



Water-Data Report 2008

06349500 APPLE CREEK NEAR MENOKEN, ND

Lake Oahe Basin
Apple Subbasin

LOCATION.--Lat 46°47'40", long 100°39'25" referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.9, T.138 N., R.79 W., Burleigh County, ND, Hydrologic Unit 10130103, on left bank 75 ft downstream from bridge on county highway, 4 mi upstream from Hay Creek, 6.3 mi west of Menoken, and 6.4 mi east of Bismarck.

DRAINAGE AREA.--1,680 mi² of which 500 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--DAILY DISCHARGE--March to June 1905, October 1945 to current year. Published as "near Bismarck" 1905.

PERIOD OF RECORD.--DAILY GAGE HEIGHT--October 2000 to current year.

REVISED RECORDS.--WSP 1209: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,638.61 ft above National Geodetic Vertical Datum of 1929. See WSP 1729 or 1917 for history of changes prior to September 30, 1953.

REMARKS.--Records good except for estimated daily discharges, which are poor.

Water-Data Report 2008

06349500 APPLE CREEK NEAR MENOKEN, ND—Continued

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	1.3	2.3	2.1	e1.7	e1.4	1.9	11	5.1	2.4	3.5	1.4	0.53
2	1.3	2.3	e2.1	e1.7	e1.4	2.0	11	5.1	2.5	2.9	1.3	0.83
3	1.3	2.3	e2.1	1.8	e1.4	1.9	11	4.2	2.8	2.6	1.2	0.75
4	1.3	2.3	e2.3	1.8	e1.4	1.8	11	4.1	2.9	2.3	1.2	0.70
5	1.3	2.3	2.3	1.7	e1.4	e1.8	11	4.2	3.1	2.1	1.1	0.72
6	1.3	2.2	2.3	1.8	e1.4	e1.7	12	4.5	4.9	1.9	1.0	0.71
7	1.3	2.4	e2.2	1.8	e1.3	e1.6	11	4.4	6.0	2.5	0.97	0.73
8	1.2	2.5	e2.1	1.9	e1.3	e1.4	9.9	3.7	5.5	2.5	0.94	0.78
9	0.88	2.5	e2.0	1.8	e1.3	e1.4	8.9	3.7	5.8	2.3	0.91	0.85
10	0.95	2.6	2.1	1.8	e1.3	e1.6	8.9	3.4	6.9	2.2	1.1	0.90
11	1.1	2.8	2.1	1.7	e1.3	e1.9	8.0	3.3	17	2.0	1.3	0.95
12	1.3	2.9	2.1	1.7	e1.4	e2.3	6.8	3.2	20	1.4	1.5	0.98
13	1.4	2.8	e2.0	1.6	e1.4	e2.4	5.9	3.0	20	1.5	1.7	0.94
14	1.5	2.6	e2.0	1.6	e1.3	e2.2	5.1	2.9	23	2.1	1.7	1.1
15	1.5	2.9	2.1	1.6	1.4	e2.0	4.7	2.7	26	2.1	1.7	0.89
16	1.5	2.9	2.1	e1.6	1.4	e1.9	4.8	2.6	35	2.3	1.7	0.85
17	1.7	3.0	2.1	e1.5	e1.3	e1.8	4.9	2.4	37	2.8	1.5	0.89
18	2.4	3.1	2.0	e1.5	e1.2	e2.0	4.6	2.1	33	2.7	1.1	0.85
19	2.7	3.0	2.0	e1.4	e1.2	e2.1	4.3	1.9	30	2.6	0.87	0.86
20	2.6	3.0	2.0	e1.3	e1.3	e2.3	4.1	1.9	24	3.0	0.70	0.95
21	2.6	2.9	1.9	e1.3	1.4	e2.5	4.2	1.9	19	2.9	0.57	0.95
22	2.6	2.9	e1.8	e1.2	1.5	e3.5	4.2	2.1	15	2.4	0.50	0.88
23	2.8	2.8	e1.8	e1.1	1.4	e4.5	4.1	2.1	12	2.0	0.46	1.1
24	2.8	3.1	1.8	e1.1	1.4	e5.5	4.7	e2.3	10	1.8	0.44	1.1
25	2.8	3.1	1.8	e1.1	1.5	e6.5	4.8	2.6	8.9	1.6	0.42	0.92
26	2.5	2.7	1.8	e1.2	1.4	e7.5	4.6	2.6	7.8	1.2	0.40	0.88
27	2.4	2.4	1.8	e1.3	1.4	e8.5	4.5	2.8	7.4	1.4	0.39	0.89
28	2.4	2.4	1.9	e1.5	1.3	e9.4	4.6	2.5	6.1	1.7	0.42	0.94
29	2.3	2.2	1.9	e1.5	1.6	e10	4.6	2.4	5.1	1.6	0.44	1.1
30	2.3	2.1	1.9	e1.5	---	11	4.5	2.4	4.2	1.3	0.42	1.1
31	2.3	---	1.9	e1.4	---	11	---	2.4	---	1.4	0.40	---
Total	57.63	79.3	62.4	47.5	39.7	117.9	203.7	94.5	403.3	66.6	29.75	26.62
Mean	1.86	2.64	2.01	1.53	1.37	3.80	6.79	3.05	13.4	2.15	0.96	0.89
Max	2.8	3.1	2.3	1.9	1.6	11	12	5.1	37	3.5	1.7	1.1
Min	0.88	2.1	1.8	1.1	1.2	1.4	4.1	1.9	2.4	1.2	0.39	0.53
Ac-ft	114	157	124	94	79	234	404	187	800	132	59	53

