

# STREAM FLOW DATA for COLORADO

Compiled by the  
Hydrographic Branch

Edited by  
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## Water Year 2004



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## Table of Contents

06694650	SOUTH FORK SOUTH PLATTE RIVER BELOW ANTERO RESERVOIR .....	1
06694920	SOUTH PLATTE RIVER ABOVE SPINNEY MOUNTAIN RESERVOIR, CO .....	2
06695000	SOUTH PLATTE RIVER ABOVE ELEVENMILE CANYON RESERVOIR, NEAR HARTSEL, CO .....	3
06696000	SOUTH PLATTE RIVER(BELOW ELEVENMILE RESERVOIR) NEAR LAKE GEORGE, CO .....	4
06701500	SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO .....	5
06706000	NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT, CO .....	6
06707500	SOUTH PLATTE RIVER AT SOUTH PLATTE, CO .....	7
06707501	SOUTH PLATTE RIVER BELOW STROMTIA SPRINGS RESERVOIR, CO .....	8
06708000	SOUTH PLATTE RIVER AT WATERTON, CO .....	9
06709610	SOUTH PLATTE RIVER BELOW CHATFIELD RESERVOIR, CO .....	10
06710500	BEAR CREEK AT MORRISON, CO .....	11
06711500	BEAR CREEK AT MOUTH, AT SHERIDAN, CO .....	12
06714000	SOUTH PLATTE RIVER AT DENVER, CO .....	13
06720000	CLEAR CREEK AT DERBY, CO .....	14
06720500	SOUTH PLATTE RIVER AT HENDERSON, CO .....	15
	MIDDLE ST. VRAIN CREEK NR. PEACEFUL VALLEY, CO .....	16
	SOUTH ST. VRAIN CREEK NEAR WARD, CO .....	17
	LEFTHAND DIVERSION AT SO. ST. VRAIN CREEK NEAR WARD, CO .....	18
06724000	ST. VRAIN CREEK AT LYONS, CO .....	19
06725500	MIDDLE BOULDER CREEK AT NEDERLAND, CO .....	20
06727000	BOULDER CREEK NEAR ORODELL, CO .....	21
06729450	SOUTH BOULDER CREEK BELOW GROSS RESERVOIR NEAR COAL CREEK, CO .....	22
	SOUTH BOULDER CREEK DIVERSION NEAR ELDERADO SPRINGS, CO .....	23
06729500	SOUTH BOULDER CREEK NEAR ELDERADO SPRINGS, CO .....	24
06730300	COAL CREEK NEAR PLAINVIEW, CO .....	25
06731000	ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO .....	26
	WIND RIVER NEAR ESTES PARK, CO .....	27
	WIND RIVER BY-PASS NEAR ESTES PARK, CO .....	28
06733000	BIG THOMPSON RIVER(ABOVE LAKE ESTES) AT ESTES PARK, CO .....	29
06734500	FISH CREEK NEAR ESTES PARK, CO .....	30
06735500	BIG THOMPSON RIVER(BELOW LAKE ESTES) NEAR ESTES PARK, CO .....	31
06734900	OLYMPUS TUNNEL (ESTES FOOTHILLS CANAL) AT LAKE ESTES, CO .....	32
06736000	NORTH FORK BIG THOMPSON RIVER AT DRAKE, CO .....	33
	DILLE TUNNEL (EAST PORTAL) NEAR DRAKE, CO .....	34
06738000	BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, CO .....	35
	BUCKHORN CREEK NEAR MASONVILLE, CO .....	36
	CHARLES HANSEN FEEDER CANAL BELOW BIG THOMPSON SIPHON NEAR DRAKE, CO .....	37
06738100	CHARLES HANSEN FEEDER CANAL WASTEWAY TO BIG THOMPSON NEAR DRAKE, CO .....	38
06738100	CHARLES HANSEN FEEDER CANAL POWER PLANT TO BIG THOMPSON RIVER .....	39
	BOULDER CREEK FEEDER CANAL NEAR LYONS, CO .....	40
	ST. VRAIN SUPPLY CANAL NEAR LYONS, CO .....	41
	LITTLE THOMPSON RIVER @ CANYON MOUTH NEAR BERTHOUD, CO .....	42
06744000	BIG THOMPSON RIVER AT MOUTH NEAR LA SALLE, CO .....	43
06752000	CACHE LA POUDDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, CO .....	44
06752500	CACHE LA POUDDRE RIVER NEAR GREELEY, CO .....	45
06754000	SOUTH PLATTE RIVER NEAR KERSEY, CO .....	46
06758500	SOUTH PLATTE RIVER NEAR WELDONA, CO .....	47
06759910	SOUTH PLATTE RIVER AT BALZAC, CO .....	48
06763990	SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 2 .....	49
06763990	SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 1 .....	50
06763980	SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 4 (INCLUDES FLOW FROM CHANNEL NO 3) .....	51
06764000	SOUTH PLATTE RIVER AT JULESBURG, CO (COMBINED) .....	52
	TRANSMOUNTAIN DIVERSIONS INTO THE SOUTH PLATTE BASIN IN COLORADO .....	53
	AURORA HOMESTAKE PIPELINE ABOVE ELEVENMILE RESERVOIR .....	54
09042000	EAST PORTAL HOOSIER PASS TUNNEL NEAR ALMA, CO .....	55
09046000	BOREAS PASS DITCH AT BOREAS PASS, CO .....	56
09050590	HAROLD D. ROBERTS TUNNEL NEAR GRANT, CO .....	57
	STRAIGHT CREEK TUNNEL AT EAST PORTAL EISENHOWER TUNNEL .....	58
09047300	VIDLER TUNNEL NEAR ARGENTINE PASS, CO .....	59
09021500	BERTHOUD PASS DITCH AT BERTHOUD PASS, CO .....	60
09022500	EAST PORTAL MOFFAT TUNNEL NEAR ROLLINSVILLE, CO .....	61
09013000	ALVA B. ADAMS TUNNEL AT EAST PORTAL NEAR ESTES PARK, COLORADO .....	62
09010000	GRAND RIVER DITCH AT LA POUDDRE PASS, CO .....	63
06745500	CAMERON PASS DITCH AT CAMERON PASS, CO .....	64
06746000	MICHIGAN DITCH AT CAMERON PASS, CO .....	65
06746500	SKYLINE DITCH NEAR CHAMBERS LAKE, CO .....	66
06747000	LARAMIE-POUDRE TUNNEL NEAR CHAMBERS LAKE, CO .....	67
	BOB CREEK DITCH NEAR GLENDEVEY, CO .....	68
	DEADMAN DITCH NEAR DEADMAN PARK, CO .....	69
06750500	WILSON SUPPLY DITCH NEAR EATON RESERVOIR, CO .....	70
	PIONEER DITCH AT HEADGATE NEAR LAIRD, CO .....	71
	PIONEER DITCH AT COLORADO-NEBRASKA STATE LINE .....	72
07082500	LAKE FORK CREEK BELOW SUGAR LOAF DAM NEAR LEADVILLE, CO .....	73
07084500	LAKE CREEK ABOVE TWIN LAKES RESERVOIR, CO .....	74
	LAKE CREEK BELOW TWIN LAKES RESERVOIR, CO .....	75
07086000	ARKANSAS RIVER AT GRANITE, CO .....	76
07086500	CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR, CO .....	77
	CLEAR CREEK BELOW CLEAR CREEK RESERVOIR, NEAR GRANITE, CO .....	78
07089520	COTTONWOOD CREEK AT BUENA VISTA, CO .....	79
07091000	CHALK CREEK AT NATHROP, CO .....	80
07091500	ARKANSAS RIVER AT SALIDA, CO .....	81
07093700	ARKANSAS RIVER NEAR WELLSVILLE, CO .....	82
07095000	GRAPE CREEK NEAR WESTCLIFFE, CO .....	83

07096000	ARKANSAS RIVER AT CANON CITY, CO	84
07097000	ARKANSAS RIVER AT PORTLAND, CO	85
07099400	ARKANSAS RIVER ABOVE PUEBLO, CO	86
07111000	HUERFANO RIVER AT MANZANARES CROSSING NEAR REDWING, CO	87
07114000	CUCHARAS RIVER AT BOYD RANCH NEAR LA VETA, CO	88
	CUCHARAS RIVER AT HARRISON BRIDGE NEAR LA VETA, CO	89
	OXFORD FARMERS DITCH NEAR NEPESTA, CO	90
07117000	ARKANSAS RIVER AT NEPESTA ROAD BRIDGE NEAR NEPESTA, CO (RIVER ONLY)	91
07117000	ARKANSAS RIVER AT NEPESTA ROAD BRIDGE NEAR NEPESTA, CO (COMBINED)	92
07119700	ARKANSAS RIVER BELOW CATLIN DAM, NEAR FOWLER, CO	93
07119705	CATLIN CANAL, NEAR FOWLER, CO	94
07119700	ARKANSAS RIVER BELOW CATLIN DAM, NEAR FOWLER, CO (COMBINED)	95
07120500	ARKANSAS RIVER NEAR ROCKY FORD, CO	96
07122400	CROOKED ARROYO NEAR SWINK, CO	97
07123000	ARKANSAS RIVER AT LA JUNTA, CO	98
07123675	HORSE CREEK AT HIGHWAY 194 NR LAS ANIMAS, CO	99
	RATON CREEK ABOVE STARKVILLE, CO (WY2003)	100
	RATON CREEK ABOVE STARKVILLE, CO	101
07124500	PURGATOIRE RIVER AT TRINIDAD, CO	102
07126500	PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO (RIVER ONLY)	103
07126500	NINEMILE CANAL BELOW NINEMILE DAM NEAR HIGBEE, CO	104
07126500	PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO (COMBINED)	105
	PURGATOIRE RIVER BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO	106
	HIGHLAND CANAL BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO	107
	PURGATOIRE RIVER BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO (COMBINED)	108
07134125	ARKANSAS RIVER BELOW X-Y DITCH DAM NR CARLTON, CO	109
09061500	COLUMBINE DITCH NEAR FREEMONT PASS, CO	110
09062000	EWING DITCH AT TENNESSEE PASS, CO	111
09062500	WURTZ DITCH NEAR TENNESSEE PASS, CO	112
	WURTZ DITCH EXTENSION NEAR LEADVILLE, CO AT TENNESSEE PASS	113
09063700	HOMESTAKE TUNNEL NEAR GOLD PARK, CO	114
09077160	BOUSTEAD TUNNEL AT EAST PORTAL NEAR LEADVILLE, CO	115
09077500	BUSK-IVANHOE TUNNEL AT EAST PORTAL NEAR MALTA, CO	116
09073000	TWIN LAKES TUNNEL AT EAST PORTAL NEAR TWIN LAKES, CO	117
09115000	LARKSPUR DITCH NEAR MARSHALL PASS, CO	118
08213500	RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE, CO	119
08214500	NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR, CO	120
08217500	RIO GRANDE RIVER AT WAGONWHEEL GAP, CO	121
08218500	GOOSE CREEK AT WAGONWHEEL GAP, CO	122
08219500	SOUTH FORK RIO GRANDE AT SOUTH FORK, CO	123
08220000	RIO GRANDE RIVER NEAR DEL NORTE, CO	124
08220500	PINOS CREEK NEAR DEL NORTE, CO	125
08221500	RIO GRANDE NEAR MONTE VISTA, CO	126
	RIO GRANDE AT RIO GRANDE-ALAMOSA COUNTY LINE, CO	127
08223000	RIO GRANDE AT ALAMOSA, CO	128
	CLOSED BASIN PROJECT CANAL NEAR ALAMOSA, CO	129
08224500	KERBER CREEK NEAR VILLA GROVE, CO	130
	GARNER CREEK NEAR VILLA GROVE, CO	131
	MAJOR CREEK NEAR VILLA GROVE, CO	132
	COTTON CREEK NEAR MINERAL HOT SPRINGS, CO	133
	WILD CHERRY CREEK NEAR CRESTONE, CO	134
	RITO ALTO CREEK NEAR CRESTONE, CO	135
	SAN ISABEL CREEK NEAR CRESTONE, CO	136
08227000	SAGUACHE CREEK NEAR SAGUACHE, CO	137
08227500	NORTH CRESTONE CREEK NEAR CRESTONE, CO	138
	SOUTH CRESTONE CREEK NEAR CRESTONE, CO	139
	WILLOW CREEK NEAR CRESTONE, CO	140
	SPANISH CREEK NEAR CRESTONE, CO	141
08229500	COTTONWOOD CREEK NEAR CRESTONE, CO	142
	DEADMAN CREEK NEAR CRESTONE, CO	143
	LITTLE SPRING CREEK AT MEDANO RANCH NEAR MOSCA, CO	144
	BIG SPRING CREEK AT MEDANO RANCH NEAR GREAT SAND DUNES NATIONAL MONUMENT	145
08230500	CARNERO CREEK NEAR LA GARITA, CO	146
08231000	LA GARITA CREEK NEAR LA GARITA, CO	147
08235250	ALAMOSA RIVER ABOVE WIGHTMAN FORK NEAR JASPER, CO	148
08235290	WIGHTMAN FORK AT MOUTH NEAR JASPER, CO	150
	ALAMOSA RIVER BELOW RANGER CREEK, CO	151
08236000	ALAMOSA CREEK ABOVE TERRACE RESERVOIR, CO	152
08236500	ALAMOSA CREEK BELOW TERRACE RESERVOIR, CO	153
08238000	LA JARA CREEK AT GALLEGOS RANCH, NEAR CAPULIN, CO	154
	SOUTH CHANNEL NORTON DRAIN DITCH NEAR LA SAUSES, CO	155
	NORTON DRAIN NEAR LA SAUSES, CO	156
08240000	RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES, CO	157
08240500	TRINCHERA CREEK ABOVE TURNERS RANCH, NEAR FORT GARLAND, CO	158
08241000	TRINCHERA CREEK ABOVE MOUNTAIN HOME RESERVOIR, CO	159
08241500	SANGRE DE CRISTO CREEK NEAR FORT GARLAND, CO	160
08242500	UTE CREEK NEAR FORT GARLAND, CO	161
08243500	TRINCHERA CREEK BELOW SMITH RESERVOIR, NEAR BLANCA, CO	162
08245000	CONEJOS RIVER BELOW PLATORO RESERVOIR, CO	163
08246500	CONEJOS RIVER NEAR MOGOTE, CO	164
08247500	SAN ANTONIO RIVER AT ORTIZ, CO	165
08248000	LOS PINOS RIVER NEAR ORTIZ, CO	166
08248500	SAN ANTONIO RIVER AT MOUTH, NEAR MANASSA, CO	167
08249000	CONEJOS RIVER NEAR LASAUSES, MAIN (NORTH) CHANNEL, CO	168
08249000	CONEJOS RIVER NEAR LASAUSES, SECONDARY (SOUTH) CHANNEL, CO	169

08249000	CONEJOS RIVER NEAR LASAUSES, CO (COMBINED)	170
08250000	CULEBRA CREEK AT SAN LUIS, CO	171
08251500	RIO GRANDE NEAR LOBATOS, CO	172
09118200	TARBELL DITCH NEAR COCHETOPA PASS, CO	173
09121000	TABOR DITCH AT SPRING CREEK PASS, CO	174
09341000	TREASURE PASS DITCH AT WOLF CREEK PASS, CO	175
09347000	DON LA FONT DITCH NO.1 AT PIEDRA PASS, CO	176
09347000	DON LA FONT DITCH NO.2 AT PIEDRA PASS, CO	177
09347000	DON LA FONT DITCH, COMBINED, AT PIEDRA PASS, CO	178
09348000	WILLIAM'S CREEK-SQUAW PASS DITCH AT SQUAW PASS, CO	179
09351500	PINE RIVER WEMINUCHE PASS DITCH AT WEMINUCHE PASS, CO	180
09351500	WEMINUCHE PASS DITCH AT WEMINUCHE PASS, CO	181
09131490	MUDDY CREEK ABOVE PAONIA RESERVOIR	182
09131500	MUDDY CREEK BELOW PAONIA RESERVOIR	183
	ABC LATERAL NEAR MONTROSE, CO	184
	SOUTH CANAL NEAR MONTROSE, CO	185
	UNCOMPAHGRE RIVER NEAR OLATHE, CO	186
	REDLANDS CANAL NEAR GRAND JUNCTION, CO	187
	GUNNISON RIVER BELOW REDLANDS DIVERSION DAM NEAR GRAND JUNCTION, CO	188
	BLUE RIVER AT HIGHWAY 9 BRIDGE BELOW BRECKENRIDGE, CO	189
	ROARING FORK RIVER BELOW MAROON CREEK NEAR ASPEN, CO	190
09077200	FRYINGPAN RIVER NEAR IVANHOE LAKE, CO	191
09077610	IVANHOE CREEK NEAR NAST, CO	192
09077800	SOUTH FORK FRYINGPAN RIVER AT UPPER STATION NEAR NORRIE, CO	193
09077945	CHAPMAN GULCH NEAR NAST, CO	194
09078500	NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO	195
09078600	FRYINGPAN RIVER NEAR THOMASVILLE, CO	196
09080100	FRYINGPAN RIVER AT MEREDITH, CO	197
09080300	ROCKY FORK CREEK NEAR MEREDITH, CO	198
	YAMPA RIVER ABOVE LAKE CATAMOUNT	199
09238500	WALTON CREEK NEAR STEAMBOAT SPRINGS, CO	200
06616500	MICHIGAN RIVER NEAR MEADOW CREEK RESERVOIR	201
06617500	ILLINOIS RIVER NEAR RAND	202
	DOLORES TUNNEL OUTLET NEAR DOLORES, CO	203
	LONE PINE CANAL BELOW GREAT CUT DIKE NEAR DOLORES, CO	204
	DOLORES RIVER BELOW MCPHEE RESERVOIR NEAR DOLORES, CO	205
	BLANCO DIVERSION NEAR PAGOSA SPRINGS, CO	206
09343300	RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO	207
	RIO BLANCO AT MOUTH NEAR TRUJILLO, CO	208
09344000	NAVAJO RIVER AT BANDED PEAK RANCH, NEAR CHROMO, CO	209
	OSO DIVERSION NEAR CHROMO, CO	210
09344400	NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO	211
	LITTLE OSO DIVERSION NEAR CHROMO, CO	212
09345200	LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM NEAR CHROMO, CO	213
09362750	FLORIDA RIVER ABOVE LEMON RESERVOIR NEAR DURANGO, CO	214
	FLORIDA RIVER BELOW LEMON RESERVOIR NEAR DURANGO, CO	215
09357500	ANIMAS RIVER AT HOWARDSVILLE, CO	216
	LA PLATA AND CHERRY CREEK DITCH NEAR HESPERUS, CO	217
	PINE RIDGE DITCH NEAR HESPERUS, CO	218
09365500	LA PLATA RIVER AT HESPERUS, CO	219
	CHERRY CREEK AT THE MOUTH NEAR RED MESA, CO	220
	LONG HOLLOW AT THE MOUTH NEAR RED MESA, CO	221
	PIONEER DITCH AT THE COLORADO-NEW MEXICO STATELINE	222
	ENTERPRISE DITCH AT THE COLORADO-NEW MEXICO STATELINE	223
09366500	LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE	224
09370000	MANCOS RIVER NEAR MANCOS, CO	225



PLATTE RIVER BASIN

06694650 SOUTH FORK SOUTH PLATTE RIVER BELOW ANTERO RESERVOIR

LOCATION.--Lat 38°33'26", long 105°53'22", 1500 ft below Antero Reservoir.

DRAINAGE AREA.--N/A

GAGE.--Satellite monitoring and graphic recorder on a 12 foot Parshall flume with a wooden shelter, concrete well and staff gage. Starting April 1, 2004, a sharp crested Cipolletti weir with broad-crested concrete overflow walls. Concrete shelter and well with Satellite monitoring and a continuous chart recorder. Primary reference gage is an electric tape. Gage is owned and maintained by the Denver Water Dept.

REMARKS.--Primary record at both gages was hourly data taken from satellite readings. Both gages were in operation until June, but by agreement with Denver, weir use was begun in April, after the inlets had been excavated and flushed and the ice cleared. Record was taken as follows: October 1–November 18, complete and reliable record from Parshall Flume; November 19–December 6, possible ice in flume, record is complete but not reliable. Discharges should be considered as estimates. December 7–March 31, winter estimates. Daily estimates were made by Denver personnel by chopping the ice from the Cipolletti weir and getting a once-daily reading with a hand held staff on top of the weir blade. Primary GH data, including ice-affect, for October–March was taken from the flume. April 1–September 30, data from Cipolletti weir was complete and reliable except for April 5 & 6 when the chart recorder failed and the SMS system was down. The record is rated as follows: October 1 to November 18, good; November 19–March 31, estimated and poor (winter ice conditions); April 1–June 23, fair; June 24–September 30, good. Record developed by Bob Cooper and Garver Brown.

RATING TABLE.--STD12FTPF USED FROM 01-OCT-2003 TO 31-MAR-2004  
MOD10FTCIP USED FROM 01-APR-2004 TO 30-SEP-2004

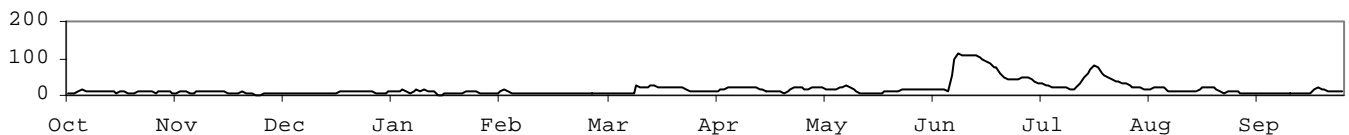
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	6.7	7.2	10	8	4	11	20	15	49	24	7.7
2	6.9	8.2	7.7	9	10	4	10	23	15	49	21	6.9
3	7.3	9.5	6.8	10	15	4	12	24	15	44	19	6.4
4	12	8.2	6.5	11	13	4	13	20	15	37	18	5.7
5	14	7.6	6.1	14	4	4	15	18	15	32	16	5
6	13	7.2	6.6	11	4	4	17	17	15	30	18	7
7	12	9.4	7	8	4	4	19	16	16	28	19	6.4
8	11	12	5	9	4	4	20	17	16	25	20	6
9	11	9.9	7	14	4	5	22	20	12	22	19	5.4
10	9.5	11	5	12	4	5	24	23	53	20	19	5.2
11	9.4	10	6	15	4	6	24	25	99	20	13	5.3
12	9.4	8.4	6	13	4	27	23	21	114	20	11	5.6
13	9.2	10	4	10	4	21	22	16	110	19	10	5.2
14	8.8	10	7	12	4	21	21	10	107	16	10	4.2
15	8.1	9.4	7	2	4	24	19	6.2	108	17	9.6	4
16	8.3	7.5	6	2	4	27	16	6.5	110	20	9.6	3.7
17	8.3	7.3	7	4	4	27	15	6.7	106	32	9.6	4
18	7.7	7	9	4	4	23	13	7	101	47	10	3.4
19	7.7	7	9	4	4	23	12	7.2	96	58	12	3.1
20	8	9.2	10	4	4	23	10	7.4	91	71	16	3.9
21	8.3	7.9	10	6	4	21	12	7.7	84	80	19	6.2
22	8.4	3.4	10	8	4	21	11	9.2	76	75	20	18
23	8.7	3.6	9	9	4	23	7.4	10	74	61	21	21
24	8.6	1.4	10	9	4	21	12	11	62	55	19	18
25	8.4	2.4	11	10	4	19	16	12	48	51	14	14
26	7.4	4.9	10	10	4	16	19	13	43	44	11	12
27	9.3	5	10	8	4	13	21	14	44	40	7.8	12
28	10	3.4	7	7	4	11	20	14	44	37	8.3	12
29	10	4.9	8	6	4	10	17	14	44	33	9	11
30	8.7	5.9	7	7	---	10	17	14	47	31	9.1	10
31	7.6	---	7	8	---	10	---	15	---	27	8.5	---
TOTAL	284.2	218.3	234.9	266	146	439	490.4	444.9	1795	1190	450.5	238.3
MEAN	9.2	7.3	7.6	8.6	5	14.2	16.3	14.4	60	38	14.5	7.9
AC-FT	564	433	466	528	290	871	973	882	3560	2360	894	473
MAX	14	12	11	15	15	27	24	25	114	80	24	21
MIN	6.9	1.4	4	2	4	4	7.4	6.2	12	16	7.8	3.1

WTR YR 2004 TOTAL 6197.5 MEAN 16.9 MAX 114 MIN 1.4 AC-FT 12290

MAX DISCH: 117 CFS AT 23:45 ON Jun. 11, 2004 GH 2.3 FT. SHIFT 0 FT.  
MAX GH: 2.3 FT. AT 23:45 ON Jun. 11, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06694920 SOUTH PLATTE RIVER ABOVE SPINNEY MOUNTAIN RESERVOIR, CO

LOCATION.--Lat 38°59'10", long 105°40'52".

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder and satellite monitoring (DCP and shaft encoder) at a 25-foot concrete Parshall flume with a wooden shelter and concrete well with inside electric tape gage and in-flume staff gage. Gage is operated and equipment is maintained by the city of Aurora.

REMARKS.--Record is taken from hourly satellite readings and is complete except for November 24, 2003 to March 25, 2004 when the station was closed for the winter. There was possible ice-effect during November 12-20. Satellite daily gage heights agree with chart data to  $\pm 0.03$  ft. Encoder calibration was checked with 53 visits while the gage was open. The record is good, except for November 12-20 which is fair due to possible ice effect, and November 21-- March 25, which is estimated, and poor. Record developed by Garver Brown.

RATING TABLE.--STD25FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

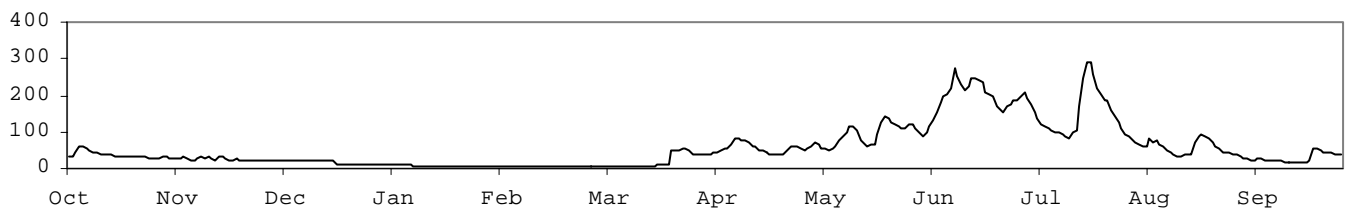
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	25	20	10	5	5	38	63	96	208	78	33
2	35	28	20	10	5	5	38	70	90	191	71	30
3	44	32	20	10	5	5	42	65	101	174	68	26
4	58	29	20	10	5	5	42	57	114	154	59	23
5	58	23	20	10	5	5	49	53	133	136	62	23
6	56	24	20	10	5	5	55	52	156	122	83	25
7	49	28	20	10	5	5	57	56	181	113	72	27
8	46	35	20	5	5	5	65	63	196	108	74	24
9	43	27	20	5	5	5	84	74	203	102	66	23
10	41	33	20	5	5	5	83	85	219	100	59	22
11	39	29	20	5	5	5	79	101	272	101	51	22
12	39	24	20	5	5	5	77	117	252	95	45	22
13	38	32	20	5	5	5	69	116	228	89	41	21
14	34	31	20	5	5	5	63	104	216	84	35	19
15	35	26	20	5	5	5	58	79	227	100	32	19
16	33	23	20	5	5	5	52	69	245	105	37	19
17	34	23	10	5	5	5	47	63	246	170	36	18
18	33	25	10	5	5	10	44	64	239	246	37	16
19	32	23	10	5	5	10	40	68	238	292	71	16
20	32	22	10	5	5	10	38	95	208	289	87	18
21	32	20	10	5	5	10	37	127	203	257	91	22
22	32	20	10	5	5	50	39	143	197	217	85	54
23	31	20	10	5	5	50	41	137	168	201	80	56
24	30	20	10	5	5	50	51	124	163	188	70	51
25	29	20	10	5	5	55	59	119	156	186	61	44
26	27	20	10	5	5	54	62	117	168	158	53	46
27	30	20	10	5	5	50	58	110	173	142	46	42
28	33	20	10	5	5	40	55	111	184	124	46	40
29	32	20	10	5	5	37	51	119	186	111	43	37
30	30	20	10	5	---	38	53	123	200	94	38	37
31	26	---	10	5	---	39	---	107	---	86	36	---
TOTAL	1145	742	470	190	145	588	1626	2851	5658	4743	1813	875
MEAN	37	25	15	6.1	5	19	54	92	189	153	59	29
AC-FT	2270	1470	932	377	288	1170	3230	5650	11220	9410	3600	1740
MAX	58	35	20	10	5	55	84	143	272	292	91	56
MIN	26	20	10	5	5	5	37	52	90	84	32	16

WTR YR 2004 TOTAL 20846 MEAN 57 MAX 292 MIN 5 AC-FT 41350

MAX DISCH: 312 CFS AT 12:30 ON Jul. 19, 2004 GH 2.08 FT. SHIFT 0.03 FT.

