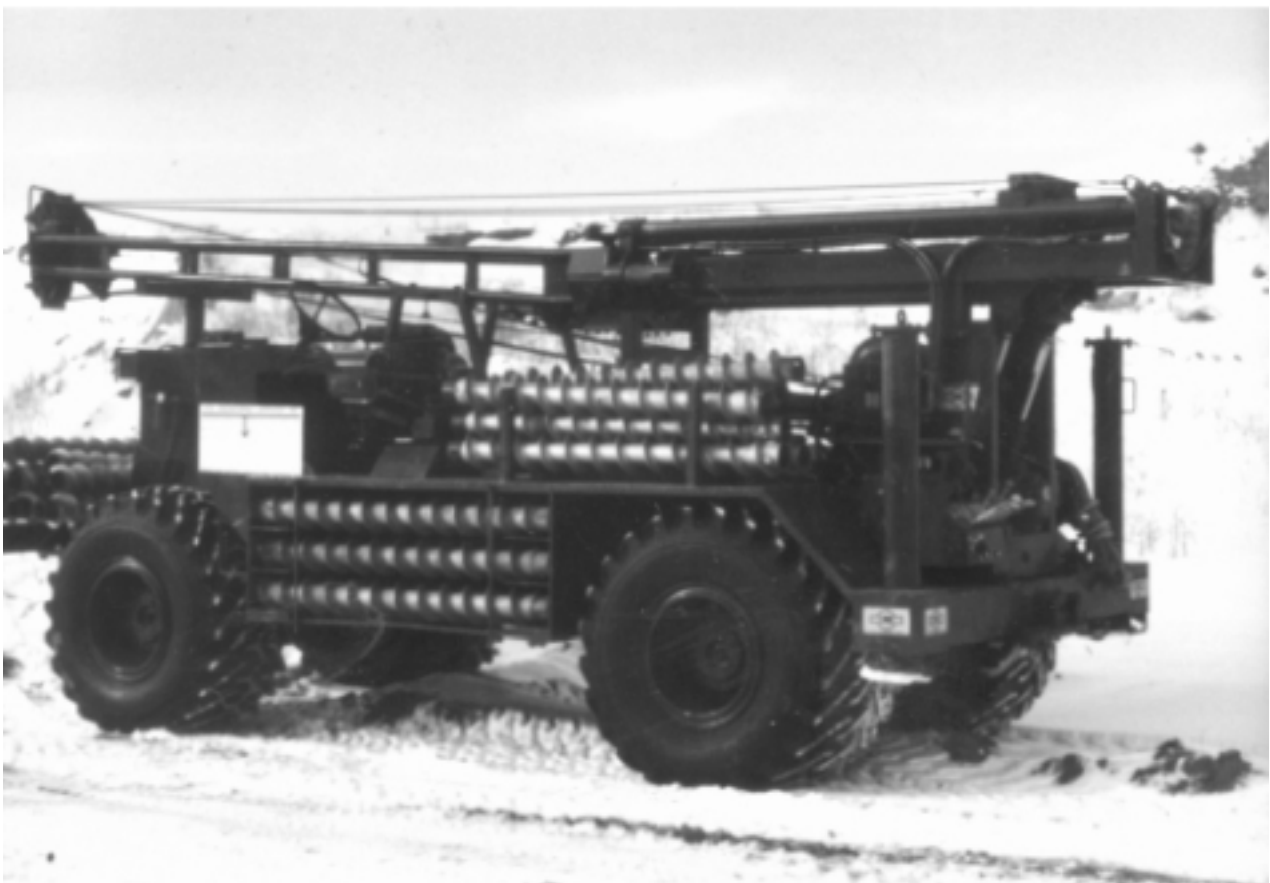


Ground-Water Wells by County

Ground-Water
Levels



Drill Rig.

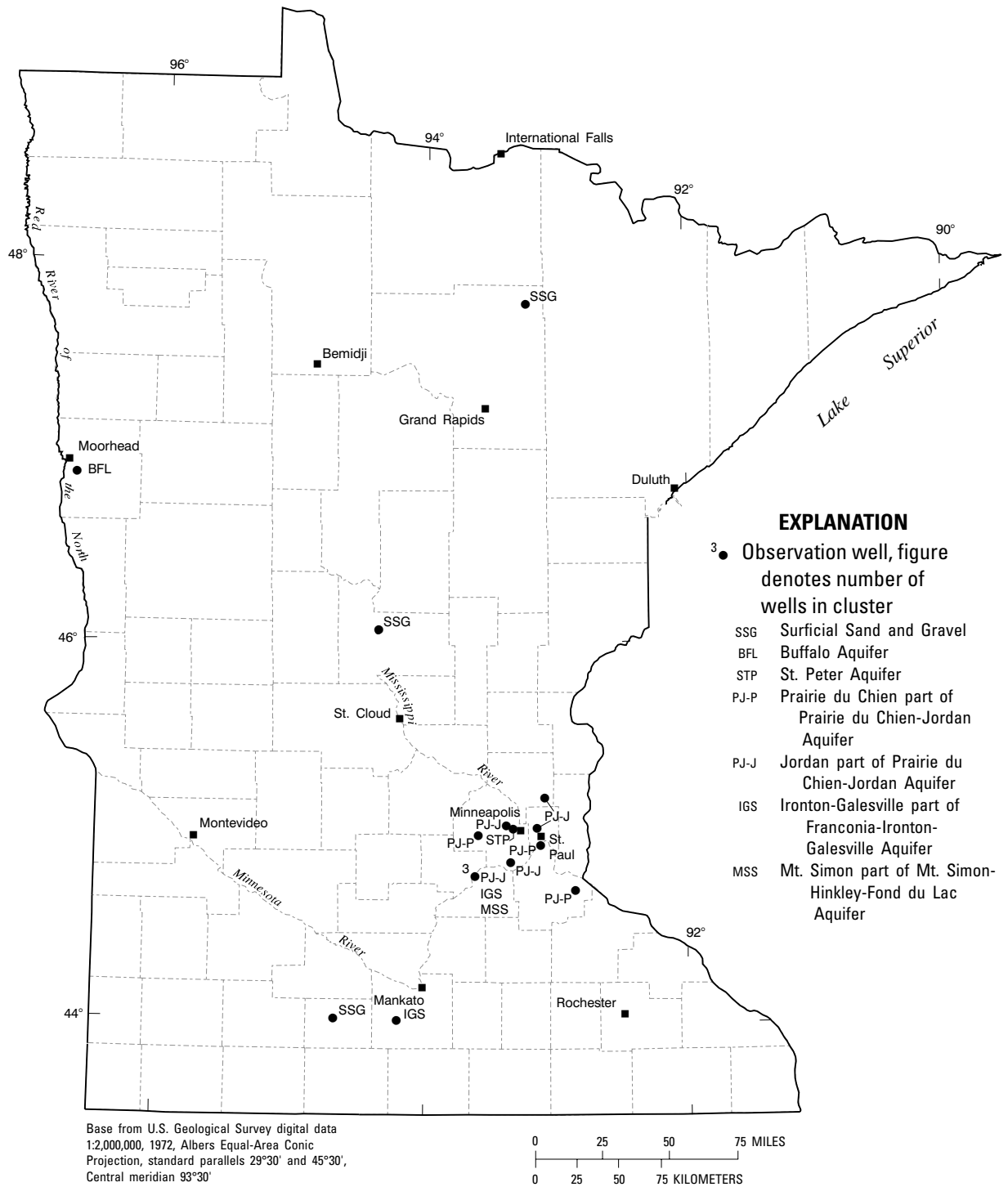


Figure 8. Location of ground-water wells.

GROUND WATER LEVELS

ANOKA COUNTY

450927093033802. Local number, 031N22W23CBC02.

LOCATION.-- Lat 45°09'27", long 93°03'38", in SW¹/₄NW¹/₄SW¹/₄ sec.23, T.31 N., R.22 W., Hydrologic Unit 07010206, at the city of Centerville.

Owner: U. S. Geological Survey.

AQUIFER.-- Jordan Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 6 in. to 95 ft, 2.5 in. to 267 ft, total depth 277 ft, screened 267 to 277 ft, screen diameter 2.4 in.

INSTRUMENTATION.--Electronic data logger with 60-minute recording interval.

DATUM.-- Land-surface datum is 901.6 ft above sea level. Measuring point: Top of recorder platform, 2.20 ft above land-surface datum.

REMARKS.-- Water level affected by nearby flowing wells.

