HUC 1105

Lower Cimarron Sub-basin

The Lower Cimarron sub-basin (4-digit hydrologic unit 1105) is situated in the near northwest and north central portions of the state. It originates in the eastern portion of Harper County, continues eastward through portions of Woodward, Woods, Alfalfa, Major, Garfield, Blaine, Kingfisher, Logan, Noble, Payne, Lincoln, and Pawnee Counties and terminates in the northern part of Creek County. Major cities and county seats located within the sub-basin include Enid, Kingfisher, Guthrie, Stillwater, and north Edmond. Minor cities of note include Buffalo, Fairview, Hennessey, Langston, Cushing, and Drumright.

The sub-basin is subdivided into three 8-digit hydrologic units (HUC) within the state. These HUC's are the Lower Cimarron – Eagle Chief (11050001), the Lower Cimarron – Skeleton (11050002), and the Lower Cimarron (11050003). The major surface water in the sub-basin is the lower Cimarron River. Major tributaries include Buffalo Creek, Eagle Chief Creek, Turkey Creek, Kingfisher Creek, Cottonwood Creek, Skeleton Creek, and Stillwater Creek. Three major lakes are located in the sub-basin—Lake Carl Blackwell formed by Stillwater Creek, Lake McMurtry formed by a tributary of Stillwater Creek, and the Cimarron River Arm of Lake Keystone. Eight permanent water quality-monitoring stations are located in the sub-basin.

The sub-basin is characterized by three ecoregions. The Central Great Plains is the primary ecoregion beginning in the far eastern portion and continuing through the central part of the sub-basin. The Central Oklahoma/Texas Plains represent the eastern quarter (¼) of the sub-basin. The Southwestern Tablelands typify portions of Woodward and Woods Counties. The primary land usage in the sub-basin is rangeland (open grasslands). It dominates the southern portion of the sub-basin from the far western portions through Kingfisher County and is further interspersed throughout the northern portion and in parts of Payne, Creek, and Noble Counties to the east. The secondary land use is cropland, which dominates the north central portion of the sub-basin and is further interspersed in areas to the western, central, and eastern portions. The tertiary land use is pastureland (brushy or mixed) that covers much of Creek Logan, Lincoln and Payne Counties and is further interspersed throughout each of the remaining counties in the sub-basin. Other land uses of note are forestland, rangeland, farmsteads, major urban areas, wetlands, and bare sand channels.

STATION NAME	FWP	PBCR	PPWS	AG	AES
Cimarron River, off SH 8, near Ames	S	NS (6, 8)	N/A	NS (10, 11, 12)	NT
Cimarron River, SH 34, Buffalo	NS(16, 18)	NS (6, 7, 8)	N/A	NS (10,11)	S
Cimarron River, SH 99, Oilton	NS (5)	NS (6, 8)	N/A	NS(10)	NT
Cimarron River, US 77, Guthrie	S	NS (8)	N/A	S	T (17)
Cimarron River, US 81, Dover	NS (3)	NS (7, 8)	N/A	NS (10, 11)	NT
Cimarron River, SH 33, Ripley	NS (5)	NS (8)	N/A	NS(10)	NT
Cimarron River, US 281, near Waynoka	NS (16)	NS (7)	N/A	NS (10, 11)	S
Skeleton Creek, SH 74, Lovell	NS (3, 5)	NS (6, 8)	S	S	NS(15, 18)

ASSIGNED OWQS BENEFICIAL USES

FWP = Fish & Wildlife Propagation	PBCR = Primary Body Contact Recreation
PPWS = Public and Private Water Supply	AG = Agriculture
AES = Aesthetics	

SUPPORT CODES

S—Fully Supporting	NS—Not Supporting	T-Threatened (Nutrients)
NT-Not Threatened (Nutrients)	NEI—Not Enough Information	N/A—Not Applicable

WATER QUALITY VARIABLES

1—Dissolved Oxygen	2—Metals (Acute)	3—Metals (Chronic)
4—pH	5—Turbidity	6—Fecal Coliform
7— *Escherichia coli*	8— Enterococci	9—Metals
10— Total Dissolved Solids	11— Chlorides	12— Sulfates
13— Total Phosphorus (TP)	14—TP Ok Scenic River Criterion	15— Nitrite + Nitrate
16—Biocriteria	17—Sestonic Chlorophylll-a (TSI)	18—Sedimintation