Water-Data Report 2007

05466000 EDWARDS RIVER NEAR ORION, IL

Upper Mississippi-Skunk-Wapsipinicon Basin
Flint-Henderson Subbasin

LOCATION.--Lat 41°16′19″, long 90°22′39″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.21, T.15 N., R.1 E., Henry County, IL, Hydrologic Unit 07080104, on left bank at downstream side of bridge on U.S. Highway 150, 1.5 mi north of Opheim, 5.5 mi south of Orion, and at mile 51.5.

DRAINAGE AREA.--155 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: October 1940 to current year. Monthly discharge only for some periods, published in WSP 1308.
STAGE: Water years 1994 to current year.

REVISED RECORDS.-- WSP 1175: 1947(P). WSP 1508: 1942. WDR IL-75-1: Drainage area.

GAGE.-- Water-stage recorder, phone telemeter and crest-stage gage. Datum of gage is 653.96 ft above NGVD of 1929 (U.S. Army Corps of Engineers bench mark) (653.74 ft NAVD 1988). Prior to Apr. 4, 1941, and Apr. 8 to Nov. 11, 1981, nonrecording gage at same site and datum.

REMARKS.--Records good except those for Mar. 23-Apr. 4, which are fair, and estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 8,910 ft^3/s, Feb. 19, 1951, gage height, 13.41 ft, from floodmarks; maximum gage height, 15.52 ft, June 23, 1974, discharge, 5,760 ft 3/s; minimum discharge, 0.3 ft^3/s, Oct. 6, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE: Flood of August 1924 reached a stage of 20.2 ft, from floodmarks.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11	12	282	152	e85	e400	330	252	140	53	35	47
2	10	12	198	130	e80	e1,000	262	221	212	48	33	43
3	9.4	11	156	131	e74	e270	252	200	159	45	31	39
4	10	12	138	132	e70	165	222	188	145	510	29	36
5	9.1	11	126	139	e65	129	201	177	118	272	29	35
6	8.6	11	117	130	e62	122	186	151	106	163	27	33
7	9.7	12	101	121	e59	101	167	145	105	120	26	35
8	10	12	94	123	e57	94	153	e139	92	99	36	32
9	10	11	101	115	e55	128	143	129	81	84	88	29
10	10	13	90	105	e54	261	135	121	80	81	55	28
11	10	31	91	111	e53	176	159	114	77	74	35	29
12	8.9	27	435	105	e52	139	171	105	74	62	30	27
13	8.8	21	415	95	e51	136	151	100	69	57	27	26
14	8.3	20	273	97	e49	129	156	100	66	54	28	25
15	8.3	19	225	129	e45	114	148	97	63	50	27	24
16	8.7	17	191	121	e37	104	137	92	60	47	24	23
17	19	16	171	108	e40	97	133	84	57	65	23	23
18	16	15	147	124	e44	91	124	82	57	76	22	22
19	14	15	134	118	e52	96	116	82	60	147	25	21
20	12	15	132	103	e68	88	110	80	50	145	110	21
21	12	14	544	107	e82	157	109	76	48	86	91	20
22	13	14	452	97	e120	201	108	71	63	70	59	19
23	13	14	311	93	e210	833	106	68	206	62	51	19
24	12	14	240	89	e320	537	97	64	135	56	399	19
25	11	14	216	86	e650	435	259	65	93	52	311	19
26	13	14	195	91	e250	346	755	79	78	48	194	20
27	15	13	174	93	e190	286	616	273	70	50	127	19
28	15	21	161	90	e175	248	412	224	76	49	94	19
29	14	100	146	e110	---	220	329	185	64	43	74	18
30	13	818	142	e102	---	244	284	154	58	38	62	18
31	12	---	157	e92	---	290	---	136	---	36	53	---
Total	354.8	1,349	6,355	3,439	3,149	7,637	6,531	4,054	2,762	2,842	2,255	788
Mean	11.4	45.0	205	111	112	246	218	131	92.1	91.7	72.7	26.3
Max	19	818	544	152	650	1,000	755	273	212	510	399	47
Min	8.3	11	90	86	37	88	97	64	48	36	22	18
Cfsm	0.07	0.29	1.32	0.72	0.73	1.59	1.40	0.84	0.59	0.59	0.47	0.17
In.	0.09	0.32	1.53	0.83	0.76	1.83	1.57	0.97	0.66	0.68	0.54	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	50.0	62.6	72.6	86.3	150	173	197	182	166	102	52.1	45.3
Max	466	486	436	427	871	554	634	558	693	689	466	375
(WY)	(1942)	(1978)	(1983)	(1974)	(1951)	(1979)	(1983)	(1973)	(1974)	(1969)	(1993)	(1989)
Min	0.93	1.87	0.84	0.50	2.44	13.8	11.3	11.3	9.95	6.91	3.48	2.13
(WY)	(1957)	(1977)	(1977)	(1977)	(1989)	(1956)	(1956)	(1989)	(1977)	(1977)	(1988)	(1956)