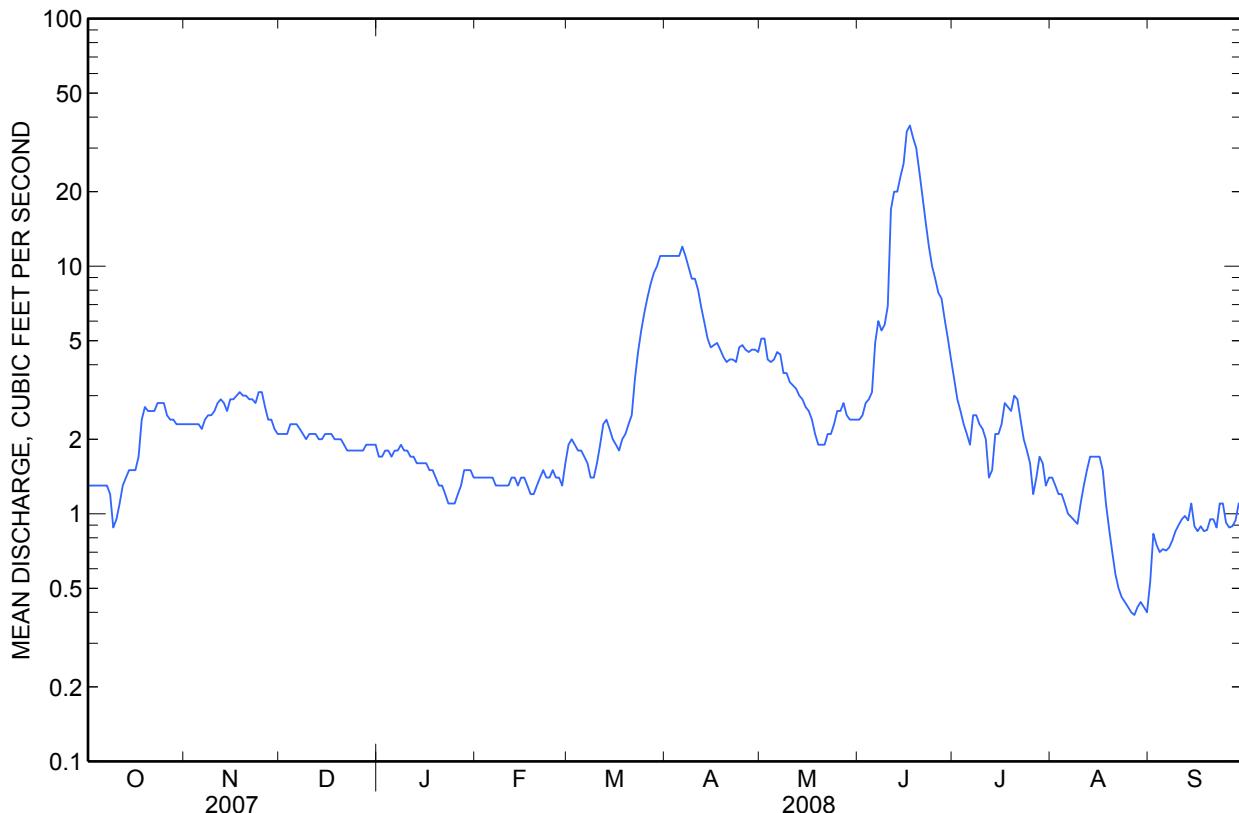
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6.14	5.08	3.69	2.34	12.0	109	188	74.9	44.2	28.4	16.2	8.43
Max	67.6	40.1	30.8	15.2	316	557	1,606	1,038	346	372	292	130
(WY)	(2000)	(2000)	(1998)	(2000)	(2000)	(1987)	(1997)	(1950)	(1953)	(1993)	(1999)	(1999)
Min	0.05	0.06	0.06	0.04	0.09	0.99	0.53	0.23	0.07	0.03	0.03	0.03
(WY)	(1991)	(1990)	(1992)	(1977)	(1975)	(1977)	(1990)	(1977)	(1977)	(1977)	(1991)	(1990)