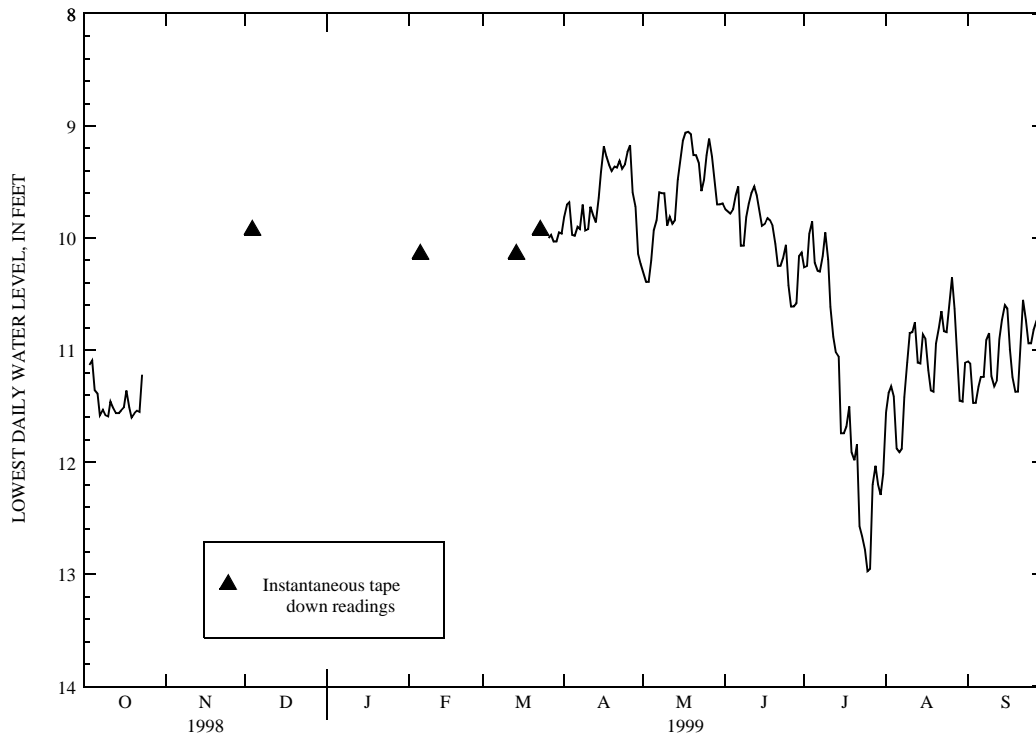
PERIOD OF RECORD.-- Feb. 1971 to Sep. 1999.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 7.50 ft below land-surface datum, July 8, 1993; lowest, 18.57 ft below land-surface datum, Oct. 2, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.36	---	---	---	---	---	9.98	9.93	9.62	10.22	11.88	11.32
10	11.59	---	---	---	---	---	9.92	9.89	9.69	10.19	10.85	11.23
15	11.54	---	---	---	---	---	9.41	9.31	9.89	11.74	10.86	10.60
20	11.56	---	---	---	---	---	9.36	9.26	10.05	11.98	10.94	11.37
25	---	---	---	---	---	---	9.23	9.26	10.42	12.97	10.61	10.94
EOM	---	---	---	---	---	9.96	10.23	9.69	10.13	12.10	11.11	---



GROUND WATER LEVELS--Continued

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BLUE EARTH COUNTY

440050094102801. Local number, 106N28W03DBA01.

LOCATION.-- Lat 44°00'50", long 94°10'28", in NE¹/₄NW¹/₄SE¹/₄ sec.3, T.106 N., R. 28 W., Hydrologic Unit 07020010, at Farmland Industries Ammonia Plant, 3.2 mi north of Vernon Center.

Owner: Farmland Industries.

AQUIFER.-- Ironton-Galesville Sandstones of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled, unused artesian well, diameter 16 in., depth 390 ft, cased to 150 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 1,005 ft above seal level. Measuring point: Top of recorder platform, 2.00 ft above land-surface datum.

PERIOD OF RECORD.-- Oct. 1973 to Sep. 1999.

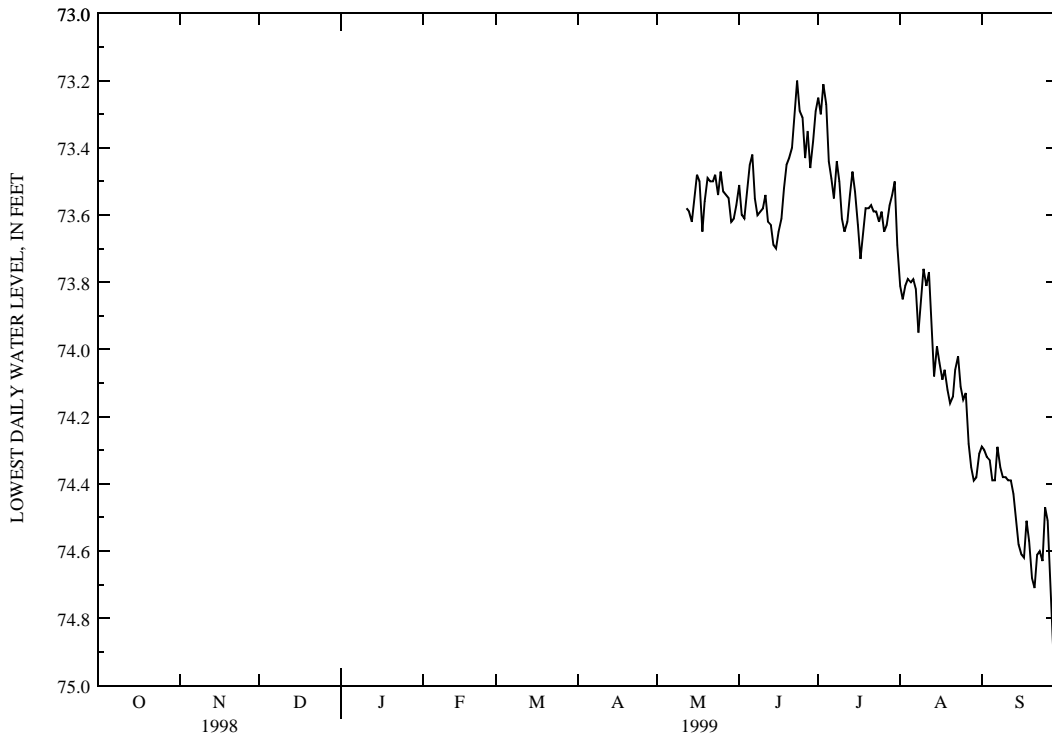
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 71.25 ft below land-surface datum, July 4, 1993; lowest, 76.73 ft below land-surface datum, Oct. 18, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	73.45	73.44	73.80	74.39
10	---	---	---	---	---	---	---	---	73.58	73.61	73.76	74.38
15	---	---	---	---	---	---	---	73.56	73.70	73.53	73.99	74.58
20	---	---	---	---	---	---	---	73.49	73.43	73.58	74.16	74.68
25	---	---	---	---	---	---	---	73.47	73.31	73.59	74.15	74.47
EOM	---	---	---	---	---	---	---	73.57	73.29	73.69	74.31	74.72

WTR YR: LOWEST 74.91 FT, SEP. 29; HIGHEST, 73.10 FT, JULY 3.



GROUND WATER LEVELS-Continued

CLAY COUNTY

465237096383901. Local number, 139N47W05CDC01.

LOCATION.-- Lat 46°52'37", long 96°38'39", in SW¹/₄SE¹/₄SW¹/₄ sec.5, T.139 N., R.47 W., Hydrologic Unit 09020104, 2.4 mi east of Dilworth. Owner: Steven Schroeder.

AQUIFER.-- Surficial sand and gravel of Pleistocene Age (Buffalo Aquifer).

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 8 in., depth 131.3 ft, slotted 91 to 107 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 916.7 ft above sea level. Measuring point: Top of recorder platform, 3.60 ft above land-surface datum.

REMARKS.-- Water level affected by pumping from nearby wells.

PERIOD OF RECORD.-- Jan. 1947 to Sep. 1999.