MAX GH: 2.08 FT. AT 12:30 ON Jul. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





## PLATTE RIVER BASIN

06695000 SOUTH PLATTE RIVER ABOVE ELEVENMILE CANYON RESERVOIR, NEAR HARTSEL, CO

**LOCATION.**--Lat 38°58'03", long 105°34'51", in NE¼ sec. 32, T.12 S., R.73 W., Park County, Hydrologic Unit 10190001, on left bank 200 ft downstream from highway bridge, 2.5 mi upstream from water line of Elevenmile Canyon Reservoir, at elevation 8,561 ft. and 13 mi southeast of Hartsel.

**DRAINAGE AREA AND PERIOD OF RECORD.**--880 mi<sup>2</sup>; 1933 to present.

**GAGE.**--Water-stage recorder with satellite telemetry (DCP and shaft encoder) in a wooden shelter at a 25' Parshall flume. Datum of gage is 8,612.83 ft, (Denver Board of Water Commissioners Datum). Station is owned and maintained by the Denver Water Dept. Satellite telemetry is maintained by the U. S. Army Corps of Engineers and the USGS.

**REMARKS.**--Primary record is hourly data taken from satellite readings, with chart back-up. Record is complete and reliable. Spinney Reservoir is 2 miles upstream. Spinney releases keep this gage open year round. The record is good. Record developed by Garver Brown.

**RATING TABLE.**--STD25FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

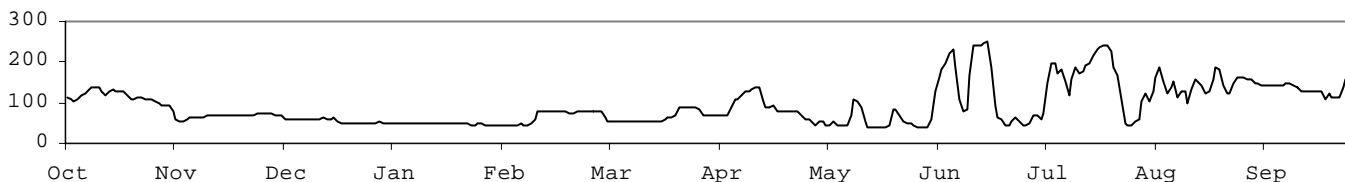
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	61	68	48	45	77	69	45	40	49	59	158
2	107	55	61	48	46	65	69	54	40	67	101	157
3	102	54	61	48	45	52	69	53	58	67	121	150
4	109	60	61	47	46	52	68	45	129	57	103	146
5	119	66	61	49	45	52	68	45	164	76	126	145
6	122	65	61	51	46	52	68	52	181	150	164	145
7	130	65	61	49	47	52	88	45	198	196	185	145
8	137	62	61	49	45	52	110	45	220	196	152	145
9	137	62	61	49	46	52	110	45	229	174	125	145
10	137	67	61	48	47	52	119	45	185	182	140	145
11	128	70	61	48	61	52	127	70	110	151	153	145
12	120	70	61	47	77	52	130	108	80	118	113	146
13	128	70	62	48	77	52	135	105	82	157	128	146
14	133	70	61	48	77	53	139	89	168	186	130	143
15	127	70	61	48	77	53	139	56	243	174	99	138
16	127	70	63	48	77	53	105	41	243	175	133	130
17	127	70	56	48	77	53	90	40	243	192	159	130
18	117	70	49	48	77	53	89	40	247	198	150	129
19	107	70	49	48	77	58	92	40	249	216	145	129
20	107	70	49	48	77	62	80	39	186	233	123	129
21	114	70	49	47	76	62	80	39	94	238	129	129
22	114	71	49	47	76	69	80	45	63	241	157	127
23	107	71	50	48	77	90	80	83	58	241	185	108
24	107	75	50	46	77	90	80	82	46	226	181	121
25	107	73	50	45	77	90	80	67	46	186	143	115
26	103	75	50	47	77	90	80	54	56	166	125	115
27	96	72	49	47	77	90	68	48	65	108	125	115
28	92	73	50	45	77	90	58	48	54	51	146	139
29	91	70	52	45	77	84	59	43	45	42	163	158
30	91	70	49	45	---	68	52	39	45	46	163	158
31	80	---	48	45	---	69	---	39	---	54	160	---
TOTAL	3536	2037	1735	1472	1903	1991	2681	1689	3867	4613	4286	4131
MEAN	114	68	56	48	66	64	89	55	129	149	138	138
AC-FT	7010	4040	3440	2920	3770	3950	5320	3350	7670	9150	8500	8190
MAX	137	75	68	51	77	90	139	108	249	241	185	158
MIN	80	54	48	45	45	52	52	39	40	42	59	108

WTR YR 2004 TOTAL 33941 MEAN 92.7 MAX 249 MIN 39 AC-FT 67320

MAX DISCH: 254 CFS AT 13:45 ON Jun. 18, 2004 GH 1.83 FT. SHIFT 0.02 FT.

MAX GH: 1.83 FT. AT 13:45 ON Jun. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06696000 SOUTH PLATTE RIVER(below Elevenmile Reservoir) NEAR LAKE GEORGE, CO

**LOCATION.**--Lat 38°54'19", long 105°28'22". in SW¼ sec. 20, T.13 S., R.72 W., Park County, Hydrologic Unit 10190001, on left bank 700 ft downstream from Elevenmile Canyon Reservoir and 8.2 mi southwest of town of Lake George.

**DRAINAGE AREA AND PERIOD OF RECORD.**--963 mi<sup>2</sup>. October 1929 to current year. Monthly data only for some periods.

**GAGE.**--Water-stage recorder and satellite monitoring in a wooden shelter at a 15' Parshall flume with outside staff gage. Elevation of gage is 8,458 ft from topographic map. Station is owned and maintained by the Denver Water Dept. A 10- foot rectangular bypass channel is located beside the upper right wingwall of the 15-foot Parshall. The channel is normally kept closed by boards. At a gage height of 3.26 in the Parshall, water reaches the floor of the bypass channel.

**REMARKS.**--Record is taken from hourly satellite data with chart back-up and is complete and reliable. The record is good. Station maintained and record developed by Garver Brown.

**RATING TABLE.**--STD15FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

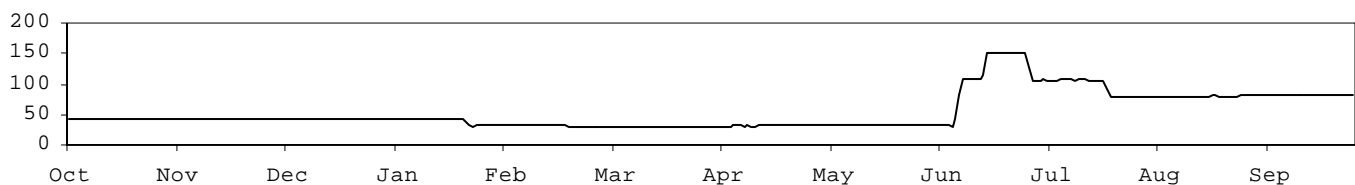
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	43	43	43	32	31	30	33	33	106	79	81
2	41	43	43	43	32	31	31	33	32	106	80	81
3	41	43	43	43	32	31	31	33	32	106	80	81
4	41	43	43	43	32	31	31	33	32	107	80	81
5	41	43	43	43	32	31	31	33	32	106	79	81
6	41	43	43	43	32	31	31	33	32	106	80	81
7	41	43	43	43	32	30	32	33	32	106	80	81
8	41	43	43	43	32	30	32	33	31	106	80	81
9	41	43	43	43	32	30	32	33	44	107	80	81
10	41	43	43	43	32	30	31	33	81	107	80	81
11	41	43	43	43	32	29	32	33	109	107	80	82
12	41	43	43	43	32	29	31	33	108	107	80	82
13	41	43	43	43	32	29	31	32	107	106	80	82
14	41	43	43	42	32	29	32	33	107	107	80	82
15	41	43	43	42	32	29	32	33	107	107	80	83
16	41	43	43	42	32	28	32	33	107	107	80	83
17	41	43	43	42	32	28	32	33	116	106	80	83
18	42	43	43	42	32	28	32	33	152	106	80	82
19	42	43	43	42	32	28	32	33	152	106	80	83
20	42	43	43	42	31	28	32	33	152	106	80	83
21	42	43	43	42	31	28	32	33	152	106	81	83
22	42	43	43	37	31	28	32	33	151	93	81	83
23	42	43	43	32	31	28	32	33	152	80	80	83
24	42	43	43	31	31	28	32	33	152	80	80	83
25	42	43	43	32	31	28	32	33	151	80	80	83
26	42	43	43	32	31	29	32	33	151	79	80	83
27	43	43	43	32	31	29	32	33	151	79	80	83
28	43	43	43	32	31	29	32	33	152	79	80	83
29	43	43	43	32	31	29	32	33	151	80	81	83
30	43	43	43	32	---	30	32	33	127	80	81	83
31	43	---	43	32	---	30	---	33	---	80	81	---
TOTAL	1290	1290	1333	1219	918	907	950	1022	3088	3044	2483	2465
MEAN	42	43	43	39	32	29	32	33	103	98	80	82
AC-FT	2560	2560	2640	2420	1820	1800	1880	2030	6130	6040	4930	4890
MAX	43	43	43	43	32	31	32	33	152	107	81	83
MIN	41	43	43	31	31	28	30	32	31	79	79	81

WTR YR 2004 TOTAL 20009 MEAN 54.7 MAX 152 MIN 28 AC-FT 39690

MAX DISCH: 154 CFS AT 00:00 ON Jun. 18, 2004 GH 1.88 FT. SHIFT -0.03 FT.  
MAX GH: 1.88 FT. AT 00:00 ON Jun. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, CO

**LOCATION.**--Lat 39°12'33", long 105°16'02", in SE¼NW¼ sec.6, T.10 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank 1,400 ft downstream from toe of Cheesman Dam and 3.8 mi southwest of Deckers.

**DRAINAGE AREA AND PERIOD OF RECORD.**--1,752 mi<sup>2</sup>. Oct.1, 1924-May13, 1956 at site 370 feet upstream and 0.50 ft. higher. May 14, 1956 to present at current site. Unreliable record from 1909 to 1924 unpublished.

**GAGE.**--Water-stage recorder with satellite telemetry in a wooden shelter at a 30 ft Parshall flume. Datum of gage is 6,609 ft. Station is owned and maintained by the Denver Water Dept. Satellite telemetry is maintained by the U.S. Army Corps of Engineers and the USGS.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart back up. Satellite data agreed with the recorder data within ±0.02 foot. The record is reliable and complete. The record is considered good. Station maintained and record developed by Steve Barrett.

**RATING TABLE.**--PLACHECO11 USED FROM 01-OCT-2003 TO 30-SEP-2004

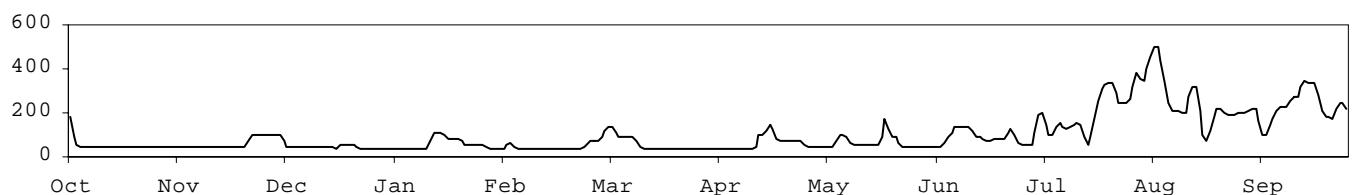
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	47	71	36	36	89	36	49	47	53	381	196
2	92	46	42	36	36	119	36	50	47	53	355	211
3	57	47	42	37	52	135	36	50	47	108	346	221
4	49	47	42	38	65	134	35	50	45	194	397	221
5	50	47	42	37	49	109	35	48	45	203	452	160
6	50	47	42	37	34	87	35	48	45	145	498	103
7	50	47	42	37	34	87	35	74	67	101	497	103
8	49	47	43	37	34	87	35	103	94	101	440	141
9	48	47	45	37	35	87	35	103	111	133	341	177
10	48	47	45	38	37	87	35	93	136	156	248	206
11	48	47	45	38	38	71	35	64	136	140	205	225
12	48	47	45	72	38	49	36	51	136	130	205	225
13	49	47	44	113	38	39	36	52	136	132	205	225
14	50	47	45	113	38	39	49	53	138	147	204	253
15	49	47	43	113	38	39	98	53	118	156	203	273
16	48	47	40	97	38	38	97	53	89	145	273	272
17	48	47	52	86	38	38	121	53	89	91	321	315
18	48	47	59	86	38	38	148	53	81	54	321	343
19	48	48	59	86	38	38	125	53	73	91	212	340
20	48	48	59	86	37	38	83	87	73	176	103	340
21	48	73	59	69	36	38	70	173	79	256	76	340
22	48	103	45	57	36	36	70	123	83	308	114	284
23	48	101	35	57	36	36	70	89	83	324	185	213
24	48	101	35	57	38	37	69	89	84	336	215	179
25	48	102	35	57	47	37	71	66	110	336	216	179
26	48	103	35	57	63	36	70	48	130	290	202	177
27	47	103	35	57	71	37	71	48	103	244	192	218
28	47	103	35	44	71	37	57	48	65	244	194	248
29	47	103	35	36	71	36	48	48	53	244	194	247
30	47	103	35	36	---	36	48	45	53	268	196	219
31	47	---	35	36	---	35	---	46	---	314	196	---
TOTAL	1678	1936	1366	1823	1260	1849	1825	2063	2596	5673	8187	6854
MEAN	54	65	44	59	43	60	61	67	87	183	264	228
AC-FT	3330	3840	2710	3620	2500	3670	3620	4090	5150	11250	16240	13590
MAX	178	103	71	113	71	135	148	173	138	336	498	343
MIN	47	46	35	36	34	35	35	45	45	53	76	103

WTR YR 2004 TOTAL 37110 MEAN 101 MAX 498 MIN 34 AC-FT 73610

MAX DISCH: 509 CFS AT 16:15 ON Aug. 5, 2004 GH 2.59 FT. SHIFT 0.01 FT.  
MAX GH: 2.59 FT. AT 16:15 ON Aug. 5, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06706000 NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT, CO

**LOCATION.**--Lat 39°27'26", long 105°39'29" in NW¼ sec. 10, T.7 S., R.74 W., Park County, Hydrologic Unit 10190002, on left bank at Grant, 1,550 ft downstream from Geneva Creek, and 1.3 mi downstream from east portal of Harold D. Roberts tunnel.

**DRAINAGE AREA AND PERIOD OF RECORD.**--127 mi<sup>2</sup>; 1948 to present.

**GAGE.**--A graphic water stage recorder and satellite monitoring equipment in a wooden shelter over a concrete well at a concrete trapezoidal channel section and spillway. The gage has power and is equipped with heat lamps and tapes to prevent freezing of the stilling well and intakes. The station is owned and maintained by the Denver Water Department. The satellite equipment is owned by USCOE and maintained by the USGS.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart back up. It is complete. The shaft encoder was accurate to ± 0.02 ft. The record is reliable. All missing values were filled in using chart data. Rapid changes in stage are caused by the regulation of Roberts Tunnel, ½ mile upstream. When Roberts tunnel is operating, the gage is free from ice. The record is good. Station maintained and record developed by Garver Brown.

**RATING TABLE.**--PLAGRACO12 USED FROM 01-OCT-2003 TO 30-SEP-2004

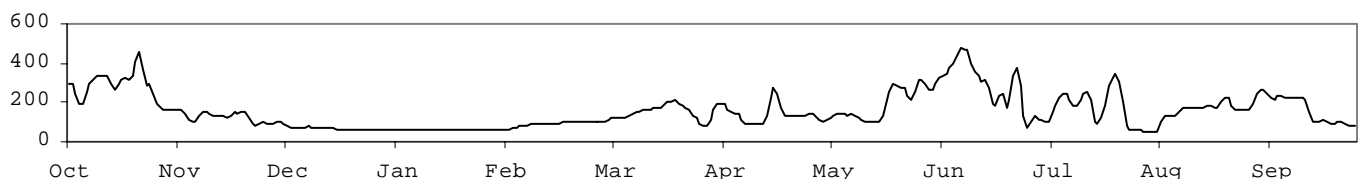
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297	160	93	58	57	98	167	109	267	131	51	192
2	299	161	81	59	57	108	189	104	264	114	51	245
3	247	143	76	59	62	121	190	109	292	108	51	267
4	193	110	75	59	67	124	189	118	326	105	49	268
5	193	100	74	59	70	126	166	130	335	103	52	244
6	251	105	75	59	77	124	148	143	343	149	97	220
7	292	136	76	61	82	126	145	145	372	188	137	216
8	320	157	77	61	82	128	145	142	399	221	135	230
9	339	157	76	61	87	139	115	133	440	242	132	231
10	339	145	75	61	93	153	88	142	477	243	129	228
11	338	132	75	61	95	157	87	135	469	209	150	228
12	338	129	75	60	95	159	88	117	463	179	174	225
13	294	130	74	60	95	161	88	109	397	179	175	225
14	264	130	75	59	95	161	90	104	352	215	172	224
15	298	126	71	59	95	169	90	99	333	249	170	225
16	319	134	64	59	95	171	135	97	310	253	171	216
17	321	149	61	59	95	171	225	97	313	210	171	151
18	318	144	61	59	98	191	273	97	273	104	174	106
19	336	149	61	59	98	205	249	129	195	91	185	106
20	402	150	61	59	98	208	168	209	187	122	178	104
21	453	123	61	59	98	210	132	250	238	188	174	111
22	362	92	61	59	98	190	131	298	248	284	173	104
23	286	84	61	59	98	178	131	283	176	327	204	95
24	290	93	59	58	98	170	131	278	217	346	221	96
25	241	97	59	57	98	160	133	274	332	303	222	97
26	198	95	59	57	98	137	132	235	381	200	185	99
27	177	94	59	57	97	120	135	209	282	83	164	88
28	164	96	59	57	98	93	139	259	132	65	164	82
29	163	99	58	57	98	78	138	311	69	63	161	83
30	163	100	57	57	---	80	132	320	104	58	161	84
31	159	---	58	57	---	116	---	294	---	57	161	---
TOTAL	8654	3720	2107	1825	2574	4532	4369	5479	8986	5389	4594	5090
MEAN	279	124	68	59	89	146	146	177	300	174	148	170
AC-FT	17170	7380	4180	3620	5110	8990	8670	10870	17820	10690	9110	10100
MAX	453	161	93	61	98	210	273	320	477	346	222	268
MIN	159	84	57	57	57	78	87	97	69	57	49	82

WTR YR 2004 TOTAL 57319 MEAN 157 MAX 477 MIN 49 AC-FT 113700

MAX DISCH: 482 CFS AT 21:00 ON Jun. 9, 2004 GH 1.68 FT. SHIFT 0 FT.  
MAX GH: 1.68 FT. AT 21:00 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06707500 SOUTH PLATTE RIVER AT SOUTH PLATTE, CO

**LOCATION.**--Lat 39°24'33", long 105°10'10", SE¼ sec. 25, T.7 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank at South Platte, 200 ft downstream from bridge on State Highway 75, and 400 ft downstream from North Fork.

**DRAINAGE AREA AND PERIOD OF RECORD.**--2,579 mi<sup>2</sup>; 1910 to present.

**GAGE.**--A graphic water stage recorder and satellite monitoring equipment in a concrete shelter and CMP well. The Sutron 8004 DCP was replaced with an 8210. The primary gage is an electric tape gage mounted on the equipment shelf. The station was rebuilt with a 60" CMP well and concrete shelter in 1994. 120-volt electricity was installed in 2001. The cable way was rebuilt in 1995. The gage is on Denver Water Board property.

**REMARKS.**--The primary record is hourly data taken from satellite readings with chart back up. The record is complete, except for December 23--January 14 when the DCP failed. Chart back-up exists for the missing period, but it was not used to develop record since the gage was ice-affected and the discharge was estimated. Mean daily values from the chart were used December 1-22. The record is good, except for estimated daily discharges which are poor. The record is estimated for the following days of ice effect using the Denver Department computed inflows for the Strontia Springs Reservoir operations numbers: December 18, 2003 through February 28, 2004. Station maintained and recored developed by Steve Barrett.

**RATING TABLE.**--PLASPLCO16 USED FROM 01-OCT-2003 TO 30-SEP-2004

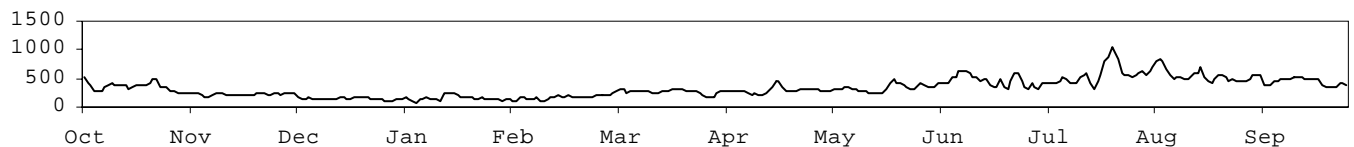
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	519	237	232	139	124	221	243	296	359	411	593	446
2	430	237	178	158	110	248	280	275	356	343	620	499
3	394	240	156	145	120	289	296	272	364	315	555	550
4	291	219	156	101	163	306	285	282	406	413	614	553
5	281	189	168	81	174	306	285	304	428	424	686	541
6	291	186	150	123	133	260	263	320	428	409	786	396
7	361	193	150	146	140	264	270	316	435	406	827	385
8	369	233	150	157	146	269	283	354	508	408	795	387
9	404	235	154	151	161	274	287	334	533	453	679	461
10	401	250	141	139	108	293	239	331	628	507	567	464
11	400	220	154	130	108	294	222	313	616	491	482	500
12	401	211	154	118	137	273	227	278	616	420	522	494
13	387	215	145	240	164	259	224	281	594	411	518	490
14	331	213	166	227	177	254	226	264	523	430	492	499
15	337	210	166	242	192	257	260	252	519	535	487	535
16	375	203	136	228	186	263	271	247	447	557	509	530
17	370	224	156	193	187	263	343	240	490	609	592	530
18	372	221	169	171	194	270	468	234	496	403	609	486
19	378	223	169	179	190	303	456	235	393	321	708	481
20	416	232	176	190	181	309	362	301	360	452	517	485
21	494	227	176	163	183	312	272	420	363	562	437	494
22	471	231	160	128	179	315	276	484	474	798	427	503
23	354	213	124	150	172	296	286	413	347	881	480	398
24	349	210	136	159	186	293	278	405	326	1050	556	342
25	340	240	144	148	182	277	300	399	437	981	547	340
26	270	231	146	135	200	266	304	356	591	840	522	343
27	273	225	116	123	213	241	313	307	578	593	465	351
28	246	229	99	155	214	222	330	316	441	555	482	426
29	242	236	104	135	226	180	322	385	333	575	457	411
30	240	243	152	117	---	182	321	406	304	526	448	398
31	238	---	146	129	---	181	---	399	---	552	449	---
TOTAL	11025	6676	4729	4800	4850	8240	8792	10019	13693	16631	17428	13718
MEAN	356	223	153	155	167	266	293	323	456	536	562	457
AC-FT	21870	13240	9380	9520	9620	16340	17440	19870	27160	32990	34570	27210
MAX	519	250	232	242	226	315	468	484	628	1050	827	553
MIN	238	186	99	81	108	180	222	234	304	315	427	340

WTR YR 2004 TOTAL 120601 MEAN 330 MAX 1050 MIN 81 AC-FT 239200

MAX DISCH: 1150 CFS AT 22:00 ON Aug. 5, 2004 GH 4.2 FT. SHIFT -0.02 FT.  
MAX GH: 4.2 FT. AT 22:00 ON Aug. 5, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06707501 SOUTH PLATTE RIVER BELOW STRONTIA SPRINGS RESERVOIR, CO

**LOCATION.**--Lat 39°26'00", long 105°07'30", SW¼SW¼ sec. 16, T.7 S., R.69 W., Douglas County, on right bank 1/4 mi downstream from Strontia Springs Dam.

**DRAINAGE AREA.**--N/A

**GAGE.**--A Stevens A-70 graphic water stage recorder, satellite monitoring data collection platform with digital shaft encoder installed in a formed concrete shelter. An adjustable reference point with a graduated tape on the float drive for the recorder is used for referencing. An adjustable reference for a drop tape is located below the well manhole. An outside staff gage is used as an additional reference. A new encoder was installed in 2003 that reads to 3 decimal places and allows for tighter calibration.

**REMARKS.**--Record is complete and reliable; no ice conditions were experienced this year. The new encoder maintained calibration so that no corrections were necessary to the record. The record is fair. Station maintained and record developed by Jana Ash.

**RATING TABLE.**--PLASTRCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

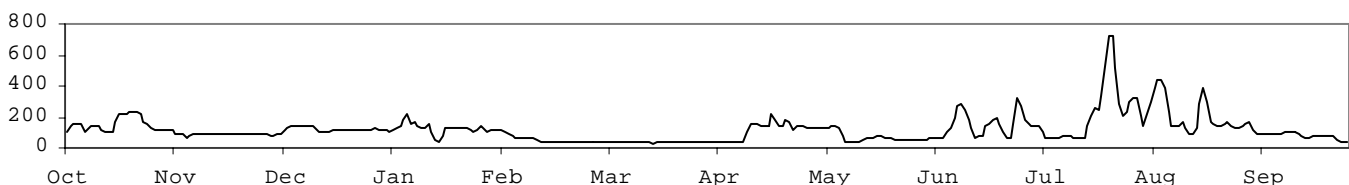
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	90	85	109	111	38	35	133	55	156	325	158
2	138	88	111	115	111	40	36	128	56	148	211	169
3	158	88	133	126	104	37	37	123	64	146	145	121
4	158	66	137	136	90	38	38	123	67	145	213	85
5	156	71	137	180	79	38	38	130	67	98	293	85
6	102	90	136	217	61	38	38	136	66	70	388	85
7	112	91	136	158	60	38	38	136	66	70	441	85
8	138	91	137	168	60	38	39	134	98	70	443	85
9	146	91	136	145	61	38	41	75	129	70	386	84
10	148	91	136	132	60	38	43	44	189	70	230	85
11	119	90	124	131	60	38	44	43	265	71	147	95
12	108	90	104	158	53	39	102	43	286	71	148	104
13	106	90	97	101	37	39	151	40	242	71	148	103
14	104	90	97	47	38	39	151	40	186	70	165	102
15	174	90	106	41	41	34	150	56	126	67	133	102
16	219	91	120	80	41	32	147	65	70	66	96	86
17	219	92	114	126	41	34	147	65	71	67	96	71
18	219	93	113	130	40	34	147	68	71	145	128	70
19	231	92	113	127	41	34	223	73	143	204	287	70
20	237	92	113	124	41	35	180	73	153	258	389	73
21	233	93	113	125	41	35	144	68	182	245	297	76
22	215	93	114	129	41	35	144	63	195	331	173	77
23	170	91	113	126	41	35	184	60	156	533	158	74
24	152	91	112	110	40	35	166	57	104	728	147	71
25	135	87	111	104	38	35	115	55	70	729	144	71
26	118	84	111	119	37	35	136	55	70	511	151	71
27	117	84	112	139	36	35	148	55	157	286	163	51
28	118	83	125	111	36	35	139	55	323	202	142	37
29	119	83	122	97	37	35	135	55	267	234	127	35
30	119	84	111	117	---	33	134	55	175	292	129	35
31	111	---	110	115	---	44	---	55	---	327	137	---
TOTAL	4704	2640	3639	3843	1577	1131	3270	2361	4169	6551	6580	2516
MEAN	152	88	117	124	54	37	109	76	139	211	212	84
AC-FT	9330	5240	7220	7620	3130	2240	6490	4680	8270	12990	13050	4990
MAX	237	93	137	217	111	44	223	136	323	729	443	169
MIN	102	66	85	41	36	32	35	40	55	66	96	35

WTR YR 2004 TOTAL 42981 MEAN 117 MAX 729 MIN 32 AC-FT 85250

MAX DISCH: 811 CFS AT 15:00 ON Jul. 24, 2004 GH 5.04 FT. SHIFT 0.02 FT.

