Water-Data Report 2008

05585830 MCKEE CREEK AT CHAMBERSBURG, IL

Lower Illinois Basin
Lower Illinois Subbasin

LOCATION.--Lat 39°49′04″, long 90°39′16″ referenced to North American Datum of 1983, in SW ¼ SW ¼ NE ¼ sec.8, T.3 S., R.2 W., Pike County, IL, Hydrologic Unit 07130011, on right bank at upstream side of bridge on State Highway 104 at east side of Chambersburg, 3.8 miles downstream from Leineke Branch, 5.5 miles upstream from South Fork McKee Creek, and at mile 7.1.

DRAINAGE AREA.--341 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: August 2002 to April 2008 (discontinued).
STAGE: August 2002 to April 2008 (discontinued).
SURFACE-WATER QUALITY
CHEMICAL: Water years 1979-87.
SEDIMENT: October 2002 to April 23, 2008 (discontinued).
MISCELLANEOUS: Sediment concentration and particle size, water years 2002-05.

GAGE.--Water-stage recorder, phone telemeter, automatic water sampler, and crest-stage gage. Datum of gage is 400.00 ft above NGVD of 1929 (established by Illinois Dept. of Transportation) (399.66 ft NAVD 1988).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 10,900 ft^3/s, affected by backwater from Illinois River, Aug. 29, 2004, gage height, 43.59 ft; minimum discharge, 0.69 ft^3/s, Sept. 9-10, 2006.
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily, 3,970 mg/L, Jan. 13, 2005; minimum daily, 7 mg/L, Nov. 17, 18, 2007.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 77,300 tons, Jan. 13, 2005; minimum daily, 0.03 tons, Nov. 18, 2007.

EXTREMES OUTSIDE PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Flood of June 2002 exceeded the measured discharge of 12,100 ft^3/s on June 13, 2002, gage height not determined.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.4	1.2	3.3	e7.4	e36	e280	208	---	---	---	---	---
2	1.4	1.1	3.5	e6.8	e31	375	179	---	---	---	---	---
3	4.7	1.5	4.1	e6.4	e28	567	146	---	---	---	---	---
4	14	1.6	4.0	e6.1	e26	909	136	---	---	---	---	---
5	25	1.8	3.9	5.8	898	340	143	---	---	---	---	---
6	11	1.9	e3.8	5.8	4,760	264	142	---	---	---	---	---
7	6.4	2.0	e3.7	e20	550	e210	125	---	---	---	---	---
8	4.1	2.1	e3.6	e3,800	182	e170	127	---	---	---	---	---
9	2.7	2.3	e3.5	1,530	150	e155	172	---	---	---	---	---
10	2.0	2.3	e3.6	229	137	e150	996	---	---	---	---	---
11	1.5	2.4	e10	106	128	e140	2,210	---	---	---	---	---
12	1.2	2.7	e40	97	e120	e138	452	---	---	---	---	---
13	1.3	2.6	e90	e86	e115	e135	290	---	---	---	---	---
14	1.2	2.3	e30	e80	e112	e140	e250	---	---	---	---	---
15	1.2	2.0	e16	e70	e108	e150	e210	---	---	---	---	---
16	1.0	1.9	e12	e60	e105	e160	e195	---	---	---	---	---
17	1.3	1.8	e10	e54	3,910	182	e180	---	---	---	---	---
18	2.7	1.7	e8.0	e47	4,260	1,470	e200	---	---	---	---	---
19	2.7	1.7	e6.6	e41	762	782	e240	---	---	---	---	---
20	2.2	1.8	5.7	e37	574	375	e210	---	---	---	---	---
21	1.8	2.8	5.3	e35	e450	250	e180	---	---	---	---	---
22	1.5	3.1	5.6	e33	e330	208	e200	---	---	---	---	---
23	1.4	3.4	9.3	e32	e280	189	262	---	---	---	---	---
24	1.2	3.9	90	e31	e240	193	193	---	---	---	---	---
25	1.1	3.5	68	e30	e220	180	---	---	---	---	---	---
26	1.5	3.6	35	e29	e240	172	---	---	---	---	---	---
27	2.0	4.0	23	e28	e270	163	---	---	---	---	---	---
28	1.7	3.5	15	e31	e220	157	---	---	---	---	---	---
29	1.5	3.7	12	e40	e170	160	---	---	---	---	---	---
30	1.4	3.7	9.1	e54	---	140	---	---	---	---	---	---
31	1.4	---	8.1	e45	---	159	---	---	---	---	---	---
Total	105.5	73.9	545.7	6,683.3	19,412	9,063	---	---	---	---	---	---
Mean	3.40	2.46	17.6	216	669	292	---	---	---	---	---	---
Max	25	4.0	90	3,800	4,760	1,470	---	---	---	---	---	---
Min	1.0	1.1	3.3	5.8	26	135	---	---	---	---	---	---
Cfsm	0.01	0.01	0.05	0.63	1.96	0.86	---	---	---	---	---	---
In.	0.01	0.01	0.06	0.73	2.12	0.99	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	46.0	171	189	255	299	210	188	157	87.2	57.8	220	114
Max	200	743	572	1,147	669	354	321	458	131	211	1,055	600
(WY)	(2005)	(2005)	(2004)	(2005)	(2008)	(2004)	(2003)	(2003)	(2006)	(2003)	(2004)	(2003)
Min	1.96	2.46	9.66	9.78	17.2	84.6	68.7	15.3	21.9	5.50	1.64	1.64
(WY)	(2007)	(2008)	(2006)	(2003)	(2006)	(2006)	(2006)	(2006)	(2007)	(2005)	(2007)	(2007)