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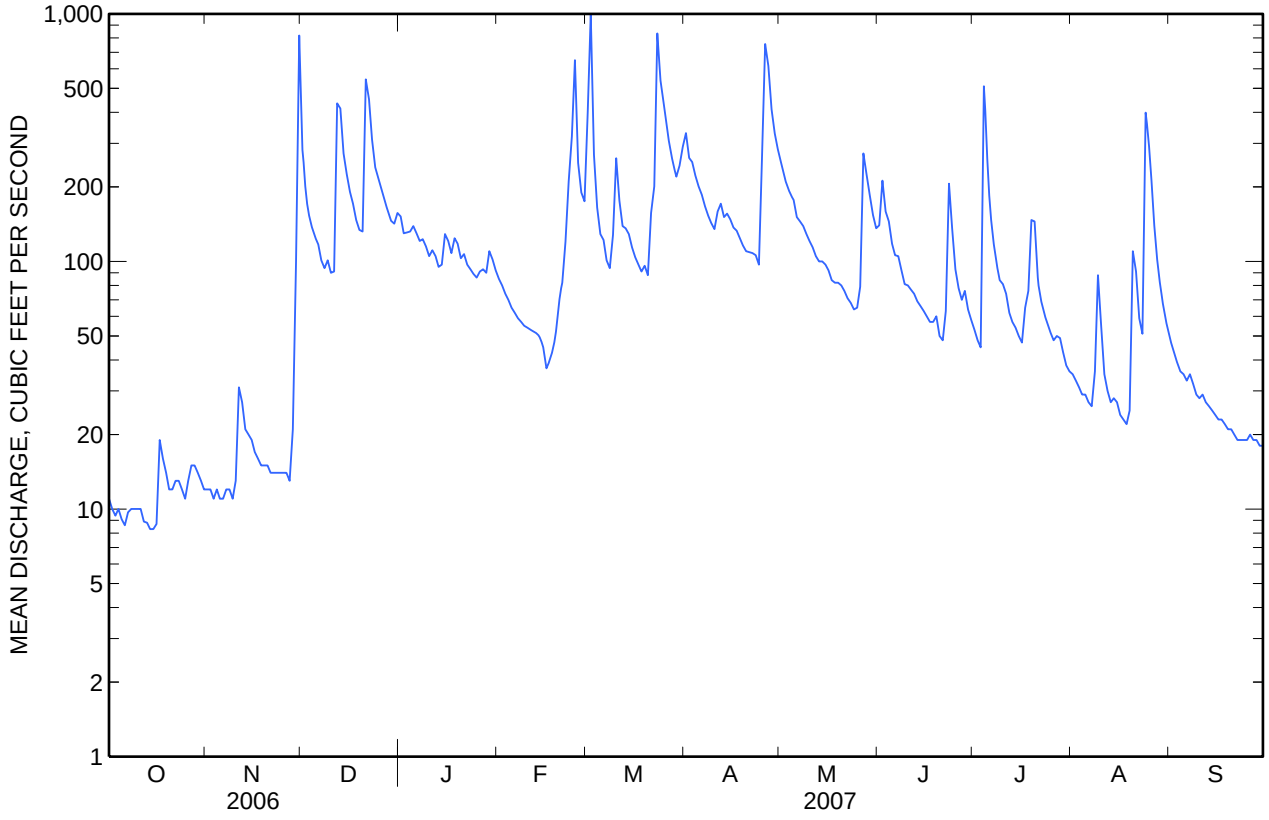
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1941 - 2007	
Annual total	21,294.1		41,515.8			
Annual mean	58.3		114		111	
Highest annual mean					334	1993
Lowest annual mean					22.0	1977
Highest daily mean	1,230	Sep 12	[A]1,000	Mar 2	7,630	Feb 19, 1951
Lowest daily mean	5.4	Jan 17	8.3	Oct 14,15	0.40	Oct 6, 1956
Annual seven-day minimum	7.3	Jan 7	9.0	Oct 10	0.40	Jan 20, 1977
Maximum peak flow			[B]1,480	Mar 23	[C]8,910	Feb 19, 1951
Maximum peak stage			[D]8.84	Mar 1	[E]15.52	Jun 23, 1974
Instantaneous low flow			7.7	Oct 14	0.30	Oct 6, 1956
Annual runoff (cfsm)	0.376		0.734		0.717	
Annual runoff (inches)	5.11		9.96		9.75	
10 percent exceeds	151		249		230	
50 percent exceeds	19		84		48	
90 percent exceeds	8.8		14		6.0	