MAX GH: 5.04 FT. AT 15:00 ON Jul. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06708000 SOUTH PLATTE RIVER AT WATERTON, CO

**LOCATION.**--Lat 39°29'18", long 105°05'32", in NE¼ sec. 34, T.6 S., R.69 W., Jefferson County, Hydrologic Unit 10190002, on left bank 168 ft downstream from bridge on State Highway 221, 0.4 mi south of Waterton, 4.7 mi west of Louviers, and 6 mi upstream from Plum Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--2,621 mi<sup>2</sup>; 1926 to present.

**GAGE.**--Graphic stage recorder, satellite monitoring DCP with a phone modem, and shaft encoder (on separate floats) in a 60" galvanized, corrugated steel shelter and well. The primary reference is an electric drop tape. Datum of gage 5,484.43 ft National Geodetic Vertical Datum.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart back up. The record is complete and reliable except for January 27-28 and February 4-18 when ice could have accumulated on the control and in the well. Temperature data was very helpful in distinguishing what could have been ice effects. It is still difficult to distinguish on the chart between ice effect at the gage and small levels of diurnal flow due to ice melting in the canyon. The ice days listed above occurred on very cold days when the chart looked suspicious. The record is rated good except for November 24, 2003-January 26, 2004, which is fair due to possible ice effect, and January 27, 28, and February 9-18, 2004, which were estimated due to ice and are poor. Station maintained and recored developed by Jana Ash.

**RATING TABLE.**--PLAWATCO09 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

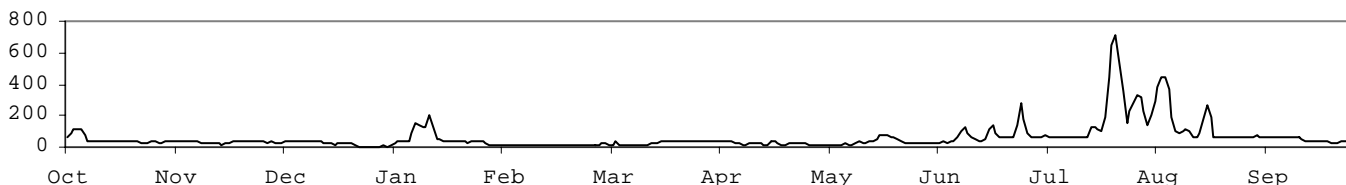
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	38	29	13	16	24	34	18	26	69	322	67
2	87	34	32	22	15	22	35	19	26	65	229	63
3	114	33	32	35	16	16	38	18	30	65	136	72
4	113	36	37	33	15	18	36	17	31	67	201	66
5	112	32	38	35	15	41	36	18	31	72	286	62
6	76	33	37	33	15	15	35	18	33	69	377	62
7	34	32	37	87	15	18	34	17	31	68	439	62
8	33	31	38	152	15	18	29	16	33	67	439	61
9	35	31	37	141	15	18	24	22	35	68	367	60
10	37	31	39	128	15	18	18	19	63	68	193	61
11	35	30	37	126	15	18	17	18	100	68	96	61
12	37	29	33	197	15	18	23	20	125	68	95	64
13	35	25	24	125	15	18	24	33	95	68	101	64
14	33	18	25	46	15	18	23	27	63	66	120	64
15	38	27	26	45	15	24	21	27	49	62	104	63
16	35	31	18	40	15	30	18	36	35	62	59	52
17	35	32	21	32	15	31	16	35	38	61	59	34
18	34	33	23	34	15	33	35	57	47	129	85	33
19	36	33	21	34	15	32	40	75	114	130	184	33
20	36	33	21	32	16	34	26	75	145	114	262	34
21	33	34	21	36	17	35	15	74	87	96	196	34
22	31	35	13	36	16	35	15	69	66	194	63	36
23	30	37	5.6	30	17	35	21	64	62	445	61	34
24	30	38	5.7	32	19	35	29	47	63	646	66	30
25	32	35	5.7	37	19	35	26	33	59	710	63	30
26	33	32	5.8	36	18	34	30	31	59	537	63	30
27	30	30	4.5	32	18	34	28	30	136	350	65	33
28	31	32	3.9	23	18	35	23	29	277	157	63	36
29	32	28	3.9	17	18	37	18	29	180	223	61	33
30	33	29	7.6	16	---	33	19	28	90	283	63	33
31	34	---	5.9	16	---	41	---	28	---	325	64	---
TOTAL	1409	952	687.6	1701	463	853	786	1047	2229	5472	4982	1467
MEAN	46	32	22.2	55	16	28	26	34	74	177	161	49
AC-FT	2790	1890	1360	3370	918	1690	1560	2080	4420	10850	9880	2910
MAX	114	38	39	197	19	41	40	75	277	710	439	72
MIN	30	18	3.9	13	15	15	15	16	26	61	59	30

WTR YR 2004 TOTAL 22048.6 MEAN 60.2 MAX 710 MIN 3.9 AC-FT 43730

MAX DISCH: 1050 CFS AT 11:30 ON Jul. 27, 2004 GH 2.39 FT. SHIFT 0.01 FT.

MAX GH: 2.39 FT. AT 11:30 ON Jul. 27, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06709610 SOUTH PLATTE RIVER BELOW CHATFIELD RESERVOIR, CO

LOCATION.--Lat 39°33'26", long 105°03'27", SE¼, sec. 1, T.6 S., R.69 W., Jefferson County, Hydrologic Unit 10190002.

DRAINAGE AREA.--3,018 mi<sup>2</sup>.

GAGE.--A Stevens A-70 graphic water stage recorder and satellite monitoring DCP and shaft encoder installed in a formed concrete well and shelter. The DCP is located about 2000 ft away on the outlet structure in the lake, and is also used for lake elevation. An electric drop tape is used for referencing. There is no outside reference. The gage and DCP are owned by the USACOE and the DCP is maintained by the USGS.

REMARKS.--The primary record is hourly satellite data with chart back up. Daily max and min values agreed with the corrected chart values to within +/-0.02 foot. Three (-.01, +.01, & +.02) corrections to the encoder data were applied for short periods. The record is complete and reliable. The record is fair due to the lack of measurements due to the river being too low to measure most of the year. Station maintained and record developed by Jana Ash.

RATING TABLE.--PLACHACO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

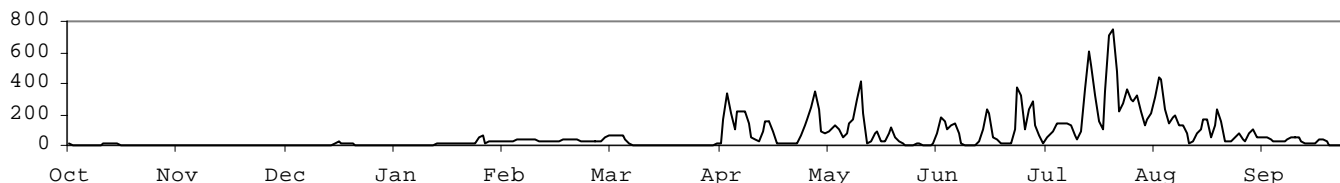
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	.72	.36	.19	29	30	.07	352	.26	238	323	25
2	.89	.7	.36	.19	29	55	3.7	228	.25	282	213	80
3	.88	.7	.36	.23	29	67	9.7	92	.2	130	127	104
4	.96	.67	.36	.23	29	67	8.3	77	8.3	67	165	54
5	1	2.6	.31	.22	29	67	163	95	79	11	204	54
6	1	5	.3	.2	37	67	330	120	176	58	305	54
7	1	5	.3	.19	44	67	212	133	155	64	433	54
8	1	5	.34	.2	44	45	107	99	104	87	420	40
9	1.1	5	.33	.19	43	7.5	217	47	130	144	238	26
10	6.2	5	.3	.19	43	3.5	217	77	147	144	141	26
11	14	5	.3	.19	34	.11	216	141	80	143	187	26
12	14	3	.3	.18	23	.08	144	172	12	142	198	26
13	14	.47	.3	.18	23	.08	50	291	.27	126	129	35
14	14	2.3	.3	8.9	23	.08	41	408	.25	68	129	55
15	7.3	6.2	3.6	18	23	.08	30	207	.25	34	80	55
16	1	5.5	15	18	23	.08	85	7.2	.29	96	11	49
17	.84	3.6	24	18	23	.08	156	26	32	365	26	26
18	.53	1.2	16	18	31	.08	154	78	109	611	73	8.7
19	.51	1.1	8.5	18	43	.08	84	85	229	521	99	8.7
20	.51	1.1	8.5	18	43	.08	14	23	207	322	170	7.1
21	.6	1	8.5	18	43	.08	14	21	53	153	170	18
22	.6	1	5.1	16	43	.08	14	79	41	102	51	33
23	.6	.89	.25	14	36	.08	14	110	19	349	123	33
24	.67	.6	.25	14	23	.08	14	51	8.7	714	236	21
25	.7	.6	.25	15	23	.08	14	26	8.5	744	158	5.8
26	.7	.54	.25	58	23	.07	18	6.9	8.2	481	31	5.8
27	.72	.49	.22	59	23	.07	62	.4	103	213	31	5.7
28	.78	.42	.2	14	24	.08	125	.36	378	275	31	5.8
29	.7	.41	.19	22	24	.07	164	.3	326	361	55	11
30	.76	.36	.19	29	---	.07	243	7.5	100	301	71	17
31	.79	---	.19	29	---	.07	---	8.7	---	278	38	---
TOTAL	103.34	66.17	95.71	407.48	907	477.66	2923.77	3069.36	2515.47	7624	4666	969.6
MEAN	3.33	2.21	3.09	13.1	31	15.4	97.5	99	83.8	246	151	32.3
AC-FT	205	131	190	808	1800	947	5800	6090	4990	15120	9260	1920
MAX	15	6.2	24	59	44	67	330	408	378	744	433	104
MIN	.51	.36	.19	.18	23	.07	.07	.3	.2	11	11	5.7

WTR YR 2004 TOTAL 23825.56 MEAN 65.1 MAX 744 MIN .07 AC-FT 47260

MAX DISCH: 816 CFS AT 12:00 ON Jul. 24, 2004 GH 3.69 FT. SHIFT 0.03 FT.  
MAX GH: 3.69 FT. AT 12:00 ON Jul. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





PLATTE RIVER BASIN

06710500 BEAR CREEK AT MORRISON, CO

**LOCATION.**--Lat 39°39'11", long 105°11'42, in SE¼SW¼ sec. 35, T.4 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank at Morrison, 180 ft upstream from bridge on State Highway 8 and 0.2 mi upstream from Mount Vernon Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--164 mi<sup>2</sup>. Sporadic, incomplete data Sep. 1881 to Feb. 1902. Good data October 1919 to current year. Monthly data for some periods only. Some early years published as near Morrison, at Starbuck, at Idledale. Water quality data from Oct. 1976 to Sep. 1981.

**GAGE.**--Stevens A-35 graphic stage recorder and satellite monitoring DCP with telephone access in a 60-inch metal shelter and 48 inch well. A new compound weir was installed on the creek just prior to beginning of the 2003 water year. An electric drop tape within the well references all instruments.

**REMARKS.**--Hourly data is the primary record, taken from satellite monitoring with chart back-up. The record is complete, except for January 5-9 and February 5-18, when the gage was frozen. November 24 and December 11 thru March 7 are considered to be estimated, and rated Poor due to ice-effect. November 25 through December 10 is considered Fair due to possible ice-effect. The remainder of the year is considered Good. Station maintained and record developed by Robert Cooper and Steve Barrett.

**RATING TABLE.**--BCRMORCO23 USED FROM 01-OCT-2003 TO 30-SEP-2004

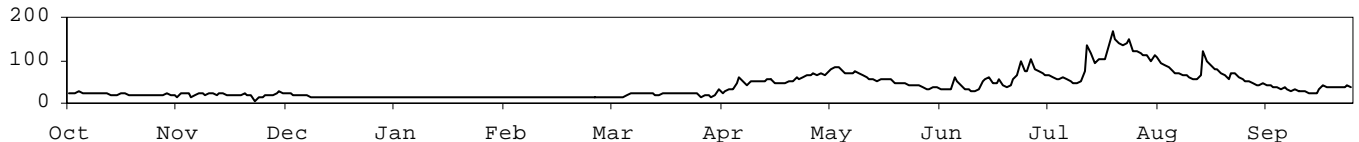
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	16	23	14	13	14	16	66	34	102	114	50
2	23	24	22	14	13	14	18	72	33	80	112	47
3	25	22	21	14	12	14	33	67	36	74	110	44
4	26	22	19	12	12	14	23	72	35	69	100	41
5	24	15	17	12	12	14	27	79	34	66	112	45
6	23	17	20	12	12	16	32	85	32	64	109	41
7	23	22	20	12	12	16	34	82	32	61	94	40
8	22	22	19	13	13	20	47	80	31	56	89	37
9	22	20	16	16	13	23	62	72	62	54	82	35
10	22	23	12	16	13	25	52	72	53	60	75	34
11	22	21	12	16	13	21	44	72	40	56	70	35
12	22	19	12	16	12	21	50	74	34	50	72	34
13	20	22	12	16	12	24	51	70	33	48	66	30
14	19	21	13	16	13	21	53	63	29	45	63	33
15	19	19	13	16	13	21	52	62	29	50	60	27
16	21	17	13	15	13	20	52	56	34	73	56	27
17	21	17	13	15	13	20	54	55	50	133	54	26
18	19	17	13	15	16	21	55	53	57	118	64	25
19	18	18	14	14	16	21	47	54	61	94	123	25
20	18	21	14	13	15	24	48	56	47	103	97	25
21	20	20	14	13	14	23	46	57	48	104	88	34
22	19	18	12	13	14	25	48	54	56	101	78	43
23	19	6.9	13	13	14	25	50	48	44	137	78	38
24	18	12	14	15	14	25	51	45	37	169	68	35
25	19	16	14	14	14	25	60	46	40	147	64	36
26	18	20	14	13	14	24	57	46	55	138	58	36
27	20	18	14	13	15	23	61	41	67	135	68	35
28	20	18	12	13	15	21	64	40	96	140	72	35
29	21	24	12	13	14	16	65	42	76	148	60	40
30	19	26	13	13	---	19	68	42	75	123	54	39
31	19	---	14	13	---	17	---	35	---	119	52	---
TOTAL	643	573.9	464	433	389	627	1420	1858	1390	2917	2462	1072
MEAN	21	19.1	15	14	13	20	47	60	46	94	79	36
AC-FT	1280	1140	920	859	772	1240	2820	3690	2760	5790	4880	2130
MAX	26	26	23	16	16	25	68	85	96	169	123	50
MIN	18	6.9	12	12	12	14	16	35	29	45	52	25

WTR YR 2004 TOTAL 14248.9 MEAN 38.9 MAX 169 MIN 6.9 AC-FT 28260

MAX DISCH: 207 CFS AT 20:00 ON Aug. 5, 2004 GH 6.96 FT. SHIFT 0.07 FT.  
MAX GH: 6.98 FT. AT 04:30 ON Jul. 17, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO

**LOCATION.**--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec. 5, T,5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002 on left bank just downstream from bridge on South Lowell Blvd., at Highway Department maintenance building at northwest city limits of Sheridan, 1.3 mi upstream from mouth, and 2.1 mi west of city hall in Englewood.

**DRAINAGE AREA AND PERIOD OF RECORD.**--260 mi². April to Nov. 1914, March 1927 to current year. Monthly data only prior to Oct. 1933.

**GAGE.**--Stevens A-35 graphic stage recorder and Sutron 8210 DCP with digital shaft encoder and phone (speech card) modem in a 42 inch corrugated metal shelter and well with supplemental outside wire weight gage.

**REMARKS.**--The primary record is hourly data from satellite with chart back-up. The data is complete and reliable. The stage discharge relationship had possible ice affect on the following days: November 23, 24; December 11-13, 16, 28-30, 2003; January 5-7, 27; February 12-14, 2004. The record is rated as good, except for the following ice-affect days, which are fair: November 23, 24; December 11-13, 16, 28-30, 2003; January 5-7, 27; February 12-14, 2004. The peak flow is considered as estimated and poor since it is twice the discharge of the highest measurement used in the current rating table. Station maintained and record developed by Division I personnel.

**RATING TABLE**--BCRSHECO32 USED FROM 01-OCT-2003 TO 30-SEP-2004

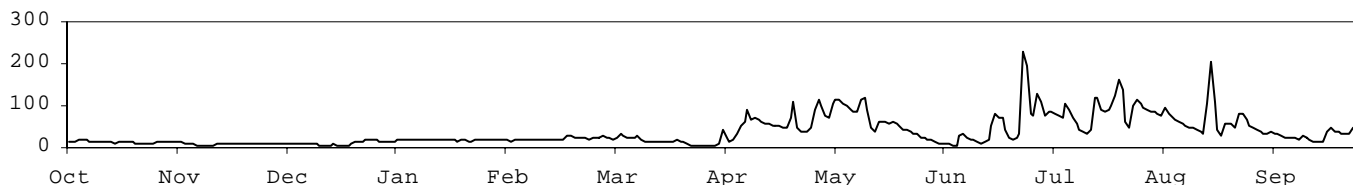
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	9.9	16	19	23	4.6	102	17	129	89	41
2	13	12	10	17	17	22	11	77	13	111	85	37
3	16	11	9.6	19	16	21	41	72	11	75	85	35
4	18	9	9.4	19	18	22	26	105	11	88	79	34
5	20	7.5	8.9	19	19	33	16	112	10	85	74	37
6	17	6.8	8.8	18	19	27	17	112	8.8	82	96	34
7	15	6.3	8.9	19	18	23	32	105	6.4	77	83	31
8	14	6.3	9.5	19	18	24	51	99	4.5	73	74	28
9	13	6.2	10	20	18	25	63	92	30	105	67	26
10	13	6.6	7.6	20	17	27	91	86	35	90	63	26
11	13	6.7	7.1	19	19	20	65	86	23	71	55	24
12	14	7.2	6.7	19	20	15	70	114	19	56	54	23
13	13	7.3	6.5	18	17	14	65	121	19	43	50	21
14	11	8.1	7	18	19	15	61	92	15	38	46	27
15	12	7.9	7.2	18	19	14	59	47	11	35	43	24
16	13	8	6.9	18	20	14	56	38	12	45	39	19
17	15	8.2	6.6	18	20	12	54	60	19	121	35	16
18	14	8	6.7	17	21	14	54	61	53	119	103	14
19	12	8.1	7	16	28	15	51	61	83	91	207	14
20	11	8.8	9.9	18	28	16	47	59	71	86	111	14
21	10	9.2	13	18	24	17	49	60	72	92	44	37
22	11	9.6	15	16	23	16	71	56	45	102	28	46
23	10	9.9	15	16	22	13	108	51	26	126	59	40
24	8.6	9.8	17	17	22	8.5	49	43	20	164	59	36
25	9.8	9.5	19	18	21	5.4	37	42	23	139	55	33
26	12	9	19	19	22	4.8	38	40	33	64	50	34
27	13	8.8	18	19	23	4.1	40	35	227	50	83	32
28	14	8.8	15	18	23	3.6	50	31	195	102	82	49
29	13	9.4	14	18	27	3.3	91	24	79	116	67	41
30	13	9.2	14	18	---	3.4	115	22	78	104	54	44
31	15	---	16	18	---	5.8	---	19	---	94	46	---
TOTAL	409.4	259.2	339.2	560	597	480.9	1582.6	2124	1269.7	2773	2165	917
MEAN	13.2	8.6	10.9	18	21	15.5	52.8	69	42.3	90	70	31
AC-FT	812	514	673	1110	1180	954	3140	4210	2520	5500	4290	1820
MAX	20	16	19	20	28	33	115	121	227	164	207	49
MIN	8.6	6.2	6.5	16	16	3.3	4.6	19	4.5	35	28	14

CAL YR 2003 TOTAL 0 MEAN 0 MAX 0 MIN 0 AC-FT 0  
WTR YR 2004 TOTAL 13477 MEAN 36.8 MAX 227 MIN 3.3 AC-FT 26730

MAX DISCH: 1330 CFS AT 19:45 ON Jun. 27, 2004 GH 5.73 FT. SHIFT 0.04 FT.  
MAX GH: 5.73 FT. AT 19:45 ON Jun. 27, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06714000 SOUTH PLATTE RIVER AT DENVER, CO

**LOCATION.**--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec. 28, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on right bank 90 ft Upstream from Nineteenth Street Bridge in Denver and 0.4 mi downstream from Cherry Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--3,861 mi<sup>2</sup>. May 1889 to Oct. 1890 sporadic record. July 1895 to current year continuous. Monthly data only for some periods.

**GAGE.**--The shelter is 72 inch by 72 inch precast concrete structure with a 48 inch corrugated steel well. The station uses an electric drop tape, Sutron 8210 satellite telemetry with a phone modem interface (303-297-9505), a continuous chart recorder and a supplemental outside wire weight. A city water line is plumbed to the gage for flushing the inlets. The gage and chart recorder are maintained by DWR. The USGS Lakewood Field Office maintains the satellite equipment and phone interface for the USCOE.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart backup. Daily maximum & minimum stages for the satellite record checked to within ±0.02 with the chart. The record is complete and reliable. The record is considered good, except for August 18 & 19, which are fair due to lack of confirming measurements above 574 cfs since 1999. The yearly peak flow recorded on August 18 is also considered fair. Station maintained and record developed by Jana Ash.

**RATING TABLE.**--PLADENCO33 USED FROM 01-OCT-2003 TO 30-SEP-2004

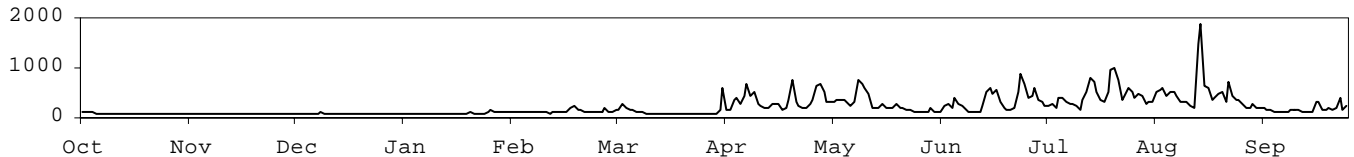
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	91	67	72	117	139	79	682	126	436	475	192
2	115	85	65	75	111	132	154	534	193	583	436	192
3	106	80	62	81	103	147	612	324	118	353	296	271
4	101	73	67	80	111	159	166	325	110	306	309	219
5	98	68	70	74	110	292	144	322	133	239	327	215
6	93	67	70	70	118	185	378	356	256	231	523	186
7	90	68	64	76	135	163	419	346	290	274	570	180
8	93	67	78	76	133	160	296	358	202	216	600	165
9	87	65	106	77	123	120	431	267	392	411	425	138
10	81	69	88	77	117	110	675	260	300	405	520	136
11	80	68	74	76	122	109	451	310	252	317	520	132
12	92	68	70	78	109	98	538	776	147	295	430	129
13	91	67	67	74	98	91	280	683	123	271	322	125
14	94	64	80	70	113	96	247	619	114	232	319	147
15	97	65	80	80	122	94	205	489	108	164	310	153
16	91	72	73	85	123	76	208	196	129	363	223	153
17	87	74	84	84	124	72	280	193	229	523	194	137
18	82	72	89	85	132	70	292	220	508	820	1500	111
19	79	69	87	86	189	81	290	275	596	732	1890	101
20	80	67	86	99	237	84	172	200	486	537	648	102
21	71	68	84	101	168	86	203	188	559	369	585	319
22	72	70	85	92	147	86	362	186	319	302	370	334
23	70	81	80	87	140	80	763	279	198	520	383	176
24	68	89	78	85	122	74	327	215	161	947	495	179
25	77	81	78	87	118	70	226	186	146	991	507	208
26	88	69	79	108	111	69	191	160	207	742	335	167
27	91	67	81	173	111	62	211	144	519	365	731	212
28	82	62	75	122	113	66	279	136	880	451	431	414
29	78	66	76	108	193	73	364	137	682	597	359	179
30	77	62	73	107	---	69	638	139	403	509	361	222
31	89	---	72	105	---	70	---	138	---	420	268	---
TOTAL	2740	2134	2388	2750	3770	3283	9881	9643	8886	13921	15662	5594
MEAN	88	71	77	89	130	106	329	311	296	449	505	186
AC-FT	5430	4230	4740	5450	7480	6510	19600	19130	17630	27610	31070	11100
MAX	140	91	106	173	237	292	763	776	880	991	1890	414
MIN	68	62	62	70	98	62	79	136	108	164	194	101

WTR YR 2004 TOTAL 80652 MEAN 220 MAX 1890 MIN 62 AC-FT 160000

MAX DISCH: 6660 CFS AT 22:00 ON Aug. 18, 2004 GH 8.83 FT. SHIFT 0.09 FT.  
MAX GH: 8.83 FT. AT 22:00 ON Aug. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06720000 CLEAR CREEK AT DERBY, CO

**LOCATION.**--Lat 39°49'42", long 104°57'30", in SW¼SW¼ sec. 36, T.2 S., R.68 W., Adams County, Hydrologic Unit 10190004, on right bank 875 ft downstream from York Street bridge, 0.5 mi upstream from mouth, and 2.5 mi west of Derby.

**DRAINAGE AREA AND PERIOD OF RECORD.**--575 mi<sup>2</sup>; 1927 to present.

**GAGE.**--Graphic water-stage recorder with satellite monitoring DCP with digital shaft encoder and Telemark in a 60 inch corrugated metal shelter and well. Station at this datum since June 26, 1992. Primary reference is by electric drop tape.

**REMARKS.**--The primary record is hourly satellite data and mean daily gage heights from the chart. Daily maximum and minimum stages for the satellite record checked to within ± 0.02 with the chart. Where DCP data was missing, data was entered hourly from the chart. The clock stopped a several times during the season, but the satellite data was complete so no data was lost during these times. Ice is presumed to have been present January 5-9 and February 5-8, 2004. This period is considered estimated due to an indeterminate amount of ice. January 20-21, & 26, 2004 are considered fair due to an indeterminate amount of ice. However, the DCP data was not changed on these days. The record is good, except for the following days estimated for ice-affect: January 5-9, 2004 and February 5-8, 2004 are considered poor; and January 20-21, & 26, 2004 are considered fair. Station maintained and record developed by Steven Barrett.

