

**Stream Name** Illinois River  
**Site ID** IR59  
**Site Location** Illinois River at AR HWY 59  
**GPS Coordinates** 36°06'33"N, 94°32'04"W  
**USGS Station ID** 07195430  
**AWRC Publication No** MSC 352  
**Funding Agency** Arkansas Natural Resources Commission  
**Dates** 7/1/08-6/30/09

**Definitions:** Manual Manual samples were collected by AWRC personnel using a Kemmerer type vertical sampler from the bridge during base flow conditions.  
 Discrete Discrete samples were collected by an autosampler across the rising and falling limbs of storm events based on the amount of flow passing through the sampling site.  
 Composite Composite samples were produced using the discrete samples from a given storm event by combining equal volumes of each discrete sample into a single composite sample.

Sample Date	Sample Time	Type of Sample	Ammonia-N	Chloride	Nitrate-N	Soluble Reactive P	Sulfate	Total Nitrogen	Total Phosphorus	Total Suspended Solids
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
7/2/2008	6:00	Manual	0.03	11.6	2.61	0.072	11.6	2.94	0.09	8
7/5/2008	18:00	Composite	0.15	8.3	1.82	0.120	8.8	2.42	0.29	186
7/9/2008	21:45	Discrete	0.17	6.0	1.59	0.298	8.5	2.25	0.25	389
7/10/2008	7:00	Composite	0.14	7.2	1.95	0.383	8.6	2.57	0.28	243
7/10/2008	7:00	Discrete	0.10	5.8	1.46	0.306	8.3	2.09	0.25	104
7/11/2008	7:15	Composite	0.13	8.9	1.58	0.317	8.2	2.49	0.31	159
7/13/2008	7:45	Composite	0.05	6.8	2.00	0.214	9.6	2.63	0.18	51
7/15/2008	7:15	Composite	0.08	6.8	1.79	0.271	7.7	2.38	0.12	182
7/16/2008	18:00	Composite	0.05	7.7	2.52	0.531	9.2	2.90	0.11	24
7/20/2008	10:00	Manual	0.02	19.1	4.07	0.126	11.7	3.36	0.10	12
7/31/2008	8:00	Manual	0.05	12.7	2.90	0.076	12.1	3.12	0.09	9
8/8/2008	2:05	Discrete	0.41	16.4	2.98	0.071	14.9	4.14	0.35	70
8/10/2008	15:25	Discrete	0.04	10.7	2.21	0.109	11.6	2.67	0.32	147
8/11/2008	6:00	Composite	0.08	6.8	1.48	0.137	8.4	2.08	0.57	263
8/12/2008	17:00	Composite	0.05	7.1	1.63	0.121	9.6	2.26	0.25	54
8/14/2008	11:30	Manual	0.00	11.4	2.62	0.086	11.7	2.98	0.12	10
9/1/2008	15:00	Manual	0.01	15.1	2.45	0.074	14.4	2.79	0.10	7
9/4/2008	6:45	Composite	0.19	7.6	1.43	0.160	10.6	2.32	0.73	447
9/5/2008	0:59	Discrete	0.14	5.6	1.41	0.135	9.2	1.78	0.29	86
9/5/2008	9:15	Composite	0.19	0.0	1.20	0.163	8.6	1.81	0.40	153
9/7/2008	10:00	Composite	0.03	7.3	2.06	0.092	10.1	2.47	0.18	38
9/14/2008	20:00	Composite	0.23	5.6	1.37	0.137	8.1	1.96	0.11	690
9/14/2008	21:55	Composite	0.36	3.1	0.72	0.195	5.3	1.37	0.12	377
9/16/2008	6:30	Composite	0.16	4.5	1.13	0.162	7.2	1.84	0.14	193
9/17/2008	17:45	Composite	0.02	7.6	2.37	0.072	10.3	2.57	0.12	18
9/21/2008	10:45	Manual	0.00	10.5	3.15	0.075	12.4	3.19	0.09	4
10/5/2008	11:45	Manual	0.00	14.2	3.11	0.057	13.4	3.14	0.08	2
10/9/2008	6:45	Composite	0.06	12.2	2.97	0.055	12.3	3.33	0.12	17
10/19/2008	9:30	Manual	0.00	15.7	2.97	0.070	15.3	2.96	0.11	1
11/2/2008	9:00	Manual	0.00	17.3	2.87	0.062	16.1	1.50	0.06	1
11/16/2008	9:15	Manual	0.01	15.6	2.70	0.065	15.7	3.20	0.09	1
12/3/2008	9:30	Manual	0.00	16.4	3.13	0.057	14.2	2.97	0.08	1
12/17/2008	13:00	Manual	0.00	18.4	3.14	0.060	17.8	3.19	0.07	3
12/28/2008	9:45	Discrete	0.10	9.3	1.73	0.203	11.9	2.45	0.50	102
1/4/2009	10:30	Manual	0.00	14.2	3.04	0.029	14.4	3.10	0.08	2
