

Watershed Report

McKinney Creek-Red River

1114010605

The Center for Advanced Spatial Technologies at the University of Arkansas has developed the Arkansas Automated Reporting and Mapping System with funding from the Arkansas 85th General Assembly through the Arkansas Natural Resource Commission.

The 308 ten-digit watershed units and the 1556 twelve-digit watershed units were delineated by the Natural Resources Conservation Service, a division of the US Department of Agriculture.

For all watersheds that cross the Arkansas border, only the Arkansas portion of the watershed was used for mapping and statistical reporting.

Watershed Summary (10 Digit HUC)

McKinney Creek-Red River (1114010605)

Area Summary

Area - Square Miles.....	112.78
Area - Acres.....	73017.88

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	143.00	469.00
Elevation Minimum.....	83.00	272.00
Elevation Average.....	97.00	318.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.68	.61%
Bare.....	.73	.65%
Water.....	5.15	4.58%
Herbaceous.....	1.96	1.74%
Forest.....	34.84	31.01%
Agri - Crops.....	14.82	13.19%
Agri - pasture.....	54.16	48.21%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.02	.91%
Bare.....	1.54	1.37%
Water.....	3.86	3.43%
Herbaceous.....	2.22	1.98%
Forest.....	34.69	30.87%
Agri - Crops.....	39.95	35.55%
Agri - pasture.....	29.10	25.89%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	2.39	2.01%
Bare.....	2.04	1.71%
Water.....	2.75	2.31%
Herbaceous.....	15.47	12.99%
Forest.....	29.39	24.67%
Agri - Crops.....	37.99	31.89%

Agri - pasture.....: 22.38 18.79%

Land Use / Land Cover Change from 1999 to 2004

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
FROM Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	7.63	8.83	2.61	72.26	35.12
Water	0.0	450.80	-.--	41.55	286.01	505.79	76.67
FROM Herb	1.00	8.23	31.51	-.--	498.16	447.38	67.24
Forest	46.16	46.77	424.70	505.39	-.--	2783.25	1099.89
Agri-Crops	.80	15.05	22.48	25.89	510.61	-.--	28.30
Agri-Pasture	39.94	65.83	101.96	709.31	2334.06	13517.86	-.--

Sub-Watershed Summary (12 Digit HUC)

Hokes Creek-Red River (111401060504)

Area Summary

Area - Square Miles.....	13.07
Area - Acres.....	8464.70

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	98.00	321.00
Elevation Minimum.....	87.00	285.00
Elevation Average.....	94.00	308.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.01	.08%
Bare.....	.04	.31%
Water.....	1.26	9.66%
Herbaceous.....	.57	4.37%
Forest.....	4.32	33.13%
Agri - Crops.....	2.09	16.03%
Agri - pasture.....	4.75	36.43%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.03	.23%
Bare.....	.23	1.76%
Water.....	.95	7.27%
Herbaceous.....	.42	3.22%
Forest.....	4.42	33.84%
Agri - Crops.....	5.27	40.35%
Agri - pasture.....	1.74	13.32%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.15	1.15%
Bare.....	.35	2.68%
Water.....	.64	4.90%
Herbaceous.....	1.43	10.94%
Forest.....	4.07	31.14%
Agri - Crops.....	5.12	39.17%
Agri - pasture.....	1.31	10.02%

Land Use / Land Cover Change from 1999 to 2004

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	4.21	.20	.20	6.22	.80
Water	0.0	113.20	-.--	9.83	78.28	143.31	21.07
FROM Herb	0.0	4.82	12.24	-.--	216.37	38.94	8.83
Forest	0.0	7.63	126.05	56.00	-.--	276.18	34.32
Agri-Crops	0.0	.60	11.04	9.23	68.64	-.--	6.82
Agri-Pasture	0.0	2.21	19.87	104.37	154.35	1706.04	-.--