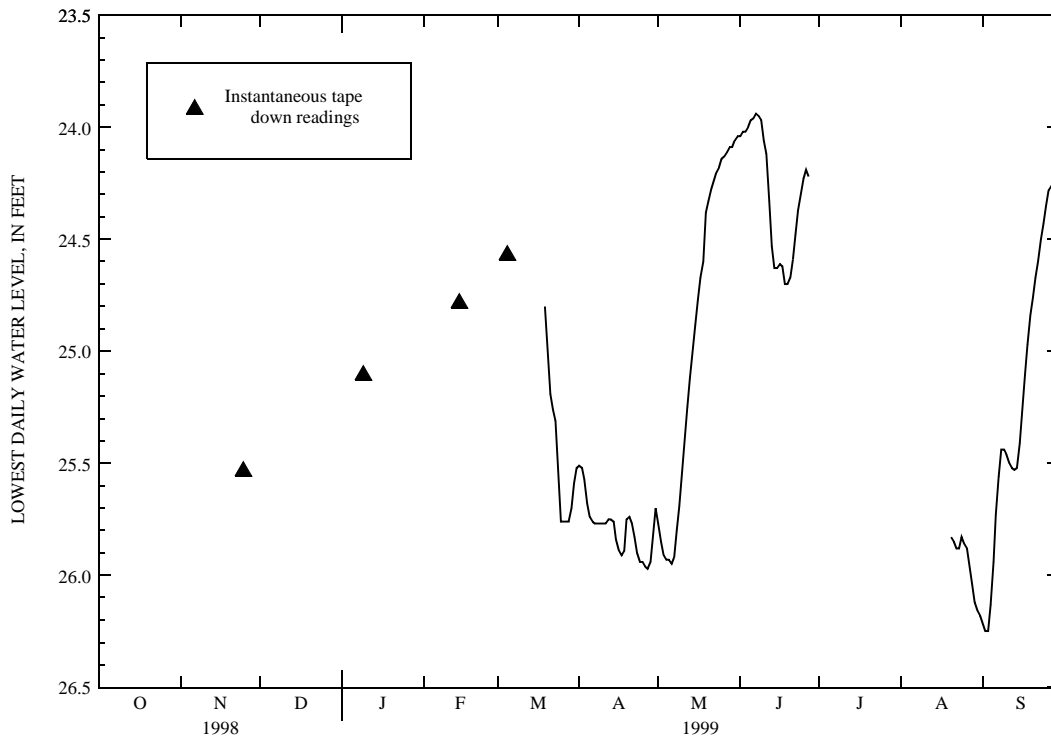
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 12.19 ft below land-surface datum, July 15, 1947; lowest, 32.94 ft below land-surface datum, Aug. 24, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	25.74	25.93	23.97	---	---	25.94
10	---	---	---	---	---	---	25.77	25.54	24.06	---	---	25.46
15	---	---	---	---	---	---	25.84	24.88	24.63	---	---	25.41
20	---	---	---	---	---	24.99	25.74	24.33	24.67	---	25.83	24.76
25	---	---	---	---	---	25.76	25.94	24.14	24.23	---	25.86	24.35
EOM	---	---	---	---	---	25.52	25.70	24.04	---	---	26.18	24.17

WTR YR: LOWEST 26.25 FT, SEP. 2,3; HIGHEST 23.94 FT, JUN 6-9.



GROUND WATER LEVELS--Continued

DAKOTA COUNTY

445330093054301. Local number, 028N22W19DCC02.

LOCATION.-- Lat 44°53'30", long 93°05'43", in SW¹/₄SW¹/₄SE¹/₄ sec.19, T.28 N., R. 22 W., Hydrologic Unit 07010206, in West St. Paul.

Owner: U.S. Geological Survey.

AQUIFER.--Prairie du Chien Group of Early Ordovician Age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 6 in., depth 539 ft, cased to 409 ft.

INSTRUMENTATION.--Electronic data logger with 30-minute scan interval.

DATUM.--Land-surface datum is 1,036.9 ft above mean sea level. Measuring point: Top of recorder platform, 2.60 ft above land-surface datum.

REMARKS.--Water-level affected by regional pumping.

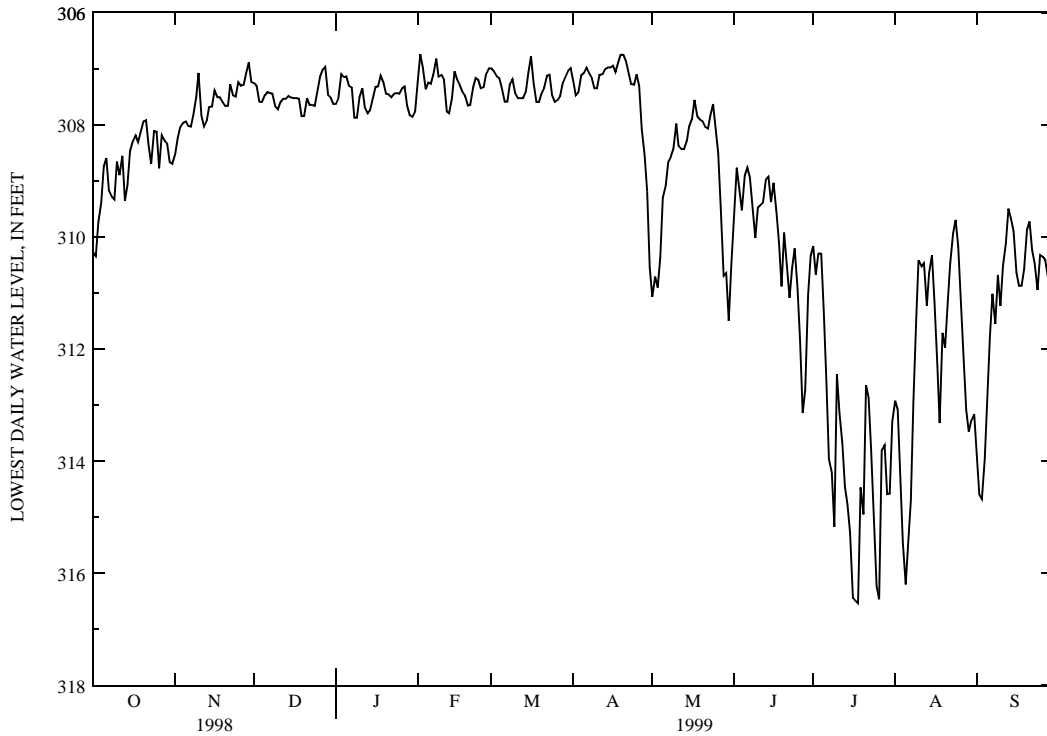
PERIOD OF RECORD.--Jan. 1971 to Sep. 1999.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 306.22 ft below land-surface datum, Apr. 15, 1997; lowest, 328.0 ft below land-surface datum, July 31, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
 LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	308.74	307.93	307.47	307.13	307.24	307.34	307.07	309.29	308.90	311.34	316.20	313.07
10	308.65	307.07	307.72	307.50	307.10	307.44	307.34	307.97	309.47	312.45	310.41	311.23
15	308.46	307.67	307.51	307.52	307.04	307.05	306.97	308.03	309.37	315.27	310.32	309.89
20	307.93	307.66	307.84	307.44	307.65	307.43	306.75	307.93	309.92	314.95	311.97	309.87
25	308.12	307.24	307.38	307.44	307.34	307.58	307.09	308.07	310.92	316.23	310.16	310.32
EOM	308.69	307.23	307.62	307.75	306.99	306.98	310.54	310.50	310.33	313.29	313.16	311.41

WTR YR; LOWEST 316.54 FT, JUNE 18; HIGHEST 306.36 FT, NOV. 10.



GROUND WATER LEVELS-Continued

DAKOTA COUNTY--Continued

444205092500001. Local number, 114N17W10AAA01.

LOCATION.-- Lat 44°42'05", long 92°50'00", in NE¹/₄NE¹/₄NE¹/₄ sec.10, T.114 N., R.17 W., Hydrologic Unit 07040001, southeast of Hastings.

Owner: John Conzemius.

AQUIFER.-- Prairie du Chien Group of Early Ordovician Age.

WELL CHARACTERISTICS.-- Drilled, unused artesian well, diameter 4 in., depth 151 ft, depth of casing unknown.

INSTRUMENTATION.-- Electronic data logger with one-hour scan interval.

DATUM.-- Land-surface datum is 827 ft above sea level. Measuring point: Top of platform, 2.50 ft above land-surface datum.

