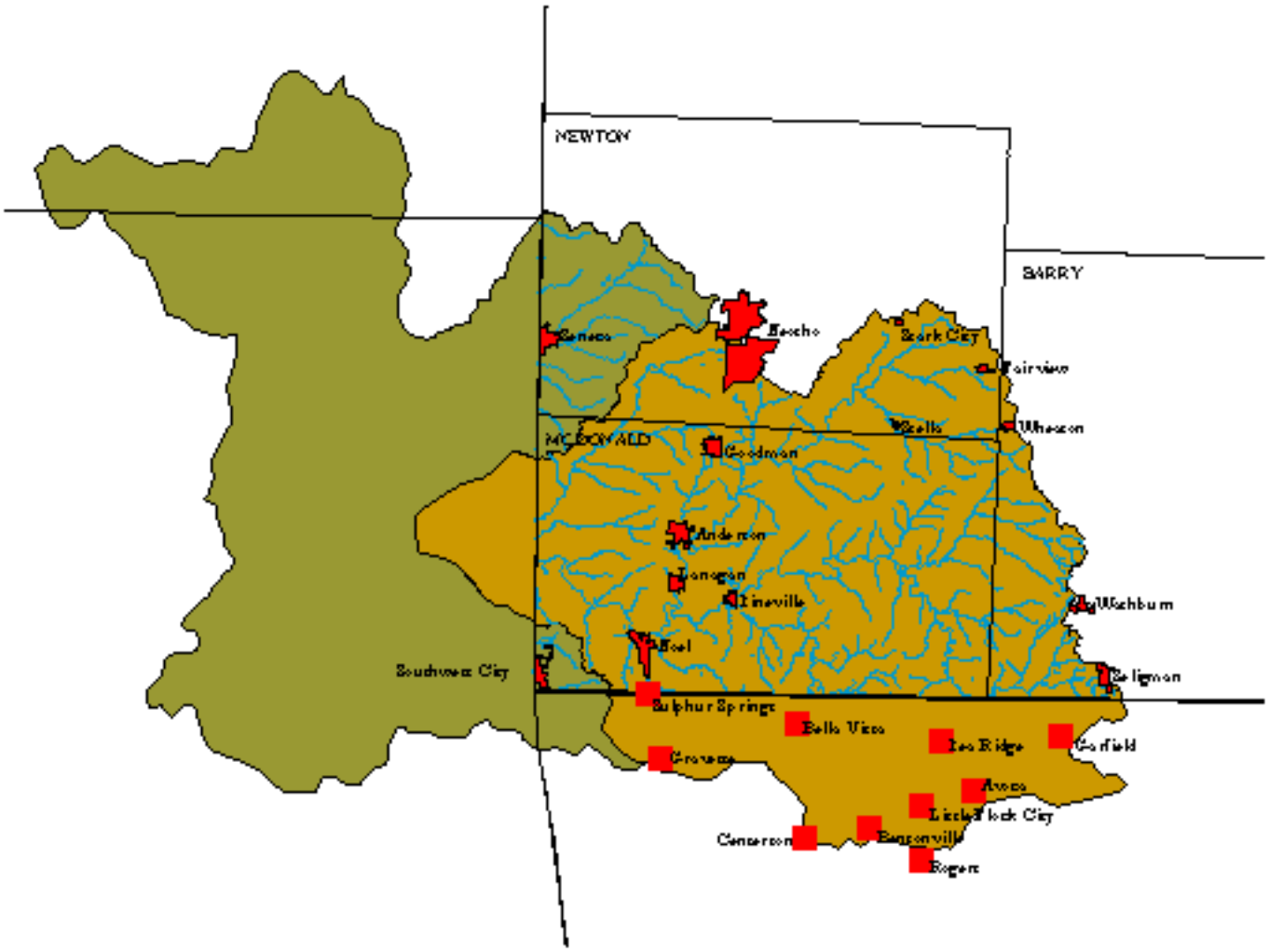


Figure 5. Communities in the Elk River basin.



Communities

Counties

Elk River Basin

Cherokees Lake Basin

N

Figure 06. Major highways in the Missouri portion of the Elk River basin.