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SUMMARY STATISTICS

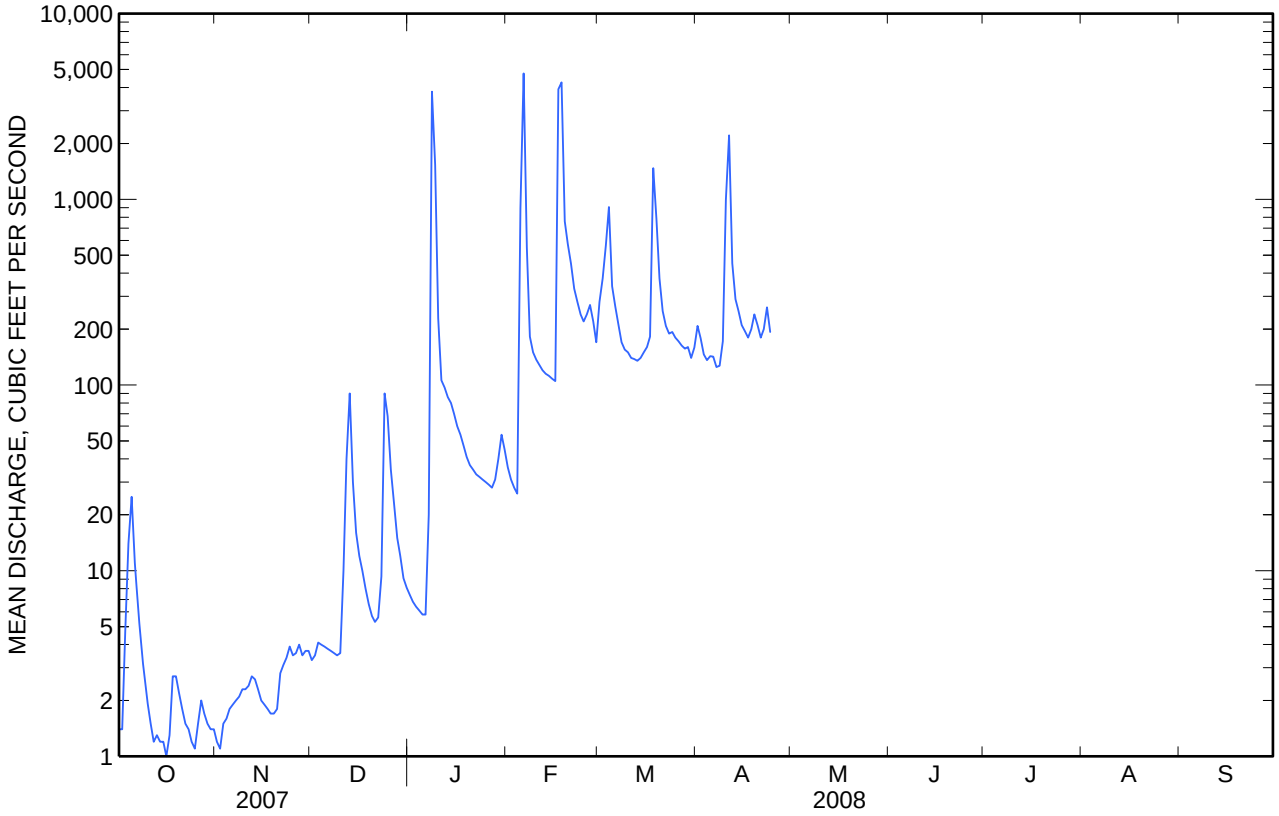
	Calendar Year 2007		Water Years 2002 - 2008	
Annual total	29,407.98			
Annual mean	80.6		168	
Highest annual mean			283	2005
Lowest annual mean			32.4	2006
Highest daily mean	2,040	Mar 2	[A]10,100	Aug 28, 2004
Lowest daily mean	0.95	Sep 20	0.73	Sep 10, 2006
Annual seven-day minimum	0.97	Sep 18	0.86	Sep 4, 2006
Maximum peak flow			[A,B]10,900	Aug 29, 2004
Maximum peak stage			[C]45.81	Jan 14, 2005
Instantaneous low flow			0.69	D
Annual runoff (cfsm)	0.236		0.491	
Annual runoff (inches)	3.21		6.68	
10 percent exceeds	179		246	
50 percent exceeds	11		30	
90 percent exceeds	1.4		3.6	