06349500 APPLE CREEK NEAR MENOKEN, ND—Continued**SUMMARY STATISTICS**

	Calendar Year 2007	Water Year 2008	Water Years 1946 - 2008	
Annual total	9,380.09	1,228.90		
Annual mean	25.7	3.36	41.5	
Highest annual mean			268	1997
Lowest annual mean			0.31	1990
Highest daily mean	459	Jun 9	37	Jun 17
Lowest daily mean	0.67	Feb 14	0.39	Aug 27
Annual seven-day minimum	0.69	Feb 10	0.41	Aug 25
Maximum peak flow			40	Jun 16
Maximum peak stage			5.23	Jun 16
Annual runoff (ac-ft)	18,610	2,440	30,080	
10 percent exceeds	70	6.6	70	
50 percent exceeds	3.1	2.0	2.5	
90 percent exceeds	0.85	0.94	0.16	

^a Gage height, 17.07 ft.



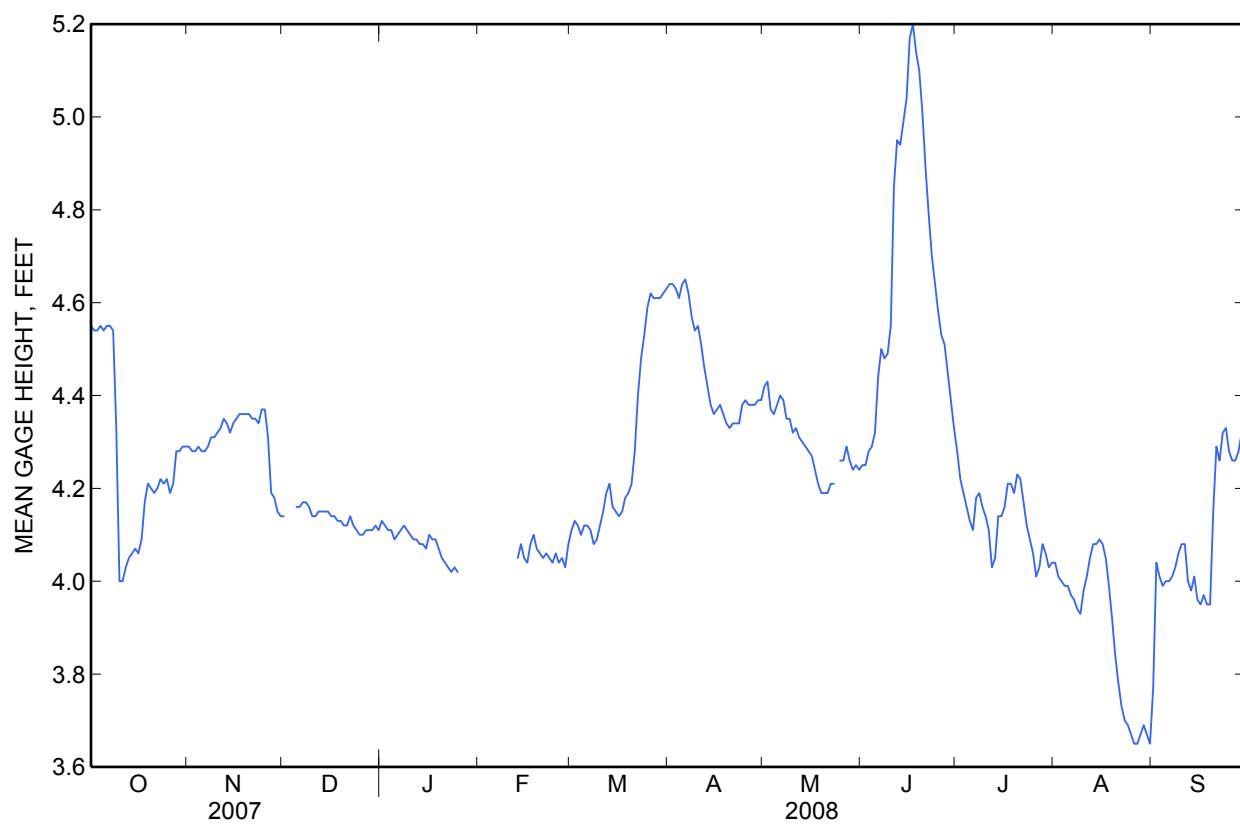
Water-Data Report 2008

06349500 APPLE CREEK NEAR MENOKEN, ND—Continued

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	4.55	4.29	4.14	4.13	---	4.11	4.64	4.42	4.25	4.28	4.04	3.77
2	4.54	4.28	---	4.12	---	4.13	4.64	4.43	4.25	4.22	4.01	4.04
3	4.54	4.28	---	4.11	---	4.12	4.63	4.37	4.28	4.19	4.00	4.01
4	4.55	4.29	---	4.11	---	4.10	4.61	4.36	4.29	4.16	3.99	3.99
5	4.54	4.28	4.16	4.09	---	4.12	4.64	4.38	4.32	4.13	3.99	4.00
6	4.55	4.28	4.16	4.10	---	4.12	4.65	4.40	4.44	4.11	3.97	4.00
7	4.55	4.29	4.17	4.11	---	4.11	4.62	4.39	4.50	4.18	3.96	4.01
8	4.54	4.31	4.17	4.12	---	4.08	4.57	4.35	4.48	4.19	3.94	4.03
9	4.33	4.31	4.16	4.11	---	4.09	4.54	4.35	4.49	4.16	3.93	4.06
10	4.00	4.32	4.14	4.10	---	4.12	4.55	4.32	4.55	4.14	3.98	4.08
11	4.00	4.33	4.14	4.09	---	4.15	4.51	4.33	4.85	4.11	4.01	4.08