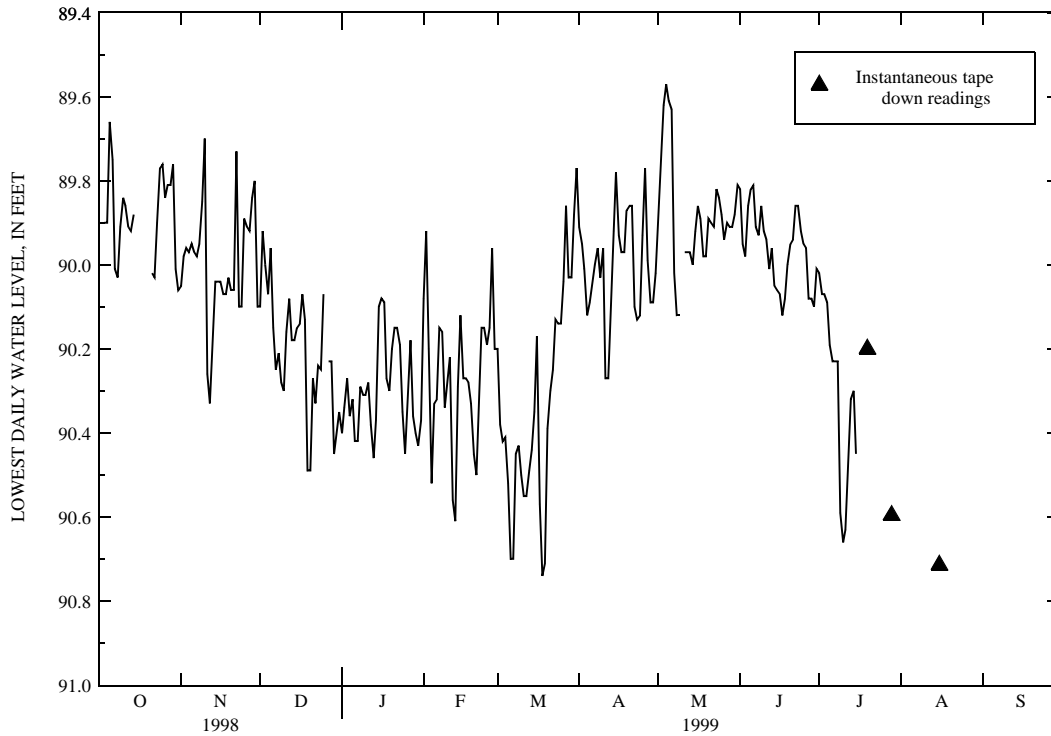
PERIOD OF RECORD.-- Apr. 1976 to Sep. 1999.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 93.47 ft below land-surface datum, Sep. 30, 1993; lowest, 107.4 ft below land-surface datum, Mar. 12, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	LOWEST 5TH-DAY WATER LEVEL											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.33	97.50	97.35	97.75	---	---	97.41	96.98	96.95	97.40	96.02	94.23
10	97.47	97.59	97.49	97.72	97.88	---	97.60	96.96	97.13	97.27	95.77	94.22
15	97.34	97.37	97.63	97.67	---	---	97.38	96.99	97.36	97.12	95.24	94.10
20	97.38	97.38	97.65	97.75	97.89	97.87	97.03	97.01	97.49	97.12	95.20	94.26
25	97.43	97.52	97.73	97.80	---	97.86	97.09	96.83	97.56	96.81	94.93	93.90
EOM	97.65	97.33	97.70	97.76	---	97.84	96.84	96.82	97.34	96.37	94.58	94.20

WTR YR: LOWEST 90.74 FT, MAR. 18; HIGHEST 88.79 FT, NOV 10.



GROUND WATER LEVELS--Continued

HENNEPIN COUNTY

444801093202801. Local number, 027N24W30BDA01.

LOCATION.-- Lat 44°48'01", long 93°20'28", in NE¹/₄SE¹/₄NW¹/₄ sec.30, T.27 N., R.24 W., Hydrologic Unit 07020012, by Southwood School in Bloomington.

Owner: City of Bloomington.

AQUIFER.-- Jordan Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.--Drilled, unused artesian well, diameter 12 in. to 137 ft, 8 in. to 269 ft, total depth 365 ft, cased to 269 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 815 ft above sea level. Measuring point: Top of recorder platform, 2.20 ft above land-surface datum.

REMARKS.-- Water level affected by pumping.

PERIOD OF RECORD.-- Mar. 1969 to Sep. 1999.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 63.05 ft below land-surface datum, Apr. 15, 1969; lowest, 87.34 ft below land-surface datum, Jan. 30, 1997.

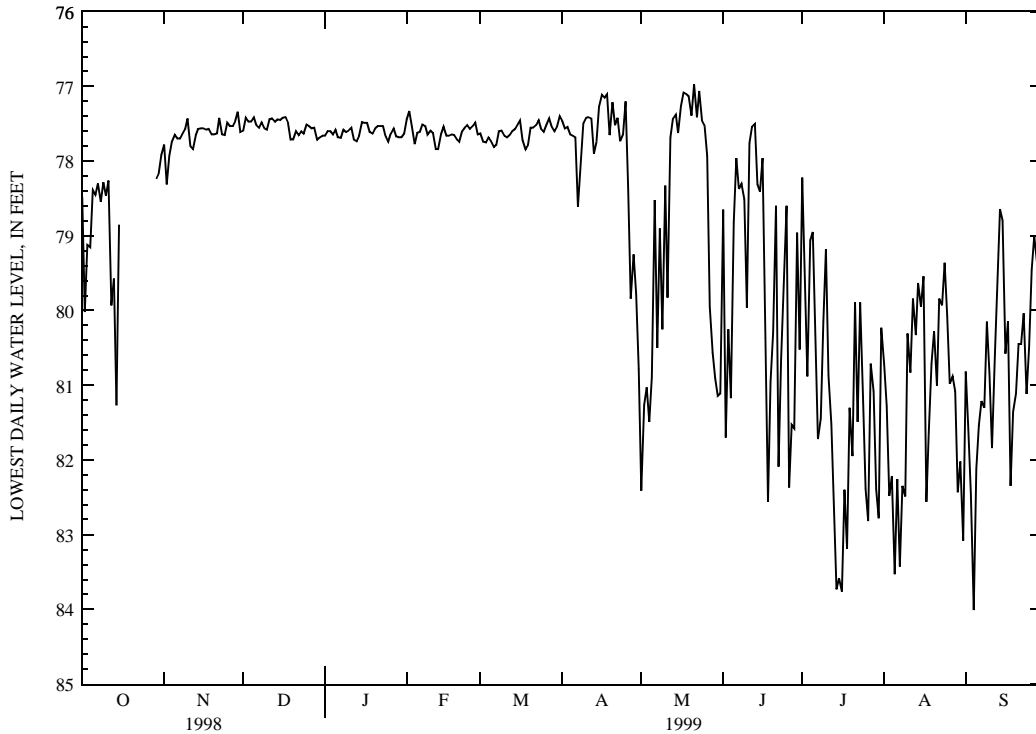
REVISIONS.-- Water levels for Aug. 7 to Sep. 30, 1995.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	78.39	77.65	77.41	77.58	77.62	77.73	77.66	80.89	78.82	78.95	83.53	82.12
10	78.46	77.43	77.58	77.59	77.59	77.66	77.42	78.33	79.96	79.18	80.31	80.84
15	78.85	77.56	77.45	77.48	77.54	77.51	77.27	77.62	78.41	83.58	79.95	78.79
20	---	77.64	77.71	77.56	77.71	77.55	77.21	77.39	80.30	81.95	80.28	81.11
25	---	77.49	77.51	77.74	77.57	77.61	77.20	77.53	78.60	82.39	80.07	80.49
EOM	77.92	77.61	77.66	77.63	77.64	77.40	80.78	81.11	80.52	80.23	83.08	79.58

WTR YR: LOWEST 84.01 FT, SEP. 4; HIGHEST 76.85 FT, NOV 10.



GROUND WATER LEVELS-Continued

HENNEPIN COUNTY--Continued

450116093205301. Local number, 029N24W06CCC01.

LOCATION.-- Lat 45°01'16", long 93°20'53", in SW¹/₄SW¹/₄SW¹/₄ sec.6, T.29 N., R.24 W., Hydrologic Unit 07010206, at the corner of 36th Avenue and Unity Avenue North, Robbinsdale.

Owner: Minnesota Department of Transportation.

AQUIFER.-- St. Peter Sandstone of Middle Ordovician Age.

WELL CHARACTERISTICS.-- Drilled, unused artesian well, diameter 5 in., depth 200 ft, cased to 152 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 870 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.-- Water level affected by pumping.

PERIOD OF RECORD.-- Mar. 1973 to Sep. 1999.

