06808500 WEST NISHNABOTNA RIVER AT RANDOLPH, IA

Missouri-Nishnabotna Basin
West Nishnabotna Subbasin

LOCATION.--Lat 40°52′23″, long 95°34′48″ referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.17, T.70 N., R.41 W., Fremont County, IA, Hydrologic Unit 10240002, on right bank at upstream side of bridge on State Highway 184, 0.3 mi downstream from Deer Creek, 0.5 mi west of Randolph, 16.0 mi upstream from confluence with East Nishnabotna River, and 30.6 mi upstream from mouth of Nishnabotna River.

DRAINAGE AREA.--1,326 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1948 to current year.

REVISED RECORDS.--WSP 1440: Drainage area. WDR IA-74-1: 1973 (M). WDR IA-76-1: 1975 (P).

GAGE.--Water-stage recorder. Datum of gage is 932.99 ft above NGVD of 1929, unadjusted. Prior to August 26, 1955, nonrecording gage with supplementary water-stage recorder operating above 8.4 ft; June 30, 1949 to August 25, 1955, at same site and datum.

REMARKS.--Records are considered good, except for those estimated daily discharges, which are poor. U.S. Geological Survey rain gage and data collection platform with satellite telemetry at the station. Precipitation records are not published, but are available.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1947 reached a stage of about 24 ft, discharge not determined, from information by local residents.