12	4.03	4.35	4.15	4.09	---	4.19	4.46	4.31	4.95	4.03	4.05	4.00
13	4.05	4.34	4.15	4.08	4.05	4.21	4.42	4.30	4.94	4.05	4.08	3.98
14	4.06	4.32	4.15	4.08	4.08	4.16	4.38	4.29	4.99	4.14	4.08	4.01
15	4.07	4.34	4.15	4.07	4.05	4.15	4.36	4.28	5.04	4.14	4.09	3.96
16	4.06	4.35	4.14	4.10	4.04	4.14	4.37	4.27	5.17	4.16	4.08	3.95
17	4.09	4.36	4.14	4.09	4.08	4.15	4.38	4.24	5.20	4.21	4.05	3.97
18	4.17	4.36	4.13	4.09	4.10	4.18	4.36	4.21	5.14	4.21	3.99	3.95
19	4.21	4.36	4.13	4.07	4.07	4.19	4.34	4.19	5.10	4.19	3.92	3.95
20	4.20	4.36	4.12	4.05	4.06	4.21	4.33	4.19	5.01	4.23	3.84	4.15
21	4.19	4.35	4.12	4.04	4.05	4.28	4.34	4.19	4.89	4.22	3.78	4.29
22	4.20	4.35	4.14	4.03	4.06	4.40	4.34	4.21	4.79	4.17	3.73	4.26
23	4.22	4.34	4.12	4.02	4.05	4.48	4.34	4.21	4.70	4.12	3.70	4.32
24	4.21	4.37	4.11	4.03	4.04	4.53	4.38	---	4.64	4.09	3.69	4.33
25	4.22	4.37	4.10	4.02	4.06	4.59	4.39	4.26	4.58	4.06	3.67	4.28
26	4.19	4.31	4.10	---	4.04	4.62	4.38	4.26	4.53	4.01	3.65	4.26
27	4.21	4.19	4.11	---	4.05	4.61	4.38	4.29	4.51	4.03	3.65	4.26
28	4.28	4.18	4.11	---	4.03	4.61	4.38	4.26	4.45	4.08	3.67	4.28
29	4.28	4.15	4.11	---	4.08	4.61	4.39	4.24	4.39	4.06	3.69	4.32
30	4.29	4.14	4.12	---	---	4.62	4.39	4.25	4.33	4.03	3.67	4.32
31	4.29	---	4.11	---	---	4.63	---	4.24	---	4.04	3.65	---
Mean	4.26	4.30	---	---	---	4.28	4.46	---	4.67	4.13	3.89	4.10
Max	4.55	4.37	---	---	---	4.63	4.65	---	5.20	4.28	4.09	4.33
Min	4.00	4.14	---	---	---	4.08	4.33	---	4.25	4.01	3.65	3.77

