

# Watershed Report

## Lower Frog Bayou

### 1111020105

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 Frog Bayou (1111020105)

#### Area Summary

Area - Square Miles.....	143.11
Area - Acres.....	92668.83

#### Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximum.....	582.00	1909.00
Elevation Minimum.....	110.00	361.00
Elevation Average.....	262.00	859.00

#### Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	4.47	3.12%
Bare.....	.06	.04%
Water.....	1.12	.78%
Herbaceous.....	.76	.53%
Forest.....	88.88	62.07%
Agri - Crops.....	.90	.63%
Agri - pasture.....	47.00	32.82%

#### Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	12.98	9.06%
Bare.....	.89	.62%
Water.....	1.07	.75%
Herbaceous.....	3.50	2.44%
Forest.....	87.85	61.35%
Agri - Crops.....	.93	.65%
Agri - pasture.....	35.98	25.13%

#### Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	16.29	10.84%
Bare.....	.35	.23%
Water.....	.80	.53%
Herbaceous.....	12.93	8.60%
Forest.....	83.16	55.34%
Agri - Crops.....	.76	.51%

Agri - pasture.....: 28.88 19.22%

**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	9.23	-.--	0.00	.40	2.61	1.81	1.61
Water	48.57	24.89	-.--	27.70	202.92	5.62	41.55
FROM Herb	94.53	3.81	8.43	-.--	163.58	1.61	19.87
Forest	2222.27	448.39	119.42	434.34	-.--	34.92	1685.57
Agri-Crops	122.23	4.42	3.81	34.12	308.69	-.--	3.21
Agri-Pasture	2955.66	136.68	73.26	1399.15	2852.30	456.01	-.--

# Sub-Watershed Summary (12 Digit HUC)

## Frog Bayou Outlet (111102010505)

### Area Summary

Area - Square Miles.....	26.92
Area - Acres.....	17429.43

### Elevation Summary

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	281.00	922.00
Elevation Minimum.....	110.00	361.00
Elevation Average.....	163.00	535.00

### Land Use / Land Cover for 1999

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	1.34	4.92%
Bare.....	.02	.07%
Water.....	.43	1.58%
Herbaceous.....	.28	1.03%
Forest.....	10.90	40.01%
Agri - Crops.....	.48	1.76%
Agri - pasture.....	13.79	50.62%

### Land Use / Land Cover for 2004

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	4.35	15.96%
Bare.....	.12	.44%
Water.....	.41	1.50%
Herbaceous.....	1.11	4.07%
Forest.....	11.10	40.73%
Agri - Crops.....	.58	2.13%
Agri - pasture.....	9.58	35.16%

### Land Use / Land Cover for 2006

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	5.57	20.44%
Bare.....	.06	.22%
Water.....	.32	1.17%
Herbaceous.....	3.64	13.36%
Forest.....	9.94	36.48%
Agri - Crops.....	.48	1.76%
Agri - pasture.....	7.24	26.57%

### 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	4.82	-.--	0.00	0.00	2.41	1.81	1.40
Water	27.90	2.01	-.--	7.63	85.10	4.82	15.45
FROM Herb	25.29	0.00	5.82	-.--	65.83	1.00	6.02
Forest	729.78	40.34	44.76	96.94	-.--	19.47	359.67
Agri-Crops	48.97	.80	3.81	17.86	176.22	-.--	2.41
Agri-Pasture	1204.66	17.86	34.32	456.01	821.71	291.23	-.--

**Hurricane Creek-Frog Bayou  
(111102010501)**

**Area Summary**

Area - Square Miles.....: 37.50  
 Area - Acres.....: 24284.18

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	582.00	1909.00
Elevation Minimum.....:	150.00	492.00
Elevation Average.....:	300.00	984.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.81	2.16%
Bare.....:	.02	.05%
Water.....:	.18	.48%
Herbaceous.....:	.11	.29%
Forest.....:	28.87	76.82%
Agri - Crops.....:	.12	.32%
Agri - pasture.....:	7.47	19.88%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	2.31	6.15%
Bare.....:	.27	.72%
Water.....:	.17	.45%
Herbaceous.....:	.58	1.54%
Forest.....:	28.12	74.83%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	6.13	16.31%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	2.66	7.08%
Bare.....:	.06	.16%
Water.....:	.07	.19%
Herbaceous.....:	2.53	6.73%
Forest.....:	27.33	72.72%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	4.93	13.12%

**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	3.21	-.--	0.00	0.00	.20	0.00	0.00
Water	7.63	14.05	-.--	5.82	67.44	0.00	10.44
FROM Herb	32.92	3.21	.60	-.--	18.87	.20	7.02
Forest	429.32	165.39	40.54	71.25	-.--	.40	410.85
Agri-Crops	57.40	2.81	0.00	0.00	8.43	-.--	.20
Agri-Pasture	347.03	41.15	5.82	214.36	541.72	0.00	-.--

