

Watershed Report

Bull Shoals Lake-White River

1101000311

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)

Bull Shoals Lake-White River (1101000311)

Area Summary

Area - Square Miles.....	249.36
Area - Acres.....	161454.04

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximum.....	409.00	1342.00
Elevation Minimum.....	116.00	380.00
Elevation Average.....	239.00	784.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	5.55	2.23%
Bare.....	.38	.15%
Water.....	22.62	9.07%
Herbaceous.....	.61	.24%
Forest.....	168.85	67.73%
Agri - Crops.....	.06	.02%
Agri - pasture.....	51.23	20.55%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	12.61	5.06%
Bare.....	.77	.31%
Water.....	20.41	8.19%
Herbaceous.....	3.35	1.34%
Forest.....	163.71	65.67%
Agri - Crops.....	.09	.04%
Agri - pasture.....	48.34	19.39%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	13.72	5.12%
Bare.....	.73	.27%
Water.....	21.17	7.90%
Herbaceous.....	19.54	7.30%
Forest.....	163.97	61.22%
Agri - Crops.....	.36	.13%

Agri - pasture.....: 29.80 11.13%

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	9.83	-.--	43.35	4.82	49.58	0.00	56.00
Water	81.89	345.02	-.--	108.58	658.73	0.00	563.80
FROM Herb	131.87	3.21	3.01	-.--	103.17	0.00	140.70
Forest	2567.09	214.56	297.05	102.76	-.--	0.00	3827.75
Agri-Crops	1.20	7.43	2.21	.60	17.86	-.--	6.42
Agri-Pasture	1683.96	110.99	72.46	339.00	1853.16	0.00	-.--

Sub-Watershed Summary (12 Digit HUC)

Gulley Spring Creek-Bull Shoals Lake (110100031101)

Area Summary

Area - Square Miles.....	18.47
Area - Acres.....	11961.86

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	409.00	1342.00
Elevation Minimum.....	197.00	646.00
Elevation Average.....	260.00	853.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.06	.32%
Bare.....	.05	.27%
Water.....	1.92	10.38%
Herbaceous.....	.02	.11%
Forest.....	15.34	82.96%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	1.10	5.95%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.09	.49%
Bare.....	.08	.43%
Water.....	1.70	9.20%
Herbaceous.....	.20	1.08%
Forest.....	15.04	81.43%
Agri - Crops.....	.01	.05%
Agri - pasture.....	1.35	7.31%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.13	.70%
Bare.....	.06	.32%
Water.....	1.70	9.20%
Herbaceous.....	1.14	6.17%
Forest.....	14.56	78.79%
Agri - Crops.....	.03	.16%
Agri - pasture.....	.86	4.65%

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	-.--	8.43	0.00	9.23	0.00	6.62
Water	0.0	52.79	-.--	15.45	66.03	0.00	68.44
FROM Herb	0.0	.80	0.00	-.--	7.43	0.00	2.61
Forest	1.81	36.33	35.12	4.21	-.--	0.00	244.47
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	1.61	4.42	.60	8.23	109.39	0.00	-.--

**Jimmie Creek-Bull Shoals Lake
(110100031102)**

Area Summary

Area - Square Miles.....:	41.84
Area - Acres.....:	27088.59

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	394.00	1292.00
Elevation Minimum.....:	195.00	640.00
Elevation Average.....:	294.00	964.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.50	1.21%
Bare.....:	.04	.10%
Water.....:	2.49	6.04%
Herbaceous.....:	.03	.07%
Forest.....:	35.93	87.15%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	2.24	5.43%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.73	1.77%
Bare.....:	.12	.29%
Water.....:	2.16	5.24%
Herbaceous.....:	.35	.85%
Forest.....:	35.44	85.96%
Agri - Crops.....:	.03	.07%
Agri - pasture.....:	2.40	5.82%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.68	1.65%
Bare.....:	.08	.19%
Water.....:	2.24	5.43%
Herbaceous.....:	1.87	4.54%
Forest.....:	34.32	83.26%
Agri - Crops.....:	.05	.12%
Agri - pasture.....:	1.98	4.80%

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	-.--	2.01	.80	7.02	0.00	5.62
Water	8.03	75.87	-.--	30.71	101.56	0.00	87.71
FROM Herb	5.82	0.00	0.00	-.--	7.83	0.00	1.61
Forest	97.34	50.18	22.08	17.46	-.--	0.00	264.74
Agri-Crops	.60	0.00	0.00	.20	0.00	-.--	.20
Agri-Pasture	8.43	11.84	0.00	46.36	264.54	0.00	-.--