06349500 APPLE CREEK NEAR MENOKEN, ND—Continued



06349500 APPLE CREEK NEAR MENOKEN, ND—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water year 1974 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 3

[Remark codes: <, less than.]

Date	Time	Instan-	pH,	pH,	Specif.	Specif-	Hard-	Magnes-	Potas-	Sodium
		taneous	water,	water,	conduc-	ic				
		dis-	unfltrd	unfltrd	conduc-	conduc-				
		charge,	field,	lab,	wat unf	wat unf				
			std	std	μS/cm	μS/cm				
			(00061)	(00400)	(90095)	(00095)				
Apr 08...	1200	9.9	8.5	8.2	1,120	1,110	10.0	4.5	260	53.0
Jun 24...	1230	10	8.4	8.3	1,500	1,480	26.0	19.0	400	60.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 3

[Remark codes: <, less than.]

Date	Sodium	ANC,	Chlor-	Fluor-	Silica,	Sulfate	Residue	Alum-	Anti-	Arsenic	Barium,
	frac-	wat unf					fixed	water,	water,	water,	water,
	fraction	Sodium,	end pt,	water,	water,	water,	fixed	water,	water,	water,	water,
	of	water,	lab,	water,	water,	water,	water,	water,	water,	water,	water,
	cations	filtrd,	mg/L as	CaCO ₃	mg/L						
	percent	(00930)	(90410)	(00940)	(00950)	(00955)	(00945)	(70301)	(70302)	(01106)	(01095)
	(00932)										
Apr 08...	58	162	339	22.0	.18	11.7	223	694	19.0	<50	<1.00
Jun 24...	52	199	404	14.3	.26	6.04	416	930	27.4	<50	<1.00

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 3

[Remark codes: <, less than.]

Date	Beryll-	Chrom-	Copper,	Iron,	Lead,	Mangan-	Nickel,	Selen-	Silver,	Thall-	
	ium,	ium,									
	water,	water,	water,	water,	water,	ese,	water,	ium,	water,	ium,	
	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	water,	fltrd,	water,	fltrd,	water,	
	μg/L										
	(01010)	(01020)	(01025)	(01030)	(01040)	(01046)	(01049)	(01056)	(01065)	(01090)	
Apr 08...	<1.00	567	<1.00	6.2	1.7	<50	<1.00	120	2.0	<1.0	<1.00
Jun 24...	<1.00	570	<1.00	1.8	2.9	<50	<1.00	90.0	4.2	<1.0	<1.00