Water-Data Report 2011

05573540 SANGAMON RIVER AT ROUTE 48 AT DECATUR, IL

Lower Illinois Basin
Upper Sangamon Subbasin

LOCATION.--Lat 39°49′52″, long 88°58′35″ referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.21, T.16 N., R.2 E., Macon County, IL, Hydrologic Unit 07130006, on right upstream side of bridge on State Highway 48 in Decatur, 1.2 mi downstream from Lake Decatur Dam, 2.5 mi upstream from Stevens Creek, and at mile 129.0.

DRAINAGE AREA.--938 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: October 1982 to current year.
STAGE: Water years 1994 to current year.
SURFACE-WATER QUALITY
CHEMICAL: Water years 1979-91.

REVISED RECORDS.-- WDR IL-94-2: 1992

GAGE.-- Water-stage recorder, phone telemeter, and crest-stage gage. Datum of gage is 583.43 ft above NGVD of 1929 (583.17 ft NAVD 1988).

REMARKS.--Discharge records poor. Flow regulated by Lake Decatur Dam, 1.2 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 31,800 ft^3/s, May 12, 2002, gage height, 24.33 ft; maximum gage height 24.43 ft, Sept. 14, 2008, discharge 21,500 ft^3/s; no flow in some years.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 05573540, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/05573540.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.4	2.4	1,570	1,170	e130	2,590	338	4,620	4,360	811	2.4	2.0
2	3.7	2.5	1,490	1,420	e112	2,400	300	3,260	3,890	705	1.8	1.7
3	1.7	2.4	1,610	167	e125	1,900	263	2,750	2,770	626	1.6	7.7
4	1.5	2.7	340	248	e132	1,990	330	2,410	2,040	573	2.1	8.0
5	1.3	2.6	97	815	e126	2,710	330	1,670	1,610	328	2.1	2.4
6	1.1	2.1	17	376	e109	2,930	276	1,210	1,540	186	1.8	1.6
7	1.2	2.1	14	140	e83	2,640	326	1,070	1,310	253	1.8	1.3
8	1.3	2.4	16	84	e54	2,610	268	1,070	814	369	1.8	0.99
9	1.5	2.3	18	104	e23	2,950	272	910	1,710	380	1.9	16
10	1.6	2.4	20	1,060	e4.2	3,420	248	555	1,090	301	2.1	4.5
11	2.3	2.6	59	1,590	e3.0	3,040	522	274	2,090	85	1.8	2.9
12	2.5	2.9	345	744	e2.7	2,490	517	192	1,310	17	1.9	3.2
13	2.4	3.2	707	118	e4.0	2,170	382	248	746	19	2.4	2.4
14	1.9	3.4	926	19	44	1,710	417	853	855	243	3.1	4.5
15	2.1	3.6	1,140	5.1	112	947	477	695	3,320	84	4.2	3.4
16	1.9	3.8	693	3.6	672	879	431	1,390	2,540	21	4.1	1.7
17	1.9	4.1	47	3.3	1,860	1,010	476	1,140	1,220	4.2	2.9	1.9
18	2.6	4.5	4.3	198	2,810	1,250	473	1,100	2,510	3.8	3.6	5.7
19	2.7	4.7	3.4	404	2,690	1,110	540	1,290	2,140	3.2	2.0	5.4
20	2.7	4.7	16	237	2,570	854	2,200	1,150	1,090	2.7	1.1	2.2
21	2.6	5.3	22	174	3,230	493	2,540	828	991	2.6	0.85	1.0
22	2.4	22	3.3	e141	4,120	468	3,560	667	955	2.2	0.67	0.75
23	2.7	14	166	e114	3,230	603	5,240	430	924	1.9	0.94	1.0
24	3.0	11	e510	e82	2,220	688	5,530	568	762	4.2	0.96	1.1
25	3.2	51	e590	e26	2,590	552	5,310	1,170	684	3.4	1.5	1.5
26	5.4	240	e270	e7.3	2,050	486	7,100	5,950	677	2.4	2.3	9.8
27	2.5	827	e22	e3.3	1,800	438	7,140	4,410	1,800	3.4	2.4	21
28	1.9	840	3.3	e35	2,310	395	6,790	5,240	2,570	2.4	2.6	5.6
29	1.7	617	3.1	e73	---	282	6,190	6,230	1,240	2.2	2.9	2.4
30	1.5	849	49	e92	---	252	5,480	7,030	800	2.3	3.0	0.47
31	1.7	---	646	e118	---	389	---	6,600	---	2.6	4.2	---
Total	67.9	3,537.7	11,417.4	9,771.6	33,215.9	46,646	64,266	66,980	50,358	5,044.5	68.82	124.11
Mean	2.19	118	368	315	1,186	1,505	2,142	2,161	1,679	163	2.22	4.14
Max	5.4	849	1,610	1,590	4,120	3,420	7,140	7,030	4,360	811	4.2	21
Min	1.1	2.1	3.1	3.3	2.7	252	248	192	677	1.9	0.67	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	240	603	892	848	1,008	1,163	1,125	1,413	1,127	409	115	183
Max	2,217	4,041	2,534	4,115	3,358	2,802	3,674	4,027	4,494	1,947	515	2,454
(WY)	(1994)	(1986)	(2005)	(2005)	(2008)	(1998)	(1994)	(1995)	(2008)	(1993)	(1985)	(2008)
Min	0.24	3.03	2.21	1.23	13.6	165	83.8	108	17.3	2.69	0.33	0.18
(WY)	(1995)	(2008)	(1990)	(2003)	(2003)	(2000)	(1986)	(2001)	(1988)	(1989)	(1996)	(1998)

