

Watershed Report

Big Creek-Bull Shoals Lake

1101000307

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)

Big Creek-Bull Shoals Lake (1101000307)

Area Summary

Area - Square Miles.....	203.68
Area - Acres.....	131874.90

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	427.00	1401.00
Elevation Minimum.....	196.00	643.00
Elevation Average.....	266.00	872.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.50	.74%
Bare.....	.42	.21%
Water.....	27.64	13.59%
Herbaceous.....	.25	.12%
Forest.....	137.00	67.36%
Agri - Crops.....	.08	.04%
Agri - pasture.....	36.48	17.94%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	3.02	1.49%
Bare.....	1.38	.68%
Water.....	24.72	12.16%
Herbaceous.....	3.32	1.63%
Forest.....	136.81	67.30%
Agri - Crops.....	.05	.02%
Agri - pasture.....	33.99	16.72%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	3.32	1.62%
Bare.....	.93	.45%
Water.....	25.38	12.39%
Herbaceous.....	17.08	8.34%
Forest.....	123.59	60.33%
Agri - Crops.....	.56	.27%

Agri - pasture.....: 32.49 15.86%

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	4.21	-.--	43.15	11.04	86.91	0.00	45.56
Water	3.41	594.71	-.--	104.77	1062.96	0.00	760.09
FROM Herb	22.28	3.41	1.00	-.--	105.37	0.00	24.09
Forest	369.51	538.71	223.39	202.52	-.--	0.00	2569.70
Agri-Crops	2.61	2.21	0.00	0.00	34.72	-.--	2.61
Agri-Pasture	397.01	114.61	8.63	741.02	4166.15	0.00	-.--

Sub-Watershed Summary (12 Digit HUC)

Outlet Big Creek-Bull Shoals Lake (110100030706)

Area Summary

Area - Square Miles.....	7.18
Area - Acres.....	4649.44

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	293.00	961.00
Elevation Minimum.....	196.00	643.00
Elevation Average.....	225.00	738.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.00	-.--%
Bare.....	.01	.14%
Water.....	1.98	27.58%
Herbaceous.....	.01	.14%
Forest.....	5.07	70.61%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.11	1.53%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.00	-.--%
Bare.....	.04	.56%
Water.....	1.73	24.16%
Herbaceous.....	.08	1.12%
Forest.....	5.05	70.53%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.26	3.63%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.02	.28%
Bare.....	.03	.42%
Water.....	1.78	24.79%
Herbaceous.....	.33	4.60%
Forest.....	4.83	67.27%
Agri - Crops.....	.01	.14%
Agri - pasture.....	.18	2.51%

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	-.--	1.20	0.00	.80	0.00	1.40
Water	0.0	49.37	-.--	13.65	75.67	0.00	70.25
FROM Herb	0.0	.40	0.00	-.--	2.61	0.00	.40
Forest	0.0	14.25	15.05	6.42	-.--	0.00	32.11
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	0.0	0.00	0.00	0.00	22.88	0.00	-.--

**Outlet Shoal Creek
(110100030703)**

Area Summary

Area - Square Miles.....	2.43
Area - Acres.....	1575.60

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	260.00	853.00
Elevation Minimum.....	198.00	649.00
Elevation Average.....	219.00	718.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.00	-.--%
Bare.....	.01	.41%
Water.....	.77	31.43%
Herbaceous.....	.00	-.--%
Forest.....	1.39	56.73%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.28	11.43%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.00	-.--%
Bare.....	.03	1.23%
Water.....	.65	26.75%
Herbaceous.....	.05	2.06%
Forest.....	1.36	55.97%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	.34	13.99%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.01	.41%
Bare.....	.02	.82%
Water.....	.68	27.76%
Herbaceous.....	.19	7.76%
Forest.....	1.23	50.20%
Agri - Crops.....	.01	.41%
Agri - pasture.....	.31	12.65%

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	-.--	2.21	0.00	.40	0.00	0.00
Water	0.0	19.27	-.--	0.00	45.16	0.00	28.10
FROM Herb	0.0	0.00	0.00	-.--	.60	0.00	.20
Forest	0.0	14.45	15.25	0.00	-.--	0.00	28.30
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	0.0	.80	.40	1.81	24.49	0.00	-.--

**West Sugarloaf Creek-Bull Shoals Lake
(110100030701)**

Area Summary

Area - Square Miles.....	52.75
Area - Acres.....	34153.26

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	427.00	1401.00
Elevation Minimum.....	198.00	649.00
Elevation Average.....	288.00	945.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.44	.85%
Bare.....	.05	.10%
Water.....	1.41	2.72%
Herbaceous.....	.09	.17%
Forest.....	33.44	64.39%
Agri - Crops.....	.03	.06%
Agri - pasture.....	16.47	31.72%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.84	1.62%
Bare.....	.37	.71%
Water.....	1.19	2.29%
Herbaceous.....	1.05	2.02%
Forest.....	34.18	65.83%
Agri - Crops.....	.01	.02%
Agri - pasture.....	14.28	27.50%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.96	1.85%
Bare.....	.25	.48%
Water.....	1.22	2.35%
Herbaceous.....	6.09	11.73%
Forest.....	29.77	57.33%
Agri - Crops.....	.18	.35%
Agri - pasture.....	13.46	25.92%