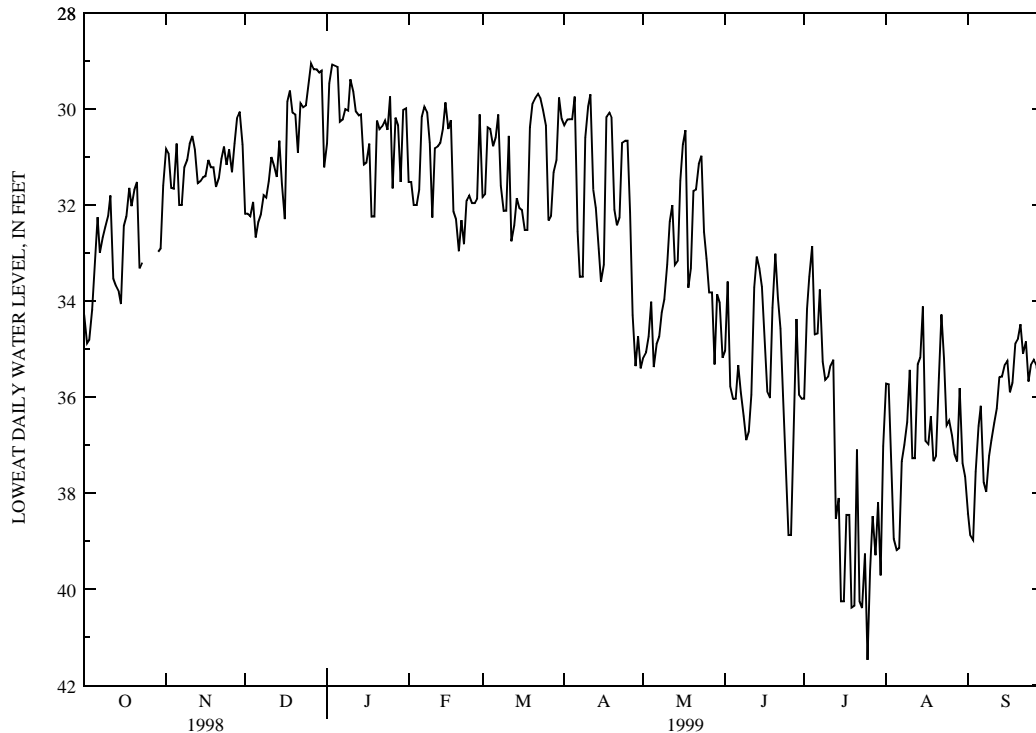
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 24.54 ft below land-surface datum, Dec. 28, 29, 1975; lowest, 53.03 ft below land-surface datum, June 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.31	30.72	32.67	29.12	31.68	30.77	29.74	35.37	36.03	34.69	39.18	36.60
10	32.22	30.72	31.50	29.38	32.26	32.12	29.94	33.24	36.72	35.57	35.43	36.90
15	34.06	31.42	31.56	31.15	29.86	32.06	33.59	31.49	33.70	40.25	34.11	35.32
20	31.68	31.62	30.11	30.24	32.96	29.88	32.09	31.70	33.01	40.34	37.22	34.78
25	---	30.84	29.51	29.74	31.96	30.34	30.66	33.12	38.87	41.47	36.48	35.31
EOM	31.59	30.74	31.21	29.98	30.11	30.20	35.40	35.18	36.03	37.02	37.65	35.25

WTR YR: LOWEST 41.47 FT, JULY 25; HIGHEST 27.93 FT, DEC. 27.



GROUND WATER LEVELS--Continued

HENNEPIN COUNTY--Continued

445740093333001. Local number, 117N23W11BBD01.

LOCATION.-- Lat 44°57'40", long 93°33'30", in SE¹/₄NW¹/₄NW¹/₄ sec.11, T.117 N., R.23 W., Hydrologic Unit 07010206, 2 mi southwest of Wayzata, at Lake Minnetonka.

Owner: Minnetonka Boat Works, Inc., Orono.

AQUIFER.-- Prairie du Chien Group of Early Ordovician Age and Jordan Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 6 in., depth 437 ft, cased to 270 ft.

INSTRUMENTATION.-- Electronic data logger with 15-minute recording interval.

DATUM.-- Land-surface datum is 930.8 ft above sea level. Measuring point: Floor of recorder platform, 3.30 ft above land-surface datum.

REMARKS.-- Water level affected by pumping.

PERIOD OF RECORD.-- Aug. 1942 to Sep. 1999.

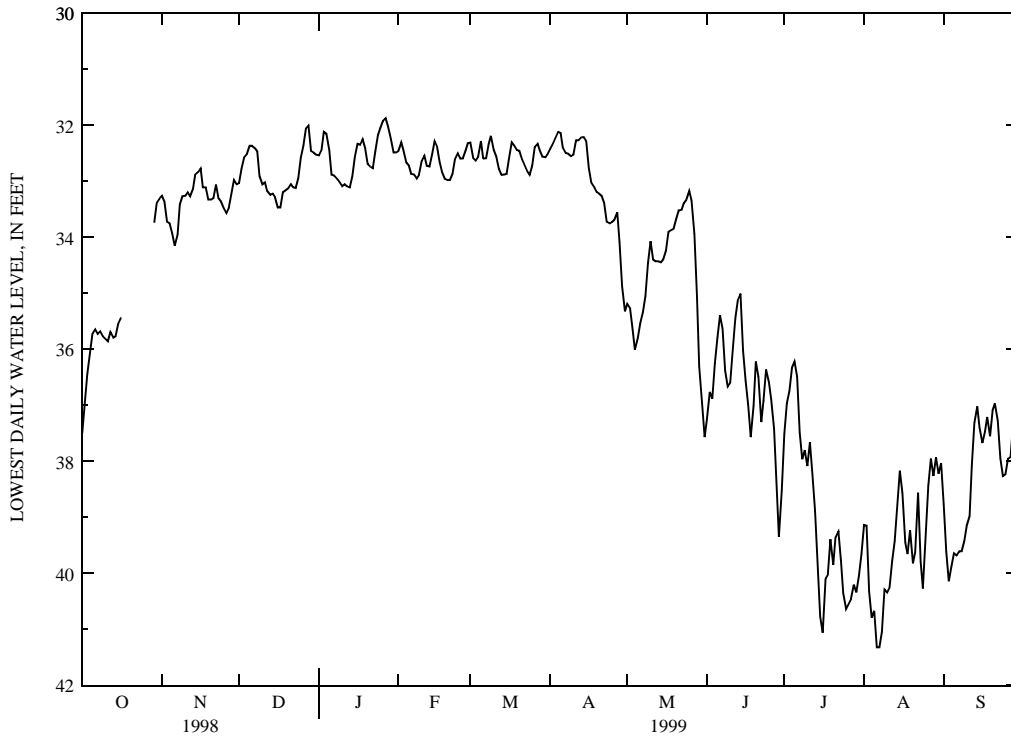
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 14.05 ft below land-surface datum, Apr. 30, 1954; lowest, 44.77 ft below land-surface datum, June 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.72	33.93	32.37	32.44	32.73	32.28	32.14	35.80	35.79	36.22	40.67	39.64
10	35.82	33.26	33.05	33.09	32.63	32.44	32.52	34.07	36.59	38.08	40.34	39.15
15	35.53	32.84	33.28	32.56	32.29	32.87	32.29	34.39	36.02	40.77	38.17	37.40
20	---	33.33	33.13	32.69	32.98	32.46	33.22	33.68	36.22	39.85	39.82	37.09
25	---	33.48	32.58	32.04	32.60	32.73	33.73	33.17	36.59	40.63	39.38	38.23
EOM	33.31	33.05	32.53	32.49	32.32	32.51	35.32	37.57	38.53	39.66	38.03	37.29

WTR YR: LOWEST 41.32 FT, AUG. 6,7; HIGHEST, 31.75 FT, JAN 27.



GROUND WATER LEVELS-Continued

HENNEPIN COUNTY--Continued

450223093231801. Local number, 118N21W07DCB01.

LOCATION.-- Lat 45°02'23", long 93°23'18", in NW¹/₄/SW¹/₄/SE¹/₄ sec.7, T.118 N., R.21 W., Hydrologic Unit 07010206, by water tower at 47th Avenue North and Aquila Avenue.

Owner: City of New Hope.

AQUIFER.-- Jordan Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled, unused artesian well, diameter 16 in., depth 422 ft, cased to 339 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute scan interval.

DATUM.-- Land-surface datum is 933 ft above sea level. Measuring point: Top of recorder platform, 3.00 ft above land-surface datum.

REMARKS.-- Water level affected by pumping.

PERIOD OF RECORD.-- Oct. 1965 to Sep. 1999.