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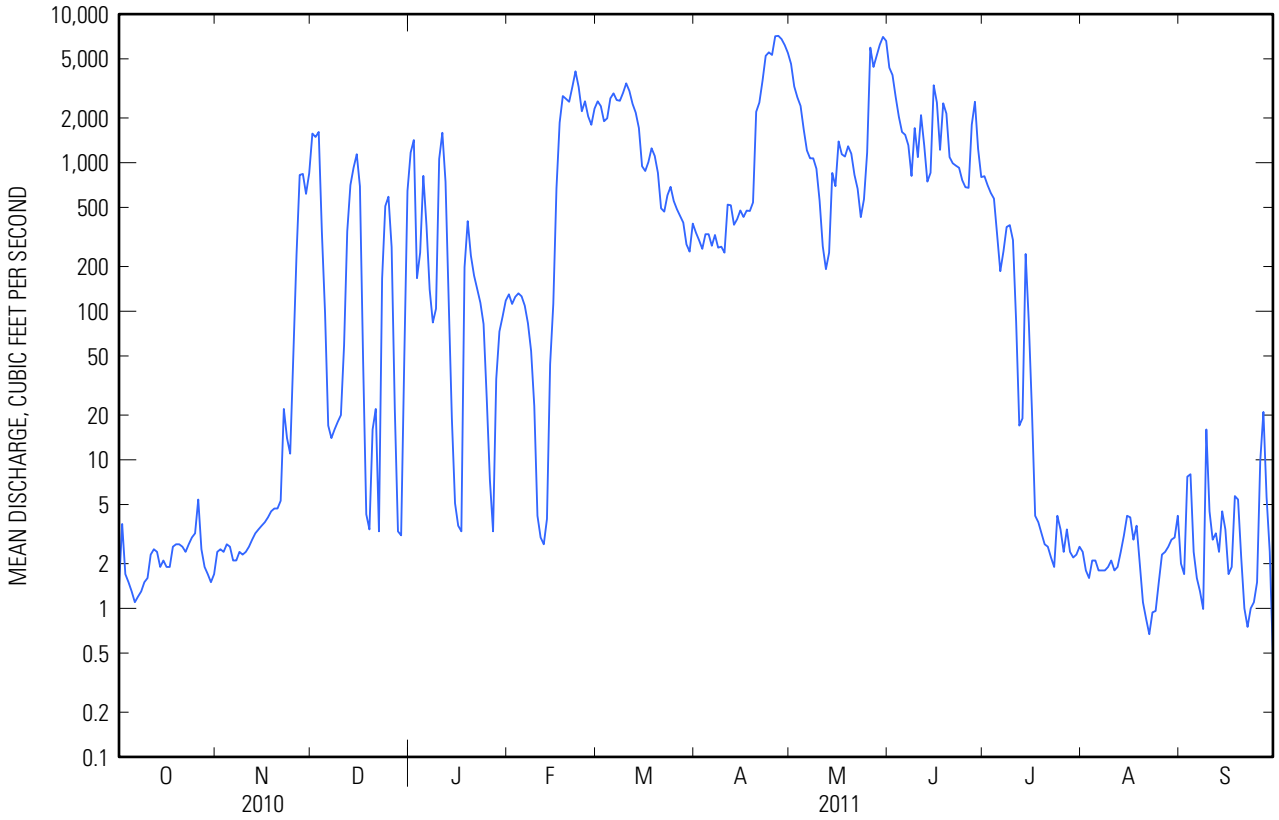
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1983 - 2011	
Annual total	302,882.91		291,497.93			
Annual mean	830		799		759	
Highest annual mean					1,511	1993
Lowest annual mean					164	2000
Highest daily mean	9,240	Jun 23	7,140	Apr 27	19,600	May 12, 2002
Lowest daily mean	0.95	Sep 15	0.47	Sep 30	0.00	A
Annual seven-day minimum	1.1	Sep 12	1.1	Aug 19	0.00	A
Maximum peak flow			8,350	May 31	[B]31,800	May 12, 2002
Maximum peak stage			17.42	May 31	[C]24.43	Sep 14, 2008
Instantaneous low flow			0.29	Sep 30		
10 percent exceeds	2,150		2,580		2,150	
50 percent exceeds	445		126		256	
90 percent exceeds	2.1		1.9		1.7	