**Sister Creek-Bull Shoals Lake
(110100031104)**

Area Summary

Area - Square Miles.....	45.69
Area - Acres.....	29583.89

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	407.00	1335.00
Elevation Minimum.....	193.00	633.00
Elevation Average.....	239.00	784.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.34	.75%
Bare.....	.20	.44%
Water.....	12.14	26.72%
Herbaceous.....	.05	.11%
Forest.....	30.22	66.52%
Agri - Crops.....	.01	.02%
Agri - pasture.....	2.47	5.44%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.57	1.25%
Bare.....	.27	.59%
Water.....	11.21	24.68%
Herbaceous.....	.52	1.14%
Forest.....	29.55	65.05%
Agri - Crops.....	.04	.09%
Agri - pasture.....	3.27	7.20%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.73	1.61%
Bare.....	.23	.51%
Water.....	11.45	25.20%
Herbaceous.....	2.70	5.94%
Forest.....	28.00	61.63%
Agri - Crops.....	.15	.33%
Agri - pasture.....	2.17	4.78%

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	1.61	-.--	26.90	4.01	30.71	0.00	33.12
Water	9.63	200.51	-.--	59.81	277.58	0.00	272.56
FROM Herb	2.41	1.40	.80	-.--	13.85	0.00	13.25
Forest	47.17	87.91	51.18	31.51	-.--	0.00	524.66
Agri-Crops	.40	.20	.20	0.00	3.21	-.--	.80
Agri-Pasture	3.21	9.23	13.05	30.31	249.08	0.00	-.--

**Fallen Ash Creek-White River
(110100031107)**

Area Summary

Area - Square Miles.....:	44.81
Area - Acres.....:	29011.82

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	372.00	1220.00
Elevation Minimum.....:	116.00	380.00
Elevation Average.....:	207.00	679.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	2.57	5.75%
Bare.....:	.03	.07%
Water.....:	1.01	2.26%
Herbaceous.....:	.17	.38%
Forest.....:	19.45	43.49%
Agri - Crops.....:	.03	.07%
Agri - pasture.....:	21.46	47.99%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	6.34	14.18%
Bare.....:	.11	.25%
Water.....:	.82	1.83%
Herbaceous.....:	.95	2.12%
Forest.....:	18.21	40.73%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	18.28	40.89%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	6.65	14.87%
Bare.....:	.13	.29%
Water.....:	.97	2.17%
Herbaceous.....:	5.71	12.77%
Forest.....:	18.97	42.43%
Agri - Crops.....:	.04	.09%
Agri - pasture.....:	12.24	27.38%

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	1.81	-.--	2.01	0.00	.20	0.00	1.81
Water	13.85	.80	-.--	.40	53.39	0.00	29.30
FROM Herb	66.23	.40	.20	-.--	16.86	0.00	22.08
Forest	1278.33	18.26	43.96	17.46	-.--	0.00	829.54
Agri-Crops	.20	1.40	.40	.40	13.25	-.--	1.81
Agri-Pasture	1220.52	28.10	14.25	122.83	546.33	0.00	-.--

**Dry Creek-White River
(110100031108)**

Area Summary

Area - Square Miles.....:	26.87
Area - Acres.....:	17395.11

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	399.00	1309.00
Elevation Minimum.....:	119.00	390.00
Elevation Average.....:	223.00	731.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.23	.84%
Bare.....:	.00	-.--%
Water.....:	.65	2.36%
Herbaceous.....:	.04	.15%
Forest.....:	20.99	76.22%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	5.63	20.44%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.43	1.56%
Bare.....:	.01	.04%
Water.....:	.56	2.03%
Herbaceous.....:	.31	1.13%
Forest.....:	20.51	74.47%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	5.72	20.77%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.53	1.92%
Bare.....:	.03	.11%
Water.....:	.67	2.43%
Herbaceous.....:	1.94	7.04%
Forest.....:	20.66	75.02%
Agri - Crops.....:	.02	.07%
Agri - pasture.....:	3.69	13.40%

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	.80	0.00	1.61
Water	0.0	0.00	-.--	0.00	37.53	0.00	14.45
FROM Herb	.40	0.00	.20	-.--	6.82	0.00	18.87
Forest	31.71	1.20	33.52	2.61	-.--	0.00	464.85
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	37.33	4.01	3.81	28.90	138.09	0.00	-.--