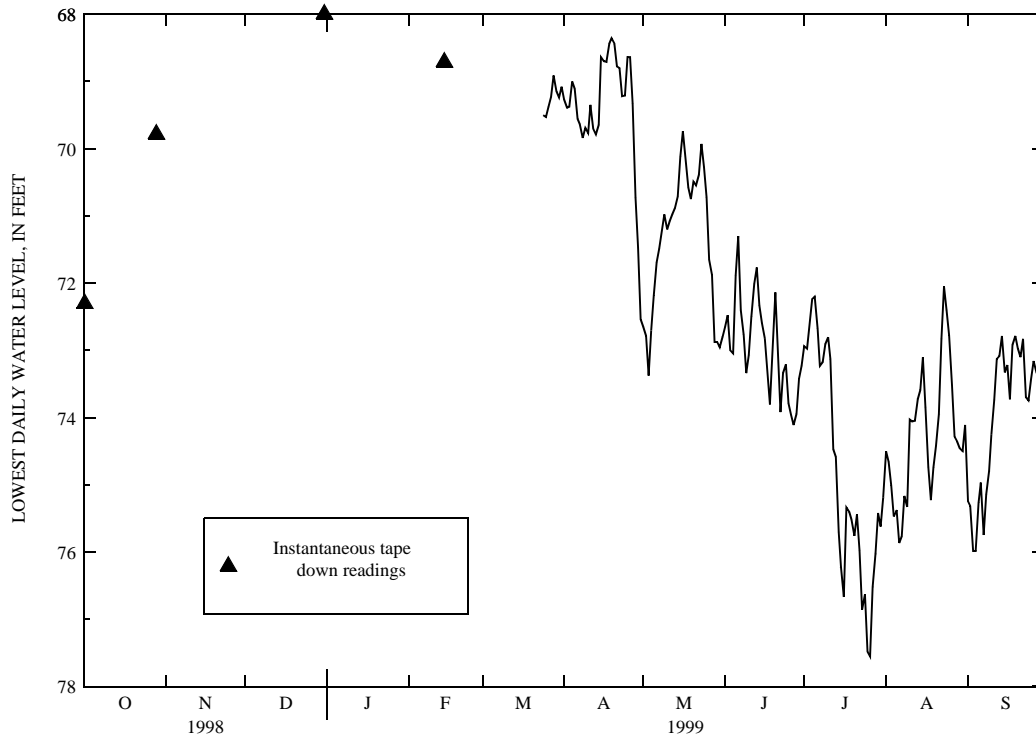
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 60.46 ft below land-surface datum, Dec. 17, 1967; lowest, 78.37 ft below land-surface datum, June 13, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	69.11	72.19	71.89	72.20	75.38	75.27
10	---	---	---	---	---	---	69.77	71.20	73.07	72.81	74.03	74.26
15	---	---	---	---	---	---	68.64	70.12	72.59	76.22	73.11	73.33
20	---	---	---	---	---	---	68.44	70.49	72.14	75.76	74.42	72.98
25	---	---	---	---	---	69.53	68.64	70.72	73.79	77.49	72.78	73.43
EOM	---	---	---	---	---	69.08	72.54	72.80	73.23	75.19	74.11	---

WTR YR: LOWEST 77.56 FT, JULY 26; HIGHEST 67.76 FT, MAR. 28.



GROUND WATER LEVELS--Continued

MORRISON COUNTY

460444094212501. Local number, 130N29W08DCC01.

LOCATION.-- Lat 46°04'44", long 94°21'25", in SW¹/₄SW¹/₄SE¹/₄ sec.8, T.130 N., R.29 W., Hydrologic Unit 07010104, at Camp Ripley.

Owner: Minnesota Army National Guard, Camp Ripley.

AQUIFER.-- Surficial outwash sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 59 ft, screened 56 to 59 ft.

INSTRUMENTATION.-- Monthly measurements by observer.

DATUM.-- Land-surface datum is 1,149.0 ft above sea level. Measuring point: Top of casing, 2.10 ft above land-surface datum.

REMARKS.-- Water levels used in monthly National Water Conditions Report.

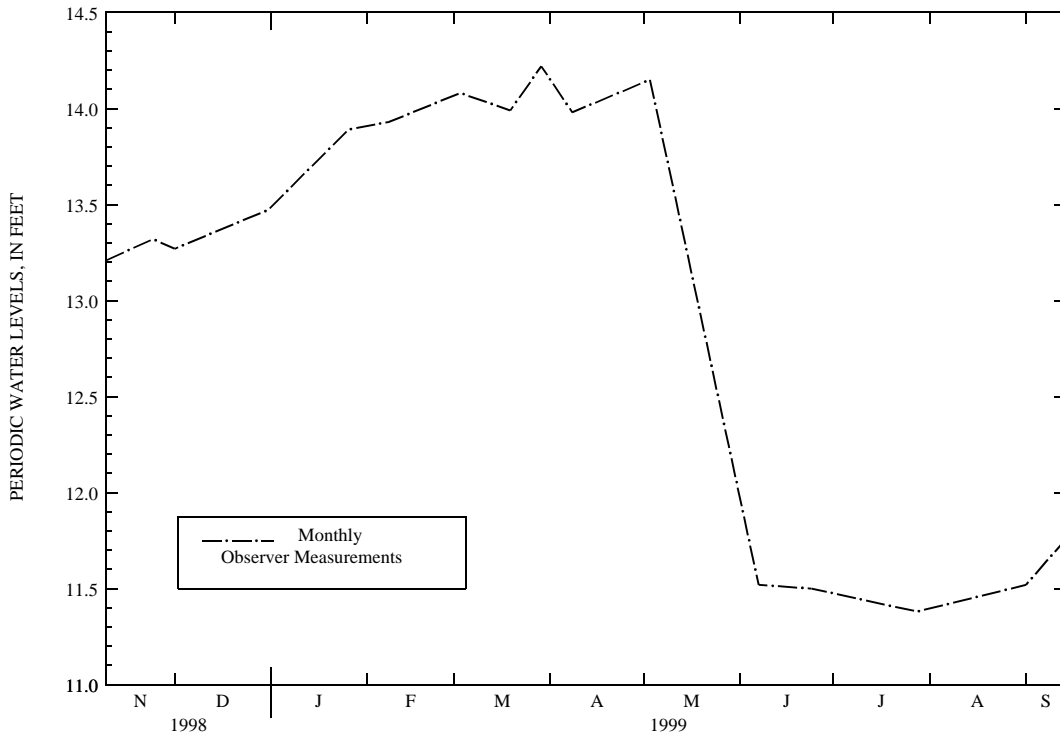
PERIOD OF RECORD.-- Apr. 1949 to Sept. 1999.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level observed, 7.35 ft below land-surface datum, July 28, 1972; lowest observed, 19.75 ft below land-surface datum, Aug. 4, 1961.

EXTREMES FOR CURRENT WATER YEAR.-- Highest water level observed, 11.38 ft below land-surface datum, July 28; lowest observed, 14.22 ft below land-surface datum, Mar. 29.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09	13.21	JAN 26	13.89	MAR 29	14.22	JUL 24	11.50
NOV 24	13.32	FEB 08	13.93	APR 08	13.98	JUL 28	11.38
DEC 01	13.27	MAR 03	14.08	MAY 03	14.15	SEP 01	11.52
DEC 31	13.47	MAR 19	13.99	JUN 07	11.52	SEP 14	11.76
JAN 26	13.79						



GROUND WATER LEVELS-Continued

RAMSEY COUNTY

450238093082501. Local number, 030N23W35BDC01.

LOCATION.-- Lat 45°02'38", long 93°08'25", in SW¹/₄SE¹/₄NW¹/₄ sec.35, T.30 N., R.23 W., Hydrologic Unit 07010206, southeast corner of Arbogast Street and Richmond Avenue.

Owner: City of Shoreview.

AQUIFER.-- Jordan Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled unused artesian well, diameter 20 in. to 129 ft, 12 in to 465 ft, total depth 510 ft, cased to 465 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 960 ft above sea level. Measuring point: Top of recorder platform, 1.50 ft above land-surface datum.

PERIOD OF RECORD.-- Apr. 1979 to current year.