[A] Estimated due to backwater from ice.
[B] Gage height, 8.06 ft.
[C] Gage height, 13.41 ft. from floodmark.
[D] Ice jam.
[E] Discharge, 5,760 ft³/s.



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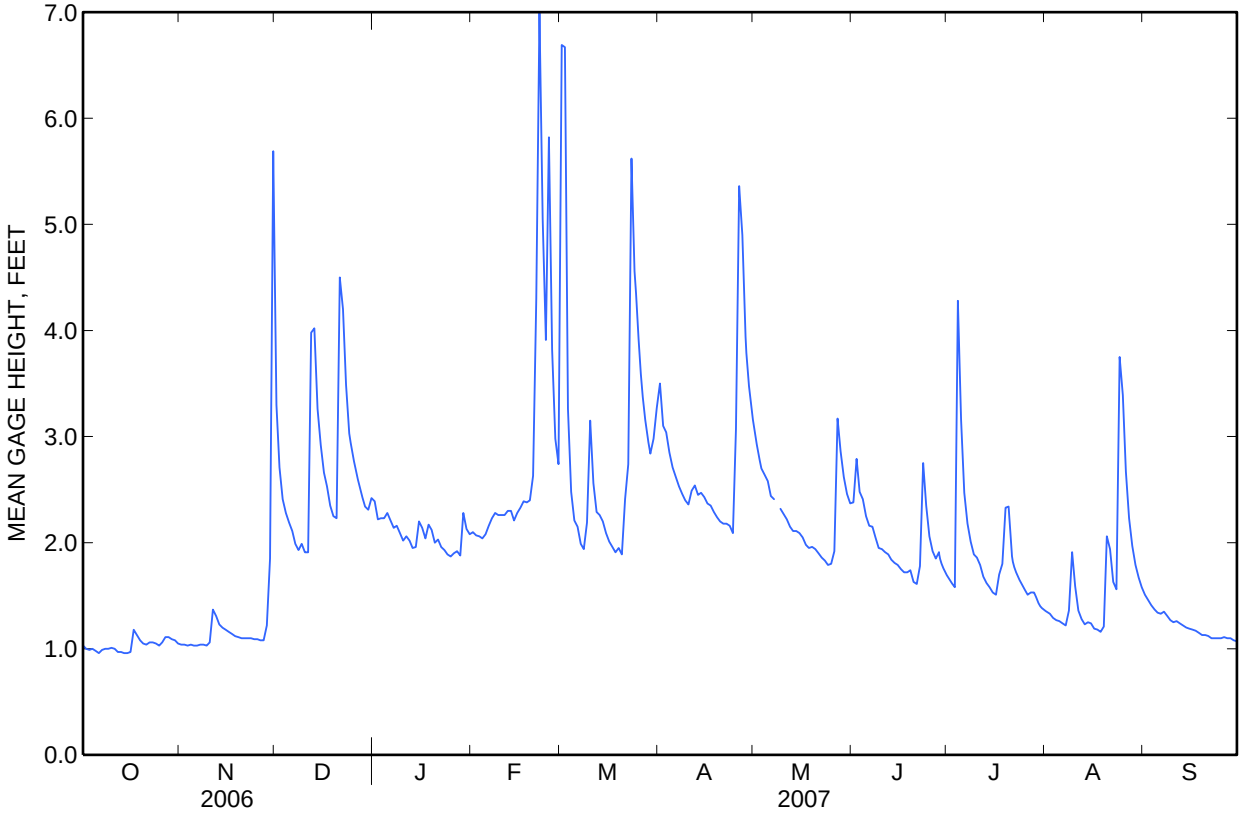
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.03	1.04	3.30	2.39	2.10	6.69	3.50	3.04	2.38	1.67	1.35	1.51
2	1.00	1.04	2.71	2.22	2.07	6.67	3.10	2.84	2.79	1.62	1.33	1.46
3	0.99	1.03	2.41	2.23	2.06	3.26	3.04	2.70	2.48	1.58	1.29	1.41
4	1.00	1.04	2.28	2.23	2.04	2.48	2.85	2.64	2.41	4.28	1.27	1.37
5	0.98	1.03	2.19	2.28	2.08	2.21	2.71	2.58	2.25	3.16	1.26	1.34
6	0.96	1.03	2.11	2.21	2.16	2.15	2.62	2.44	2.16	2.47	1.24	1.33
7	0.99	1.04	1.99	2.14	2.23	1.99	2.53	2.41	2.15	2.18	1.22	1.35
8	1.00	1.04	1.93	2.16	2.28	1.94	2.46	---	2.05	2.01	1.36	1.31
9	1.00	1.03	1.99	2.09	2.26	2.19	2.40	2.32	1.95	1.89	1.91	1.27
10	1.01	1.06	1.91	2.02	2.26	3.15	2.36	2.27	1.94	1.86	1.59	1.25
11	1.00	1.37	1.91	2.06	2.26	2.56	2.49	2.22	1.91	1.79	1.36	1.26
12	0.97	1.31	3.98	2.02	2.30	2.29	2.54	2.15	1.89	1.68	1.28	1.24
13	0.97	1.23	4.02	1.95	2.30	2.26	2.45	2.11	1.84	1.62	1.23	1.22
14	0.96	1.20	3.26	1.96	2.21	2.20	2.47	2.11	1.81	1.58	1.25	1.20
15	0.96	1.18	2.92	2.20	2.28	2.09	2.43	2.09	1.79	1.53	1.24	1.19