[A] Affected by backwater from Illinois River.

[B] Gage height, 43.59 ft.

[C] Discharge, 9,570 ft³/s.

[D] Sept. 9-10, 2006.



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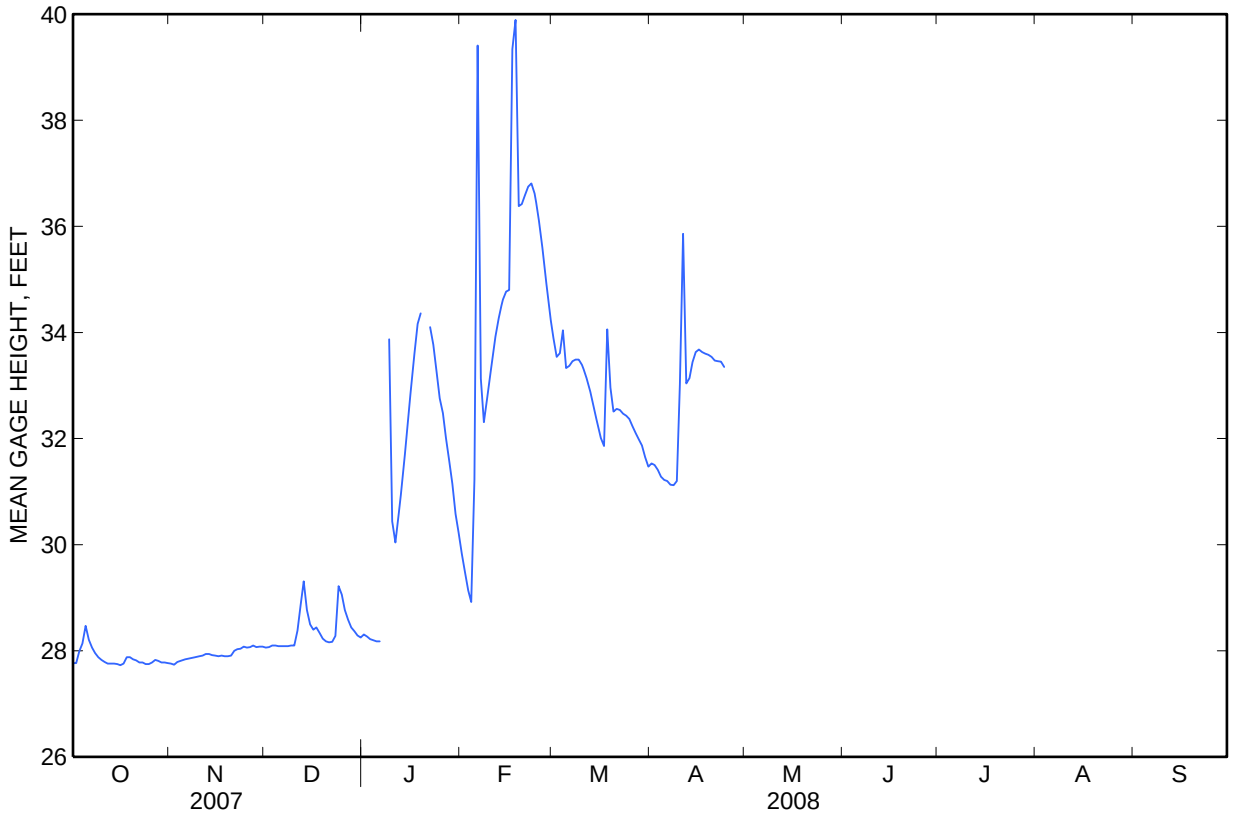
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	27.77	27.76	28.06	28.31	29.83	33.89	31.53	---	---	---	---	---
2	27.77	27.74	28.07	28.27	29.48	33.54	31.50	---	---	---	---	---
3	27.99	27.79	28.10	28.22	29.14	33.61	31.41	---	---	---	---	---
4	28.14	27.81	28.10	28.20	28.92	34.04	31.28	---	---	---	---	---
5	28.47	27.83	28.09	28.18	31.23	33.33	31.22	---	---	---	---	---
6	28.21	27.85	28.09	28.18	39.41	33.37	31.20	---	---	---	---	---
7	28.06	27.86	28.09	---	33.13	33.46	31.13	---	---	---	---	---
8	27.96	27.87	28.09	---	32.31	33.49	31.12	---	---	---	---	---
9	27.88	27.89	28.10	33.87	32.75	33.49	31.20	---	---	---	---	---
10	27.83	27.90	28.10	30.44	33.20	33.39	33.02	---	---	---	---	---
11	27.79	27.91	28.38	30.04	33.67	33.22	35.86	---	---	---	---	---
12	27.76	27.94	28.87	30.56	34.05	33.04	33.04	---	---	---	---	---
13	27.76	27.94	29.31	31.13	34.35	32.79	33.14	---	---	---	---	---
14	27.76	27.92	28.77	31.71	34.62	32.52	33.44	---	---	---	---	---
15	27.75	27.91	28.50	32.34	34.77	32.26	33.63	---	---	---	---	---
