

Watershed Report

Lower Lake Hamilton

0804010108

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)

Lower Lake Hamilton (0804010108)

Area Summary

Area - Square Miles.....	229.55
Area - Acres.....	148631.44

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	425.00	1394.00
Elevation Minimum.....	83.00	272.00
Elevation Average.....	177.00	581.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	19.83	8.66%
Bare.....	.12	.05%
Water.....	12.30	5.37%
Herbaceous.....	1.47	.64%
Forest.....	168.90	73.79%
Agri - Crops.....	.11	.05%
Agri - pasture.....	26.17	11.43%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	35.80	15.64%
Bare.....	.24	.10%
Water.....	10.70	4.67%
Herbaceous.....	2.97	1.30%
Forest.....	156.37	68.32%
Agri - Crops.....	.27	.12%
Agri - pasture.....	22.53	9.84%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	43.88	18.70%
Bare.....	.26	.11%
Water.....	10.54	4.49%
Herbaceous.....	9.22	3.93%
Forest.....	147.64	62.93%
Agri - Crops.....	.55	.23%

Agri - pasture.....: 16.77 7.15%

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	28.70	-.--	0.00	0.00	10.24	1.40	10.44
Water	497.96	7.63	-.--	7.63	331.77	4.21	124.44
FROM Herb	288.02	3.61	11.24	-.--	195.89	2.81	282.20
Forest	10390.38	59.61	381.35	742.63	-.--	54.79	2307.77
Agri-Crops	15.86	.20	.60	9.23	15.45	-.--	8.43
Agri-Pasture	1881.26	36.33	33.72	606.75	2131.55	42.15	-.--

Sub-Watershed Summary (12 Digit HUC)

Lake Hamilton Dam (080401010806)

Area Summary

Area - Square Miles.....	47.14
Area - Acres.....	30525.82

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	283.00	928.00
Elevation Minimum.....	83.00	272.00
Elevation Average.....	151.00	495.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.97	4.20%
Bare.....	.02	.04%
Water.....	2.72	5.79%
Herbaceous.....	.45	.96%
Forest.....	38.15	81.26%
Agri - Crops.....	.02	.04%
Agri - pasture.....	3.62	7.71%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	6.02	12.82%
Bare.....	.03	.06%
Water.....	2.50	5.32%
Herbaceous.....	.42	.89%
Forest.....	34.43	73.33%
Agri - Crops.....	.03	.06%
Agri - pasture.....	3.52	7.50%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	7.88	16.79%
Bare.....	.03	.06%
Water.....	2.24	4.77%
Herbaceous.....	1.24	2.64%
Forest.....	33.37	71.09%
Agri - Crops.....	.08	.17%
Agri - pasture.....	2.10	4.47%

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	2.61	-.--	0.00	0.00	3.81	0.00	.60
Water	87.31	.40	-.--	0.00	65.03	.40	24.89
FROM Herb	59.41	.20	4.21	-.--	69.45	.60	129.46
Forest	2709.99	7.02	155.75	41.55	-.--	4.42	528.27
Agri-Crops	9.83	.20	.20	0.00	.20	-.--	.80
Agri-Pasture	357.87	4.62	10.04	52.59	219.18	7.83	-.--

**Little Mazarn Creek-Lake Hamilton
(080401010802)**

Area Summary

Area - Square Miles.....	35.74
Area - Acres.....	23142.05

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	399.00	1309.00
Elevation Minimum.....	119.00	390.00
Elevation Average.....	181.00	594.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.07	2.97%
Bare.....	.03	.08%
Water.....	1.09	3.03%
Herbaceous.....	.16	.44%
Forest.....	26.21	72.81%
Agri - Crops.....	.03	.08%
Agri - pasture.....	7.41	20.58%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	2.41	6.69%
Bare.....	.07	.19%
Water.....	.84	2.33%
Herbaceous.....	.92	2.56%
Forest.....	25.78	71.61%
Agri - Crops.....	.07	.19%
Agri - pasture.....	5.91	16.42%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	3.18	8.84%
Bare.....	.08	.22%
Water.....	.95	2.64%
Herbaceous.....	2.83	7.87%
Forest.....	23.52	65.37%
Agri - Crops.....	.17	.47%
Agri - pasture.....	5.25	14.59%

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	4.62	-.--	0.00	0.00	4.01	.60	3.21
Water	11.24	.40	-.--	3.41	119.62	0.00	23.88
FROM Herb	9.03	.20	0.00	-.--	27.70	.40	18.47
Forest	628.42	13.25	16.06	285.41	-.--	10.64	426.31
Agri-Crops	.20	0.00	0.00	8.83	4.01	-.--	4.01
Agri-Pasture	348.23	16.26	2.61	207.53	755.07	15.86	-.--

**Hot Springs Creek-Lake Hamilton
(080401010804)**

Area Summary

Area - Square Miles.....:	32.11
Area - Acres.....:	20791.37

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	425.00	1394.00
Elevation Minimum.....:	101.00	331.00
Elevation Average.....:	152.00	499.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	10.07	31.55%
Bare.....:	.04	.13%
Water.....:	5.64	17.67%
Herbaceous.....:	.32	1.00%
Forest.....:	12.33	38.63%
Agri - Crops.....:	.02	.06%
Agri - pasture.....:	3.50	10.96%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	14.58	45.68%
Bare.....:	.05	.16%
Water.....:	4.78	14.97%
Herbaceous.....:	.40	1.25%
Forest.....:	9.45	29.61%
Agri - Crops.....:	.04	.13%
Agri - pasture.....:	2.62	8.21%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	16.98	53.16%
Bare.....:	.05	.16%
Water.....:	4.75	14.87%
Herbaceous.....:	.90	2.82%
Forest.....:	7.56	23.67%
Agri - Crops.....:	.06	.19%
Agri - pasture.....:	1.64	5.13%