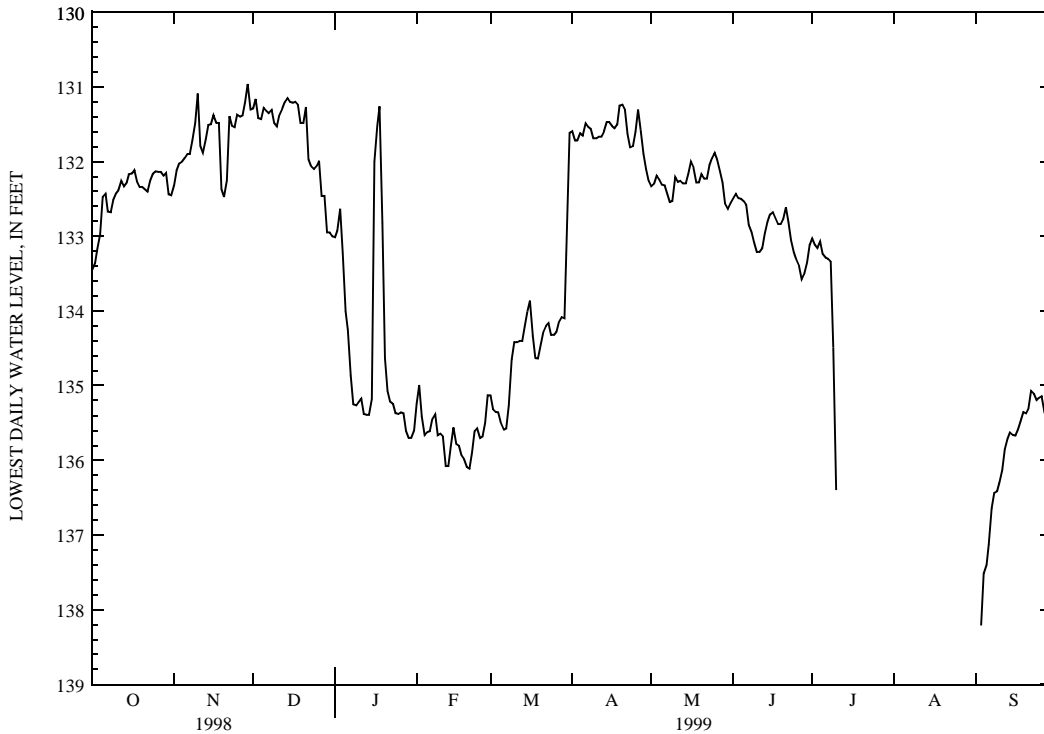
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 129.26 ft below land-surface datum, Mar. 1, 1987; lowest, 146.01 ft below land-surface datum, July 28, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.47	131.95	131.28	134.00	135.62	135.51	131.65	132.31	132.53	133.24	---	137.40
10	132.42	131.09	131.53	135.22	135.64	134.42	131.69	132.21	133.21	136.40	---	136.30
15	132.17	131.50	131.20	135.18	135.56	134.01	131.47	132.16	132.71	---	---	135.66
20	132.34	132.47	131.48	134.63	136.09	134.47	131.24	132.17	132.76	---	---	135.37
25	132.13	131.37	132.06	135.38	135.70	134.32	131.60	131.88	133.32	---	---	135.16
EOM	132.45	131.30	133.00	135.60	135.13	131.61	132.26	132.55	133.12	---	---	135.23

WTR YR: LOWEST 137.65 FT, SEP. 3; HIGHEST 130.63 FT, NOV. 11.



GROUND WATER LEVELS--Continued

SCOTT COUNTY

444427093353901. Local number, 115N23W28BDD01.

LOCATION.-- Lat 44°44'27", long 93°35'39", in SE¹/₄SE¹/₄NW¹/₄ sec.28, T.115 N., R.23 W., Hydrologic Unit 07020012, Merriam Junction.

Owner: Chicago and Northwestern Transportation Company.

AQUIFER.-- Jordan Sandstone of Early Cambrian Age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 16 in., depth 140 ft, cased to 75 ft.

INSTRUMENTATION.-- Electronic data logger with one-hour scan interval.

DATUM.-- Land-surface datum is 758 ft above sea level. Measuring point: Top of casing, 0.90 ft above land-surface datum.

PERIOD OF RECORD.-- Periodic record since Nov. 1984; continuous record, July to Sep. 1999.

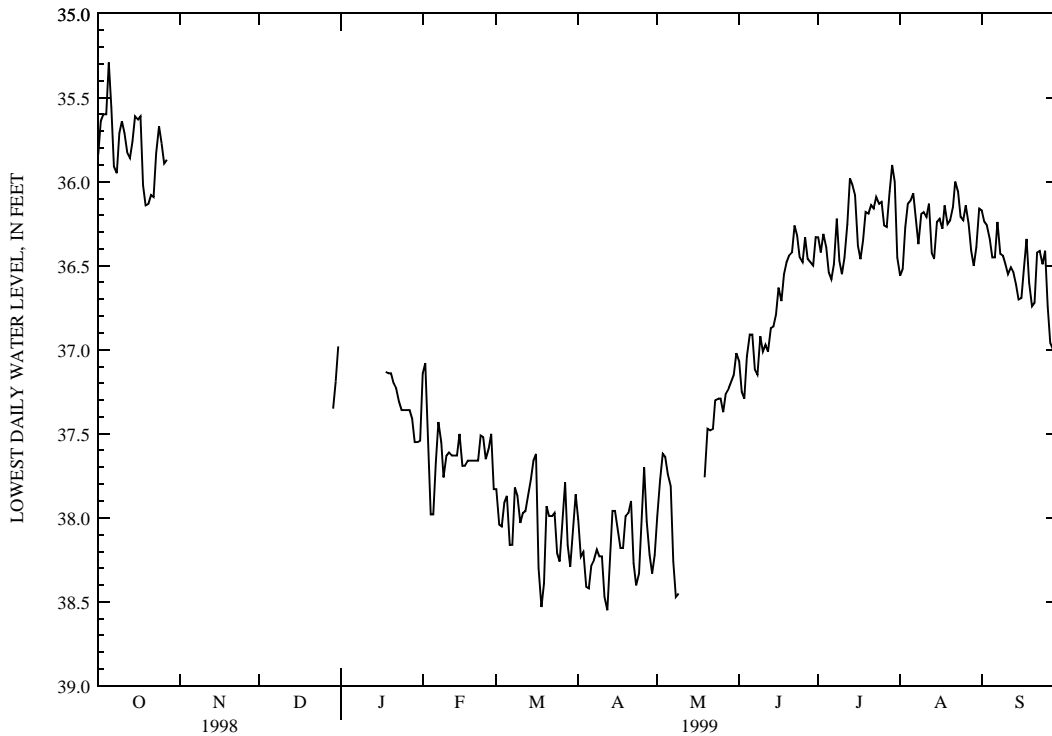
EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 25.75 ft below land-surface datum, Mar. 8, 1985; lowest, 43.20 ft below land-surface datum, Feb. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.29	---	---	36.97	37.98	37.87	38.42	37.74	36.91	36.54	36.11	36.45
10	35.64	---	---	36.97	37.63	38.03	38.23	---	37.01	36.55	36.18	36.49
15	35.61	---	---	36.97	37.50	37.66	37.96	---	36.79	36.08	36.24	36.70
20	36.13	---	---	37.14	37.66	37.93	37.97	37.47	36.44	36.19	36.23	36.74
25	35.77	---	---	37.36	37.65	38.26	38.02	37.29	36.48	36.12	36.23	36.41
EOM	---	---	36.98	37.54	37.83	37.86	38.22	37.02	36.33	36.45	36.16	36.55

WTR YR: LOWEST 38.55 FT, APR. 12; HIGHEST 35.17 FT, OCT. 5.



GROUND WATER LEVELS-Continued

SCOTT COUNTY

444427093353902. Local number, 115N23W28BDD02.

LOCATION.-- Lat 44°44'27", long 93°35'39", in SE¹/₄SE¹/₄NW¹/₄ sec.28, T.115 N., R.23 W., Hydrologic Unit 07020012, Merriam Junction.

Owner: Chicago and Northwestern Transportation Company.

