

Watershed Report

City of Fort Smith-Arkansas River

1111010406

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)

City of Fort Smith-Arkansas River (1111010406)

Area Summary

Area - Square Miles.....	56.60
Area - Acres.....	36645.35

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximum.....	265.00	869.00
Elevation Minimum.....	116.00	380.00
Elevation Average.....	139.00	456.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	18.96	33.43%
Bare.....	.51	.90%
Water.....	7.51	13.24%
Herbaceous.....	1.10	1.94%
Forest.....	12.95	22.84%
Agri - Crops.....	.82	1.45%
Agri - pasture.....	14.86	26.20%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	27.00	47.63%
Bare.....	.41	.72%
Water.....	6.62	11.68%
Herbaceous.....	2.11	3.72%
Forest.....	10.34	18.24%
Agri - Crops.....	1.21	2.13%
Agri - pasture.....	9.00	15.88%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	31.12	51.80%
Bare.....	.27	.45%
Water.....	6.63	11.04%
Herbaceous.....	3.67	6.11%
Forest.....	8.11	13.50%
Agri - Crops.....	1.28	2.13%

Agri - pasture.....:

5.62

9.35%

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	172.21	-.--	0.00	11.04	.20	9.63	12.64
Water	218.17	44.56	-.--	44.76	233.02	13.05	74.26
FROM Herb	298.86	1.00	21.68	-.--	87.91	25.09	65.83
Forest	2692.53	48.57	241.25	329.57	-.--	86.10	325.55
Agri-Crops	192.68	10.04	11.04	17.46	14.05	-.--	9.43
Agri-Pasture	1945.49	53.39	66.64	1221.73	366.90	354.86	-.--

Sub-Watershed Summary (12 Digit HUC)

Cherokee Chute-Arkansas River (111101040609)

Area Summary

Area - Square Miles.....	.08
Area - Acres.....	51.28

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	135.00	443.00
Elevation Minimum.....	118.00	387.00
Elevation Average.....	126.00	413.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.02	28.57%
Bare.....	.00	-.--%
Water.....	.02	28.57%
Herbaceous.....	.00	-.--%
Forest.....	.01	14.29%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.02	28.57%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.02	33.33%
Bare.....	.00	-.--%
Water.....	.02	33.33%
Herbaceous.....	.00	-.--%
Forest.....	.01	16.67%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.01	16.67%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.02	28.57%
Bare.....	.00	-.--%
Water.....	.03	42.86%
Herbaceous.....	.00	-.--%
Forest.....	.01	14.29%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.01	14.29%

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	0.00	0.00	0.00	0.00
Water	0.0	0.00	-.--	0.00	0.00	0.00	0.00
FROM Herb	.20	0.00	0.00	-.--	0.00	0.00	0.00
Forest	.60	0.00	1.81	0.00	-.--	0.00	.40
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	.60	0.00	1.20	0.00	1.40	0.00	-.--

**Garrison Creek
(111101040610)**

Area Summary

Area - Square Miles.....	4.18
Area - Acres.....	2705.72

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	265.00	869.00
Elevation Minimum.....	118.00	387.00
Elevation Average.....	151.00	495.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.10	2.40%
Bare.....	.00	-.--%
Water.....	.15	3.60%
Herbaceous.....	.01	.24%
Forest.....	2.12	50.84%
Agri - Crops.....	.02	.48%
Agri - pasture.....	1.77	42.45%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.45	10.79%
Bare.....	.06	1.44%
Water.....	.08	1.92%
Herbaceous.....	.11	2.64%
Forest.....	2.25	53.96%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	1.22	29.26%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.59	14.18%
Bare.....	.03	.72%
Water.....	.09	2.16%
Herbaceous.....	.45	10.82%
Forest.....	2.08	50.00%
Agri - Crops.....	.10	2.40%
Agri - pasture.....	.82	19.71%

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>
FROM Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	.20	-.--	0.00	0.00	0.00	0.00	0.00
Water	3.21	2.01	-.--	17.46	16.46	0.00	12.44
FROM Herb	1.61	0.00	0.00	-.--	.40	0.00	1.40
Forest	101.96	15.25	4.82	11.04	-.--	0.00	59.41
Agri-Crops	7.63	2.81	.20	0.00	2.21	-.--	.80
Agri-Pasture	98.75	16.26	1.40	135.48	109.39	0.00	-.--

**City of Fort Smith-Arkansas River
(111101040612)**

Area Summary

Area - Square Miles.....:	35.69
Area - Acres.....:	23109.53

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	242.00	794.00
Elevation Minimum.....:	116.00	380.00
Elevation Average.....:	134.00	440.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	14.53	40.67%
Bare.....:	.17	.48%
Water.....:	7.09	19.84%
Herbaceous.....:	.58	1.62%
Forest.....:	6.80	19.03%
Agri - Crops.....:	.37	1.04%
Agri - pasture.....:	6.19	17.32%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	18.09	50.64%
Bare.....:	.20	.56%
Water.....:	6.38	17.86%
Herbaceous.....:	.77	2.16%
Forest.....:	5.44	15.23%
Agri - Crops.....:	.82	2.30%
Agri - pasture.....:	4.02	11.25%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	20.28	56.76%
Bare.....:	.19	.53%
Water.....:	6.39	17.88%
Herbaceous.....:	1.59	4.45%
Forest.....:	4.42	12.37%
Agri - Crops.....:	.70	1.96%
Agri - pasture.....:	2.16	6.05%

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	43.75	-.--	0.00	.80	0.00	1.61	5.02
Water	163.98	41.55	-.--	24.49	204.93	10.64	57.00
FROM Herb	186.06	.40	19.67	-.--	78.28	16.66	23.48
Forest	1521.19	23.28	228.01	75.27	-.--	82.09	177.83
Agri-Crops	64.23	2.61	9.43	2.61	11.24	-.--	6.22
Agri-Pasture	613.17	5.42	54.59	347.03	183.45	264.74	-.--

**Massard Creek
(111101040611)**

Area Summary

Area - Square Miles.....	16.65
Area - Acres.....	10778.82

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	228.00	748.00
Elevation Minimum.....	117.00	384.00
Elevation Average.....	146.00	479.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	4.31	25.75%
Bare.....	.34	2.03%
Water.....	.25	1.49%
Herbaceous.....	.51	3.05%
Forest.....	4.02	24.01%
Agri - Crops.....	.43	2.57%
Agri - pasture.....	6.88	41.10%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	8.44	50.42%
Bare.....	.15	.90%
Water.....	.14	.84%
Herbaceous.....	1.23	7.35%
Forest.....	2.64	15.77%
Agri - Crops.....	.39	2.33%
Agri - pasture.....	3.75	22.40%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	10.23	61.11%
Bare.....	.05	.30%
Water.....	.12	.72%
Herbaceous.....	1.63	9.74%
Forest.....	1.60	9.56%
Agri - Crops.....	.48	2.87%
Agri - pasture.....	2.63	15.71%

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>
FROM Urban	-.--	-.--	-.--	-.--	-.--	-.--	-.--
Bare	128.25	-.--	0.00	10.24	.20	8.03	7.63
Water	50.98	1.00	-.--	2.81	11.64	2.41	4.82
FROM Herb	110.99	.60	2.01	-.--	9.23	8.43	40.94
Forest	1068.78	10.04	6.62	243.26	-.--	4.01	87.91
Agri-Crops	120.83	4.62	1.40	14.85	.60	-.--	2.41
Agri-Pasture	1232.96	31.71	9.43	739.22	72.66	90.12	-.--