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	13.25	-.--	0.00	0.00	1.20	0.00	2.41
Water	368.10	3.01	-.--	.80	51.18	2.01	31.91
FROM Herb	118.82	.40	2.21	-.--	24.49	0.00	25.89
Forest	3095.16	13.25	126.45	33.92	-.--	8.03	203.92
Agri-Crops	4.01	0.00	0.00	0.00	.20	-.--	.40
Agri-Pasture	470.06	7.83	4.42	55.60	231.42	4.42	-.--

**Gulpha Creek-Lake Hamilton
(080401010805)**

Area Summary

Area - Square Miles.....	46.09
Area - Acres.....	29840.71

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	424.00	1391.00
Elevation Minimum.....	92.00	302.00
Elevation Average.....	191.00	626.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	5.74	12.57%
Bare.....	.02	.04%
Water.....	.43	.94%
Herbaceous.....	.29	.63%
Forest.....	36.52	79.95%
Agri - Crops.....	.01	.02%
Agri - pasture.....	2.67	5.85%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	11.02	24.13%
Bare.....	.04	.09%
Water.....	.37	.81%
Herbaceous.....	.19	.42%
Forest.....	31.56	69.10%
Agri - Crops.....	.08	.18%
Agri - pasture.....	2.41	5.28%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	13.41	29.37%
Bare.....	.04	.09%
Water.....	.36	.79%
Herbaceous.....	.67	1.47%
Forest.....	29.76	65.18%
Agri - Crops.....	.10	.22%
Agri - pasture.....	1.32	2.89%

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	5.82	-.--	0.00	0.00	1.00	.60	3.61
Water	23.88	.20	-.--	0.00	30.11	0.00	8.83
FROM Herb	89.32	2.61	2.01	-.--	20.87	1.81	59.41
Forest	3703.71	14.05	10.04	109.59	-.--	24.49	496.76
Agri-Crops	1.81	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	543.32	3.21	2.61	30.51	119.02	9.23	-.--

**Little Mazarn Creek
(080401010801)**

Area Summary

Area - Square Miles.....	39.33
Area - Acres.....	25465.85

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	376.00	1233.00
Elevation Minimum.....	137.00	449.00
Elevation Average.....	201.00	659.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.38	.97%
Bare.....	.00	-.--%
Water.....	.03	.08%
Herbaceous.....	.03	.08%
Forest.....	34.05	87.29%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	4.52	11.59%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.70	1.80%
Bare.....	.02	.05%
Water.....	.01	.03%
Herbaceous.....	.67	1.72%
Forest.....	33.45	85.79%
Agri - Crops.....	.02	.05%
Agri - pasture.....	4.12	10.57%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.88	2.26%
Bare.....	.03	.08%
Water.....	.01	.03%
Herbaceous.....	2.57	6.59%
Forest.....	31.65	81.15%
Agri - Crops.....	.06	.15%
Agri - pasture.....	3.80	9.74%

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	0.0	-.--	0.00	0.00	0.00	0.00	0.00
Water	.20	0.00	-.--	1.81	12.24	0.00	1.00
FROM Herb	.60	.20	0.00	-.--	6.42	0.00	5.62
Forest	100.96	7.02	.60	206.73	-.--	4.62	361.48
Agri-Crops	0.0	0.00	0.00	.40	1.61	-.--	.40
Agri-Pasture	16.86	3.01	0.00	131.47	506.59	1.81	-.--

**Fourche a Loupe Creek-Lake Hamilton
(080401010803)**

Area Summary

Area - Square Miles.....	29.14
Area - Acres.....	18865.64

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	392.00	1286.00
Elevation Minimum.....	121.00	397.00
Elevation Average.....	191.00	626.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.60	2.04%
Bare.....	.01	.03%
Water.....	2.39	8.15%
Herbaceous.....	.22	.75%
Forest.....	21.64	73.76%
Agri - Crops.....	.03	.10%
Agri - pasture.....	4.45	15.17%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.07	3.65%
Bare.....	.03	.10%
Water.....	2.20	7.50%
Herbaceous.....	.37	1.26%
Forest.....	21.70	73.94%
Agri - Crops.....	.03	.10%
Agri - pasture.....	3.95	13.46%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.55	5.28%
Bare.....	.03	.10%
Water.....	2.23	7.60%
Herbaceous.....	1.01	3.44%
Forest.....	21.78	74.23%
Agri - Crops.....	.08	.27%
Agri - pasture.....	2.66	9.07%

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	2.41	-.--	0.00	0.00	.20	.20	.60
Water	7.23	3.61	-.--	1.61	53.59	1.81	33.92
FROM Herb	10.84	0.00	2.81	-.--	46.97	0.00	43.35
Forest	152.14	5.02	72.46	65.43	-.--	2.61	291.03
Agri-Crops	0.0	0.00	.40	0.00	9.43	-.--	2.81
Agri-Pasture	144.91	1.40	14.05	129.06	300.26	3.01	-.--