**Red Bayou-Red River
(111401060505)**

Area Summary

Area - Square Miles.....:	12.83
Area - Acres.....:	8306.47

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	95.00	312.00
Elevation Minimum.....:	86.00	282.00
Elevation Average.....:	90.00	295.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.05	.39%
Bare.....:	.27	2.11%
Water.....:	2.01	15.70%
Herbaceous.....:	.13	1.02%
Forest.....:	3.45	26.95%
Agri - Crops.....:	.73	5.70%
Agri - pasture.....:	6.16	48.13%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.07	.55%
Bare.....:	.55	4.30%
Water.....:	1.28	10.00%
Herbaceous.....:	.23	1.80%
Forest.....:	3.20	25.00%
Agri - Crops.....:	4.53	35.39%
Agri - pasture.....:	2.94	22.97%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.18	1.41%
Bare.....:	.71	5.54%
Water.....:	.98	7.65%
Herbaceous.....:	1.41	11.01%
Forest.....:	2.77	21.62%
Agri - Crops.....:	4.27	33.33%
Agri - pasture.....:	2.49	19.44%

Land Use / Land Cover Change from 1999 to 2004

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	3.21	8.03	2.41	45.16	3.21
Water	0.0	202.72	-.--	22.28	94.94	205.53	20.27
FROM Herb	.40	1.81	2.21	-.--	44.36	17.26	5.22
Forest	1.61	14.05	44.36	80.08	-.--	308.29	106.18
Agri-Crops	.60	7.02	8.43	.40	50.78	-.--	3.81
Agri-Pasture	.20	8.83	31.31	96.94	100.15	1981.01	-.--

**Lower Walnut Bayou
(111401060508)**

Area Summary

Area - Square Miles.....	48.71
Area - Acres.....	31536.75

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	135.00	443.00
Elevation Minimum.....	85.00	279.00
Elevation Average.....	95.00	312.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.33	.68%
Bare.....	.01	.02%
Water.....	.34	.70%
Herbaceous.....	.78	1.61%
Forest.....	14.54	30.04%
Agri - Crops.....	9.80	20.24%
Agri - pasture.....	22.61	46.71%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.40	.83%
Bare.....	.10	.21%
Water.....	.41	.85%
Herbaceous.....	.81	1.67%
Forest.....	14.78	30.53%
Agri - Crops.....	20.15	41.62%
Agri - pasture.....	11.76	24.29%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.93	1.92%
Bare.....	.18	.37%
Water.....	.24	.50%
Herbaceous.....	6.58	13.59%
Forest.....	12.80	26.44%
Agri - Crops.....	19.19	39.63%
Agri - pasture.....	8.50	17.55%

Land Use / Land Cover Change from 1999 to 2004

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	.40
Water	0.0	1.20	-.--	1.20	28.10	22.28	5.82
FROM Herb	0.0	.60	10.64	-.--	118.82	273.17	21.68
Forest	1.61	10.84	89.32	130.46	-.--	1414.01	473.07
Agri-Crops	0.0	.60	1.40	11.04	341.41	-.--	14.65
Agri-Pasture	2.81	9.83	12.04	236.84	1059.95	5810.57	-.--

**McKinney Creek
(111401060506)**

Area Summary

Area - Square Miles.....:	1.89
Area - Acres.....:	1223.53

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	143.00	469.00
Elevation Minimum.....:	93.00	305.00
Elevation Average.....:	129.00	423.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.03	1.59%
Bare.....:	.00	-.--%
Water.....:	.01	.53%
Herbaceous.....:	.03	1.59%
Forest.....:	1.19	62.96%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	.63	33.33%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.04	2.13%
Bare.....:	.00	-.--%
Water.....:	.01	.53%
Herbaceous.....:	.10	5.32%
Forest.....:	1.12	59.57%
Agri - Crops.....:	.03	1.60%
Agri - pasture.....:	.58	30.85%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.07	3.72%
Bare.....:	.00	-.--%
Water.....:	.00	-.--%
Herbaceous.....:	.36	19.15%
Forest.....:	.94	50.00%
Agri - Crops.....:	.03	1.60%
Agri - pasture.....:	.48	25.53%