[A] At times in some years.
[B] From rating curve extended above 21,000 ft³/s. Gage height 24.33 ft.
[C] Discharge, 21,500 ft³/s.



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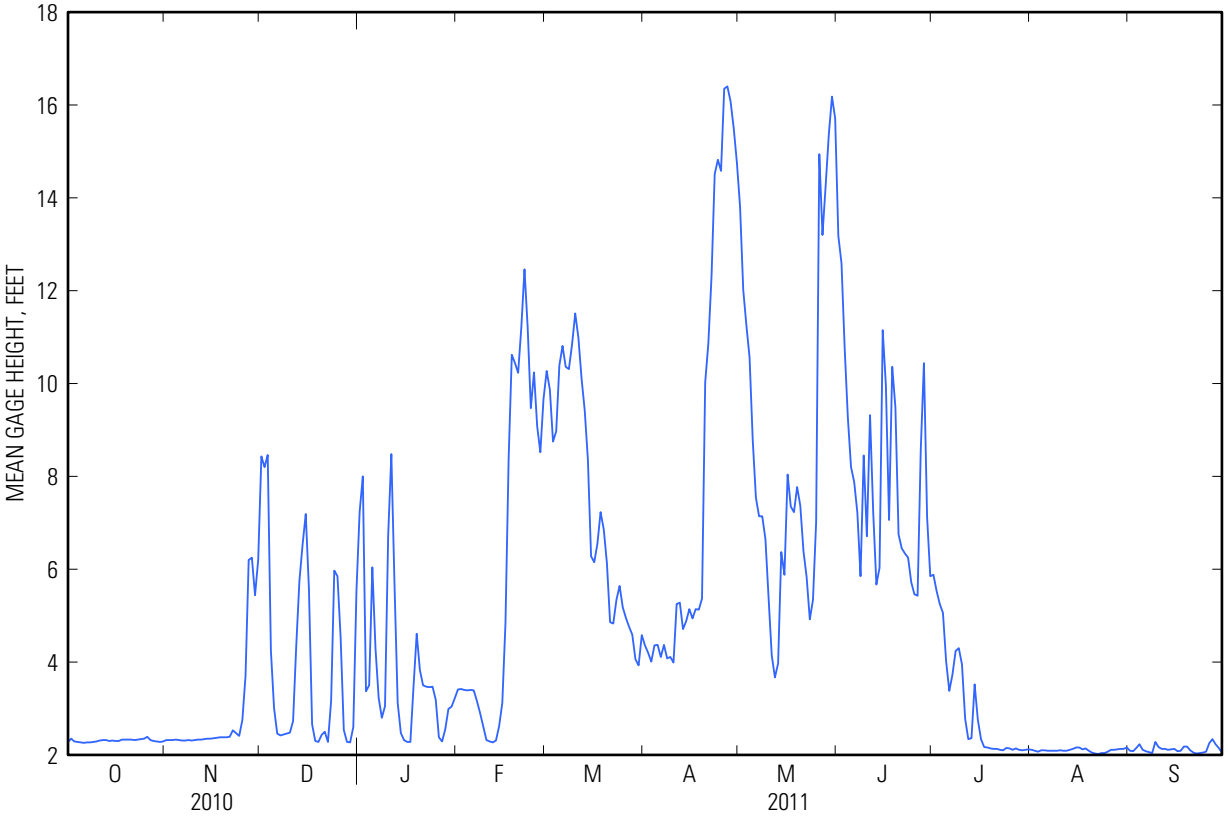
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.28	2.32	8.43	7.24	3.41	10.27	4.36	13.81	13.18	5.88	2.11	2.09
2	2.35	2.32	8.20	8.00	3.42	9.87	4.20	12.02	12.59	5.53	2.09	2.08
3	2.29	2.32	8.46	3.37	3.40	8.75	4.01	11.25	10.76	5.25	2.07	2.15
4	2.28	2.33	4.25	3.50	3.39	8.97	4.36	10.56	9.27	5.06	2.10	2.23
5	2.27	2.32	3.01	6.04	3.40	10.39	4.37	8.78	8.20	4.02	2.10	2.11
6	2.26	2.31	2.46	4.29	3.39	10.81	4.11	7.54	7.88	3.38	2.09	2.08
7	2.27	2.31	2.42	3.23	3.16	10.36	4.37	7.14	7.22	3.73	2.09	2.06
8	2.27	2.32	2.44	2.80	2.90	10.31	4.08	7.14	5.85	4.24	2.09	2.04
9	2.28	2.31	2.46	3.05	2.61	10.84	4.11	6.65	8.45	4.30	2.09	2.28
10	2.29	2.32	2.48	6.73	2.32	11.51	3.99	5.38	6.71	3.95	2.10	2.17
11	2.31	2.33	2.73	8.48	2.29	10.99	5.25	4.14	9.32	2.78	2.09	2.13
12	2.32	2.33	4.35	5.66	2.27	10.11	5.28	3.67	7.23	2.34	2.09	2.13
13	2.32	2.34	5.75	3.12	2.31	9.42	4.71	3.97	5.67	2.36	2.11	2.11
14	2.30	2.35	6.53	2.47	2.62	8.36	4.88	6.37	6.03	3.52	2.13	2.12
15	2.31	2.35	7.19	2.32	3.12	6.28	5.14	5.88	11.15	2.76	2.16	2.13
16	2.30	2.36	5.58	2.28	4.84	6.15	4.94	8.04	9.96	2.34	2.16	2.08
