

Water-Data Report 2009

09134000 MINNESOTA CREEK NEAR PAONIA, CO

Gunnison Basin
North Fork Gunnison Subbasin

LOCATION.--Lat 38°52'12", long 107°30'13" referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.1, T.14 S., R.91 W., Delta County, CO, Hydrologic Unit 14020004, on right bank 0.25 mi downstream from South Fork, 6 mi upstream from mouth, and 4.5 mi east of Paonia.

DRAINAGE AREA.--41.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1936 to September 1947, October 1985 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,200 ft above NGVD of 1929, from topographic map. Apr. 1936 to Oct. 1941, staff gages at different datums. Oct. 1941 to Sept. 1947, water-stage recorder at different datum. Dec. 1985 to present, water-stage recorder, at datum 2.0 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by two small storage reservoirs, one of which obtains water from the East Muddy Creek Basin. Small transbasin diversions from Coal Creek into Minnesota Creek. Diversions upstream from station for irrigation of about 100 acres.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.8	3.8	e2.9	e3.3	e3.7	e5.3	e5.7	46	83	28	32	4.6
2	3.8	3.8	e2.8	e2.7	e3.4	e5.6	e5.4	60	80	27	34	4.8
3	3.8	3.9	e2.8	e2.5	e3.5	e6.1	e6.1	72	77	27	29	4.6
4	4.1	4.1	e2.5	e2.7	e3.2	e6.4	e6.1	71	80	25	28	4.6
5	5.9	4.3	e2.2	e2.3	e3.2	e6.1	e6.0	66	77	23	27	5.0
6	5.8	e3.6	e2.7	e2.6	e3.2	e5.1	e6.4	71	69	21	27	6.2
7	4.6	e3.4	e2.6	e2.6	e3.2	e4.8	e8.6	86	63	20	26	6.2
8	4.3	4.5	e2.7	e2.5	e3.3	e4.5	13	111	58	21	26	6.6
9	4.3	4.0	e2.7	e3.0	e3.3	e4.6	13	142	57	24	27	6.4
10	4.3	3.9	e2.6	e2.6	e3.3	e4.4	13	130	52	25	26	6.4
11	4.3	4.1	e3.0	e3.4	e3.3	e4.8	16	138	47	24	26	6.4
12	5.2	3.8	e3.2	e3.1	e3.2	e5.2	13	134	42	24	26	5.9
13	4.4	3.6	e3.6	e3.1	e3.3	e4.6	12	149	40	23	27	5.5
14	4.5	3.6	e3.2	e2.9	e3.0	e4.7	14	140	38	16	26	7.0
15	4.5	e2.8	e2.6	e3.1	e2.9	e4.9	19	141	37	14	23	6.0
16	e4.5	e3.5	e3.4	e2.8	e3.3	e5.2	19	158	37	25	19	5.7
17	e4.5	e3.3	e3.6	e2.6	e3.1	6.1	15	159	36	38	19	5.3
18	4.4	e3.2	e3.6	e2.4	e3.0	6.8	13	167	40	36	18	5.2
19	4.3	e3.2	e3.4	e2.5	e3.9	7.1	13	157	42	35	18	4.7
20	4.3	e3.2	e3.2	e2.9	e4.5	7.9	17	138	41	35	17	4.7
21	3.2	e3.1	e2.8	e3.0	e4.5	8.1	25	135	42	36	17	4.8
22	3.1	e2.7	e3.3	e3.2	e4.8	8.8	32	159	40	34	12	4.6
23	3.2	e3.0	e2.9	e3.6	e5.5	8.8	38	138	38	29	6.8	4.8
24	e3.6	e2.6	e2.6	e4.0	e6.7	6.7	42	171	36	28	6.6	4.6
25	e3.5	e3.0	e3.0	e3.7	e6.3	e6.3	44	161	37	27	6.4	4.6
26	e3.4	e3.3	e2.9	e3.4	e5.7	e6.1	40	127	43	30	6.3	4.4
27	e3.3	3.7	e2.7	e3.0	e5.0	e5.8	32	112	43	30	6.1	4.3
28	e3.3	3.7	e3.4	e2.8	e4.7	e5.8	29	97	40	29	6.0	4.3
29	3.5	e2.5	e2.9	e3.7	---	e5.9	28	97	34	29	5.8	4.2
30	3.8	e2.9	e3.2	e3.5	---	e5.8	37	94	30	29	5.7	4.0
31	3.8	---	e2.9	e3.4	---	e5.6	---	88	---	28	5.2	---
Total	127.3	104.1	91.9	92.9	110.0	183.9	581.3	3,715	1,479	840	584.9	156.4
Mean	4.11	3.47	2.96	3.00	3.93	5.93	19.4	120	49.3	27.1	18.9	5.21
Max	5.9	4.5	3.6	4.0	6.7	8.8	44	171	83	38	34	7.0
Min	3.1	2.5	2.2	2.3	2.9	4.4	5.4	46	30	14	5.2	4.0
Ac-ft	252	206	182	184	218	365	1,150	7,370	2,930	1,670	1,160	310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5.89	5.00	4.14	3.47	3.78	7.08	25.7	87.8	68.1	27.5	15.2	7.54
Max	16.6	12.9	9.08	5.80	8.62	19.2	89.6	199	194	88.2	29.7	19.8
(WY)	(1942)	(1987)	(1987)	(1942)	(1986)	(1986)	(1942)	(1993)	(1993)	(1995)	(1993)	(1993)
Min	2.64	1.84	1.65	1.70	1.89	2.57	7.18	15.1	15.5	5.05	2.05	2.91
(WY)	(2000)	(2000)	(2003)	(2000)	(2000)	(2000)	(1990)	(2002)	(2002)	(2002)	(2002)	(2002)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1937 - 2009	
Annual total	10,334.2		8,066.7			
Annual mean	28.2		22.1		21.9	
Highest annual mean					46.9	1993
Lowest annual mean					5.73	2002
Highest daily mean	269	May 21	171	May 24	340	May 28, 1993
Lowest daily mean	2.2	Dec 5	2.2	Dec 5	1.0	Nov 14, 1936
Annual seven-day minimum	2.6	Dec 4	2.6	Jan 2	^a 1.4	Feb 17, 1999
Maximum peak flow			197	May 24	359	May 28, 1993
Maximum peak stage			2.32	May 24	^b 3.24	May 28, 1993
Annual runoff (ac-ft)	20,500		16,000		15,840	
10 percent exceeds	92		61		59	
50 percent exceeds	5.9		5.7		6.8	
90 percent exceeds	3.2		2.9		2.7	

^a Also occurred Jan 16, 1990.

^b Maximum gage height, 3.70 ft, May 22, 1942, site and datum then in use.