**RATING TABLE.**--CLEDERCO34 USED FROM 01-OCT-2003 TO 30-SEP-2004

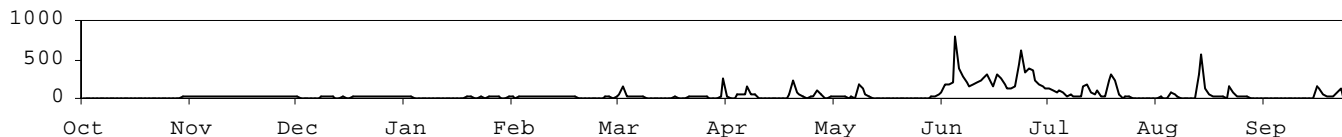
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	16	23	16	14	14	7	45	4.5	358	4.3	16
2	8.5	17	19	16	15	12	26	8.4	21	234	4.4	6.8
3	12	17	9.6	20	12	25	245	6.2	31	185	7	11
4	10	22	9.9	18	14	62	14	16	40	161	8	6.5
5	9.1	17	9.9	11	15	143	6.2	35	81	120	7.4	6.8
6	6.4	16	9.7	8	17	35	4.4	18	167	132	9.3	8
7	7.4	16	9	9	18	15	50	16	172	105	13	7.6
8	7.2	22	11	10	20	15	59	13	213	77	7	7.1
9	7.2	29	21	11	21	13	57	9.3	791	108	6.6	6.4
10	7.2	28	16	12	22	14	146	21	374	78	78	5.3
11	6.3	22	13	10	23	13	42	12	272	27	63	5.2
12	7	24	13	10	21	9.1	51	184	195	54	16	5.7
13	7.1	24	12	10	21	12	6.2	141	164	31	11	6
14	8.9	24	12	11	22	9.7	3.2	48	169	18	7.7	6.1
15	8.3	24	14	10	19	11	2.9	15	195	27	5.8	6.5
16	10	23	11	12	19	10	1.7	8.3	222	145	5.3	5.9
17	6.2	23	12	11	19	9.2	1.4	4.7	245	181	5.7	5.9
18	5	24	19	9.5	18	12	2.3	3.7	302	88	317	4.9
19	5.3	25	20	8.7	18	11	4.5	3.6	199	60	572	6
20	4.7	24	18	15	32	13	4.9	4.8	142	112	132	8
21	6.4	22	18	13	11	7	8.2	12	298	37	39	148
22	8.2	23	19	11	9.4	11	55	6.3	269	14	22	128
23	9.1	21	19	11	9.8	9.2	226	4.2	180	238	38	42
24	9.8	25	18	13	8.5	17	84	3.2	129	311	27	27
25	9.8	24	17	12	8.1	21	64	3.2	128	227	16	22
26	4.4	23	15	20	9.3	20	29	3.2	143	40	11	33
27	5.3	21	15	17	11	20	8	4.4	446	4.9	166	72
28	6	19	18	16	11	21	16	4.9	604	36	77	132
29	10	20	18	14	37	20	20	7.3	332	21	29	35
30	13	22	20	10	---	12	99	10	384	6.6	18	64
31	20	---	18	12	---	10	---	5.1	---	4.1	26	---
TOTAL	255.3	657	477.1	387.2	495.1	626.2	1343.9	676.8	6912.5	3240.6	1749.5	844.7
MEAN	8.2	22	15.4	12.5	17.1	20.2	44.8	21.8	230	105	56.4	28.2
AC-FT	506	1300	946	768	982	1240	2670	1340	13710	6430	3470	1680
MAX	20	29	23	20	37	143	245	184	791	358	572	148
MIN	4.4	16	9	8	8.1	7	1.4	3.2	4.5	4.1	4.3	4.9

WTR YR 2004 TOTAL 17665.9 MEAN 48.3 MAX 791 MIN 1.4 AC-FT 35040

MAX DISCH: 2290 CFS AT 20:30 ON Jun. 27, 2004 GH 3.79 FT. SHIFT 0.09 FT.  
MAX GH: 3.79 FT. AT 20:30 ON Jun. 27, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO

**LOCATION** --Lat 39°55'19", long 104°52'00", in SE¼NE¼ sec. 34, T.1 S., R.67 W., Adams County, Hydrologic Unit 10190003, on right bank 500 ft upstream from bridge on State Highway 22 and 0.2 mi northwest of Henderson.

**PERIOD OF RECORD AND DRAINAGE AREA.**--4,768 mi<sup>2</sup>. May 1926 to current year. Monthly data only prior to 1933. Periodic water quality data available starting in 1955.

**GAGE.**--Water-stage recorder with satellite telemetry, shaft encoder and phone modem in a 42-inch metal pipe shelter with electric drop tape and outside wire weight as additional reference. Water quality instrumentation installed by other agencies. Datum of gage is 4999.12 ft. above mean sea level, datum of 1929.

**REMARKS.**--Primary record is hourly readings, taken from satellite monitoring of the stilling well with chart back up on the well. The gage was visited 42 times and the encoder had only three adjustments. The entire year record is Shaft Encoder record, and maximum/minimum from the primary printout were checked to within +/- .02 against well chart. The gage height record is complete. The record is reliable except for certain periods of plugged inlets. Record is rated as good, except for the following days: October 7-9, February 20-24, May 23-24, June 28-29, and July 25-26 are estimated and poor due to inlet problems and October 15, May 21-22, June 30-July 1, and July 24 are considered fair due to inlet problems. Station maintained and record developed by Jana Ash.

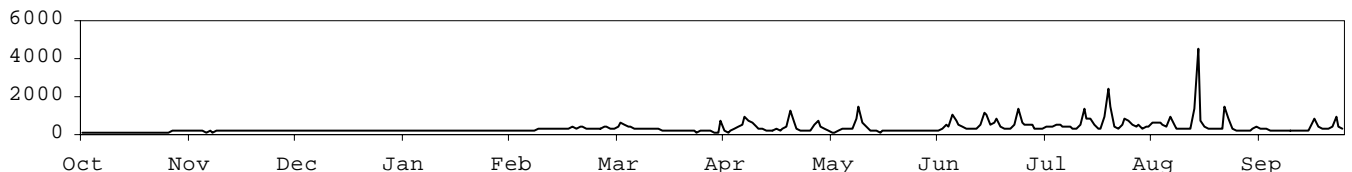
**RATING TABLE.**--PLAHENCO33 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	198	207	167	228	407	121	782	231	479	412	244
2	116	199	213	175	199	364	123	438	255	554	476	212
3	114	222	189	180	187	368	731	282	256	358	343	252
4	110	213	188	188	180	405	257	179	246	353	381	282
5	96	158	216	185	190	677	153	148	243	335	412	438
6	122	151	195	170	190	491	202	152	357	429	599	341
7	127	158	190	178	193	393	305	245	481	447	645	307
8	127	152	199	181	197	378	385	322	377	405	664	270
9	125	158	210	198	195	360	550	295	1030	524	498	229
10	140	187	222	178	293	320	925	311	771	570	389	205
11	136	194	206	184	350	314	709	363	534	405	981	208
12	141	196	195	181	341	296	678	841	372	444	490	203
13	141	192	191	174	338	282	393	1490	322	391	361	197
14	140	190	196	177	340	290	291	586	337	354	344	200
15	147	180	210	177	344	290	277	393	339	307	339	224
16	145	184	196	176	344	270	206	226	352	568	319	220
17	140	190	198	174	339	252	226	178	490	1420	298	217
18	134	191	199	175	354	247	249	161	1130	873	1390	203
19	133	191	195	180	351	255	264	151	1070	800	4490	178
20	141	194	188	196	436	243	216	179	477	547	786	177
21	138	193	183	189	368	256	269	208	613	350	432	621
22	136	202	188	179	387	226	422	199	806	311	303	860
23	139	198	187	175	371	200	1260	230	386	991	296	426
24	144	209	188	174	351	203	639	260	319	2370	350	338
25	150	212	165	174	343	194	311	260	307	1520	366	333
26	152	204	164	181	341	190	259	238	333	453	345	356
27	158	209	177	189	339	155	206	213	530	304	1430	373
28	161	185	170	195	329	158	195	197	1420	513	812	910
29	159	181	169	258	436	186	196	199	675	829	305	379
30	160	184	172	254	---	172	478	253	505	725	247	281
31	187	---	186	247	---	158	---	226	---	491	262	---
TOTAL	4276	5675	5952	5809	8854	9000	11496	10205	15564	19420	19765	9684
MEAN	138	189	192	187	305	290	383	329	519	626	638	323
AC-FT	8480	11260	11810	11520	17560	17850	22800	20240	30870	38520	39200	19210
MAX	187	222	222	258	436	677	1260	1490	1420	2370	4490	910
MIN	96	151	164	167	180	155	121	148	231	304	247	177

WTR YR 2004 TOTAL 125700 MEAN 343 MAX 4490 MIN 96 AC-FT 249300

MAX DISCH: 9050 CFS AT 01:30 ON Aug. 19, 2004 GH 9.98 FT. SHIFT 0 FT. DATUM CORRECTION -0.02 FT.  
MAX GH: 9.98 FT. AT 01:30 ON Aug. 19, 2004



PLATTE RIVER BASIN

MIDDLE ST. VRRAIN CREEK NR. PEACEFUL VALLEY, CO

LOCATION.--Lat 40 07' 55", long 105 31' 00", NE1/4 NW1/4 Sec. 24, T.2 N., R.73 W.

PERIOD OF RECORD AND DRAINAGE AREA.--Gage established on May 14, 1998 by State of Colorado, Division of Water Resources personnel. This gage will be a partial year record station.

GAGE.--Graphic water-stage recorder and satellite monitoring DCP with shaft encoder in 48" diameter metal pipe shelter and well. DCP is the primary record with chart as a backup.

REMARKS.--The primary record is hourly data taken from satellite monitoring with chart back up. The record is complete and reliable except for: October 14-15, 25-26, 30-31; November 1-2, 4, 2003 when the stage was ice affected and flows were estimated flows; November 5 and May 17--Station was closed for the season. The record is good, except as follows: estimated flows due to ice effect, which are poor; flows above 104 cfs are fair due to lack of rating definition; flows above 150 cfs are poor due to lack of rating measurements. The peak of 267 cfs is considered an estimate since it more than twice as high as the highest rating measurement. This is a seasonal station and is closed during the winter. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--MIDSTECO04 USED FROM 01-OCT-2003 TO 05-NOV-2003  
 MIDSTECO04 USED FROM 17-MAY-2004 TO 30-SEP-2004

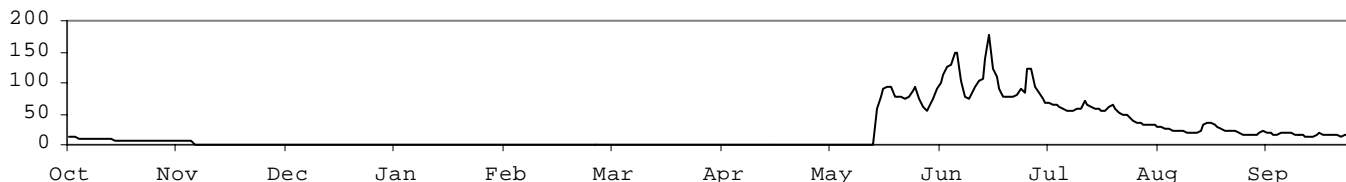
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.5	-	-	-	-	-	-	55	121	34	17
2	12	5.5	-	-	-	-	-	-	60	94	33	17
3	12	5.7	-	-	-	-	-	-	73	85	33	16
4	11	5	-	-	-	-	-	-	89	74	31	18
5	11	5	-	-	-	-	-	-	100	69	31	21
6	10	-	-	-	-	-	-	-	113	69	30	19
7	9.9	-	-	-	-	-	-	-	125	66	30	18
8	9.5	-	-	-	-	-	-	-	128	63	27	17
9	9.1	-	-	-	-	-	-	-	149	61	26	17
10	9.1	-	-	-	-	-	-	-	149	58	24	18
11	11	-	-	-	-	-	-	-	103	55	24	18
12	9.2	-	-	-	-	-	-	-	79	54	23	18
13	8.9	-	-	-	-	-	-	-	75	55	21	18
14	7.5	-	-	-	-	-	-	-	82	57	20	17
15	7.4	-	-	-	-	-	-	-	92	57	20	17
16	7.4	-	-	-	-	-	-	-	102	70	20	15
17	6.8	-	-	-	-	-	-	-	108	65	19	14
18	6.7	-	-	-	-	-	-	58	138	62	21	14
19	6.6	-	-	-	-	-	-	77	176	59	32	14
20	6.4	-	-	-	-	-	-	89	121	59	35	16
21	6.2	-	-	-	-	-	-	95	110	56	37	18
22	6.2	-	-	-	-	-	-	92	90	54	33	17
23	6.1	-	-	-	-	-	-	79	78	61	30	15
24	6	-	-	-	-	-	-	78	78	65	25	15
25	5.5	-	-	-	-	-	-	76	78	58	22	15
26	5.5	-	-	-	-	-	-	73	77	52	21	15
27	5.7	-	-	-	-	-	-	79	81	48	23	14
28	5.6	-	-	-	-	-	-	87	91	47	21	15
29	5.4	-	-	-	-	-	-	93	84	44	18	15
30	5	-	-	-	-	---	-	73	122	40	17	22
31	5	---	-	-	---	-	---	61	---	37	17	---
TOTAL	245.7	26.7	-	-	-	-	-	1110	3006	1915	798	500
MEAN	7.9	.89	-	-	-	-	-	35.8	100	62	26	17
AC-FT	487	53	-	-	-	-	-	2200	5960	3800	1580	992
MAX	12	5.7	-	-	-	-	-	95	176	121	37	22
MIN	5	-	-	-	-	-	-	-	55	37	17	14

WTR YR 2004 TOTAL 7601.4 MEAN 20.8 MAX 176 MIN - AC-FT 15080

MAX DISCH: 267 CFS AT 02:30 ON Jun. 19, 2004 GH 3.03 FT. SHIFT 0.02 FT.  
 MAX GH: 3.03 FT. AT 02:30 ON Jun. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

SOUTH ST. VRAIN CREEK NEAR WARD, CO

LOCATION.--Lat 40°05'27", long 105°30'50"

DRAINAGE AREA AND PERIOD OF RECORD.--14.4 mi<sup>2</sup>; 1925-27,28-31, 54-73, 1992 to present

GAGE.--Graphic water-stage recorder and satellite monitoring DCP (8200) with shaft encoder in 42-inch diameter corrugated metal pipe shelter and well. DCP is primary record with chart as backup.

REMARKS.--The primary record is hourly satellite data with chart backup. Record is complete and reliable except for the following periods: October 14, 15, 26, 28, 29, 31; November 1, 4, 2003 - stage affected by ice; November 5, 2003 to May 17, 2004 station was closed for winter. The record is fair due to moving rocks in the open control, except for the following days which are estimated and poor: October 14, 15, 26, 28, 29, 31; November 1, 4, 5, 2003; May 17, 2004. Flows above 200 cfs would also be poor due to lack of recent measurements in this range. This is a partial year record, re-established on May 15, 1992 by Division of Water Resources personnel after the USGS dropped publication. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--SSVWARCO10 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

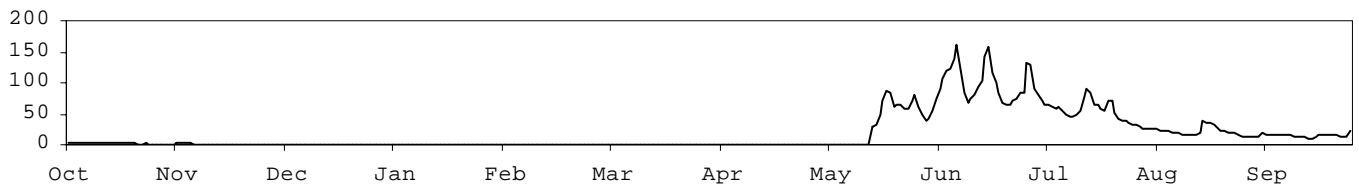
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	1.7	-	-	-	-	-	-	39	129	29	14
2	3.6	2	-	-	-	-	-	-	41	91	27	13
3	4.2	2.2	-	-	-	-	-	-	54	80	26	12
4	4	2	-	-	-	-	-	-	73	71	25	13
5	3.8	2	-	-	-	-	-	-	89	64	25	18
6	3.7	-	-	-	-	-	-	-	105	64	25	16
7	3.5	-	-	-	-	-	-	-	119	61	24	17
8	3.2	-	-	-	-	-	-	-	122	58	23	16
9	2.9	-	-	-	-	-	-	-	138	60	21	15
10	2.8	-	-	-	-	-	-	-	162	55	19	15
11	3.6	-	-	-	-	-	-	-	122	49	19	17
12	2.9	-	-	-	-	-	-	-	84	44	18	16
13	2.9	-	-	-	-	-	-	-	68	45	17	15
14	2.6	-	-	-	-	-	-	-	73	47	16	14
15	2.6	-	-	-	-	-	-	-	82	55	15	14
16	2.7	-	-	-	-	-	-	-	92	76	15	12
17	2.3	-	-	-	-	-	-	30	102	91	15	12
18	1.9	-	-	-	-	-	-	32	142	84	18	11
19	1.8	-	-	-	-	-	-	49	158	66	38	11
20	1.8	-	-	-	-	-	-	71	116	63	35	12
21	1.6	-	-	-	-	-	-	87	99	58	35	15
22	1.6	-	-	-	-	-	-	83	84	55	31	17
23	1.7	-	-	-	-	-	-	61	67	72	28	16
24	1.5	-	-	-	-	-	-	64	65	72	23	15
25	1.5	-	-	-	-	-	-	63	66	53	21	16
26	1.5	-	-	-	-	-	-	57	71	43	18	15
27	1.5	-	-	-	-	-	-	59	74	40	19	13
28	1.5	-	-	-	-	-	-	70	83	38	20	13
29	1.5	-	-	-	-	-	-	81	83	37	17	13
30	1.5	-	-	-	---	-	-	62	132	33	14	21
31	1.5	---	-	-	---	-	---	47	---	31	14	---
TOTAL	77.2	9.9	-	-	-	-	-	916	2805	1885	690	437
MEAN	2.5	.33	-	-	-	-	-	29.5	94	61	22	15
AC-FT	153	20	-	-	-	-	-	1820	5560	3740	1370	867
MAX	4.2	2.2	-	-	-	-	-	87	162	129	38	21
MIN	1.5	-	-	-	-	-	-	-	39	31	14	11

WTR YR 2004 TOTAL 6820.1 MEAN 18.6 MAX 162 MIN - AC-FT 13530

MAX DISCH: 183 CFS AT 04:30 ON Jun. 19, 2004 GH 2.79 FT. SHIFT 0.16 FT.

MAX GH: 2.79 FT. AT 04:30 ON Jun. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

LEFTHAND DIVERSION AT SO. ST. VRAIN CREEK NEAR WARD, CO

**LOCATION.**--Lat 40°05'29", long 105°30'31", the gage is located ½ mile downstream from gage on S. St. Vrain Creek off Highway 72.

**PERIOD OF RECORD AND DRAINAGE AREA.**--Established station on May 21, 1992 at request of Water Commissioner for administration of water rights in District 5, Div. 1. The gage is located one-quarter mile downstream from gage on South Saint Vrain Creek off Highway 72. This station is operated as a partial year record station usually from May to October.

**GAGE.**--A-71 continuous graphic chart recorder in a 42-inch corrugated shelter and concrete well with Data Collection Platform (DCP) as primary record. Primary reference is tape down from RP.

**REMARKS.**--Primary record is hourly satellite data. The record is complete and reliable except for the following periods: October 31 thru November 4--ice on river and in well; November 5 thru May 17--Closed for winter. The Record is good, except for October 31 to November 5 and May 17 which are estimated and poor. This is a partial year record station. Diversions continue through the winter and spring when the station is closed due to ice in the channel and snow blocking the road. Station maintained and record developed by Merlin Friedrichsen.

**RATING TABLE.**--LEFTHDCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

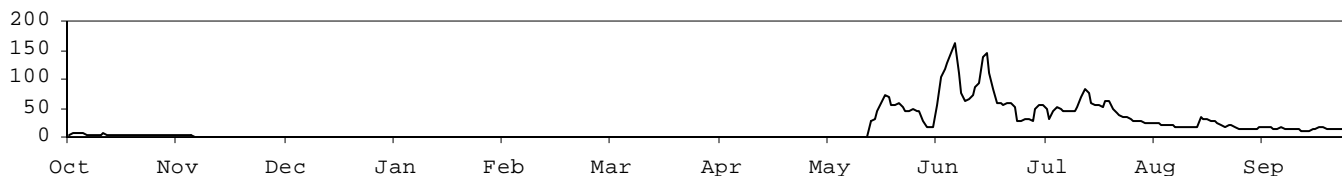
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5	4.4	-	-	-	-	-	-	27	30	27	14
2	5.2	4.2	-	-	-	-	-	-	18	29	26	13
3	5.5	4.2	-	-	-	-	-	-	18	47	25	13
4	5.4	4	-	-	-	-	-	-	18	56	24	14
5	5.2	4	-	-	-	-	-	-	55	54	24	17
6	5.1	-	-	-	-	-	-	-	103	47	24	16
7	5.1	-	-	-	-	-	-	-	118	32	23	16
8	4.9	-	-	-	-	-	-	-	128	45	22	16
9	4.7	-	-	-	-	-	-	-	145	53	21	15
10	4.6	-	-	-	-	-	-	-	161	50	19	15
11	5.2	-	-	-	-	-	-	-	112	46	19	16
12	4.6	-	-	-	-	-	-	-	77	45	18	15
13	4.7	-	-	-	-	-	-	-	63	46	17	15
14	4.4	-	-	-	-	-	-	-	67	46	17	14
15	4.4	-	-	-	-	-	-	-	74	51	16	14
16	4.5	-	-	-	-	-	-	-	85	69	16	13
17	4.2	-	-	-	-	-	-	26	94	82	16	12
18	3.9	-	-	-	-	-	-	31	137	76	18	12
19	3.8	-	-	-	-	-	-	44	144	60	33	12
20	3.8	-	-	-	-	-	-	60	112	56	31	13
21	3.7	-	-	-	-	-	-	71	82	54	32	15
22	3.7	-	-	-	-	-	-	70	59	51	28	17
23	3.7	-	-	-	-	-	-	54	57	62	26	16
24	3.5	-	-	-	-	-	-	56	56	62	23	15
25	3.4	-	-	-	-	-	-	57	57	50	21	15
26	4	-	-	-	-	-	-	51	57	43	18	15
27	3.5	-	-	-	-	-	-	46	52	39	19	14
28	3.5	-	-	-	-	-	-	46	29	36	19	14
29	3.8	-	-	-	-	-	-	47	29	35	17	14
30	3.5	-	-	-	---	-	-	45	30	31	15	19
31	4.4	---	-	-	---	-	---	44	---	29	14	---
TOTAL	134.9	20.8	-	-	-	-	-	748	2264	1512	668	439
MEAN	4.4	.69	-	-	-	-	-	24.1	76	49	22	15
AC-FT	268	41	-	-	-	-	-	1480	4490	3000	1320	871
MAX	5.5	4.4	-	-	-	-	-	71	161	82	33	19
MIN	3.4	-	-	-	-	-	-	-	18	29	14	12

WTR YR 2004 TOTAL 5786.7 MEAN 15.8 MAX 161 MIN - AC-FT 11480

MAX DISCH: 188 CFS AT 01:30 ON Jun. 10, 2004 GH 2.32 FT. SHIFT 0 FT.  
MAX GH: 2.32 FT. AT 01:30 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





PLATTE RIVER BASIN

06724000 ST. VRAIN CREEK AT LYONS, CO

**LOCATION.**--Lat 40°13'05", long 105°15'34", in NW¼NW¼ sec. 20, T.3 N., R.70 W., Boulder County, Hydrologic Unit 10190005, on left bank 75 ft southwest of U.S. Highway 36 (State Highways 7 and 66) at southeast edge of Lyons, 400 ft upstream from St. Vrain Supply Canal, and 0.4 mi downstream from confluence of North and South St. Vrain Creeks.

**DRAINAGE AREA AND PERIOD OF RECORD.**--212 mi<sup>2</sup>. Aug. 1887 to Sep. 1891, June 1895 to current year. Monthly only data for some periods. Water quality data available from Oct. 1977 to Feb. 1981.

**GAGE.**-- Manometer stage sensor and satellite monitoring DCP in a wooden shelter, with no stilling well. Primary reference is an outside chain gage. Chart back up exists for periods when the manometer was operating. The manometer was used October 1, 2003 to November 19, 2003. Beginning November 19, 2003, graphic water stage recorder and satellite monitoring DCP and shaft encoder in a wooden shelter with a stilling well, about 20 ft above the old gage. Primary reference is an electric drop tape down from an RP with the outside chain gage as backup. The DCP log is the primary record with the graphic chart as back-up. This setup was used for the remainder of the 2004 water year.

**REMARKS.**--From October 1 to November 19, 2003, primary record is hourly data taken from satellite monitoring using the manometer. This record is complete and reliable except for: November 3 when the shaft encoder and chart both failed; November 18-19, when the new station was being installed; November 24, 2003 thru March 8, 2004 when the station was closed for winter. For the new gage, the primary record is hourly satellite data with chart back up from the well. The record is complete and reliable. The record is good, except for November 3, 18, 19, 2003; and November 24, 2003 to March 8, 2004, which were estimated and are poor. Station maintained and record developed by Merlin Friedrichsen.

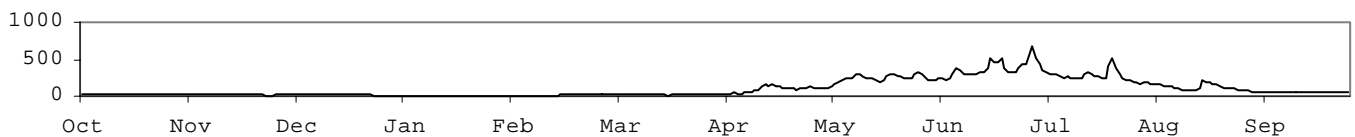
**RATING TABLE.**--SVCLYOCO23 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	15	15	10	10	15	27	112	224	671	162	69
2	30	16	16	10	10	15	30	111	218	519	188	65
3	32	18	16	9	10	15	37	104	218	426	189	61
4	32	17	17	9	11	15	34	129	236	353	171	60
5	30	16	17	8	12	15	38	165	245	314	171	67
6	28	17	18	8	12	15	43	189	209	305	167	65
7	28	17	18	7	12	15	40	220	241	308	157	57
8	26	19	18	6.5	12	15	37	252	304	293	141	52
9	24	16	19	6.1	12	15	50	237	368	262	135	50
10	24	18	19	6	12	17	55	251	352	253	126	47
11	28	16	19	6	13	16	55	288	298	265	108	50
12	24	17	18	6	13	15	71	287	306	245	102	49
13	20	17	18	6	13	16	89	266	296	239	94	48
14	22	17	18	6	13	17	136	254	297	239	84	48
15	21	16	17	6	0	17	158	247	294	248	87	47
16	19	16	17	7	14	15	147	241	314	293	82	45
17	19	17	17	7	14	14	151	215	318	316	72	44
18	17	16	16	7	15	12	145	183	379	291	95	44
19	15	16	16	7	15	16	130	220	512	260	212	46
20	16	16	15	7	15	17	119	274	472	263	199	44
21	18	16	15	7.5	15	19	118	292	464	247	196	59
22	16	15	14	7.8	15	19	95	301	526	252	168	67
23	17	13	14	8	15	20	96	283	379	416	152	63
24	19	13	13	8	15	26	92	273	325	525	132	57
25	21	13	13	8	15	29	111	255	318	383	114	58
26	20	14	12	8	15	30	111	245	328	304	99	58
27	21	14	12	8	15	32	121	253	373	255	99	59
28	19	14	11	9	15	32	123	290	439	226	104	63
29	23	14	11	9	15	30	120	334	420	217	90	58
30	22	14	11	9	---	30	120	309	598	192	79	63
31	20	---	11	9	---	29	---	268	---	178	73	---
TOTAL	699	473	481	235.9	373	603	2699	7348	10271	9558	4048	1663
MEAN	23	16	16	7.6	12.9	20	90	237	342	308	131	55
AC-FT	1390	938	954	468	740	1200	5350	14570	20370	18960	8030	3300
MAX	32	19	19	10	15	32	158	334	598	671	212	69
MIN	15	13	11	6	0	12	27	104	209	178	72	44
WTR YR 2004	TOTAL	38451.9	MEAN	105	MAX	671	MIN	0	AC-FT	76270		

MAX DISCH: 722 CFS AT 01:00 ON Jul. 1, 2004 GH 2.91 FT. SHIFT 0.01 FT.  
MAX GH: 2.91 FT. AT 01:00 ON Jul. 1, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06725500 MIDDLE BOULDER CREEK AT NEDERLAND, CO

**LOCATION.**--Lat 39°57'42", long 105°30'14", in NE¼SE¼ sec. 13, T.1 S., R.73 W., Boulder County, Hydrologic Unit 10190005, on left bank at Nederland just downstream from North Beaver Creek at inlet to Barker Reservoir.