16	27.73	27.90	28.40	33.00	34.80	32.01	33.68	---	---	---	---	---
17	27.76	27.91	28.44	33.60	39.34	31.86	33.63	---	---	---	---	---
18	27.88	27.90	28.34	34.16	39.89	34.06	33.60	---	---	---	---	---
19	27.88	27.90	28.23	34.36	36.38	32.96	33.58	---	---	---	---	---
20	27.84	27.91	28.18	---	36.42	32.51	33.54	---	---	---	---	---
21	27.82	28.00	28.16	---	36.59	32.56	33.47	---	---	---	---	---
22	27.78	28.03	28.17	34.10	36.75	32.54	33.46	---	---	---	---	---
23	27.78	28.04	28.28	33.77	36.81	32.47	33.45	---	---	---	---	---
24	27.75	28.08	29.22	33.27	36.62	32.43	33.35	---	---	---	---	---
25	27.75	28.06	29.06	32.76	36.25	32.37	---	---	---	---	---	---
26	27.78	28.07	28.77	32.48	35.83	32.23	---	---	---	---	---	---
27	27.83	28.10	28.59	32.01	35.34	32.10	---	---	---	---	---	---
28	27.81	28.07	28.44	31.59	34.80	31.98	---	---	---	---	---	---
29	27.78	28.08	28.37	31.15	34.27	31.87	---	---	---	---	---	---
30	27.78	28.08	28.29	30.58	---	31.65	---	---	---	---	---	---
31	27.77	---	28.25	30.23	---	31.47	---	---	---	---	---	---
Mean	27.86	27.93	28.38	---	34.52	32.79	---	---	---	---	---	---
Max	28.47	28.10	29.31	---	39.89	34.06	---	---	---	---	---	---
Min	27.73	27.74	28.06	---	28.92	31.47	---	---	---	---	---	---