**Howard Creek
(110100031103)**

Area Summary

Area - Square Miles.....	19.31
Area - Acres.....	12503.34

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	401.00	1315.00
Elevation Minimum.....	196.00	643.00
Elevation Average.....	255.00	836.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.36	1.85%
Bare.....	.01	.05%
Water.....	1.83	9.42%
Herbaceous.....	.06	.31%
Forest.....	14.29	73.58%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	2.87	14.78%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.84	4.32%
Bare.....	.01	.05%
Water.....	1.71	8.80%
Herbaceous.....	.23	1.18%
Forest.....	13.61	70.01%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	3.04	15.64%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.97	4.99%
Bare.....	.05	.26%
Water.....	1.79	9.21%
Herbaceous.....	1.58	8.13%
Forest.....	13.80	71.02%
Agri - Crops.....	.02	.10%
Agri - pasture.....	1.22	6.28%

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	2.41	-.--	1.81	0.00	1.00	0.00	1.40
Water	17.86	.20	-.--	0.00	28.90	0.00	33.52
FROM Herb	9.03	0.00	1.61	-.--	8.03	0.00	22.68
Forest	221.58	1.81	31.71	3.61	-.--	0.00	431.33
Agri-Crops	0.0	0.00	1.61	0.00	.80	-.--	.40
Agri-Pasture	38.54	2.41	14.05	15.05	99.35	0.00	-.--

**Hightower Creek
(110100031105)**

Area Summary

Area - Square Miles.....	17.51
Area - Acres.....	11336.54

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	338.00	1109.00
Elevation Minimum.....	129.00	423.00
Elevation Average.....	231.00	758.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.25	1.42%
Bare.....	.03	.17%
Water.....	.01	.06%
Herbaceous.....	.06	.34%
Forest.....	8.25	46.77%
Agri - Crops.....	.01	.06%
Agri - pasture.....	9.03	51.19%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.67	3.80%
Bare.....	.08	.45%
Water.....	.01	.06%
Herbaceous.....	.36	2.04%
Forest.....	8.20	46.51%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	8.31	47.14%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.94	5.33%
Bare.....	.08	.45%
Water.....	.03	.17%
Herbaceous.....	2.33	13.20%
Forest.....	9.89	56.03%
Agri - Crops.....	.01	.06%
Agri - pasture.....	4.37	24.76%

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	.20	-.--	0.00	0.00	.20	0.00	5.82
Water	0.0	.20	-.--	0.00	1.61	0.00	5.22
FROM Herb	2.81	0.00	0.00	-.--	9.43	0.00	28.70
Forest	102.16	1.81	.40	4.01	-.--	0.00	520.04
Agri-Crops	0.0	4.62	0.00	0.00	0.00	-.--	2.21
Agri-Pasture	124.64	23.08	.40	21.28	185.86	0.00	-.--

**Outlet Bull Shoals Lake-White River
(110100031106)**

Area Summary

Area - Square Miles.....	34.86
Area - Acres.....	22572.89

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	350.00	1148.00
Elevation Minimum.....	127.00	417.00
Elevation Average.....	213.00	699.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.24	3.56%
Bare.....	.02	.06%
Water.....	2.57	7.38%
Herbaceous.....	.18	.52%
Forest.....	24.38	70.00%
Agri - Crops.....	.01	.03%
Agri - pasture.....	6.43	18.46%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	2.94	8.44%
Bare.....	.09	.26%
Water.....	2.24	6.43%
Herbaceous.....	.43	1.23%
Forest.....	23.15	66.47%
Agri - Crops.....	.01	.03%
Agri - pasture.....	5.97	17.14%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	3.09	8.87%
Bare.....	.07	.20%
Water.....	2.32	6.66%
Herbaceous.....	2.27	6.52%
Forest.....	23.77	68.25%
Agri - Crops.....	.04	.11%
Agri - pasture.....	3.27	9.39%

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	3.61	-.--	2.21	0.00	.40	0.00	0.00
Water	32.52	14.65	-.--	2.21	92.13	0.00	52.59
FROM Herb	45.16	.60	.20	-.--	32.92	0.00	30.91
Forest	786.99	17.06	79.08	21.88	-.--	0.00	548.14
Agri-Crops	0.0	1.20	0.00	0.00	.60	-.--	1.00
Agri-Pasture	249.68	27.90	26.29	66.03	260.52	0.00	-.--