**DRAINAGE AREA.**--36.2 mi<sup>2</sup>.

**GAGE.**--Water-stage recorder and data collection platform in wooden shelter with concrete well at a compound sharp-crested weir. DCP is the primary record with chart recorder as backup. The DCP was upgraded to a High Data Rate (HDR) during the 2002 Water Year. A new continuous graphic stage recorder was installed in June of 2003 and the weekly recorder was removed.

**REMARKS.**--Record is complete and reliable, except for the following periods, which are considered poor when the stage-discharge relation was affected by ice catching on the weir and inlets freezing: November 23-25; December 9-17, 27-29, 2003; January 26-29, February 3-6, 8-13, 2004. Control work was done intermittently between March 10 and March 22, 2004. Gage Height was affected during times when backhoe work was being done in the channel. Record was estimated for the following days: March 10-11, 16-17, 2004. Gage heights are occasionally affected by tree limbs caught on the weir. Any debris or ice on the control would normally be cleared weekly the City of Boulder operator, so any datum corrections are only applied for short periods. Station maintained by City of Boulder and record developed by Lee Cunning.

**RATING TABLE.**--BOCMIDCO07 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

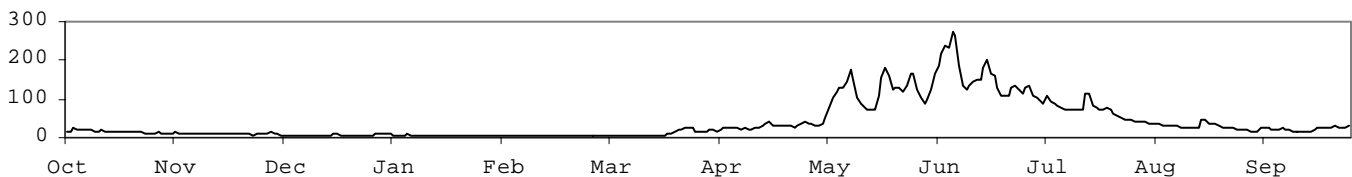
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	7.7	8.4	4.8	5.1	19	32	90	135	39	19
2	17	12	7.5	7.5	4.9	4.7	20	33	98	110	39	18
3	25	12	7.4	7	5.6	4.5	18	38	125	101	39	17
4	23	9.6	7	6.5	4.5	4.5	20	53	167	91	37	18
5	22	11	7.4	6.9	4.4	4.4	25	77	187	89	37	26
6	22	12	7	8.9	4.4	4.8	26	104	219	110	37	26
7	20	12	7	7.2	4.6	4.7	26	121	239	93	35	26
8	19	12	7	5.4	4.3	5.4	24	127	235	87	33	22
9	17	11	5.9	5.3	4.7	6	26	129	273	82	31	20
10	17	11	6.1	5.2	5.8	6.2	22	147	263	78	29	20
11	20	11	6.4	5.1	5.5	7.3	24	178	186	73	29	26
12	18	12	6.7	5	5.1	7	22	152	135	71	29	21
13	17	11	7	4.9	5.4	6.4	23	104	122	71	27	19
14	15	11	7.4	4.9	4.4	5.8	27	87	136	70	26	18
15	16	11	7.7	4.9	4.3	5.9	28	79	147	71	25	17
16	15	11	8	4.8	3.9	5.7	30	75	149	74	24	16
17	14	9.1	8.3	4.7	4.2	5.2	36	72	148	115	24	15
18	14	8.1	7.4	4.7	4.3	5.7	40	75	183	113	27	14
19	13	12	5.8	4.8	4.1	6.6	33	108	200	83	47	14
20	13	11	6	4.6	4.2	8.2	33	157	168	77	46	19
21	13	9.8	6	4.7	4.1	11	31	181	160	72	38	24
22	13	7.9	5.9	5.4	4.2	14	30	160	128	71	34	26
23	12	6.8	6.5	5.7	4.2	19	29	125	110	77	34	25
24	12	8.7	6.2	4.9	4.2	21	29	130	109	75	29	24
25	11	9	5.8	4.7	4.2	24	28	127	109	64	27	27
26	9.9	9	5.7	4.7	4.3	25	29	118	131	57	25	29
27	13	10	6.3	5.4	4.2	25	36	135	133	53	27	27
28	12	13	8	6	4.2	16	39	165	122	49	27	27
29	12	9.1	9.6	6.5	4	18	37	165	112	46	23	26
30	11	7.9	11	5.9	---	15	34	126	130	44	21	32
31	7.9	---	9.9	5.1	---	16	---	101	---	41	20	---
TOTAL	479.8	314	221.6	175.7	131	318.1	844	3481	4714	2443	965	658
MEAN	15.5	10.5	7.2	5.7	4.5	10.3	28	112	157	79	31	22
AC-FT	952	623	440	349	260	631	1670	6900	9350	4850	1910	1310
MAX	25	13	11	8.9	5.8	25	40	181	273	135	47	32
MIN	7.9	6.8	5.7	4.6	3.9	4.4	18	32	90	41	20	14

WTR YR 2004 TOTAL 14745.2 MEAN 40.3 MAX 273 MIN 3.9 AC-FT 29250

MAX DISCH: 344 CFS AT 19:30 ON Jun. 9, 2004 GH 2.71 FT. SHIFT 0 FT.

MAX GH: 2.71 FT. AT 19:30 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

0672700 BOULDER CREEK NEAR ORODELL, CO

**LOCATION.**--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec. 34, T.1 N., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank along State Highway 119, 0.7 mi southwest of old Orodell, 1.1 mi upstream from Fourmile Creek, and 2.9 mi southwest of courthouse in Boulder.

**DRAINAGE AREA.**--102 mi².

**GAGE.**--Stevens A35 graphic water-stage recorder and Sutron 8210 DCP with shaft encoder in a 6 foot by 6 foot exposed aggregate concrete shelter with a 54-inch corrugated metal well. The primary reference is a tape down from RP. There is an outside staff gage across the stream that reads approximately 1 foot lower than gage datum. The data collection platform (DCP) provides the primary record. The station now includes a pressure transducer installed by Urban Drainage and Flood Control District.

**REMARKS.**--Primary record is taken from hourly satellite data, with graphic chart as backup. Record is complete and reliable, except for the winter record where the station was off. Measurements were made approximately every two weeks to create an estimated record. Estimates for these days were taken from the daily average releases from Barker Reservoir. Record is good, except for the period November 24, 2003 - March 26, 2004 which is estimated and poor due to ice. The station was turned off from December 18, 2003 through March 26, 2004. Station maintained and record developed by Lee Cunning.

**RATING TABLE.**--BOCOROCO13 USED FROM 01-OCT-2003 TO 18-DEC-2003  
BOCOROCO13 USED FROM 26-MAR-2004 TO 30-SEP-2004

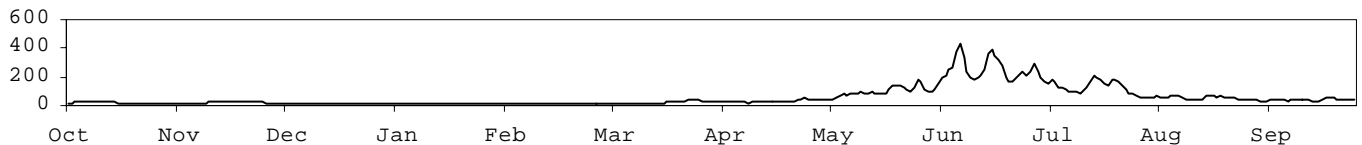
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	14	17	14	11	7.5	23	38	97	291	57	39
2	18	15	17	14	11	7.5	24	39	91	237	58	42
3	24	16	16	14	11	7.5	24	36	108	192	61	34
4	30	16	16	14	11	7.5	22	35	159	167	58	34
5	26	15	15	13	10	7.5	25	37	190	155	64	34
6	24	16	15	13	10	7.5	27	54	214	184	62	36
7	25	18	15	13	9.7	7.5	22	74	245	161	56	40
8	25	19	14	13	9.4	7.5	22	78	265	132	54	38
9	25	20	14	12	9.1	7.5	25	76	375	120	64	39
10	24	21	14	12	8.8	7.5	23	85	433	111	71	37
11	26	22	13	12	8.5	7.5	20	83	341	100	67	34
12	28	22	13	12	8.2	13	21	89	239	91	50	37
13	26	23	13	11	7.9	13	23	96	197	92	45	38
14	22	23	13	11	7.7	13	32	88	181	89	46	37
15	18	23	12	11	7.4	13	34	90	197	103	43	37
16	18	23	12	11	7.2	13	33	91	214	127	41	36
17	17	23	12	11	7.2	13	28	85	248	167	41	36
18	16	22	11	11	7.2	13	31	82	359	212	43	34
19	15	26	11	11	7.2	23	24	77	393	200	71	30
20	15	27	11	11	7.2	23	22	86	342	185	65	30
21	15	22	11	11	7.2	23	21	115	324	147	67	43
22	14	22	12	11	7.2	28	23	135	277	137	62	55
23	14	24	12	11	7.4	28	26	142	193	181	63	57
24	14	22	13	11	7.5	33	28	140	172	184	54	49
25	14	21	13	11	7.5	40	37	130	174	162	62	46
26	14	20	13	11	7.5	41	40	112	199	137	59	46
27	14	19	13	11	7.5	39	49	98	226	113	51	41
28	15	19	14	11	7.5	35	48	120	236	90	43	45
29	14	18	14	11	7.5	27	48	180	207	80	39	43
30	14	18	14	11	---	28	43	168	231	72	42	48
31	14	---	15	11	---	27	---	110	---	61	37	---
TOTAL	596	609	418	365	243.5	568.5	868	2869	7127	4480	1696	1195
MEAN	19	20	14	12	8.4	18.3	29	93	238	145	55	40
AC-FT	1180	1210	829	724	483	1130	1720	5690	14140	8890	3360	2370
MAX	30	27	17	14	11	41	49	180	433	291	71	57
MIN	14	14	11	11	7.2	7.5	20	35	91	61	37	30

WTR YR 2004 TOTAL 21035 MEAN 57.5 MAX 433 MIN 7.2 AC-FT 41720

MAX DISCH: 461 CFS AT 04:00 ON Jun. 10, 2004 GH 3.12 FT. SHIFT 0.21 FT.  
MAX GH: 3.12 FT. AT 04:00 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06729450 SOUTH BOULDER CREEK BELOW GROSS RESERVOIR NEAR COAL CREEK, CO

**LOCATION.**--Lat 39°56'19", long 105°20'55", SW¼ sec. 21, T.1 S., R.71 W., Boulder County. Measures releases from Gross Reservoir; which is filled by South Boulder Creek and transmountain diversions from Moffat Tunnel.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water stage recorder and satellite monitoring DCP with shaft encoder in timber shelter and concrete well at 25' Parshall flume with supplemental outside staff. The primary reference is an electric tape gage. The DCP, updated to high data rate in 2002, is the primary record with chart backup. Station is owned and maintained by Denver Water Board personnel.

**REMARKS.**--Primary record is hourly DCP data with chart back up. The record is complete and reliable. The record is good except for the entire month of February and the days of March 1, 2 and 9, 2004, which are considered fair due to the fact, flows were below the minimum 15 cfs for a 25' Parshall Flume's accuracy limit. Station maintained and record developed by Lee Cunning.

**RATING TABLE**--STD25FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

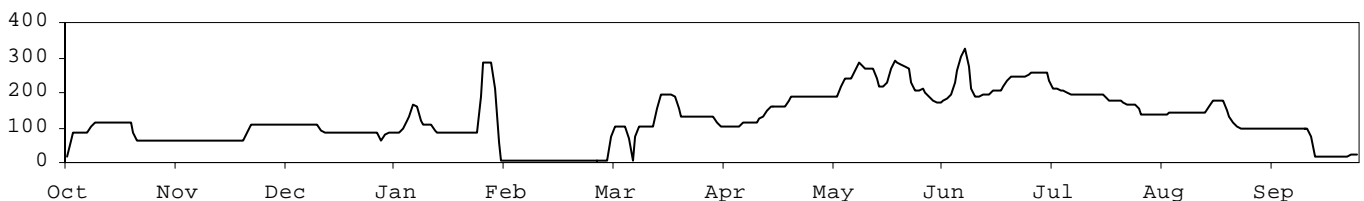
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	61	108	83	6.1	6.2	130	187	190	258	136	96
2	61	61	108	83	6.1	6.6	113	186	177	258	136	96
3	86	61	108	83	6.1	77	102	186	172	258	136	96
4	86	61	108	97	6.1	105	101	187	172	258	136	96
5	86	61	108	119	6.1	105	103	187	178	233	136	96
6	87	61	107	134	6.1	105	105	187	183	214	137	96
7	87	61	107	164	6.1	105	105	220	196	213	136	96
8	104	61	108	160	6.1	66	105	239	231	208	141	96
9	116	61	108	122	6.1	6.4	112	241	264	205	143	96
10	115	61	108	108	6.1	77	116	241	304	202	143	96
11	115	61	108	108	6.1	104	116	265	323	197	142	96
12	115	61	93	108	6.2	104	115	286	276	197	142	96
13	117	61	83	93	6.1	104	115	275	213	195	142	96
14	117	61	83	84	6.1	104	124	266	190	195	144	96
15	117	61	83	85	6.1	104	130	266	189	194	144	96
16	116	61	83	86	6.1	155	148	266	192	193	144	96
17	114	61	83	85	6.1	193	160	242	193	192	144	75
18	113	61	83	84	6.1	193	160	220	194	193	145	16
19	113	61	83	84	6.6	192	160	215	203	192	162	15
20	85	61	83	84	6.6	192	160	231	207	192	177	15
21	61	83	83	84	6.5	191	160	266	207	183	179	16
22	61	110	83	84	6.4	155	176	289	216	179	179	16
23	61	107	83	84	6.1	130	187	286	236	179	179	15
24	61	107	83	84	6.1	130	187	281	245	177	149	18
25	61	108	83	84	6.1	130	187	272	245	178	130	19
26	61	108	83	191	6.1	130	187	269	245	169	112	19
27	62	108	83	287	6.2	130	187	231	246	164	101	19
28	61	108	83	287	6.3	130	187	207	247	164	100	22
29	61	107	65	285	6.3	130	187	207	254	164	100	25
30	61	107	82	209	---	130	187	209	258	152	98	25
31	61	---	83	58	---	130	---	201	---	139	96	---
TOTAL	2639	2273	2837	3791	179.2	3620.2	4312	7311	6646	6095	4289	1851
MEAN	85	76	92	122	6.2	117	144	236	222	197	138	62
AC-FT	5230	4510	5630	7520	355	7180	8550	14500	13180	12090	8510	3670
MAX	117	110	108	287	6.6	193	187	289	323	258	179	96
MIN	17	61	65	58	6.1	6.2	101	186	172	139	96	15

WTR YR 2004 TOTAL 45843.4 MEAN 125 MAX 323 MIN 6.1 AC-FT 90930

MAX DISCH: 327 CFS AT 03:00 ON Jun. 12, 2004 GH 2.17 FT. SHIFT 0 FT.  
MAX GH: 2.17 FT. AT 03:00 ON Jun. 12, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

SOUTH BOULDER CREEK DIVERSION NEAR ELDORADO SPRINGS, CO

LOCATION.--Lat 39°56'00", long 105°18'10", SW¼ sec. 26, T.1 S., R.71 W., Boulder County. Diverts Denver Water Board rights released from Gross Reservoir to South Boulder Creek.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder at 12' Parshall flume in a timber shelter and concrete well with supplemental outside staff gage. Satellite monitoring installed Apr. 24, 1998 and DCP data is primary record with chart as back up. Station is owned and maintained by Denver Water Board personnel.

REMARKS.--DCP data is primary record with chart as backup. DCP record is complete and reliable. The record is good. Station maintained and record developed by Lee Cunning.

RATING TABLE.--STD12FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

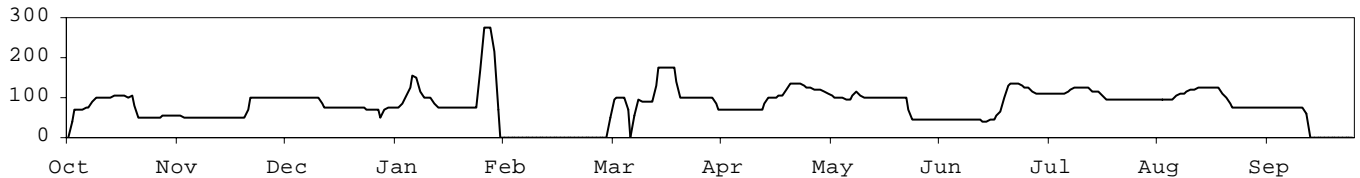
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	54	101	73	0	0	99	122	46	117	94	76
2	39	54	101	74	0	0	84	122	46	112	94	76
3	72	52	101	74	0	49	70	116	46	112	94	76
4	72	51	101	86	0	97	70	111	46	112	94	76
5	72	51	101	107	0	98	70	105	46	112	94	76
6	73	51	101	125	0	99	70	101	46	112	94	76
7	73	51	101	152	0	99	70	102	46	112	94	75
8	88	52	101	152	0	72	70	98	46	112	94	75
9	101	52	101	115	0	1.4	70	93	46	112	93	75
10	101	52	101	100	0	56	70	93	46	112	93	75
11	100	52	101	100	0	93	70	104	46	116	104	75
12	100	52	87	100	0	90	70	113	46	121	111	75
13	101	52	74	86	0	89	70	106	45	123	111	75
14	103	52	74	75	0	89	70	100	45	124	116	76
15	105	52	75	75	0	89	70	100	44	124	119	75
16	105	52	74	75	0	130	85	100	44	125	122	75
17	103	52	74	75	0	176	100	100	39	123	123	58
18	102	52	74	75	0	176	100	100	40	117	123	0
19	103	52	75	75	0	175	100	100	43	113	124	0
20	78	51	75	75	0	175	103	99	43	113	126	0
21	50	72	75	75	0	175	107	99	57	102	126	0
22	51	101	75	75	0	138	121	99	67	93	126	0
23	52	101	75	75	0	99	134	99	99	94	126	0
24	52	101	73	75	0	99	134	99	129	95	111	0
25	52	101	72	75	0	99	134	99	133	95	99	0
26	52	101	72	172	0	99	134	99	133	95	86	0
27	52	101	72	275	0	99	129	71	133	94	76	0
28	53	101	72	274	0	99	126	46	128	94	76	0
29	55	101	52	276	0	99	123	46	125	94	75	0
30	54	101	72	213	---	99	121	46	125	94	75	0
31	54	---	73	72	---	99	---	46	---	94	75	---
TOTAL	2268	2020	2576	3526	0	3057.4	2844	2934	2024	3368	3168	1265
MEAN	73.2	67	83	114	0	98.6	95	95	68	109	102	42.2
AC-FT	4500	4010	5110	6990	0	6060	5640	5820	4010	6680	6280	2510
MAX	105	101	101	276	0	176	134	122	133	125	126	76
MIN	0	51	52	72	0	0	70	46	39	93	75	0

WTR YR 2004 TOTAL 29050.4 MEAN 79.4 MAX 276 MIN 0 AC-FT 57620

MAX DISCH: 281 CFS AT 10:45 ON Jan. 29, 2004 GH 3.07 FT. SHIFT 0 FT.  
MAX GH: 3.07 FT. AT 10:45 ON Jan. 29, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06729500 SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS, CO

**LOCATION.**--Lat 39°55'52", long 105°17'43", in SE¼ sec. 26, T.1 S., R.71 W., Boulder County, Hydrologic Unit 10190005, on left bank 0.2 mi downstream from South Draw, 1.0 mi west of Eldorado Springs, 1.8 mi downstream from South Boulder diversion canal, 5.0 mi south of Boulder, and 6.7 mi downstream from Gross Reservoir.

**DRAINAGE AREA.**--109 mi<sup>2</sup>.

**GAGE.**--Graphic water stage recorder and Sutron High Data Rate (HDR) satellite monitoring DCP in metal box shelter and corrugated metal pipe well. Supplemental outside chain gage. The data collection platform (DCP) is the primary record having the graphic chart as a backup.

**REMARKS.**--Record is complete and reliable except for the following periods: December 30, 2003 - March 25, 2004, when the station was closed for winter. Chart record had a slow clock, which had to be adjusted at visits. The record is good, except for December 30, 2003 through March 25, 2004, when the station was shut down for the winter, which is considered fair. Station maintained and record developed by Lee Cunning.

**RATING TABLE.**--BOCELSCO23 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

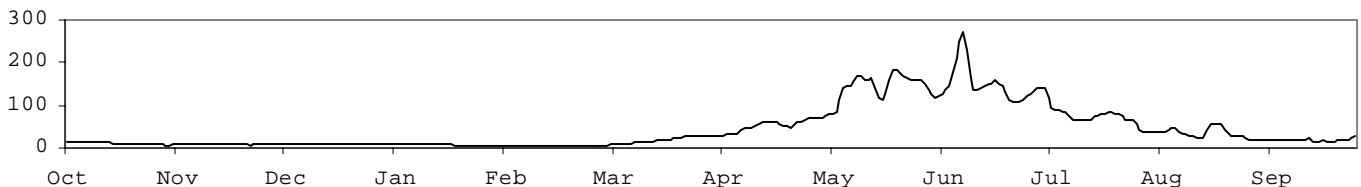
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	7.5	8.7	11	3.1	6	28	71	138	134	37	19
2	14	7.7	9.1	11	2.9	6.5	29	71	125	141	37	20
3	13	9.1	8.8	11	3	7.1	30	75	118	140	37	20
4	13	9.8	8.5	10	3.1	7.7	29	78	120	140	36	20
5	13	9.6	8.5	10	3.2	8.2	31	82	128	116	37	20
6	13	9.5	7.8	10	3.3	8.9	34	85	134	94	38	20
7	14	9	8	10	3.5	9.6	34	111	145	91	37	20
8	15	8.5	8.8	9.5	3.6	10	34	140	176	87	43	19
9	14	8.5	8.9	9.5	3.7	11	41	145	209	85	49	19
10	13	8.4	8.8	9.1	3.8	12	47	144	250	84	49	19
11	13	8.4	8.7	9.1	4	13	46	154	272	75	39	20
12	13	8.5	8.5	8.7	4.1	13	49	167	229	66	32	20
13	14	8.4	8.4	8.7	4.2	14	50	167	165	64	31	20
14	11	8	8.5	8.4	4.3	15	57	161	137	65	29	20
15	9.8	8	8.1	8.4	4.5	16	63	161	136	65	27	20
16	9.7	8	8.3	8	4.6	17	62	163	139	65	24	21
17	10	8	8.6	7.7	4.6	17	62	141	146	67	22	24
18	10	8	8.2	7.3	4.8	19	62	116	148	73	25	15
19	10	8	8.4	7	4.8	20	60	111	151	77	44	14
20	11	8.4	8.4	6.3	4.9	21	54	125	161	78	54	14
21	11	7.2	8.4	5.9	5.1	22	50	159	148	79	58	17
22	10	7	8.4	5.6	5.1	24	50	184	145	83	57	16
23	9	8.5	8	5.3	5.2	25	49	182	133	86	56	15
24	8.8	7.1	9.4	5.1	5.3	26	52	177	111	82	44	16
25	8.7	7.5	11	4.8	5.3	28	60	171	106	82	31	18
26	8.4	8.3	11	4.6	5.5	29	62	165	106	73	29	18
27	8.1	8.4	11	4.3	5.6	29	67	161	108	66	27	18
28	7.9	8.3	11	3.8	5.6	29	70	158	112	67	27	21
29	6.2	8.1	11	3.6	5.9	28	71	159	122	66	26	25
30	6.4	8.2	11	3.3	---	28	72	160	126	56	23	27
31	7.3	---	11	3.1	---	28	---	152	---	41	20	---
TOTAL	340.3	247.9	281.2	230.1	126.6	548	1505	4296	4444	2588	1125	575
MEAN	11	8.3	9.1	7.4	4.4	17.7	50	139	148	84	36	19
AC-FT	675	492	558	456	251	1090	2990	8520	8810	5130	2230	1140
MAX	15	9.8	11	11	5.9	29	72	184	272	141	58	27
MIN	6.2	7	7.8	3.1	2.9	6	28	71	106	41	20	14

WTR YR 2004 TOTAL 16307.1 MEAN 44.6 MAX 272 MIN 2.9 AC-FT 32350

MAX DISCH: 283 CFS AT 11:15 ON Jun. 10, 2004 GH 2.81 FT. SHIFT -0.02 FT.

MAX GH: 2.81 FT. AT 11:15 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06730300 COAL CREEK NEAR PLAINVIEW, CO

LOCATION.--Lat 39°52'41", long 105°16'38"

DRAINAGE AREA AND PERIOD OF RECORD.--15.1 mi<sup>2</sup>; 1959 to present.

GAGE.--Graphic water-stage recorder and satellite monitoring in a 42-inch diameter corrugated metal shelter. The primary reference is a drop tape with a supplemental outside staff gage.

REMARKS.--Hourly data from the DCP is the primary record, with the recorder as back up. DCP record is complete and reliable. The record is good. The gage is generally closed during the winter and may be a partial year record. This year the gage was closed from December 30, 2003 until March 19, 2004. Station maintained and record developed by Lee Cunning.