1/18/2009	16:00	Manual	0.00	19.9	3.31	0.041	18.2	3.33	0.06	1
2/1/2009	10:45	Discrete	0.05	12.2	2.41	0.094	14.9	2.80	0.14	10
2/8/2009	10:00	Manual	0.02	13.6	3.00	0.051	15.3	3.14	0.07	4
2/11/2009	23:00	Discrete	0.49	8.3	1.57	0.192	11.3	2.17	0.49	125
2/12/2009	8:30	Composite	0.37	9.4	1.79	0.176	12.8	2.35	0.55	218
2/13/2009	8:30	Composite	0.20	9.2	2.33	0.095	11.9	2.70	0.22	53
2/13/2009	8:30	Discrete	0.08	9.8	2.74	0.079	12.7	2.93	0.13	24
2/19/2009	8:45	Manual	0.01	11.9	3.40	0.055	14.0	3.49	0.07	6
3/6/2009	10:00	Manual	0.00	14.9	2.98	0.031	15.9	2.99	0.05	4
3/16/2009	9:45	Manual	0.00	16.8	2.95	0.021	17.0	2.98	0.04	4
3/25/2009	2:30	Discrete	0.07	10.6	2.01	0.081	14.6	2.19	0.33	215
3/25/2009	4:30	Discrete	0.14	10.2	1.76	0.125	15.0	2.44	0.48	230
3/25/2009	6:30	Discrete	0.19	9.1	1.47	0.149	14.2	1.95	0.54	201
3/27/2009	8:15	Composite	0.08	8.8	1.78	0.091	12.3	2.13	0.27	52
3/29/2009	11:00	Composite	0.04	8.8	1.79	0.089	13.7	2.15	0.20	50
3/31/2009	7:45	Composite	0.03	8.5	1.97	0.072	12.7	2.26	0.14	21
4/2/2009	8:00	Composite	0.01	9.4	2.37	0.056	12.9	2.52	0.09	9
4/3/2009	12:00	Discrete	0.05	10.1	2.87	0.048	12.2	2.85	0.07	5
4/9/2009	9:45	Manual	0.01	11.3	2.69	0.032	13.7	2.63	0.05	5
4/14/2009	18:15	Composite	0.07	6.7	2.02	0.075	10.1	2.15	0.14	38
4/16/2009	9:30	Composite	0.01	7.8	2.48	0.053	11.3	2.58	0.10	12
4/16/2009	9:30	Discrete	0.01	8.0	2.81	0.057	11.6	3.03	0.10	10
4/19/2009	8:00	Discrete	0.06	7.4	2.30	0.147	9.8	2.77	0.29	70
4/21/2009	8:00	Composite	0.03	6.1	2.19	0.120	9.3	2.54	0.32	108
4/23/2009	8:30	Composite	0.03	8.0	2.84	0.051	10.8	3.01	0.09	9
4/25/2009	14:00	Manual	0.04	9.1	3.04	0.054	11.4	3.37	0.08	7
5/1/2009	7:45	Manual	0.08	10.5	3.02	0.051	12.2	3.39	0.08	2
5/2/2009	1:45	Discrete	0.20	5.9	2.00	0.252	8.0	2.62	0.94	464
5/2/2009	7:45	Discrete	0.08	7.8	2.37	0.135	10.5	2.63	0.28	113
5/2/2009	11:45	Discrete	0.11	6.4	1.84	0.129	9.8	2.19	0.38	149
5/2/2009	17:45	Discrete	0.10	5.4	1.60	0.128	8.7	1.96	0.27	55
5/2/2009	23:45	Discrete	0.06	6.3	1.78	0.102	9.2	2.00	0.20	35
5/3/2009	11:45	Discrete	0.07	6.3	1.66	0.136	9.6	2.16	0.31	81
5/3/2009	17:45	Discrete	0.09	4.6	1.32	0.175	7.8	2.03	0.66	140
5/4/2009	1:45	Discrete	0.07	3.9	1.20	0.180	6.7	1.77	0.44	60
5/4/2009	8:30	Discrete	0.06	4.8	1.71	0.137	8.1	2.01	0.26	0
5/6/2009	7:45	Composite	0.05	5.6	2.25	0.105	9.0	2.44	0.25	74
5/8/2009	8:15	Composite	0.09	4.6	1.65	0.178	8.5	2.18	0.39	110
5/10/2009	9:45	Composite	0.06	5.2	2.01	0.167	9.0	2.33	0.33	91
5/12/2009	8:00	Composite	0.05	6.1	2.35	0.079	9.9	2.62	0.14	22
5/12/2009	8:15	Discrete	0.01	6.7	2.90	0.075	10.5	3.02	0.12	18
5/14/2009	8:15	Composite	0.04	6.2	2.31	0.295	9.4	2.60	0.23	67
5/15/2009	7:00	Composite	0.02	5.6	1.95	0.128	9.4	2.30	0.26	77
5/17/2009	10:00	Composite	0.03	6.3	2.20	0.079	9.4	2.53	0.15	22
5/17/2009	10:15	Discrete	0.01	6.5	2.44	0.079	9.9	2.51	0.15	18
5/19/2009	7:15	Discrete	0.01	7.4	2.78	0.070	9.7	2.98	0.09	12
5/20/2009	12:30	Manual	0.03	8.2	3.01	0.061	10.2	3.00	0.08	10
6/2/2009	8:00	Manual	0.02	10.4	2.75	0.022	11.2	3.05	0.05	7
6/13/2009	8:00	Discrete	0.14	9.8	2.21	0.094	11.5	2.50	0.25	94
6/15/2009	8:15	Discrete	0.08	8.0	1.89	0.090	10.5	2.24	0.17	45
6/18/2009	8:30	Manual	0.02	9.5	2.26	0.086	11.2	2.46	0.15	18