06808500 WEST NISHNABOTNA RIVER AT RANDOLPH, IA—Continued

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

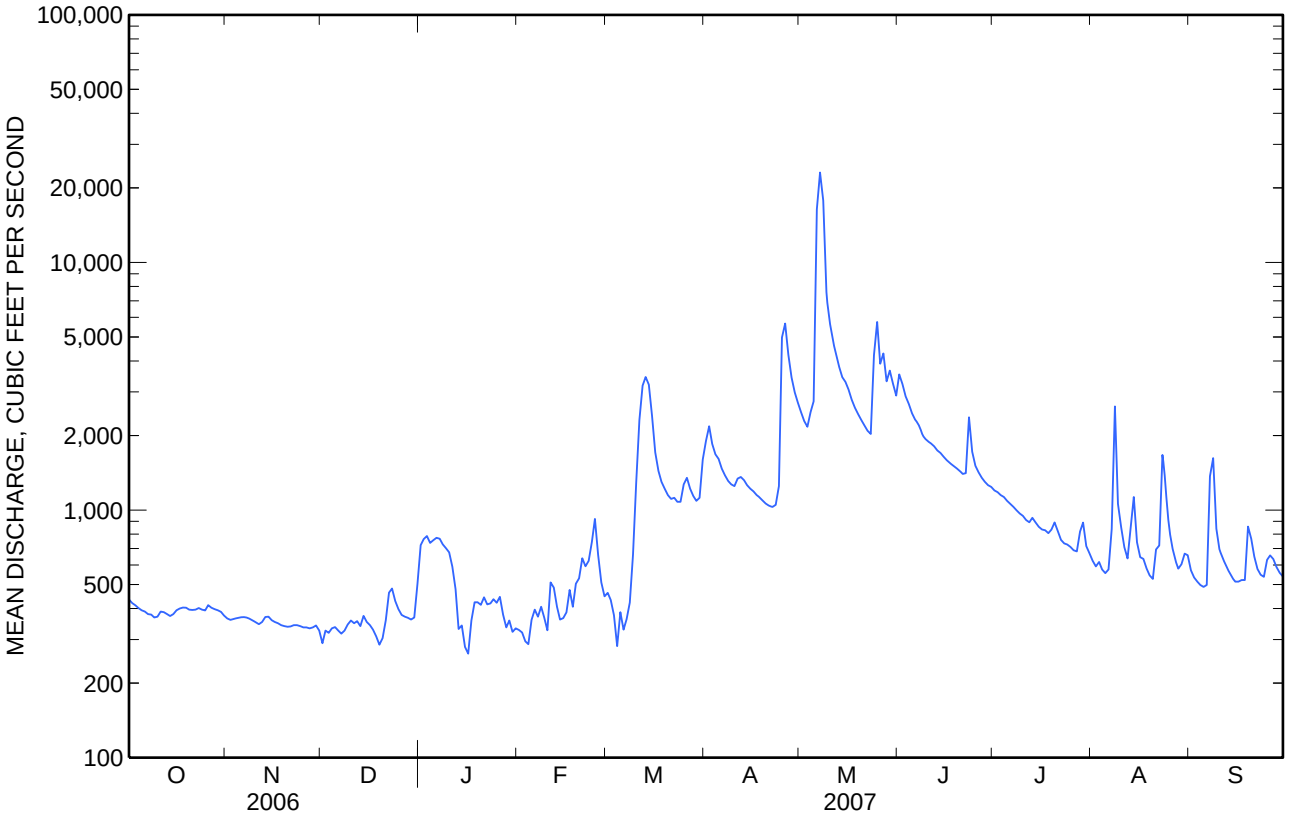
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	435	365	e290	721	e328	e463	1,900	2,490	3,530	1,200	624	571
2	421	360	e326	764	e320	e433	2,180	2,290	3,230	1,180	592	534
3	412	364	e319	785	e295	e376	1,850	2,170	2,880	1,150	617	514
4	402	365	e333	737	e287	e282	1,680	2,490	2,680	1,130	575	498
5	394	368	e337	755	e360	e387	1,610	2,750	2,460	1,090	556	489
6	389	370	e326	773	e396	e329	1,470	16,400	2,320	1,060	575	498
7	380	368	e317	766	e371	e362	1,380	23,100	2,220	1,030	838	1,370
8	378	364	e326	727	e407	e423	1,310	17,800	2,070	998	2,620	1,620
9	368	358	e345	701	e368	e660	1,270	7,580	1,950	969	1,060	841
10	371	352	e358	675	e327	e1,290	1,250	5,850	1,900	947	853	695
11	389	346	e349	e590	e510	e2,310	1,340	4,940	1,860	912	708	641
12	387	353	e356	e479	e486	3,180	1,360	4,270	1,810	892	638	600
13	380	370	e340	e331	e407	3,450	1,320	3,800	1,740	930	856	565
14	373	371	374	e342	e361	3,210	1,260	3,440	1,700	891	1,130	533
15	380	359	353	e280	e366	2,400	1,220	3,290	1,640	856	741	514
16	394	353	343	e263	e386	1,710	1,190	3,070	1,590	835	645	514
17	400	349	329	e358	e476	1,440	1,150	2,790	1,550	829	635	522
18	404	343	309	e424	e407	1,300	1,120	2,590	1,510	807	581	522
19	403	340	286	e424	e504	1,220	1,090	2,440	1,480	833	545	857
20	396	338	304	e414	e530	1,150	1,060	2,310	1,440	891	527	766
21	395	339	359	e444	e639	1,110	1,040	2,200	1,400	822	693	649
22	396	343	464	e416	e593	1,120	1,030	2,090	1,410	758	719	578
23	402	343	482	e420	e624	1,080	1,050	2,030	2,370	733	1,670	548
24	396	340	429	e436	e743	1,080	1,250	4,220	1,720	726	1,220	537
25	393	336	398	e422	e921	1,270	4,980	5,750	1,510	710	900	629
26	413	336	377	e446	e660	1,350	5,670	3,900	1,420	688	719	656
27	403	333	371	e378	e510	1,220	4,240	4,290	1,350	681	635	634
28	398	336	367	e336	e448	1,140	3,430	3,310	1,300	819	580	588
29	394	342	361	e358	---	1,090	2,990	3,660	1,260	890	604	558
30	388	e326	368	e322	---	1,120	2,720	3,240	1,240	715	667	539
31	375	---	504	e333	---	1,600	---	2,900	---	669	657	---
Total	12,209	10,530	11,100	15,620	13,030	39,555	56,410	153,450	56,540	27,641	24,980	19,580
Mean	394	351	358	504	465	1,276	1,880	4,950	1,885	892	806	653
Max	435	371	504	785	921	3,450	5,670	23,100	3,530	1,200	2,620	1,620
Min	368	326	286	263	287	282	1,030	2,030	1,240	669	527	489
Ac-ft	24,220	20,890	22,020	30,980	25,850	78,460	111,900	304,400	112,100	54,830	49,550	38,840
Cfsm	0.30	0.26	0.27	0.38	0.35	0.96	1.42	3.73	1.42	0.67	0.61	0.49
In.	0.34	0.30	0.31	0.44	0.37	1.11	1.58	4.30	1.59	0.78	0.70	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	367	340	294	263	519	917	798	1,129	1,244	867	581	507
Max	2,002	1,277	1,140	1,201	1,777	3,877	2,867	4,950	5,031	6,357	2,610	2,531
(WY)	(1987)	(1973)	(1973)	(1973)	(1973)	(1979)	(1973)	(2007)	(1998)	(1993)	(1993)	(1972)
Min	27.1	33.6	20.6	17.4	19.4	67.8	42.7	97.3	65.6	71.2	30.1	41.0
(WY)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1956)	(1967)	(1956)	(1954)	(1955)	(1955)

06808500 WEST NISHNABOTNA RIVER AT RANDOLPH, IA—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1949 - 2007	
Annual total	112,664		440,645			
Annual mean	309		1,207		652	
Highest annual mean					1,985	1993
Lowest annual mean					111	1968
Highest daily mean	790	May 3	23,100	May 7	25,800	Jun 15, 1998
Lowest daily mean	130	Feb 19	263	Jan 16	10	Dec 17, 1955 [a]
Annual seven-day minimum	142	Feb 17	320	Jan 29	11	Dec 16, 1955
Maximum peak flow			24,800	May 7	40,800	May 26, 1987
Maximum peak stage			24.16	May 7	24.80	Mar 5, 1949 [b]
Annual runoff (ac-ft)	223,500		874,000		472,600	
Annual runoff (cfsm)	0.233		0.910		0.492	
Annual runoff (inches)	3.16		12.36		6.68	
10 percent exceeds	459		2,530		1,400	
50 percent exceeds	315		645		340	
90 percent exceeds	168		342		94	

[a] Also Dec 18-21, 1955.
[b] From graph based on gage readings, backwater from ice.