05585830 MCKEE CREEK AT CHAMBERSBURG, IL—Continued



05585830 MCKEE CREEK AT CHAMBERSBURG, IL—Continued

WATER-QUALITY RECORDS

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily, 3,970 mg/L, Jan. 13, 2005; minimum daily, 7 mg/L, Nov. 17, 18, 2007.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 77,300 tons, Jan. 13, 2005; minimum daily, 0.03 tons, Nov. 18, 2007.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
[e, estimated]

Day	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)
		October			November			December	
1	1.4	28	0.10	1.2	20	0.07	3.3	102	0.91
2	1.4	30	0.13	1.1	18	0.05	3.5	118	1.1
3	4.7	52	0.67	1.5	17	0.07	4.1	111	1.2
4	14	41	1.5	1.6	18	0.08	4.0	97	1.0
5	25	37	2.5	1.8	19	0.09	3.9	90	0.96
6	11	34	1.0	1.9	19	0.10	e3.8	85	0.87
7	6.4	30	0.52	2.0	20	0.10	e3.7	80	0.80
8	4.1	27	0.30	2.1	20	0.11	e3.6	74	0.72
9	2.7	24	0.17	2.3	21	0.13	e3.5	69	0.65
10	2.0	22	0.11	2.3	22	0.13	e3.6	79	0.77
11	1.5	23	0.09	2.4	22	0.14	e10	100	2.7
12	1.2	25	0.08	2.7	23	0.16	e40	116	12
13	1.3	24	0.08	2.6	21	0.15	e90	83	20
14	1.2	24	0.08	2.3	15	0.09	e30	62	5.1
15	1.2	23	0.07	2.0	11	0.06	e16	58	2.5
16	1.0	22	0.06	1.9	8	0.04	e12	53	1.7
17	1.3	22	0.08	1.8	7	0.04	e10	48	1.3
18	2.7	24	0.17	1.7	7	0.03	e8.0	44	0.95
19	2.7	35	0.25	1.7	9	0.04	e6.6	44	0.78
20	2.2	43	0.26	1.8	11	0.05	5.7	44	0.69
21	1.8	40	0.20	2.8	12	0.09	5.3	45	0.64
22	1.5	36	0.14	3.1	12	0.10	5.6	46	0.70
23	1.4	32	0.12	3.4	15	0.14	9.3	59	1.6
24	1.2	27	0.09	3.9	17	0.19	90	84	21
25	1.1	23	0.07	3.5	16	0.16	68	77	14
26	1.5	25	0.10	3.6	31	0.31	35	68	6.6
27	2.0	30	0.16	4.0	59	0.64	23	60	3.7
28	1.7	28	0.13	3.5	74	0.71	15	52	2.1
29	1.5	26	0.10	3.7	81	0.80	12	48	1.6
30	1.4	24	0.09	3.7	86	0.86	9.1	45	1.1
31	1.4	22	0.08	---	---	---	8.1	46	1.0
Total	105.5	---	9.50	73.9	---	5.73	545.7	---	110.74