AQUIFER.-- Ironton-Galesville Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 355 ft, screened 350 to 355 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 758 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

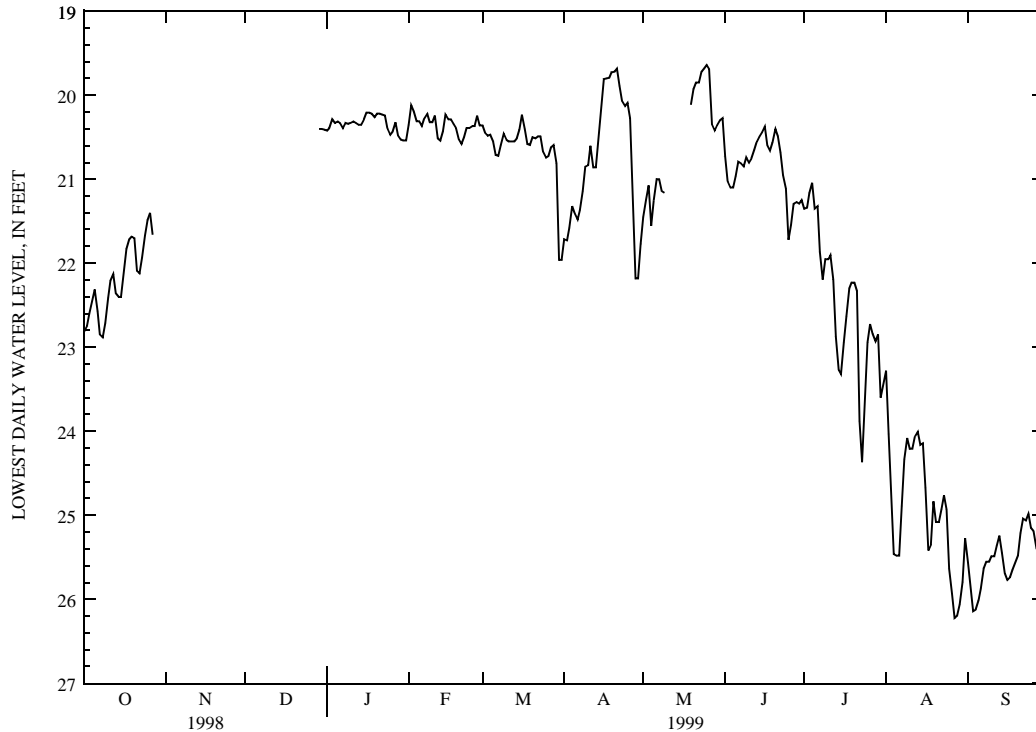
PERIOD OF RECORD.-- Nov. 1984 to Sep. 1999.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 19.59 ft below land-surface datum, Apr. 8, 1993; lowest, 45.28 ft below land-surface datum, July 29, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
LOWEST 5TH-DAY WATER LEVEL

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.31	---	---	20.31	20.31	20.55	21.41	21.25	20.96	21.35	25.48	26.01
10	22.41	---	---	20.33	20.32	20.53	20.83	---	20.80	21.95	24.21	25.49
15	22.40	---	---	20.29	20.23	20.41	20.19	---	20.44	23.32	24.14	25.69
20	21.70	---	---	20.22	20.53	20.50	19.72	19.93	20.40	22.23	25.08	25.48
25	21.49	---	---	20.47	20.37	20.74	20.09	19.64	21.72	22.94	25.63	25.15
EOM	---	---	20.41	20.54	20.36	21.96	21.77	20.27	21.25	23.45	25.27	24.98

WTR YR: LOWEST 26.22 FT, AUG. 27; HIGHEST 19.59 FT, APR. 24, 25.



GROUND WATER LEVELS--Continued

SCOTT COUNTY--Continued

444427093353903. Local number, 115N23W28BDD03.

LOCATION.-- Lat 44°44'27", long 93°35'39", in SE¹/₄SE¹/₄NW¹/₄ sec.28, T.115 N., R.23 W., Hydrologic Unit 07020012, at Merriam Junction.

Owner: Chicago and Northwestern Transportation Company.

AQUIFER.-- Mount Simon Sandstone of Late Cambrian Age.

WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in., depth 525 ft, screened 520 to 525 ft.

INSTRUMENTATION.-- Electronic data logger with 30-minute recording interval.

DATUM.-- Land-surface datum is 758 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

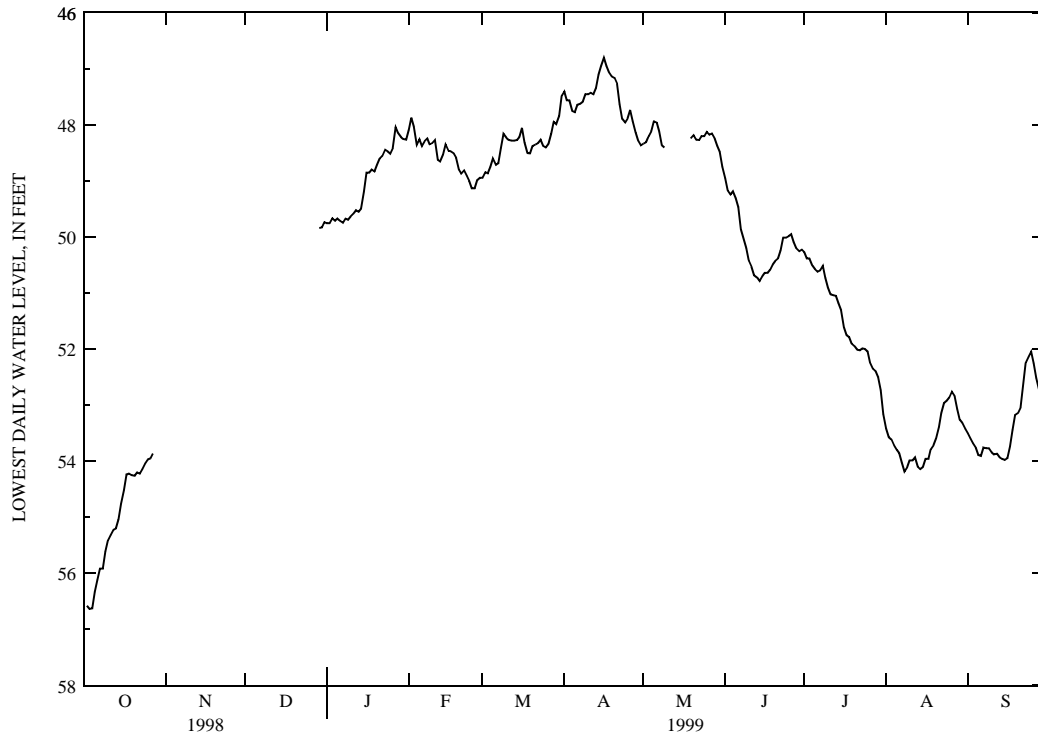
PERIOD OF RECORD.-- Nov. 1984 to Sep. 1999.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 33.85 ft below land-surface datum, Mar. 8, 1985; lowest, 55.12 ft below land-surface datum, Aug. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	LOWEST 5TH-DAY WATER LEVEL											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	56.33	---	---	49.67	48.25	48.60	47.77	47.93	49.31	50.57	53.80	53.89
10	55.41	---	---	49.63	48.32	48.23	47.45	---	50.43	50.90	53.99	53.84
15	54.76	---	---	49.19	48.35	48.21	46.95	---	50.70	51.30	54.10	53.98
20	54.26	---	---	48.71	48.80	48.37	47.16	48.18	50.43	51.95	53.59	53.14
25	53.97	---	---	48.51	49.13	48.40	47.88	48.12	49.98	52.04	52.86	52.04
EOM	---	---	49.73	48.26	48.94	47.47	48.36	48.74	50.22	53.16	53.42	52.66

WTR YR: LOWEST 56.64, OCT. 1,3; HIGHEST 46.62 FT, APR 16.



GROUND WATER LEVELS-Continued

WATONWAN COUNTY

440037094372601. Local number, 106N32W01DDB01.

LOCATION.-- Lat 44°00'37", long 94°37'26", in NW¹/₄SE¹/₄SE¹/₄ sec.1, T.106 N., R.32 W., Hydrologic Unit 07020010, north of St. James.

Owner: U.S. Geological Survey.

AQUIFER.-- Surficial outwash sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.-- Drilled water-table observation well, diameter 2 in., depth 22 ft, screened 19 to 22 ft.

INSTRUMENTATION.-- Monthly measurements by observer.

DATUM.-- Land-surface datum is 1,056.2 ft above sea level. Measuring point: Top of casing, 4.80 ft above land-surface datum.

REMARKS.-- Water levels used in monthly National Water Conditions Report.

PERIOD OF RECORD.-- Nov. 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.-- Highest observed water level, 4.11 ft below land-surface datum, Apr. 27, 1969; lowest observed, 16.22 ft below land-surface datum, Mar. 7, 1990.

EXTREMES FOR CURRENT WATER YEAR.-- Highest water level observed, 10.05 ft below land-surface datum, Oct 26; lowest observed, 11.79 ft below land-surface datum, Jan. 28.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	10.05	MAR 22	11.68	JUN 29	10.20	SEP 07	10.66
NOV 09	11.40	APR 28	10.80	JUL 30	10.09	SEP 16	10.80
FEB 26	11.70	MAY 31	10.45	AUG 31	10.70	SEP 30	11.00