RATING TABLE.--COCREPCO08 USED FROM 01-OCT-2003 TO 30-SEP-2004

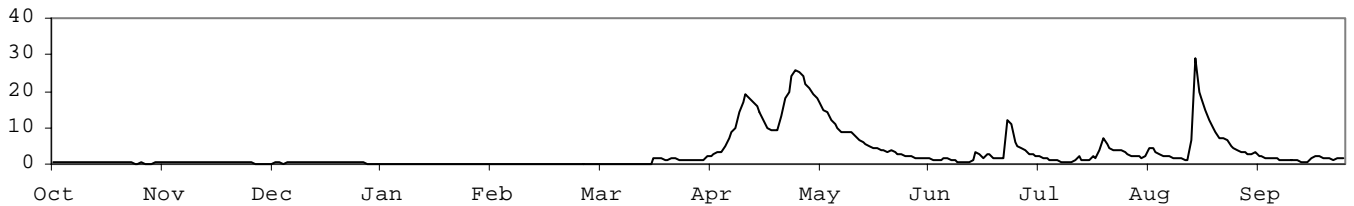
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	.33	.26	-	-	-	.9	22	1.9	4.2	2.3	3.5
2	.43	.36	.27	-	-	-	1	21	1.8	3.6	2.4	3.1
3	.41	.44	.3	-	-	-	2.1	19	1.7	3	2.2	2.8
4	.4	.45	.31	-	-	-	2.3	18	1.5	2.5	1.8	2.7
5	.38	.42	.27	-	-	-	2.8	17	1.4	2.3	2	3.3
6	.34	.4	.33	-	-	-	3.1	15	1.2	2.3	4.4	2.4
7	.33	.4	.34	-	-	-	3.5	14	1.1	1.8	4.6	2.2
8	.32	.4	.35	-	-	-	4.9	12	.98	1.5	3.2	1.9
9	.29	.4	.35	-	-	-	7.2	11	1.8	1.3	2.7	1.8
10	.29	.4	.4	-	-	-	8.7	9.8	1.4	1.2	2.4	1.7
11	.34	.4	.38	-	-	-	10	8.8	.97	1	2.4	1.5
12	.36	.4	.36	-	-	-	14	8.5	.85	.81	2.3	1.3
13	.36	.4	.33	-	-	-	17	8.8	.78	.62	1.9	1.3
14	.39	.4	.38	-	-	-	19	8.6	.6	.52	1.7	1.2
15	.38	.38	.39	-	-	-	18	7.7	.53	.5	1.4	1.2
16	.36	.38	.36	-	-	-	17	6.7	.68	.96	1.2	1
17	.32	.39	.33	-	-	-	16	6.1	1.2	2.1	1.1	.91
18	.29	.31	.34	-	-	-	14	5.6	3.1	1.2	6.4	.81
19	.3	.32	.33	-	-	1.4	12	5	2.5	1.1	29	.75
20	.3	.33	.37	-	-	1.5	10	4.6	1.9	1.3	20	.76
21	.31	.35	.36	-	-	1.5	9.2	4.3	2.5	2	18	1.8
22	.33	.33	.35	-	-	1.3	9.3	4	2.6	1.4	15	2.3
23	.3	.38	.35	-	-	1.3	9.2	3.7	1.8	4	12	2
24	.26	.34	.36	-	-	1.4	13	3.5	1.5	6.9	10	1.6
25	.27	.31	.35	-	-	1.4	18	3.6	1.4	5.3	8.5	1.4
26	.29	.31	.34	-	-	1.3	20	3.1	1.7	4.4	7.3	1.5
27	.27	.27	.35	-	-	1.2	24	2.6	1.2	3.9	7	1.3
28	.27	.24	.31	-	-	1.1	26	2.5	1.1	4.1	6.4	1.6
29	.25	.25	.27	-	-	.97	25	2.4	6.2	4	5.2	1.4
30	.29	.26	.23	-	---	.95	24	2.3	5.1	3.1	4.5	1.9
31	.31	---	-	-	---	.9	---	2.1	---	2.6	4	---
TOTAL	10.18	10.75	10.02	-	-	16.22	361.2	263.3	73.69	75.51	193.3	52.93
MEAN	.33	.36	.32	-	-	.52	12	8.5	2.46	2.44	6.2	1.76
AC-FT	20	21	20	-	-	32	716	522	146	150	383	105
MAX	.44	.45	.4	-	-	1.5	26	22	12	6.9	29	3.5
MIN	.25	.24	-	-	-	-	.9	2.1	.53	.5	1.1	.75

WTR YR 2004 (PARTIAL YEAR RECORD) TOTAL 1067.1 MEAN 2.92 MAX 29 MIN - AC-FT 2120

MAX DISCH: 47.1 CFS AT 17:45 ON Jun. 27, 2004 GH 1.3 FT. SHIFT -0.03 FT.  
MAX GH: 1.3 FT. AT 17:45 ON Jun. 27, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO

**LOCATION.**--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec. 3, T,3 N., R.67 W., Weld County, Hydrologic Unit 10190005, on right bank 140 ft downstream from bridge on county road, 1.3 mi upstream from mouth, and 4.2 mi northwest of Platteville.

**DRAINAGE AREA AND PERIOD OF RECORD.**--976 mi<sup>2</sup>; 1927 to present.

**GAGE.**--Graphic water-stage recorder and satellite monitoring DCP in a 54 inch metal pipe shelter and well. A Sutron Accububbler was installed May 8, 2002 as a back up. Data collection platform is the primary record with graphic chart as backup. The primary reference for the Accububbler is the outside staff, which was installed in April at a datum 1.0 ft. lower so that lower stages could be recorded. The Acububbler operating this year was removed in August 2004. At that time the flows were consistently above the pipes, and the inlets had been extended further out into the stream past the sand bar.

**REMARKS.**--The primary record is hourly satellite data from the stilling well, except for the following periods of Acububbler data, used when inlet flush corrections indicated that the inlets had sand bar problems: April 6, 15-20, May 17 - 18, July 7 - 21, August 1- 4, 2004. The record is good except for the following ranges or periods of flow that should be considered fair: May 18-June 1; flows above 200 cfs in April - July; and all flows, including the yearly peak, which are above 530 cfs. These flows should be considered fair due to the shifting sand control and lack of definition by measurements. Station maintained and record developed by Lee Cunning.

**RATING TABLE.**--SVCPLACO27 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

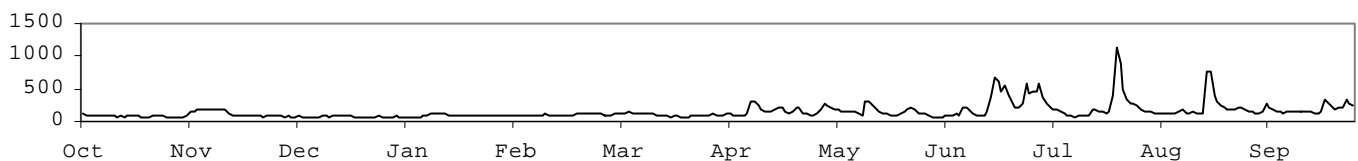
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	142	74	71	99	105	84	273	70	445	166	139
2	97	159	77	71	101	109	91	246	64	581	153	131
3	95	170	72	72	99	110	119	216	62	379	153	130
4	94	186	74	72	101	112	134	192	73	289	135	145
5	94	179	72	51	105	132	103	178	82	206	114	280
6	92	173	76	66	101	147	96	156	92	178	119	220
7	82	170	72	87	105	136	107	153	87	170	125	176
8	86	197	74	107	103	125	99	163	112	139	124	157
9	80	190	82	126	102	117	114	157	102	112	116	144
10	80	192	79	118	100	112	292	140	206	107	116	136
11	75	188	75	117	109	122	307	114	225	91	147	147
12	79	118	84	112	100	127	250	101	168	72	172	144
13	76	102	87	109	100	109	196	303	125	84	136	156
14	77	99	100	99	106	95	160	309	102	86	134	155
15	82	96	94	106	103	92	151	234	95	82	138	156
16	86	98	79	106	106	85	165	185	106	100	136	154
17	82	98	79	98	103	82	179	148	168	174	114	153
18	74	93	73	90	103	76	217	135	374	183	116	139
19	72	94	70	97	107	79	210	135	666	166	759	135
20	75	88	75	99	113	77	149	104	612	144	766	130
21	79	89	73	101	115	71	125	81	461	135	392	156
22	80	74	74	101	113	71	141	83	560	143	301	323
23	79	84	70	105	113	75	228	119	394	384	259	267
24	78	99	75	102	114	78	207	141	284	1140	203	218
25	74	94	77	99	112	104	129	184	228	874	180	192
26	70	88	74	93	109	104	124	206	219	502	198	201
27	75	83	69	95	116	104	101	169	261	344	194	216
28	74	75	69	100	105	96	90	133	567	286	215	324
29	68	78	68	102	102	100	124	120	438	265	203	284
30	71	74	84	98	---	126	196	134	446	232	180	248
31	79	---	74	99	---	92	---	86	---	192	159	---
TOTAL	2513	3670	2375	2969	3065	3170	4688	5098	7449	8285	6423	5556
MEAN	81	122	77	96	106	102	156	164	248	267	207	185
AC-FT	4980	7280	4710	5890	6080	6290	9300	10110	14780	16430	12740	11020
MAX	108	197	100	126	116	147	307	309	666	1140	766	324
MIN	68	74	68	51	99	71	84	81	62	72	114	130

WTR YR 2004 TOTAL 55261 MEAN 151 MAX 1140 MIN 51 AC-FT 109600

MAX DISCH: 1370 CFS AT 12:45 ON Jul. 24, 2004 GH 5.65 FT. SHIFT -0.26 FT.

MAX GH: 5.65 FT. AT 12:45 ON Jul. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD





PLATTE RIVER BASIN

WIND RIVER NEAR ESTES PARK, CO

LOCATION.--Lat 40°19'38", long 105°34'53"

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder with satellite telemetry in a wooden shelter with a concrete well and a 4' Parshall flume. The electric drop tape is the primary reference. The DCP is the primary record with chart backup. The Parshall flume and the well were replaced in August of 1995 due to extreme settling over the years.

REMARKS.--The record is hourly satellite data with chart back up. It is complete and reliable except for the following days: November 4: ice effect; November 5, 2003 thru April 12, 2004: closed for winter. This is a partial year record station operated as part of the Colorado Big Thompson Project. The record is good, except for November 4-5, 2003 and April 12, 2004 which were estimated. Stream flows are affected by diversions above the station amounting to approximately 300 AF per water year. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--STDO4FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

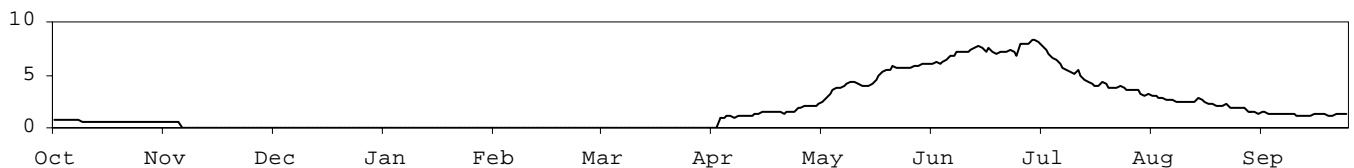
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.63	-	-	-	-	-	2.1	5.8	8	3.6	1.8
2	.72	.61	-	-	-	-	-	2.1	6	8	3.5	1.6
3	.7	.58	-	-	-	-	-	2.1	6.1	8.3	3.2	1.5
4	.68	.6	-	-	-	-	-	2.2	6.1	8.3	3.1	1.6
5	.69	.6	-	-	-	-	-	2.5	6.1	8.1	3.2	1.4
6	.72	-	-	-	-	-	1	2.8	6.2	7.7	3.1	1.5
7	.72	-	-	-	-	-	.93	3.3	6.1	7.3	3	1.5
8	.68	-	-	-	-	-	1.1	3.6	6.2	6.9	2.9	1.4
9	.62	-	-	-	-	-	1.1	3.8	6.5	6.6	2.8	1.4
10	.64	-	-	-	-	-	.93	3.8	6.7	6.4	2.7	1.4
11	.64	-	-	-	-	-	1.1	4	6.8	6	2.7	1.3
12	.63	-	-	-	-	-	1.2	4.2	7.1	5.7	2.6	1.3
13	.64	-	-	-	-	-	1.1	4.4	7.2	5.4	2.5	1.3
14	.58	-	-	-	-	-	1.2	4.3	7.2	5.2	2.4	1.3
15	.64	-	-	-	-	-	1.2	4.2	7.1	5.1	2.4	1.3
16	.6	-	-	-	-	-	1.3	4	7.3	5.5	2.4	1.2
17	.61	-	-	-	-	-	1.4	3.9	7.5	4.9	2.4	1.2
18	.61	-	-	-	-	-	1.5	4	7.8	4.5	2.5	1.1
19	.59	-	-	-	-	-	1.5	4.1	7.5	4.3	2.9	1.2
20	.58	-	-	-	-	-	1.6	4.6	7.1	4.1	2.6	1.2
21	.56	-	-	-	-	-	1.5	5	7.5	3.9	2.4	1.4
22	.56	-	-	-	-	-	1.6	5.3	7.2	3.9	2.2	1.4
23	.56	-	-	-	-	-	1.5	5.4	7	4.3	2.2	1.3
24	.56	-	-	-	-	-	1.4	5.4	7.1	4.1	2.1	1.3
25	.56	-	-	-	-	-	1.5	5.9	7.2	3.8	2	1.2
26	.55	-	-	-	-	-	1.5	5.6	7.2	3.7	2	1.2
27	.51	-	-	-	-	-	1.6	5.6	7.3	3.7	2.2	1.3
28	.62	-	-	-	-	-	1.8	5.6	7.1	4	1.9	1.3
29	.56	-	-	-	-	-	1.9	5.7	6.8	3.8	1.8	1.4
30	.56	-	-	-	---	-	2	5.7	7.9	3.6	1.8	1.4
31	.61	---	-	-	---	-	---	5.8	---	3.5	1.8	---
TOTAL	19.21	3.02	-	-	-	-	34.46	131	206.7	168.6	78.9	40.7
MEAN	.62	.1	-	-	-	-	1.15	4.2	6.9	5.4	2.6	1.4
AC-FT	38	6	-	-	-	-	68	260	410	334	156	81
MAX	.72	.63	-	-	-	-	2	5.9	7.9	8.3	3.6	1.8
MIN	.51	-	-	-	-	-	-	2.1	5.8	3.5	1.8	1.1

WTR YR 2004 TOTAL 682.59 MEAN 1.86 MAX 8.3 MIN - AC-FT 1350

MAX DISCH: 11.7 CFS AT 14:00 ON Jun. 30, 2004 GH 0.82 FT. SHIFT 0 FT.  
MAX GH: 0.82 FT. AT 14:00 ON Jun. 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

## WIND RIVER BY-PASS NEAR ESTES PARK, CO.

LOCATION.--Lat 40°19'38", long 105°34'53"

DRAINAGE AREA.--N/A

GAGE.--Incremental shaft encoder in a steel shelter with a steel well, a drop tape, and a 3-foot Cipolletti flume. The Data Collection Platform in Adams Tunnel is used to collect the data as primary record only. The station is maintained by the U.S.B.R. to determine east slope flows into the Colorado Big Thompson Project system. On August 29, 2003 the original 1 foot Cipolletti flume was replaced with a 3 foot Cipolletti flume to accommodate larger flows if needed during time of maintenance by the U.S.B.R.

REMARKS.--The record is hourly satellite data. It is complete and reliable except for the following days: October 15-17, 2003--Shaft encoder not working properly November 5, 2003 thru May 6, 2004--Closed for winter; May 21-24, 2004--Inlets plugged. The record is good. This "By-Pass" gage was established in 2001 to track the amount of Wind River water being 'skimmed' into the CBT system by Adams Tunnel. (The gage could also be called "Wind River below Adams Tunnel"). Initially, only skim operation periods were published. Beginning in 2004, at the request of downstream interests, the full season will be published. This year skim operations ended on July 28, 2004. After that, the flows were the same as for the "Wind River near Estes Park" gage. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--WINBYPCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

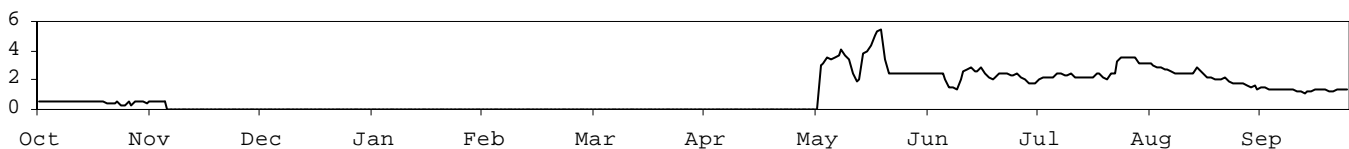
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	.51	-	-	-	-	-	-	2.4	2.2	3.6	1.8
2	.58	.56	-	-	-	-	-	-	2.5	2	3.5	1.6
3	.6	.57	-	-	-	-	-	-	2.4	1.8	3.2	1.5
4	.53	.5	-	-	-	-	-	-	2.4	1.8	3.1	1.6
5	.54	.5	-	-	-	-	-	-	2.4	1.8	3.2	1.4
6	.58	-	-	-	-	-	-	3	2.4	2	3.1	1.5
7	.58	-	-	-	-	-	-	3.2	2.4	2.2	3	1.5
8	.58	-	-	-	-	-	-	3.5	2.4	2.2	2.9	1.4
9	.55	-	-	-	-	-	-	3.4	2.4	2.2	2.8	1.4
10	.55	-	-	-	-	-	-	3.6	2.1	2.2	2.7	1.4
11	.57	-	-	-	-	-	-	3.7	1.5	2.4	2.7	1.3
12	.55	-	-	-	-	-	-	4.1	1.5	2.5	2.6	1.3
13	.57	-	-	-	-	-	-	3.7	1.4	2.3	2.5	1.3
14	.55	-	-	-	-	-	-	3.4	2.1	2.3	2.4	1.3
15	.53	-	-	-	-	-	-	2.4	2.6	2.4	2.4	1.3
16	.51	-	-	-	-	-	-	1.9	2.7	2.2	2.4	1.2
17	.5	-	-	-	-	-	-	2.1	2.8	2.2	2.4	1.2
18	.49	-	-	-	-	-	-	3.8	2.6	2.2	2.5	1.1
19	.49	-	-	-	-	-	-	4	2.6	2.2	2.9	1.2
20	.46	-	-	-	-	-	-	4.4	2.9	2.2	2.6	1.2
21	.42	-	-	-	-	-	-	5	2.5	2.2	2.4	1.4
22	.46	-	-	-	-	-	-	5.3	2.2	2.5	2.2	1.4
23	.49	-	-	-	-	-	-	5.4	2.1	2.4	2.2	1.3
24	.29	-	-	-	-	-	-	3.4	2.2	2.2	2.1	1.3
25	.31	-	-	-	-	-	-	2.4	2.4	2.1	2	1.2
26	.49	-	-	-	-	-	-	2.4	2.4	2.4	2	1.2
27	.29	-	-	-	-	-	-	2.4	2.4	2.4	2.2	1.3
28	.52	-	-	-	-	-	-	2.4	2.3	3.3	1.9	1.3
29	.49	-	-	-	-	-	-	2.4	2.3	3.5	1.8	1.4
30	.53	-	-	-	---	-	-	2.4	2.4	3.6	1.8	1.4
31	.47	---	-	-	---	-	---	2.4	---	3.5	1.8	---
TOTAL	15.63	2.64	-	-	-	-	-	86.1	69.7	73.4	78.9	40.7
MEAN	.5	.09	-	-	-	-	-	2.78	2.3	2.4	2.6	1.4
AC-FT	31	5.2	-	-	-	-	-	171	138	146	156	81
MAX	.6	.57	-	-	-	-	-	5.4	2.9	3.6	3.6	1.8
MIN	.29	-	-	-	-	-	-	-	1.4	1.8	1.8	1.1

WTR YR 2004 TOTAL 367.07 MEAN 1 MAX 5.4 MIN - AC-FT 728

MAX DISCH: 4.69 CFS AT 15:30 ON Jul. 28, 2004 GH 0.6 FT. SHIFT 0 FT.

MAX GH: 0.6 FT. AT 15:30 ON Jul. 28, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06733000 BIG THOMPSON RIVER(above Lake Estes) AT ESTES PARK, CO

**LOCATION.**--Lat 40°22'42", long 105°30'48", in NW¼NW¼ sec. 30, T.5 N., R.72 W., Larimer County on right bank in Estes Park, 600 ft downstream from bridge on State Highways 7 and 66, 900 ft downstream from Black Canyon Creek, and 0.3 mi northwest of Estes Power Plant. Station is upstream from Lake Estes.

**DRAINAGE AREA AND PERIOD OF RECORD.**--137 mi<sup>2</sup>. October 1946 to current year.

**GAGE.**--Water-stage recorder with satellite telemetry, at 15' Parshall flume with overflow weirs and supplemental outside gage. DCP is the primary record. Datum of gage is 7,492.5 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**-- Primary record is hourly data taken from satellite monitoring with chart as backup. Record is complete and reliable except for the following periods: November 5, 6, 2003 when the USBR was dredging the channel, possibly affecting gage height; November 22, 23, 2003 when the inlets were frozen; November 24, 2003 to March 12, 2004 when the station was closed for winter. The data can be regarded as very reliable, as the gage is visited frequently and even 0.01 adjustments to the stage encoder are rare. However, regular visits by the U.S.B.R. personnel are often discounted as being unreliable due to inconsistencies in the procedures followed in reading the gage. Record is good, except for November 22–March 12, 2004 which was estimated for winter record; and November 5-6, 2003, which are fair due to possible effects from USBR channel dredging. Station maintained and record developed by Merlin Friedrichsen.

**RATING TABLE.**--BTABESCO09 USED FROM 01-OCT-2003 TO 30-SEP-2004

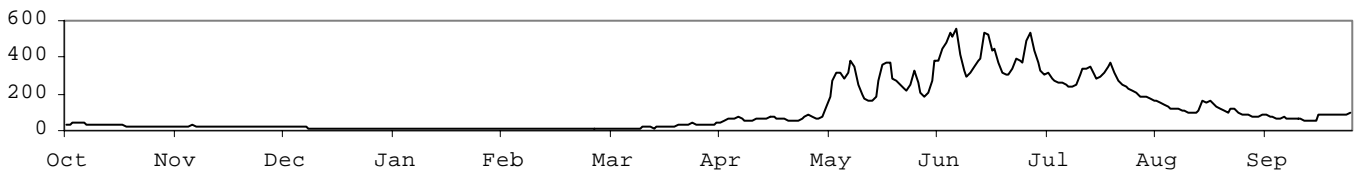
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	22	17	14	13	16	30	70	183	540	189	82
2	36	24	17	14	13	16	37	69	205	436	187	77
3	48	26	17	14	13	16	42	81	271	376	183	74
4	44	24	17	14	13	15	40	129	379	331	172	76
5	41	23	17	13	13	15	52	190	377	309	169	86
6	39	29	17	13	14	15	63	272	445	316	159	83
7	37	25	17	13	14	15	67	311	478	289	151	78
8	35	26	17	13	14	15	67	316	534	270	141	72
9	34	25	16	13	14	15	72	284	513	263	133	68
10	32	25	16	13	14	15	61	312	553	263	124	66
11	36	26	16	13	15	15	58	378	419	248	121	71
12	33	25	16	13	15	15	56	345	324	235	116	67
13	32	26	16	13	15	20	56	252	293	235	109	64
14	31	27	16	13	15	19	63	201	316	252	104	68
15	30	24	16	13	15	18	62	174	350	302	99	68
16	28	25	16	13	15	16	61	163	386	336	95	62
17	28	24	16	13	16	17	66	167	392	333	94	57
18	27	18	16	13	16	18	79	186	530	346	110	54
19	26	25	16	13	16	19	72	274	519	307	159	52
20	26	24	16	13	16	22	65	360	441	289	156	60
21	26	23	16	13	16	24	65	375	443	300	167	83
22	25	21	16	13	16	27	63	369	374	319	152	88
23	26	19	16	13	16	31	58	288	311	349	133	82
24	24	17	15	13	16	35	57	270	301	373	118	82
25	23	17	15	13	16	35	60	256	303	314	105	87
26	21	17	15	13	16	36	58	225	341	276	98	88
27	24	17	15	13	16	39	65	219	391	256	121	84
28	23	17	15	13	16	34	81	255	380	244	119	85
29	23	17	14	13	16	29	83	332	370	232	102	84
30	23	17	14	13	---	29	77	257	494	214	92	96
31	20	---	14	13	---	28	---	206	---	203	86	---
TOTAL	937	675	493	407	433	679	1836	7586	11616	9356	4064	2244
MEAN	30	23	16	13	15	22	61	245	387	302	131	75
AC-FT	1860	1340	978	807	859	1350	3640	15050	23040	18560	8060	4450
MAX	48	29	17	14	16	39	83	378	553	540	189	96
MIN	20	17	14	13	13	15	30	69	183	203	86	52

WTR YR 2004 TOTAL 40326 MEAN 110 MAX 553 MIN 13 AC-FT 79990

MAX DISCH: 659 CFS AT 23:30 ON Jun. 30, 2004 GH 4.5 FT. SHIFT 0.08 FT.  
MAX GH: 4.5 FT. AT 23:30 ON Jun. 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06734500 FISH CREEK NEAR ESTES PARK, CO

LOCATION.--Lat 40°22'06", long 105°29'35", SW¼ sec. 29, T.5 N., R.72 W.

DRAINAGE AREA AND PERIOD OF RECORD.--16.9 mi<sup>2</sup>; 1946 to present.

GAGE.--Graphic water-stage recorder and satellite monitoring in a concrete well and shelter at a 5' Parshall flume. The electric drop tape is the primary reference. There is a supplemental outside staff gage.

REMARKS.--The primary record is hourly data from satellite monitoring with chart back up. The record is complete and reliable except for the following periods: November 5, 2003 to March 18, 2004 when the station was closed for the winter. The record is good, except for November 5 and March 18, which were estimated. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--FISHESCO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

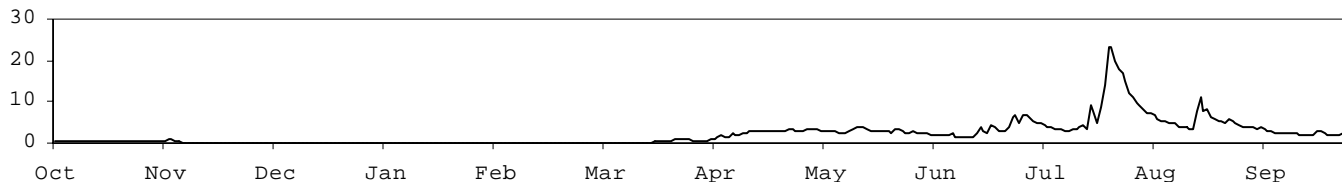
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.57	-	-	-	-	.6	3.5	2.2	6.6	9.7	4
2	.62	.8	-	-	-	-	.62	3.3	2.2	5.6	9.1	3.7
3	.69	.74	-	-	-	-	1	3.3	2.2	5.3	8.4	3.7
4	.69	.72	-	-	-	-	1	3.1	2.1	4.9	7.4	3.6
5	.68	.7	-	-	-	-	1.4	3	2.1	4.6	7.2	3.8
6	.63	-	-	-	-	-	2	2.9	1.9	4.5	6.7	3.2
7	.61	-	-	-	-	-	1.5	2.8	1.8	4.1	6	2.9
8	.6	-	-	-	-	-	1.6	2.8	1.7	3.8	5.4	2.8
9	.6	-	-	-	-	-	2.2	2.6	2.1	3.5	5.1	2.6
10	.57	-	-	-	-	-	2.1	2.6	2.2	3.4	4.8	2.5
11	.53	-	-	-	-	-	2.1	2.5	1.5	3.3	4.6	2.5
12	.66	-	-	-	-	-	2.3	2.7	1.4	2.9	4.6	2.4
13	.59	-	-	-	-	-	2.5	3.4	1.5	2.8	4.1	2.3
14	.52	-	-	-	-	-	2.9	3.8	1.4	3.6	3.8	2.3
15	.52	-	-	-	-	-	2.8	3.9	1.4	3.6	3.8	2.2
16	.52	-	-	-	-	-	2.8	3.7	1.4	4.1	3.6	2
17	.52	-	-	-	-	-	2.8	3.2	2.2	4.2	3.3	1.8
18	.52	-	-	-	-	.6	2.8	3.1	3.7	3.3	7.8	1.7
19	.52	-	-	-	-	.62	2.8	2.9	3.1	9.1	11	1.7
20	.52	-	-	-	-	.69	2.8	2.9	2.4	7.9	7.6	1.8
21	.52	-	-	-	-	.69	2.7	2.9	4.3	4.7	8	2.7
22	.52	-	-	-	-	.69	2.9	2.8	3.7	8.8	6.2	2.9
23	.53	-	-	-	-	.69	2.8	2.8	2.8	14	5.9	2.3
24	.53	-	-	-	-	.75	3.1	2.6	2.8	23	5.5	2.1
25	.52	-	-	-	-	.78	3.4	3.5	2.7	23	5.1	2.1
26	.57	-	-	-	-	.78	3.2	3.2	3.8	20	4.8	2
27	.61	-	-	-	-	.78	3.1	2.8	6.3	18	5.8	2.1
28	.6	-	-	-	-	.73	3.1	2.6	6.6	17	5.4	2.5
29	.55	-	-	-	-	.62	3.1	2.6	5	15	4.6	2.2
30	.53	-	-	-	---	.6	3.3	2.7	7	12	4.2	3.4
31	.53	---	-	-	---	.6	---	2.5	---	11	4.1	---
TOTAL	17.64	3.53	-	-	-	9.62	71.32	93	85.5	257.6	183.6	77.8
MEAN	.57	.12	-	-	-	.31	2.38	3	2.9	8.3	5.9	2.6
AC-FT	35	7	-	-	-	19	141	184	170	511	364	154
MAX	.69	.8	-	-	-	.78	3.4	3.9	7	23	11	4
MIN	.52	-	-	-	-	-	.6	2.5	1.4	2.8	3.3	1.7

WTR YR 2004 TOTAL 799.61 MEAN 2.18 MAX 23 MIN - AC-FT 1590

MAX DISCH: 45.1 CFS AT 14:00 ON Jul. 19, 2004 GH 1.67 FT. SHIFT 0 FT.