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	.40	-.--	4.42	0.00	13.85	0.00	2.41
Water	.80	44.76	-.--	4.42	78.88	0.00	41.15
FROM Herb	1.20	.40	.20	-.--	47.57	0.00	6.42
Forest	94.33	138.29	20.47	58.21	-.--	0.00	929.69
Agri-Crops	0.0	.40	0.00	0.00	11.84	-.--	.40
Agri-Pasture	116.81	55.20	3.41	317.52	1879.25	0.00	-.--

**Buck Creek-Bull Shoals Lake
(110100030707)**

Area Summary

Area - Square Miles.....	35.33
Area - Acres.....	22872.97

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	396.00	1299.00
Elevation Minimum.....	197.00	646.00
Elevation Average.....	227.00	745.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.24	.67%
Bare.....	.14	.39%
Water.....	11.04	30.61%
Herbaceous.....	.05	.14%
Forest.....	22.40	62.10%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	2.20	6.10%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.48	1.33%
Bare.....	.32	.89%
Water.....	10.01	27.76%
Herbaceous.....	.54	1.50%
Forest.....	21.94	60.84%
Agri - Crops.....	.02	.06%
Agri - pasture.....	2.75	7.63%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.57	1.58%
Bare.....	.24	.67%
Water.....	10.26	28.44%
Herbaceous.....	2.27	6.29%
Forest.....	20.27	56.18%
Agri - Crops.....	.08	.22%
Agri - pasture.....	2.39	6.62%

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	3.21	-.--	18.87	4.01	22.68	0.00	15.45
Water	1.00	212.75	-.--	47.77	356.66	0.00	294.64
FROM Herb	11.44	.40	.20	-.--	17.26	0.00	5.22
Forest	91.52	120.83	98.55	48.17	-.--	0.00	296.65
Agri-Crops	0.0	.20	0.00	0.00	.20	-.--	.40
Agri-Pasture	14.65	9.63	3.01	64.03	269.55	0.00	-.--

**East Sugarloaf Creek-Bull Shoals Lake
(110100030702)**

Area Summary

Area - Square Miles.....:	56.78
Area - Acres.....:	36761.85

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	411.00	1348.00
Elevation Minimum.....:	197.00	646.00
Elevation Average.....:	291.00	954.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.60	1.07%
Bare.....:	.08	.14%
Water.....:	1.39	2.47%
Herbaceous.....:	.08	.14%
Forest.....:	39.37	70.04%
Agri - Crops.....:	.04	.07%
Agri - pasture.....:	14.65	26.06%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	1.36	2.42%
Bare.....:	.33	.59%
Water.....:	1.18	2.10%
Herbaceous.....:	1.01	1.80%
Forest.....:	39.24	69.81%
Agri - Crops.....:	.01	.02%
Agri - pasture.....:	13.08	23.27%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	1.39	2.47%
Bare.....:	.16	.28%
Water.....:	1.23	2.19%
Herbaceous.....:	5.52	9.82%
Forest.....:	34.39	61.19%
Agri - Crops.....:	.19	.34%
Agri - pasture.....:	13.32	23.70%

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	.60	-.--	4.82	0.00	28.90	0.00	6.62
Water	1.61	43.55	-.--	0.00	79.88	0.00	41.15
FROM Herb	9.63	1.40	.60	-.--	29.71	0.00	9.43
Forest	177.03	139.69	34.72	64.23	-.--	0.00	1003.15
Agri-Crops	2.61	.20	0.00	0.00	22.28	-.--	1.20
Agri-Pasture	261.73	40.54	.80	308.69	1630.57	0.00	-.--

**Big Music Creek-Bull Shoals Lake
(110100030708)**

Area Summary

Area - Square Miles.....	49.21
Area - Acres.....	31861.78

Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	393.00	1289.00
Elevation Minimum.....	197.00	646.00
Elevation Average.....	252.00	827.00

Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.22	.44%
Bare.....	.13	.26%
Water.....	11.05	22.31%
Herbaceous.....	.02	.04%
Forest.....	35.33	71.33%
Agri - Crops.....	.01	.02%
Agri - pasture.....	2.77	5.59%

Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.34	.69%
Bare.....	.29	.59%
Water.....	9.96	20.12%
Herbaceous.....	.59	1.19%
Forest.....	35.04	70.77%
Agri - Crops.....	.01	.02%
Agri - pasture.....	3.28	6.62%

Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.37	.75%
Bare.....	.23	.46%
Water.....	10.21	20.62%
Herbaceous.....	2.68	5.41%
Forest.....	33.10	66.86%
Agri - Crops.....	.09	.18%
Agri - pasture.....	2.83	5.72%

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	-.--	11.64	7.02	20.27	0.00	19.67
Water	0.0	225.00	-.--	38.94	426.71	0.00	284.81
FROM Herb	0.0	.80	0.00	-.--	7.63	0.00	2.41
Forest	6.62	111.19	39.34	25.49	-.--	0.00	279.79
Agri-Crops	0.0	1.40	0.00	0.00	.40	-.--	.60
Agri-Pasture	3.81	8.43	1.00	48.97	339.40	0.00	-.--