Land Use / Land Cover Change from 1999 to 2004

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	0.0	.20	-.--	0.00	1.61	0.00	.60
FROM Herb	0.0	0.00	0.00	-.--	8.03	4.01	5.62
Forest	.80	.60	2.21	71.65	-.--	2.41	34.52
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	.40	.40	0.00	5.42	21.07	11.84	-.--

**Upper Walnut Bayou
(111401060507)**

Area Summary

Area - Square Miles.....	20.89
Area - Acres.....	13524.49

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	143.00	469.00
Elevation Minimum.....	93.00	305.00
Elevation Average.....	109.00	358.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.22	1.06%
Bare.....	.35	1.68%
Water.....	.42	2.01%
Herbaceous.....	.30	1.44%
Forest.....	6.05	29.02%
Agri - Crops.....	1.86	8.92%
Agri - pasture.....	11.65	55.88%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.42	2.01%
Bare.....	.39	1.87%
Water.....	.33	1.58%
Herbaceous.....	.44	2.11%
Forest.....	5.85	28.02%
Agri - Crops.....	5.29	25.34%
Agri - pasture.....	8.16	39.08%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.92	4.41%
Bare.....	.48	2.30%
Water.....	.30	1.44%
Herbaceous.....	3.69	17.68%
Forest.....	4.34	20.80%
Agri - Crops.....	5.12	24.53%
Agri - pasture.....	6.02	28.85%

Land Use / Land Cover Change from 1999 to 2004

<u>Area in Acres</u>	<u>Change TO</u>						
	<u>Urban</u>	<u>Bare</u>	<u>Water</u>	<u>Herbaceous</u>	<u>Forest</u>	<u>Agri-Crop</u>	<u>Agri-Pasture</u>
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	.20	.40	0.00	12.24	29.91
Water	0.0	11.64	-.--	4.01	20.07	26.49	14.45
FROM Herb	.60	1.00	3.81	-.--	59.61	72.86	23.68
Forest	41.95	9.23	23.28	38.54	-.--	444.37	346.23
Agri-Crops	0.0	.80	.20	5.22	43.96	-.--	2.21
Agri-Pasture	35.73	32.52	12.64	98.15	385.77	1734.14	-.--

**Walnut Bayou-Red River
(111401060509)**

Area Summary

Area - Square Miles.....:	15.39
Area - Acres.....:	9961.94

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	92.00	302.00
Elevation Minimum.....:	83.00	272.00
Elevation Average.....:	89.00	292.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.04	.26%
Bare.....:	.06	.39%
Water.....:	1.11	7.23%
Herbaceous.....:	.15	.98%
Forest.....:	5.29	34.46%
Agri - Crops.....:	.34	2.21%
Agri - pasture.....:	8.36	54.46%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.06	.39%
Bare.....:	.27	1.76%
Water.....:	.88	5.73%
Herbaceous.....:	.22	1.43%
Forest.....:	5.32	34.66%
Agri - Crops.....:	4.68	30.49%
Agri - pasture.....:	3.92	25.54%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.14	.91%
Bare.....:	.32	2.08%
Water.....:	.59	3.84%
Herbaceous.....:	2.00	13.02%
Forest.....:	4.47	29.10%
Agri - Crops.....:	4.26	27.73%
Agri - pasture.....:	3.58	23.31%

Land Use / Land Cover Change from 1999 to 2004

Area in Acres	Change TO						
	Urban	Bare	Water	Herbaceous	Forest	Agri-Crop	Agri-Pasture
Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	0.0	-.--	0.00	.20	0.00	8.63	.80
Water	0.0	121.83	-.--	4.21	63.02	108.18	14.45
FROM Herb	0.0	0.00	2.61	-.--	50.98	41.15	2.21
Forest	.20	4.42	139.49	128.66	-.--	338.00	105.57
Agri-Crops	.20	6.02	1.40	0.00	5.82	-.--	.80
Agri-Pasture	.80	12.04	26.09	167.59	612.77	2274.25	-.--