05585830 MCKEE CREEK AT CHAMBERSBURG, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
[e, estimated]

Day	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)
		January			February			March	
1	e7.4	48	0.95	e36	122	12	e280	164	124
2	e6.8	50	0.91	e31	122	10	375	205	206
3	e6.4	52	0.89	e28	123	9.3	567	366	719
4	e6.1	70	1.1	e26	123	8.7	909	621	1,540
5	5.8	90	1.4	898	922	4,820	340	561	519
6	5.8	84	1.3	4,760	1,780	23,600	264	367	263
7	e20	143	7.7	550	1,030	1,700	e210	164	93
8	e3,800	2,370	24,300	182	324	168	e170	100	46
9	1,530	1,480	8,130	150	185	75	e155	66	28
10	229	688	453	137	162	60	e150	46	19
11	106	253	75	128	139	48	e140	40	15
12	97	157	41	e120	116	37	e138	105	39
13	e86	108	25	e115	92	29	e135	181	66
14	e80	101	22	e112	71	22	e140	224	85
15	e70	97	18	e108	65	19	e150	257	104
16	e60	85	14	e105	270	77	e160	275	119
17	e54	79	11	3,910	1,690	19,400	182	454	227
18	e47	96	12	4,260	1,220	15,700	1,470	727	3,000
19	e41	112	12	762	461	1,000	782	803	1,740
20	e37	113	11	574	264	410	375	529	547
21	e35	112	11	e450	242	294	250	314	214
22	e33	111	9.9	e330	219	196	208	259	145
23	e32	110	9.5	e280	197	149	189	225	115
24	e31	107	9.0	e240	174	113	193	203	106
25	e30	103	8.3	e220	152	90	180	188	91
26	e29	99	7.7	e240	132	86	172	194	90
27	e28	94	7.1	e270	136	99	163	203	89
28	e31	90	7.5	e220	144	86	157	216	91
29	e40	89	9.6	e170	152	70	160	209	91
30	e54	105	15	---	---	---	140	119	45
31	e45	120	15	---	---	---	159	47	20
Total	6,683.3	---	33,247.85	19,412	---	68,388.0	9,063	---	10,596

05585830 MCKEE CREEK AT CHAMBERSBURG, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
[e, estimated]

Day	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)
		April			May			June	
1	208	93	52	---	---	---	---	---	---
2	179	139	67	---	---	---	---	---	---
3	146	130	51	---	---	---	---	---	---
4	136	115	42	---	---	---	---	---	---
5	143	100	39	---	---	---	---	---	---
6	142	84	32	---	---	---	---	---	---
7	125	69	23	---	---	---	---	---	---
8	127	54	18	---	---	---	---	---	---
9	172	84	44	---	---	---	---	---	---
10	996	635	2,170	---	---	---	---	---	---
11	2,210	457	3,160	---	---	---	---	---	---
12	452	234	296	---	---	---	---	---	---
13	290	115	90	---	---	---	---	---	---
14	e250	30	21	---	---	---	---	---	---
15	e210	27	15	---	---	---	---	---	---
16	e195	27	14	---	---	---	---	---	---
17	e180	27	13	---	---	---	---	---	---
18	e200	27	15	---	---	---	---	---	---
19	e240	27	17	---	---	---	---	---	---
20	e210	27	15	---	---	---	---	---	---
21	e180	27	13	---	---	---	---	---	---
22	e200	27	15	---	---	---	---	---	---
23	262	27	19	---	---	---	---	---	---
24	193	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---
Total	---	---	---	---	---	---	---	---	---

05585830 MCKEE CREEK AT CHAMBERSBURG, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
[e, estimated]

Day	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)	Mean discharge (ft^3/s)	Mean concen-tration (mg/L)	Sediment discharge (tons/day)
		July			August			September	
1	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---
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