**East Cedar Creek  
(111102010503)**

**Area Summary**

Area - Square Miles.....:	30.09
Area - Acres.....:	19485.93

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....:	548.00	1797.00
Elevation Minimum.....:	148.00	485.00
Elevation Average.....:	302.00	991.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.19	.64%
Bare.....:	.00	-.--%
Water.....:	.06	.20%
Herbaceous.....:	.02	.07%
Forest.....:	22.48	75.41%
Agri - Crops.....:	.00	-.--%
Agri - pasture.....:	7.06	23.68%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.64	2.15%
Bare.....:	.19	.64%
Water.....:	.05	.17%
Herbaceous.....:	.49	1.64%
Forest.....:	22.01	73.78%
Agri - Crops.....:	.01	.03%
Agri - pasture.....:	6.44	21.59%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....:	.89	2.99%
Bare.....:	.05	.17%
Water.....:	.03	.10%
Herbaceous.....:	2.20	7.38%
Forest.....:	21.09	70.75%
Agri - Crops.....:	.01	.03%
Agri - pasture.....:	5.54	18.58%

**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	-.--	0.00	0.00	0.00	0.00	0.00
Water	.60	2.41	-.--	3.01	9.03	0.00	7.23
FROM Herb	.40	0.00	0.00	-.--	6.02	0.00	2.21
Forest	139.90	118.22	6.42	60.41	-.--	.60	486.52
Agri-Crops	0.0	0.00	0.00	0.00	0.00	-.--	0.00
Agri-Pasture	99.75	24.29	2.81	150.33	466.45	2.61	-.--

**West Cedar Creek  
(111102010502)**

**Area Summary**

Area - Square Miles.....	21.67
Area - Acres.....	14030.35

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	559.00	1834.00
Elevation Minimum.....	208.00	682.00
Elevation Average.....	355.00	1164.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.05	.23%
Bare.....	.00	-.--%
Water.....	.02	.09%
Herbaceous.....	.01	.05%
Forest.....	19.14	88.32%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	2.45	11.31%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.64	2.95%
Bare.....	.08	.37%
Water.....	.02	.09%
Herbaceous.....	.21	.97%
Forest.....	18.62	85.96%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	2.09	9.65%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	.93	4.29%
Bare.....	.02	.09%
Water.....	.01	.05%
Herbaceous.....	.86	3.97%
Forest.....	18.01	83.15%
Agri - Crops.....	.00	-.--%
Agri - pasture.....	1.83	8.45%

**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	.20	0.00	0.00	0.00
Water	.80	1.81	-.--	1.40	4.21	0.00	0.00
FROM Herb	0.0	0.00	0.00	-.--	1.20	0.00	0.00
Forest	241.45	54.59	0.00	48.17	-.--	0.00	174.02
Agri-Crops	.40	0.00	0.00	.40	0.00	-.--	0.00
Agri-Pasture	114.00	7.23	2.21	91.72	177.83	0.00	-.--

**Little Frog Bayou  
(111102010504)**

**Area Summary**

Area - Square Miles.....	26.93
Area - Acres.....	17438.94

**Elevation Summary**

	<u>Meters</u>	<u>Feet</u>
Elevation Maximun.....	366.00	1200.00
Elevation Minimum.....	111.00	364.00
Elevation Average.....	192.00	630.00

**Land Use / Land Cover for 1999**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	2.08	7.74%
Bare.....	.02	.07%
Water.....	.43	1.60%
Herbaceous.....	.34	1.26%
Forest.....	7.49	27.85%
Agri - Crops.....	.30	1.12%
Agri - pasture.....	16.23	60.36%

**Land Use / Land Cover for 2004**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	5.04	18.75%
Bare.....	.23	.86%
Water.....	.42	1.56%
Herbaceous.....	1.11	4.13%
Forest.....	8.00	29.76%
Agri - Crops.....	.34	1.26%
Agri - pasture.....	11.74	43.68%

**Land Use / Land Cover for 2006**

	<u>Sq. Miles</u>	<u>% of Total</u>
Urban.....	6.24	23.22%
Bare.....	.16	.60%
Water.....	.37	1.38%
Herbaceous.....	3.70	13.77%
Forest.....	6.79	25.27%
Agri - Crops.....	.27	1.00%
Agri - pasture.....	9.34	34.76%

**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	1.20	-.--	0.00	.20	0.00	0.00	.20
Water	11.64	4.62	-.--	9.83	37.13	.80	8.43
FROM Herb	35.93	.60	2.01	-.--	71.65	.40	4.62
Forest	681.81	69.85	27.70	157.56	-.--	14.45	254.50
Agri-Crops	15.45	.80	0.00	15.86	124.04	-.--	.60
Agri-Pasture	1190.21	46.16	28.10	486.72	844.59	162.17	-.--