MAX GH: 1.67 FT. AT 14:00 ON Jul. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06735500 BIG THOMPSON RIVER(below Lake Estes) NEAR ESTES PARK, CO

**LOCATION.**--Lat 40°22'35", long 105°29'06", in NE¼NE¼ sec. 29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, on right bank 100 ft upstream from Dry Gulch, 600 ft downstream from Olympus Dam, and 2.0 mi east of Estes Park.

**DRAINAGE AREA.**--155 mi². Area at site used Jan. 29, 1934, to Mar. 21, 1951, 162 mi².

**GAGE.**--Graphic water-stage recorder and Satellite Monitoring DCP in a concrete shelter and well at a 15-foot Parshall Flume. Sutron 8210 DCP has a speech modem card and telephone access. There is a supplementary outside gage.

**REMARKS.**--Primary record is hourly data taken from satellite monitoring with chart as backup. Record is complete and reliable except for: November 10, and December 29, 2003--Ice buildup on control from backup on rocks placed by the Fish and Game Division just below the flume for fish habitat. The record is good except for November 10 and December 29, 2003 which were estimated. Station maintained and record developed by Merlin Friedrichsen.

**RATING TABLE.**--BTBLESCO10 USED FROM 01-OCT-2003 TO 30-SEP-2004

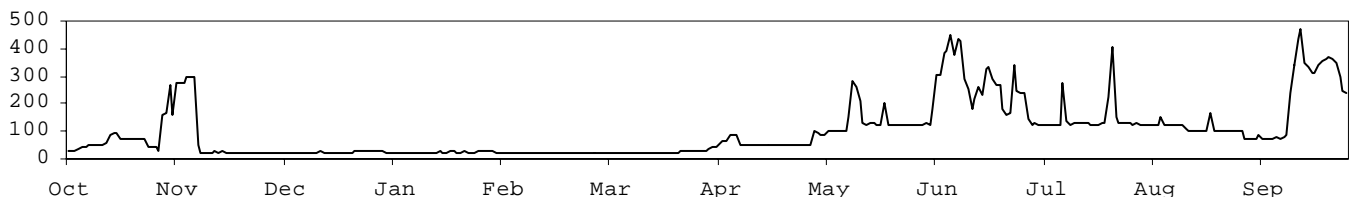
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	272	23	24	25	24	34	101	126	147	128	74
2	32	274	24	24	24	24	40	91	127	126	126	76
3	32	273	24	24	23	24	45	89	126	127	122	75
4	38	294	24	24	25	24	61	87	178	126	122	76
5	45	300	24	24	25	24	62	100	303	126	123	87
6	44	298	24	24	25	24	65	101	303	126	124	76
7	51	50	24	24	24	23	87	101	385	126	126	75
8	48	25	23	24	25	24	86	101	388	126	150	75
9	48	25	25	24	24	24	84	100	446	125	124	74
10	50	25	25	24	24	24	51	101	377	124	123	77
11	49	25	25	24	24	24	51	149	432	274	126	76
12	56	26	26	24	24	24	50	280	424	139	124	77
13	87	25	25	25	23	25	51	263	292	124	124	89
14	93	26	25	25	22	25	50	207	255	127	123	240
15	93	25	25	26	22	25	51	132	181	127	107	338
16	76	25	25	24	22	23	51	125	216	128	101	433
17	76	25	25	24	24	23	52	127	260	128	101	474
18	74	25	25	26	24	23	51	127	229	128	101	348
19	74	25	25	26	24	24	50	126	328	126	100	331
20	74	25	25	25	23	24	51	124	334	125	102	311
21	74	25	25	25	23	25	51	203	289	126	103	311
22	72	25	26	26	23	25	51	126	267	128	168	337
23	72	23	26	25	23	25	51	125	268	129	105	355
24	46	23	26	25	24	27	50	125	184	224	100	364
25	45	24	26	25	23	32	50	126	161	409	99	366
26	44	24	26	26	23	32	51	125	168	153	100	359
27	28	24	26	26	23	31	51	125	340	129	101	348
28	159	25	26	26	24	31	50	125	247	127	102	300
29	166	24	26	26	25	31	50	126	242	127	99	250
30	268	23	26	26	---	31	54	125	240	127	101	236
31	163	---	25	25	---	32	---	125	---	126	103	---
TOTAL	2309	2328	775	770	687	801	1632	4088	8116	4510	3558	6708
MEAN	75	78	25	25	24	26	54	132	271	145	115	224
AC-FT	4580	4620	1540	1530	1360	1590	3240	8110	16100	8950	7060	13310
MAX	268	300	26	26	25	32	87	280	446	409	168	474
MIN	28	23	23	24	22	23	34	87	126	124	99	74

WTR YR 2004 TOTAL 36282 MEAN 99.1 MAX 474 MIN 22 AC-FT 71970

MAX DISCH: 489 CFS AT 20:15 ON Sep. 17, 2004 GH 3.8 FT. SHIFT 0 FT.  
MAX GH: 3.8 FT. AT 20:15 ON Sep. 17, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06734900 OLYMPUS TUNNEL (ESTES FOOTHILLS CANAL) AT LAKE ESTES, CO

**LOCATION.**--Lat 40°22'30", long 105°29'13", in SE¼NW¼ sec. 29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, at tunnel entrance at south end of Olympus Dam on Lake Estes, 1.9 mi east of Estes Park.

**GAGE.**--Graphic water-stage recorder with satellite monitoring DCP with shaft encoder in a concrete shelter with supplemental outside staff gage. The DCP is the primary record.

**REMARKS.**--Primary record is hourly data taken from satellite monitoring with graphic chart as back up. The record is complete and reliable. Zero Flow occurs at gage heights of 0.2 ft. or less due to well conditions. The chart scale is 1 inch = 1 ft water, so chart mean GH's can only be read to +/-0.03 ft. Calibration on the chart was not great this year, with differences of 0.05 ft often seen between the DCP and chart data. However, when pen corrections were taken into account, the DCP readings were confirmed by the chart. The record is good. This station is operated in cooperation with the USBR for the Colorado--Big Thompson Project. Station maintained and record developed by Merlin Friedrichsen.

**RATING TABLE.**--OLYTUNCO05 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

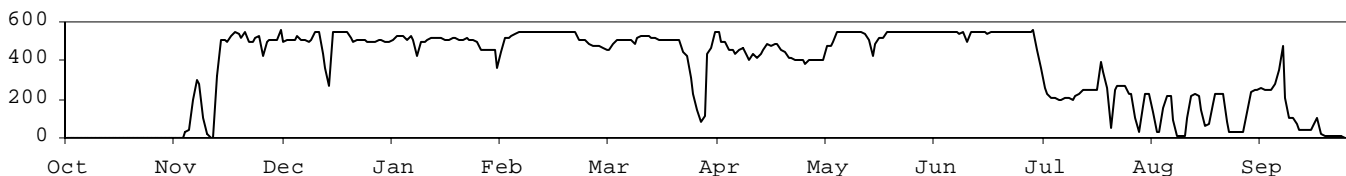
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	555	501	358	476	431	402	546	551	104	30
2	0	0	501	511	446	466	469	402	550	549	32	130
3	0	0	507	525	517	454	549	402	548	554	161	237
4	0	36	511	524	520	459	549	408	548	460	223	251
5	0	40	512	523	523	489	493	480	546	360	224	250
6	0	192	524	504	541	502	493	476	549	260	136	254
7	0	298	509	523	550	510	459	500	549	230	30	252
8	0	279	503	512	551	511	452	549	550	204	30	251
9	0	99	495	419	553	509	435	550	549	204	157	253
10	0	22	504	500	550	509	452	551	551	200	222	278
11	0	0	550	501	551	490	467	550	548	201	221	350
12	0	0	551	508	551	514	427	549	542	203	91	471
13	0	317	430	522	551	526	405	549	547	204	7.6	211
14	0	504	358	522	548	524	432	544	501	201	7.9	102
15	0	504	272	517	550	525	415	548	551	219	7.9	101
16	0	501	546	517	550	517	433	540	552	231	108	68
17	0	530	545	511	550	513	456	502	551	250	222	40
18	0	552	550	512	549	510	483	426	548	249	225	41
19	0	536	551	515	551	509	472	488	545	253	222	41
20	0	516	548	514	552	510	485	520	542	251	147	42
21	0	547	516	512	551	510	484	516	548	251	61	64
22	0	500	501	512	551	510	454	551	550	393	71	108
23	0	501	505	513	549	511	450	551	550	346	173	21
24	0	518	512	503	511	510	416	545	551	254	224	15
25	0	530	508	504	506	442	416	553	550	53	224	7.4
26	0	426	501	492	511	423	401	547	551	250	226	6.5
27	0	499	501	453	490	314	404	548	550	270	83	5.4
28	0	508	501	451	478	223	402	547	551	270	30	5.2
29	0	504	504	452	476	142	378	552	548	270	30	5.2
30	0	509	503	451	---	83	404	549	550	232	30	4.8
31	0	---	501	451	---	109	---	547	---	230	30	---
TOTAL	0	9968	15575	15475	15235	13800	13466	15942	16412	8653	3760.4	3895.5
MEAN	0	332	502	499	525	445	449	514	547	279	121	130
AC-FT	0	19770	30890	30690	30220	27370	26710	31620	32550	17160	7460	7730
MAX	0	552	555	525	553	526	549	553	552	554	226	471
MIN	0	0	272	419	358	83	378	402	501	53	7.6	4.8

WTR YR 2004 TOTAL 132181.9 MEAN 361 MAX 555 MIN 0 AC-FT 262200

MAX DISCH: 578 CFS AT 20:30 ON Dec. 15, 2003 GH 8 FT. SHIFT 0 FT.

MAX GH: 8 FT. AT 20:30 ON Dec. 15, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06736000 NORTH FORK BIG THOMPSON RIVER AT DRAKE, CO

LOCATION.--Lat 40°20'45", long 105°26'30", NW¼ sec. 3, T.5 N., R.71 W., Larimer County, 400 ft upstream from mouth at Drake, Co. on U. S. Highway 34 to Estes Park, Co.

DRAINAGE AREA AND PERIOD OF RECORD.--85.1 mi<sup>2</sup>; 1947 to present.

GAGE.--Graphic water-stage recorder and High Data Rate DCP logger with shaft encoder in a 42-inch well. The electric drop tape is the primary reference with a supplemental outside chain gage as backup.

REMARKS.--The primary record is hourly satellite data with chart backup. The record is complete and reliable except for the following periods: November 23, 2003: gage appears frozen, November 24, 2003 through March 18, 2004 when the station was closed for winter. Ponds in the channel upstream often ice up and break loose in the fall and cause bumps in the record when there is no ice at the control. The record is good, except for following periods: November 23 2003 through March 18, 2004 when the station was iced in or closed for winter. This periods was estimated and rated poor. October 1, June 22, July 9, August 10 when the inlets were partially plugged. These days were rated fair. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--BTNFDRCO11 USED FROM 01-OCT-2003 TO 30-SEP-2004

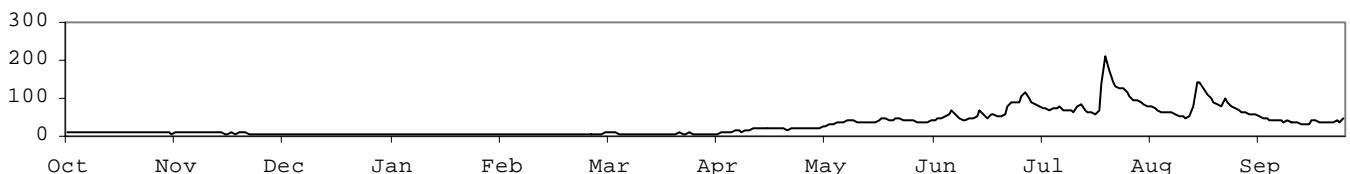
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	9	4	5	4.4	7.4	6.5	21	36	115	96	65
2	9.6	11	4	5	4.4	7.6	6.5	22	38	100	96	61
3	13	11	4	5	4.3	8	6.9	22	39	91	92	58
4	12	9.3	4	5	4.3	8.4	6.3	25	42	85	84	56
5	11	8	4	5	4.3	8	8.7	28	44	79	81	58
6	10	8.6	4	5.1	4.3	7.9	13	30	46	75	78	52
7	9.8	9	4	5.3	4.4	7.7	11	34	45	72	72	49
8	9.8	9.7	4	5.5	4.4	7.5	11	36	51	68	71	46
9	10	8.8	4	5.7	4.5	7.3	14	39	57	73	63	44
10	9.7	8.9	3.9	5.5	4.5	7.1	14	37	67	74	63	44
11	9.9	8.5	4	5	4.6	7	13	41	57	79	64	42
12	9.9	8.1	4	5	4.7	6.7	16	42	48	70	61	40
13	10	8.4	4	5	5	6.4	17	40	44	66	57	39
14	9.7	8.6	4	5	5.2	6.3	19	36	42	66	54	41
15	11	7.7	4	5	5.3	6	20	36	45	63	51	39
16	10	7.2	4	5	5.4	6	20	36	47	77	49	37
17	9.7	9.5	4	5	5.5	6	21	38	52	84	53	35
18	9.6	6.8	4	5	5.7	6	22	37	67	66	80	33
19	9.6	8.7	4.2	4.9	5.8	6.3	20	38	59	62	144	32
20	9.3	8.8	4.3	4.8	6	7.3	19	41	50	63	143	33
21	8.7	7.9	4.4	4.7	6	6.9	20	45	56	58	128	41
22	8.5	4.7	4.6	4.6	6	7.4	20	46	60	67	112	40
23	8.5	4.1	4.7	4.6	6	7.8	19	43	53	138	101	37
24	8.5	5.2	5	4.6	6	8	18	42	52	211	90	37
25	8.5	5	5	4.6	6.2	7.7	20	46	57	175	82	36
26	8.2	4.9	5	4.6	6.5	7.5	19	45	80	144	78	36
27	10	4.7	5	4.6	6.8	7.9	20	41	89	130	99	35
28	9.2	4.5	5	4.6	7	6.4	22	41	92	127	89	40
29	8.9	4.3	5	4.6	7.2	5.5	22	43	89	126	81	36
30	9.5	4.1	5	4.5	---	6.3	22	41	103	117	74	47
31	7.5	---	5	4.5	---	6.5	---	39	---	106	69	---
TOTAL	299.3	225	134.1	152.3	154.7	218.8	486.9	1151	1707	2927	2555	1289
MEAN	9.7	7.5	4.3	4.9	5.3	7.1	16.2	37	57	94	82	43
AC-FT	594	446	266	302	307	434	966	2280	3390	5810	5070	2560
MAX	13	11	5	5.7	7.2	8.4	22	46	103	211	144	65
MIN	7.5	4.1	3.9	4.5	4.3	5.5	6.3	21	36	58	49	32

WTR YR 2004 TOTAL 11300.1 MEAN 30.9 MAX 211 MIN 3.9 AC-FT 22410

MAX DISCH: 249 CFS AT 01:30 ON Jul. 24, 2004 GH 4.75 FT. SHIFT 0 FT., Datum Correction +0.01  
MAX GH: 4.75 FT. AT 01:30 ON Jul. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

## DILLE TUNNEL (EAST PORTAL) NEAR DRAKE, CO

**LOCATION.**--Lat 40°25'10", long 105°14'45", NW¼NW¼ sec. 9, T.5 N., R.70 W., Larimer County. Diverts water from Big Thompson River and Transmountain diversions from Colorado River basin to Hansen Feeder Canal.

**GAGE.**--A-35 Stevens graphic recorder and 8004 Data Collection Platform (DCP) in a concrete shelter and well. The station is maintained by Northern Colorado Water Conservancy District personnel.

**REMARKS.**--The primary record is hourly DCP data with chart back-up. Chart record is checked daily when tunnel is in operation by Northern Colorado Water Conservancy District personnel. The record is complete and reliable. The chart record does not go completely to zero, presumably due to the size of the float. However, the encoder does record zero GH (and below) and is used to determine when zero discharge has occurred. Record is good. Flow at station is intermittent dependent on river flows, water orders, and other regulations. Station maintained and record developed by Merlin Friedrichsen.

**RATING TABLE.**--STD08FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

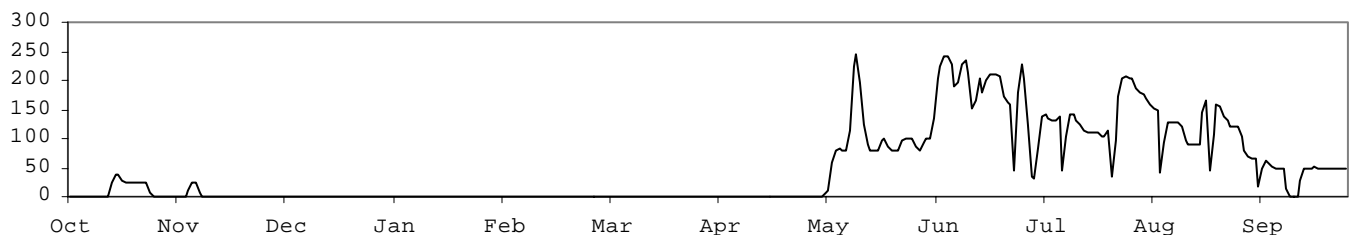
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.06	0	0	0	0	0	0	94	125	187	81
2	0	.04	0	0	0	0	0	0	99	35	180	68
3	0	.02	0	0	0	0	0	0	99	31	177	65
4	0	12	0	0	0	0	0	6.9	135	82	168	65
5	0	24	0	0	0	0	0	9.2	203	137	158	18
6	0	25	0	0	0	0	0	57	225	142	151	47
7	0	6.9	0	0	0	0	0	78	242	133	147	61
8	0	0	0	0	0	0	0	83	243	130	40	56
9	0	0	0	0	0	0	0	81	229	130	93	51
10	0	0	0	0	0	0	0	79	189	137	128	50
11	0	0	0	0	0	0	0	115	196	44	128	50
12	0	0	0	0	0	0	0	224	226	104	129	50
13	25	0	0	0	0	0	0	246	233	140	128	14
14	39	0	0	0	0	0	0	198	214	141	121	.31
15	39	0	0	0	0	0	0	125	152	132	97	.2
16	28	0	0	0	0	0	0	88	164	124	89	.13
17	23	0	0	0	0	0	0	81	204	114	89	27
18	24	0	0	0	0	0	0	80	180	111	90	49
19	24	0	0	0	0	0	0	80	199	111	91	49
20	24	0	0	0	0	0	0	96	209	111	144	50
21	24	0	0	0	0	0	0	100	211	111	166	51
22	24	0	0	0	0	0	0	85	209	105	46	50
23	24	0	0	0	0	0	0	80	207	102	106	49
24	7.3	0	0	0	0	0	0	80	174	115	158	49
25	.35	0	0	0	0	0	0	80	162	33	155	49
26	.35	0	0	0	0	0	0	95	160	98	139	49
27	.17	0	0	0	0	0	0	101	44	171	131	50
28	.1	0	0	0	0	0	0	101	178	205	122	50
29	.12	0	0	0	0	0	0	101	229	206	119	50
30	.11	0	0	0	---	0	0	85	203	204	119	50
31	.06	---	0	0	---	0	---	79	---	203	105	---
TOTAL	306.56	68.02	0	0	0	0	0	2714.1	5512	3767	3901	1348.64
MEAN	9.89	2.27	0	0	0	0	0	87.6	184	122	126	45
AC-FT	608	135	0	0	0	0	0	5380	10930	7470	7740	2680
MAX	39	25	0	0	0	0	0	246	243	206	187	81
MIN	0	0	0	0	0	0	0	0	44	31	40	.13

WTR YR 2004 TOTAL 17617.32 MEAN 48.1 MAX 246 MIN 0 AC-FT 34940

MAX DISCH: 261 CFS AT 22:45 ON May. 12, 2004 GH 3.69 FT. SHIFT 0 FT.

MAX GH: 3.69 FT. AT 22:45 ON May. 12, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





PLATTE RIVER BASIN

06738000 BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, CO

**LOCATION.**--Lat 40°25'18", long 105°13'34", in SW¼SW¼ sec. 3, T,5 N., R.70 W., Larimer County, Hydrologic Unit 10190006, on right bank at mouth of canyon, 400 ft upstream from Handy Ditch diversion dam, and 6.0 mi east of Drake.

**DRAINAGE AREA AND PERIOD OF RECORD.**--305 mi<sup>2</sup>; 1927-1933, 1938 to present.

**GAGE.**--A 60 inch by 72-inch pre-cast concrete shelter at concrete control section. The station is equipped with satellite monitoring and continuous chart recorder, both activated by a Stacom manometer. An outside wire-weight is used as the primary reference for the gage. This gage is simultaneously used by the State of Colorado, the USBR, NCWCD and the Home Supply Ditch.

**REMARKS.**--The primary record is hourly data, taken from satellite monitoring with chart back up. The chart does not operate independently from the DCP data but chart data is used to fill in when the DCP data is missed for any reason, or if the encoder slips its chain drive from the manometer. The record is good due to frequency of measurements & visits and the presence of an artificial control---except for the following periods which were estimated and considered poor: November 24, 2003 to March 4, 2004: when station was closed for winter; November 23, 2003-DCP failed and clock stopped. Station maintained and record developed by Merlin Friedrichsen.

**RATING TABLE.**--BTCANYCO16 USED FROM 01-OCT-2003 TO 24-NOV-2003  
 BTCANYCO16 USED FROM 04-MAR-2004 TO 30-SEP-2004

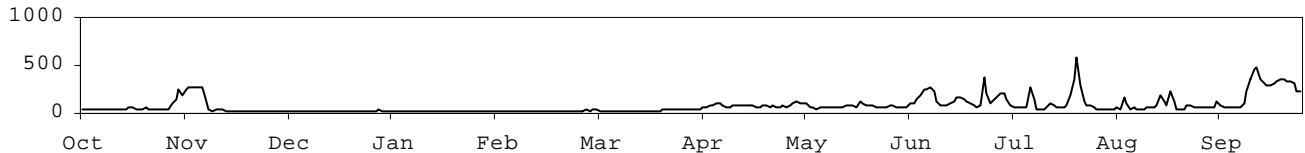
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	240	27	29	29	31	40	105	63	177	50	69
2	37	271	28	29	28	32	45	116	57	213	50	69
3	40	270	28	29	27	32	49	110	57	198	46	68
4	39	270	28	29	29	30	60	104	62	139	43	66
5	44	272	28	29	29	28	68	110	102	77	50	118
6	44	267	28	29	29	26	76	71	107	66	53	82
7	49	123	28	29	28	25	88	53	155	71	52	62
8	49	35	27	30	29	27	94	49	180	68	162	61
9	49	31	29	29	29	28	101	55	248	64	101	61
10	50	36	29	29	29	28	84	53	257	56	52	61
11	48	32	29	29	29	27	67	56	273	275	54	61
12	49	34	30	29	29	29	72	62	238	143	50	59
13	52	29	29	30	28	29	75	55	122	46	45	95
14	51	30	29	30	27	30	77	53	77	48	47	225
15	54	28	29	31	27	31	76	57	82	51	57	350
16	53	28	29	29	27	29	76	66	82	70	53	459
17	52	30	29	29	30	28	76	76	95	94	55	489
18	52	27	29	31	30	28	76	80	123	76	91	355
19	50	28	29	31	30	28	73	80	164	71	181	303
20	53	30	29	30	29	30	71	66	171	72	122	284
21	52	28	29	30	29	31	72	118	152	64	88	292
22	49	27	31	31	29	31	76	99	121	87	229	313
23	48	29	31	31	29	32	74	81	107	182	131	330
24	51	28	31	31	30	33	70	80	78	361	48	345
25	47	29	31	31	29	37	73	89	56	574	37	347
26	46	29	31	31	30	40	72	70	86	299	45	340
27	40	29	31	31	30	40	72	60	376	118	77	329
28	101	30	31	31	31	39	73	59	200	82	79	311
29	152	28	48	31	32	38	72	62	105	81	70	237
30	240	27	31	31	---	40	73	74	148	61	60	236
31	181	---	30	30	---	39	---	78	---	46	69	---
TOTAL	1966	2395	926	929	841	976	2171	2347	4144	4030	2347	6477
MEAN	63	80	30	30	29	32	72	76	138	130	76	216
AC-FT	3900	4750	1840	1840	1670	1940	4310	4660	8220	7990	4660	12850
MAX	240	272	48	31	32	40	101	118	376	574	229	489
MIN	37	27	27	29	27	25	40	49	56	46	37	59

WTR YR 2004 TOTAL 29549 MEAN 80.7 MAX 574 MIN 25 AC-FT 58610

MAX DISCH: 694 CFS AT 09:00 ON Jul. 25, 2004 GH 3.87 FT. SHIFT -0.01 FT.  
 MAX GH: 3.87 FT. AT 09:00 ON Jul. 25, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

BUCKHORN CREEK NEAR MASONVILLE, CO

**LOCATION.**--Lat 40°26'04", long 105°10'47", just downstream from Larimer County Road 24H bridge over Buckhorn Creek.

**DRAINAGE AREA.**--140mi<sup>2</sup>.

**GAGE.**--A-35 Stevens recorder and Data Collection Platform (DCP) with shaft encoder in a wooden shelter with inside electric tape. A High Data Rate DCP was installed during the 2003 water year to replace the old 8004 model. The DCP is the primary record with the graphic chart recorder as back up.

**REMARKS.**--The primary record is hourly date from satellite monitoring with chart back up. Daily maximum and minimum stages for the satellite record checked to within +0.02 with the chart. The record is complete and reliable. The chart was used during March 4-8, 11-18, 20-21, April 5-6, May 6-17, 2004 when the shaft encoder was experiencing incorrect/missing data. These periods were identified by the chart check and generally happened right before the shaft encoder was replaced. The record is good. Station maintained and record developed by Shera Sumerford and Div. I Personnel.