17	2.30	2.37	2.66	2.28	8.39	6.55	5.14	7.35	7.06	2.17	2.12	2.09
18	2.33	2.38	2.30	3.48	10.62	7.23	5.13	7.23	10.36	2.16	2.14	2.18
19	2.33	2.38	2.28	4.61	10.44	6.86	5.37	7.77	9.49	2.14	2.09	2.18
20	2.33	2.38	2.43	3.83	10.23	6.13	10.02	7.37	6.75	2.13	2.05	2.10
21	2.33	2.39	2.50	3.50	11.21	4.86	10.87	6.39	6.45	2.13	2.03	2.05
22	2.32	2.53	2.28	3.47	12.46	4.83	12.31	5.83	6.34	2.11	2.02	2.03
23	2.33	2.47	3.16	3.46	11.21	5.34	14.51	4.92	6.25	2.10	2.04	2.04
24	2.34	2.41	5.97	3.47	9.47	5.64	14.82	5.34	5.72	2.15	2.04	2.05
25	2.35	2.75	5.85	3.19	10.24	5.18	14.58	7.02	5.46	2.14	2.07	2.07
26	2.39	3.70	4.53	2.38	9.08	4.95	16.35	14.94	5.43	2.11	2.11	2.25
27	2.32	6.20	2.54	2.29	8.52	4.76	16.40	13.20	8.57	2.14	2.11	2.34
28	2.30	6.25	2.28	2.55	9.67	4.59	16.08	14.26	10.44	2.11	2.12	2.23
29	2.29	5.44	2.27	2.99	---	4.06	15.50	15.37	7.12	2.10	2.13	2.15
30	2.28	6.20	2.60	3.04	---	3.93	14.76	16.18	5.85	2.11	2.13	2.05
31	2.29	---	5.55	3.22	---	4.58	---	15.71	---	2.12	2.16	---
Mean	2.31	2.90	4.06	3.88	6.09	7.51	8.13	8.75	8.03	3.01	2.10	2.13
Max	2.39	6.25	8.46	8.48	12.46	11.51	16.40	16.18	13.18	5.88	2.16	2.34
Min	2.26	2.31	2.27	2.28	2.27	3.93	3.99	3.67	5.43	2.10	2.02	2.03

	Calendar Year 2010	Water Year 2011
Mean	5.35	4.89
Max	18.04	16.40
Min	2.16	2.02

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