16	0.97	1.16	2.66	2.14	2.33	2.01	2.37	2.05	1.75	1.51	1.19	1.18
17	1.18	1.14	2.53	2.04	2.39	1.96	2.35	1.98	1.72	1.70	1.18	1.17
18	1.13	1.12	2.35	2.17	2.38	1.91	2.29	1.95	1.72	1.80	1.16	1.15
19	1.08	1.11	2.25	2.12	2.40	1.95	2.24	1.96	1.74	2.33	1.21	1.13
20	1.05	1.10	2.23	2.00	2.63	1.89	2.20	1.94	1.63	2.34	2.06	1.13
21	1.04	1.10	4.50	2.03	4.30	2.41	2.18	1.90	1.61	1.90	1.94	1.12
22	1.06	1.10	4.20	1.96	6.99	2.74	2.18	1.86	1.78	1.75	1.63	1.10
23	1.06	1.10	3.49	1.93	5.05	5.62	2.16	1.83	2.75	1.67	1.56	1.10
24	1.05	1.09	3.03	1.89	3.91	4.56	2.09	1.79	2.35	1.62	3.75	1.10
25	1.03	1.09	2.85	1.87	5.82	4.06	3.07	1.80	2.06	1.56	3.39	1.10
26	1.06	1.08	2.69	1.90	3.82	3.59	5.36	1.92	1.92	1.51	2.67	1.11
27	1.11	1.08	2.55	1.92	2.98	3.25	4.90	3.17	1.85	1.53	2.23	1.10
28	1.11	1.22	2.45	1.88	2.74	3.01	3.94	2.86	1.91	1.53	1.97	1.10
29	1.09	1.85	2.34	2.28	---	2.84	3.50	2.62	1.79	1.46	1.79	1.08
30	1.08	5.69	2.31	2.13	---	2.98	3.24	2.46	1.72	1.40	1.67	1.07
31	1.05	---	2.42	2.08	---	3.27	---	2.37	---	1.37	1.58	---
Mean	1.03	1.29	2.70	2.08	2.88	2.97	2.80	---	2.00	1.87	1.65	1.22
Max	1.18	5.69	4.50	2.39	6.99	6.69	5.36	---	2.79	4.28	3.75	1.51
Min	0.96	1.03	1.91	1.87	2.04	1.89	2.09	---	1.61	1.37	1.16	1.07

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