**RATING TABLE.**--BUCRMVCO07 USED FROM 01-OCT-2003 TO 12-NOV-2003  
 BUCRMVCO07 USED FROM 17-MAY-2004 TO 30-SEP-2004

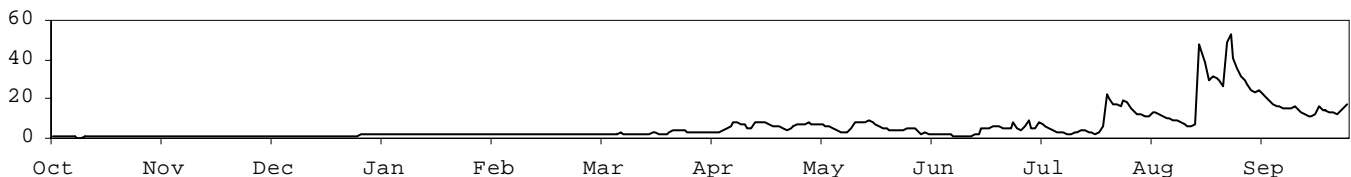
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	1.2	.68	1.6	1.7	1.7	2.9	8	3.5	6	13	30
2	.83	.68	.72	1.7	1.7	1.7	2.8	7.4	2.3	8.7	12	27
3	.77	.82	.83	1.7	1.7	2.3	2.9	7.6	2.8	4.8	12	24
4	.68	.83	.95	1.7	1.7	2	2.9	7.3	2.4	5.5	11	23
5	.68	.83	.98	1.7	1.7	2.2	2.8	7.1	2.2	8	11	24
6	.64	.82	.98	1.6	1.7	2	3	6	2	7.6	13	22
7	.65	.68	.98	1.6	1.7	2	4.3	6	1.8	6.1	13	21
8	.5	.67	.98	1.7	1.7	2	5	4.9	1.6	4.8	12	19
9	.49	.68	.98	1.6	1.7	2.9	5.8	3.9	1.8	3.6	11	17
10	.51	.67	.98	1.6	1.7	2.4	8.4	3.5	1.6	3.3	10	16
11	.52	.6	1.1	1.6	1.7	2	7.9	3.2	1.4	3.5	10	16
12	.53	.64	1.1	1.6	1.7	2	7.4	3.2	1.4	2.8	9.3	15
13	.67	.81	1.1	1.6	1.7	2	7.3	5	1.4	2.5	8.7	15
14	.68	.71	1.1	1.6	1.7	2	5.1	7.8	1.4	2.4	7.9	15
15	.85	.68	1.1	1.6	1.7	2	5.2	7.8	1.4	2.9	7.1	16
16	.98	.68	1	1.6	1.7	2	8.3	8.4	1.5	3.1	6.4	15
17	.95	.68	.98	1.6	1.7	2.5	8.6	8.1	1.7	3.9	5.9	13
18	.94	.68	1.1	1.6	1.7	2.7	8.4	8.7	2	4.5	6.8	12
19	.94	.67	1.1	1.6	1.8	2.9	7.9	8.1	5	3.5	48	11
20	.98	.68	1.1	1.6	1.7	2.5	7.3	7.3	5.1	2.9	45	11
21	.8	.66	1.1	1.6	1.7	2.2	5.8	6.3	5	2.5	39	12
22	.79	.68	1.2	1.6	1.7	2.5	5.7	5.4	5.7	2.8	30	16
23	.83	.68	1.3	1.6	1.7	2.7	5.7	4.6	5.8	6.5	32	14
24	.83	.64	1.3	1.6	1.7	3.6	4.8	3.7	5.6	22	31	14
25	1	.53	1.3	1.7	1.7	3.8	4.5	4.5	5	20	29	13
26	1.1	.53	1.4	1.6	1.7	3.8	5.1	4.4	4.6	17	26	13
27	.83	.68	1.6	1.6	1.8	3.9	5.8	4.5	5.1	17	49	12
28	.83	.68	1.6	1.7	1.9	3.3	7.1	4.4	8	16	53	14
29	.84	.72	1.6	1.7	1.9	3	7.4	4.7	5.5	19	41	15
30	1	.68	1.6	1.7	---	3.1	7.6	4.7	3.9	18	36	17
31	1.2	---	1.6	1.7	---	3	---	4.8	---	15	32	---
TOTAL	24.59	21.19	35.44	50.6	49.9	78.7	173.7	181.3	98.5	246.2	671.1	502
MEAN	.79	.71	1.14	1.6	1.7	2.5	5.8	5.9	3.3	7.9	21.6	17
AC-FT	49	42	70	100	99	156	345	360	195	488	1330	996
MAX	1.2	1.2	1.6	1.7	1.9	3.9	8.6	8.7	8	22	53	30
MIN	.49	.53	.68	1.6	1.7	1.7	2.8	3.2	1.4	2.4	5.9	11

WTR YR 2004 TOTAL 2133.22 MEAN 5.83 MAX 53 MIN .49 AC-FT 4230

MAX DISCH: 73.8 CFS AT 09:30 ON Aug. 19, 2004 GH 5.74 FT. SHIFT -0.16 FT.  
 MAX GH: 5.74 FT. AT 09:30 ON Aug. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

CHARLES HANSEN FEEDER CANAL BELOW BIG THOMPSON SIPHON NEAR DRAKE, CO

LOCATION.--Lat 40°25'20", long 105°13'33", SW¼SW¼ sec. 3, T.5 N., T.70 W., Larimer County.

GAGE.--Graphic chart recorder and 8210 DCP with shaft encoder in a precast concrete shelter. The station is maintained by Northern Colorado Water Conservancy District personnel.

REMARKS.--The primary record is hourly DCP data with the chart record as back-up. The record is complete and reliable, except for the following period: January 5, 6--DCP data bad and clock stopped. The below listed chart days were used to fill in missing or bad the DCP data: January 16-20; February 22, 23; April 5-6, 12-13; September 30 2004. The record is good, except for January 5 & 6 which are fair. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--HFCBBS017 USED FROM 01-OCT-2003 TO 30-SEP-2004

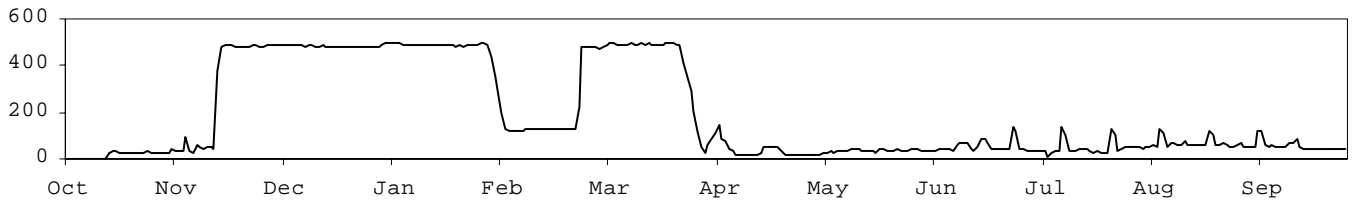
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	38	488	495	296	471	58	13	38	37	49	51
2	0	31	488	494	195	481	84	13	38	36	48	52
3	0	34	488	493	128	488	115	13	38	37	45	49
4	0	92	485	493	123	493	147	28	38	38	55	51
5	0	38	485	490	123	493	87	30	38	38	54	120
6	0	24	485	489	122	489	76	32	39	37	56	118
7	0	57	485	487	123	490	46	29	39	12	49	60
8	0	49	483	488	124	491	38	36	39	27	130	49
9	0	47	485	487	126	490	21	37	39	38	110	56
10	0	48	487	489	130	493	19	34	38	37	55	52
11	0	48	483	489	130	492	20	36	60	140	68	52
12	0	46	480	486	130	491	20	44	69	102	70	52
13	24	373	486	487	131	493	16	40	69	35	60	50
14	34	480	483	486	131	490	14	39	67	36	64	67
15	37	487	478	487	132	493	14	38	47	37	73	67
16	27	488	476	489	131	490	29	38	38	41	64	85
17	22	488	480	487	131	492	50	38	52	39	63	53
18	23	483	483	487	129	490	52	38	89	46	60	44
19	24	478	483	487	131	487	52	29	89	38	58	45
20	24	482	484	482	131	495	52	39	68	30	60	46
21	24	482	481	487	130	493	51	39	45	36	61	46
22	24	482	477	479	128	494	31	38	39	26	120	45
23	24	488	482	486	127	489	16	38	39	25	101	45
24	38	485	482	489	225	488	13	38	42	25	61	45
25	29	484	481	489	477	414	13	39	39	128	57	45
26	22	480	481	492	478	353	13	38	39	99	67	45
27	22	488	478	495	477	289	13	38	139	35	63	45
28	24	485	479	494	478	208	13	38	116	43	53	46
29	27	488	479	492	478	117	13	39	42	48	55	45
30	29	488	488	434	---	49	13	39	40	48	59	45
31	39	---	500	355	---	29	---	39	---	48	65	---
TOTAL	517	9161	14983	14964	5795	13215	1199	1067	1612	1442	2053	1671
MEAN	16.7	305	483	483	200	426	40	34	54	47	66	56
AC-FT	1030	18170	29720	29680	11490	26210	2380	2120	3200	2860	4070	3310
MAX	39	488	500	495	478	495	147	44	139	140	130	120
MIN	0	24	476	355	122	29	13	13	38	12	45	44

WTR YR 2004 TOTAL 67679 MEAN 185 MAX 500 MIN 0 AC-FT 134200

MAX DISCH: 505 CFS AT 15:30 ON Dec. 30, 2003 GH 6.34 FT. SHIFT 0 FT.  
MAX GH: 6.34 FT. AT 15:30 ON Dec. 30, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06738100 CHARLES HANSEN FEEDER CANAL WASTEWAY TO BIG THOMPSON NEAR DRAKE, CO

LOCATION.--Lat 40°25'11", long 105°13'30", NE¼NW¼ sec. 10, T.5 N., R.70 W., Larimer County.

GAGE.--Graphic water-stage recorder with satellite telemetry in concrete shelter with supplemental outside staff gage at 15' Parshall flume. Station maintained by N.C.W.C.D.

REMARKS.--The primary record is hourly discharge data collected by the DCP with the graphic chart as backup. The record is complete and reliable except for: November 19 and 20, 2003, when the DCP turned off for 24 hours and chart clock stopped. Record is good, except for November 19 & 20 which were estimated when data was lost for the end of flow for 2003. The peak flow of 594 cfs is considered estimated as it was recorded on the chart as a spike lasting for only few minutes. It was not known if the spike represented actual water or arose from some operational condition. The flow at station is intermittent depending on operation of power plant and the flow north. The wasteway serves as both a safety valve and delivery system returning water back to the Big Thompson River. Record developed by Merlin Friedrichsen.

RATING TABLE.--HFCWASCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

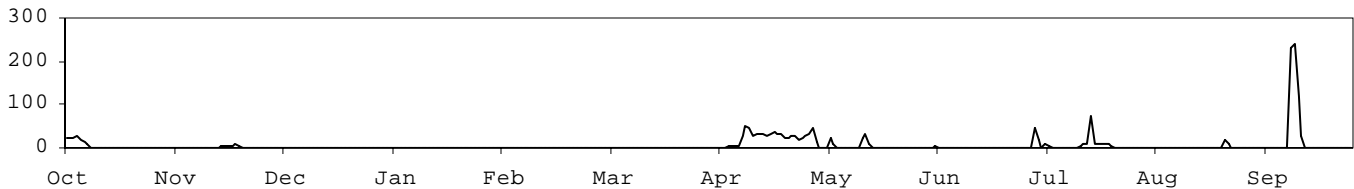
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	0	0	0	0	0	0	14	0	0	0	0
2	24	0	0	0	0	0	0	0	0	45	0	0
3	25	0	0	0	0	0	0	0	0	20	0	0
4	27	0	0	0	0	0	0	0	5.5	0	0	0
5	20	0	0	0	0	0	0	22	0	7.2	0	0
6	14	0	0	0	0	0	2.7	9.4	0	3	0	0
7	7.6	0	0	0	0	0	4.1	0	0	0	0	0
8	0	0	0	0	0	0	4.7	0	0	0	0	0
9	0	0	0	0	0	0	4.8	0	0	0	0	0
10	0	0	0	0	0	0	27	0	0	0	0	0
11	0	0	0	0	0	0	51	0	0	0	0	0
12	0	0	0	0	0	0	45	0	0	0	0	0
13	0	0	0	0	0	0	30	0	0	0	0	229
14	0	4	0	0	0	0	31	22	0	0	0	240
15	0	6.7	0	0	0	0	31	31	0	6.3	0	122
16	0	6.7	0	0	0	0	34	9.5	0	8.5	0	26
17	0	6.7	0	0	0	0	30	0	0	8.8	0	0
18	0	9.6	0	0	0	0	32	0	0	72	0	0
19	0	3.6	0	0	0	0	35	0	0	9.1	0	0
20	0	0	0	0	0	0	34	0	0	8.7	0	0
21	0	0	0	0	0	0	33	0	0	8.8	0	0
22	0	0	0	0	0	0	24	0	0	8.9	0	0
23	0	0	0	0	0	0	25	0	0	8.9	0	0
24	0	0	0	0	0	0	27	0	0	2.6	0	0
25	0	0	0	0	0	0	26	0	0	0	17	0
26	0	0	0	0	0	0	20	0	0	0	7.4	0
27	0	0	0	0	0	0	21	0	0	0	0	0
28	0	0	0	0	0	0	27	0	0	0	0	0
29	0	0	0	0	0	0	34	0	0	0	0	0
30	0	0	0	0	---	0	45	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	138.6	37.3	0	0	0	0	678.3	107.9	5.5	217.8	24.4	617
MEAN	4.47	1.24	0	0	0	0	22.6	3.48	.18	7.03	.79	20.6
AC-FT	275	74	0	0	0	0	1350	214	11	432	48	1220
MAX	27	9.6	0	0	0	0	51	31	5.5	72	17	240
MIN	0	0	0	0	0	0	0	0	0	0	0	0

WTR YR 2004 TOTAL 1826.8 MEAN 4.99 MAX 240 MIN 0 AC-FT 3620

MAX DISCH: 594 CFS AT 13:30 ON Jul. 18, 2004 GH 4.08 FT. SHIFT 0 FT.  
MAX GH: 4.08 FT. AT 13:30 ON Jul. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06738100 CHARLES HANSEN FEEDER CANAL POWER PLANT TO BIG THOMPSON RIVER  
NEAR DRAKE, CO

LOCATION.--Lat 40°25'15", long 105°13'30", NE¼NW¼ sec. 10, T.5 N., R.70 W., Larimer County.

GAGE.--Graphic water-stage recorder and 8210 Data Collection Platform(DCP) connected to a flow meter directly connected to the power turbine. The station is maintained by the U.S.B.R. personnel.

REMARKS.--The primary record is hourly discharge data collected by the DCP with graphic chart as a backup. The chart was not well maintained this year--it was not started at start of flow, had a few missing days in August, and had the time set incorrectly most of the year. The record is complete and reliable except for: April 27, 28, & 30, 2004, when a few hours went negative and there was no chart to verify if these were zero hours or bad DCP transmission. Presuming that the meter calibration is good, the record is good except for April 27, 28 & 30 which are poor due to a few bad hours of questionable data each day. The flow at station is intermittent dependent on available river flows, water orders and other regulations. Station maintained and record developed by Division I personnel.

RATING TABLE.--STCONVERT USED FROM 01-OCT-2003 TO 30-SEP-2004

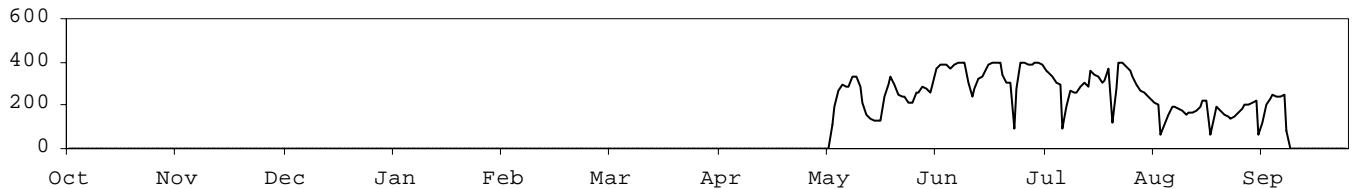
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	3	286	391	296	204
2	0	0	0	0	0	0	0	3	274	392	267	205
3	0	0	0	0	0	0	0	2.8	259	393	259	214
4	0	0	0	0	0	0	0	2.8	292	393	253	218
5	0	0	0	0	0	0	0	2.7	369	386	231	65
6	0	0	0	0	0	0	.75	108	392	359	215	118
7	0	0	0	0	0	0	2.4	193	391	349	204	206
8	0	0	0	0	0	0	3	266	390	330	62	231
9	0	0	0	0	0	0	3	300	366	309	108	253
10	0	0	0	0	0	0	3	284	391	298	160	244
11	0	0	0	0	0	0	3	285	393	90	191	236
12	0	0	0	0	0	0	3	334	393	193	194	251
13	0	0	0	0	0	0	3	336	393	270	187	80
14	0	0	0	0	0	0	2.9	290	304	257	180	2.2
15	0	0	0	0	0	0	3	211	241	256	156	2.3
16	0	0	0	0	0	0	2.8	160	281	290	162	2.3
17	0	0	0	0	0	0	2.8	136	322	303	169	1.7
18	0	0	0	0	0	0	2.6	125	334	282	179	2
19	0	0	0	0	0	0	2.8	131	373	360	196	2
20	0	0	0	0	0	0	2.8	133	391	342	222	2
21	0	0	0	0	0	0	2.7	238	394	329	224	2
22	0	0	0	0	0	0	3	295	394	308	68	2
23	0	0	0	0	0	0	3	331	394	316	148	2
24	0	0	0	0	0	0	3	293	343	372	193	2
25	0	0	0	0	0	0	3	245	309	118	177	2
26	0	0	0	0	0	0	3	237	303	280	161	2
27	0	0	0	0	0	0	2.8	241	90	394	145	2
28	0	0	0	0	0	0	2.7	210	278	394	142	1.7
29	0	0	0	0	0	0	2.7	209	393	383	151	2.1
30	0	0	0	0	---	0	3	260	394	358	162	2
31	0	---	0	0	---	0	---	258	---	335	187	---
TOTAL	0	0	0	0	0	0	69.75	6123.3	10127	9830	5649	2559.3
MEAN	0	0	0	0	0	0	2.33	198	338	317	182	85.3
AC-FT	0	0	0	0	0	0	138	12150	20090	19500	11200	5080
MAX	0	0	0	0	0	0	3	336	394	394	296	253
MIN	0	0	0	0	0	0	0	2.7	90	90	62	1.7

WTR YR 2004 TOTAL 34358.35 MEAN 93.9 MAX 394 MIN 0 AC-FT 68150

MAX DISCH: 398 CFS AT 06:00 ON Jun. 11, 2004 GH N/A. SHIFT 0 FT.  
MAX GH: N/A (METERED DISCHARGE)

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

BOULDER CREEK FEEDER CANAL NEAR LYONS, CO

LOCATION.--Lat 40°12'58", long 105°15'28", NE¼NW¼ sec. 20, T.3 N., R.70 W., Boulder County.

DRAINAGE AREA.--N/A

GAGE.--A-35 Stevens chart recorder in a 6 x 8 concrete shelter with supplemental outside staff gage. The gage has a Sutron data collection platform (DCP) with a High Data Rate Logger and a digital shaft encoder. The station is maintained by NCWCD personnel.

REMARKS.--The primary record is the hourly DCP data with chart backup. The record is complete and reliable, except for April 5 & 6 which missed record when both the DCP and the chart were not started properly. Water was run October 1 thru October 31, 2003 and April 5 to September 30, 2004. This record will soon become part of Colorado Division of Water Resources Water District 5 Diversion Data. At that time it will no longer be published as part of Colorado Streamflow Data. Record developed by Merlin Friedrichsen.

RATING TABLE.--BFCLYOCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

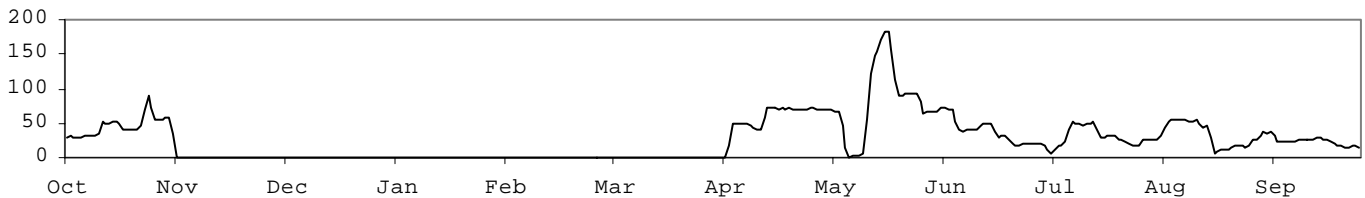
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	0	0	0	0	0	0	71	66	19	25	25
2	31	0	0	0	0	0	0	71	66	19	25	31
3	30	0	0	0	0	0	0	71	68	17	26	37
4	30	0	0	0	0	0	0	69	72	12	25	36
5	30	0	0	0	0	0	17	68	72	6.1	33	38
6	32	0	0	0	0	0	50	66	71	11	44	32
7	33	0	0	0	0	0	50	46	69	17	52	23
8	31	0	0	0	0	0	50	15	52	17	55	24
9	31	0	0	0	0	0	50	.78	40	22	56	22
10	34	0	0	0	0	0	49	4	39	41	55	23
11	51	0	0	0	0	0	47	3.4	40	52	56	24
12	48	0	0	0	0	0	43	3.6	41	50	56	23
13	49	0	0	0	0	0	40	4.8	41	49	52	25
14	52	0	0	0	0	0	42	55	40	46	53	27
15	53	0	0	0	0	0	58	122	47	48	54	25
16	49	0	0	0	0	0	73	147	48	49	49	25
17	41	0	0	0	0	0	73	155	48	52	44	25
18	41	0	0	0	0	0	72	171	49	40	46	28
19	42	0	0	0	0	0	70	184	39	29	30	28
20	42	0	0	0	0	0	72	184	30	30	7.2	27
21	41	0	0	0	0	0	71	157	31	32	9.5	25
22	45	0	0	0	0	0	72	114	32	31	11	23
23	71	0	0	0	0	0	71	90	25	32	11	19
24	91	0	0	0	0	0	71	90	21	27	11	18
25	72	0	0	0	0	0	70	92	18	25	15	17
26	55	0	0	0	0	0	70	93	18	24	17	14
27	55	0	0	0	0	0	71	92	19	20	17	15
28	56	0	0	0	0	0	72	94	19	18	18	18
29	57	0	0	0	0	0	72	81	19	16	14	17
30	58	0	0	0	---	0	71	65	19	16	16	15
31	36	---	0	0	---	0	---	66	---	25	27	---
TOTAL	1417	0	0	0	0	0	1567	2545.58	1259	892.1	1009.7	729
MEAN	46	0	0	0	0	0	52.2	82.1	42	28.8	32.6	24
AC-FT	2810	0	0	0	0	0	3110	5050	2500	1770	2000	1450
MAX	91	0	0	0	0	0	73	184	72	52	56	38
MIN	30	0	0	0	0	0	0	.78	18	6.1	7.2	14

WTR YR 2004 TOTAL 9419.38 MEAN 25.7 MAX 184 MIN 0 AC-FT 18680

MAX DISCH: 191 CFS AT 16:30 ON May. 20, 2004 GH 2.64 FT. SHIFT 0 FT.  
MAX GH: 2.64 FT. AT 16:30 ON May. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

ST. VRAIN SUPPLY CANAL NEAR LYONS, CO

LOCATION.--Lat 40°13'05", long 105°15'35", NE¼NW¼ sec. 20, T.3 N., R.70 W., Boulder County.

DRAINAGE AREA.--N/A

GAGE.--A-35 Stevens's recorder in a 36-inch galvanized shelter with supplemental outside staff gage. An 8210 Sutron data collection platform (DCP) and shaft encoder was installed in 1997. The station is maintained by NCWCD personnel.

REMARKS.--The primary record is hourly DCP data with chart backup. The record is complete and reliable except for: June 2-3-A few hours each day was estimated to delete the spikes in the record. The chart maximum GH of 2.22 on August 19 was used as it recorded a slightly higher value than the DCP for the sharp peak. Zero flow was presumed to occur at GH's of 0.1 ft. or less. The canal was in use from October 1, 2003 to October 31, 2003 and April 5, 2004 to September 30, 2004. The record is good. This record will soon be kept as part of Water District 5 Diversion Data. At that time it will no longer be published as part of Colorado Streamflow Data. Station maintained and record developed by Merlin Friedrichsen.

RATING TABLE.--SVSLYOCO05 USED FROM 01-OCT-2003 TO 30-SEP-2004

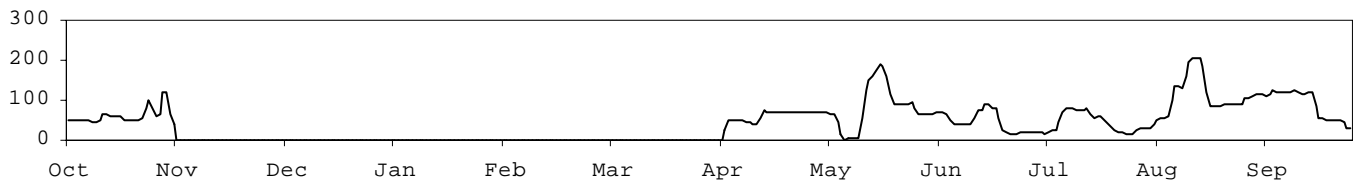
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	0	0	0	0	0	0	71	64	18	29	105
2	49	0	0	0	0	0	0	71	64	18	29	111
3	48	0	0	0	0	0	0	71	66	22	29	116
4	49	0	0	0	0	0	0	69	70	21	30	115
5	48	0	0	0	0	0	26	67	70	16	40	117
6	49	0	0	0	0	0	48	65	69	20	50	110
7	49	0	0	0	0	0	49	46	66	27	55	113
8	47	0	0	0	0	0	48	14	51	27	57	123
9	46	0	0	0	0	0	49	.77	40	43	58	121
10	50	0	0	0	0	0	48	4	38	71	101	122
11	66	0	0	0	0	0	46	3.5	38	81	136	121
12	64	0	0	0	0	0	43	3.5	38	78	135	120
13	60	0	0	0	0	0	39	4.6	38	78	132	121
14	61	0	0	0	0	0	41	57	38	75	161	124
15	62	0	0	0	0	0	57	125	56	76	197	119
16	58	0	0	0	0	0	73	152	74	77	204	115
17	51	0	0	0	0	0	72	160	74	79	203	116
18	51	0	0	0	0	0	72	176	88	67	207	120
19	51	0	0	0	0	0	70	188	89	56	187	119
20	51	0	0	0	0	0	72	186	81	58	122	85
21	49	0	0	0	0	0	71	159	81	61	85	53
22	54	0	0	0	0	0	72	114	55	50	86	53
23	81	0	0	0	0	0	71	90	24	40	85	49
24	99	0	0	0	0	0	70	90	20	29	84	49
25	78	0	0	0	0	0	70	91	17	24	89	48
26	61	0	0	0	0	0	70	92	17	22	90	50
27	63	0	0	0	0	0	70	90	17	18	91	51
28	119	0	0	0	0	0	71	93	18	17	90	43
29	118	0	0	0	0	0	72	80	18	15	88	32
30	67	0	0	0	---	0	71	63	18	16	92	28
31	39	---	0	0	---	0	---	64	---	27	105	---
TOTAL	1886	0	0	0	0	0	1561	2560.37	1497	1327	3147	2769
MEAN	61	0	0	0	0	0	52	82.6	50	43	102	92
AC-FT	3740	0	0	0	0	0	3100	5080	2970	2630	6240	5490
MAX	119	0	0	0	0	0	73	188	89	81	207	124
MIN	39	0	0	0	0	0	0	.77	17	15	29	28

WTR YR 2004 TOTAL 14747.37 MEAN 40.3 MAX 207 MIN 0 AC-FT 29250

MAX DISCH: 219 CFS AT 10:15 ON Aug. 19, 2004 GH 2.22 FT. SHIFT 0 FT.  
MAX GH: 2.22 FT. AT 10:15 ON Aug. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

## LITTLE THOMPSON RIVER @ CANYON MOUTH NEAR BERTHOUD, CO

**LOCATION.**--Lat 40°15'29", long 105°12'21", SW¼NW¼ sec. 2, T. 3 N., 70 W., Boulder County, on the left bank, at the mouth of the Canyon, 1800 ft. upstream from the Culver Ditch Diversion and 8.5 mi. southwest of Berthoud, Co.

**DRAINAGE AREA.**--100 mi<sup>2</sup>.

**GAGE.**--Graphic water stage recorder with satellite monitoring in a 42" metal well. The drop tape is the primary reference. The DCP is the primary record.

**REMARKS.**--The hourly satellite record is the primary record with chart as back up. Daily maximum and minimum stages for the satellite record checked to be within +0.02 with the chart. The chart was used during October through May due to shaft encoder problems. (The encoder was replaced twice and its float was also replaced). Once the encoder was finally fixed, it worked without corrections for the rest of the year, June through September. Record is complete, reliable and good, except for the following periods: November 10, 2003 and March 9, 2004 which were estimated and should be considered poor, since only partial record existed for closing and opening days. The instantaneous peak flow of 358 cfs on July 24 is also considered an estimate. This gage is a partial year station that is closed in the winter months. Station maintained and record developed by Sherea Sumerford and Div. I Personnel.

**RATING TABLE.**--LTCANYCO12 USED FROM 01-OCT-2003 TO 10-NOV-2003  
LTCANYCO12 USED FROM 09-MAR-2004 TO 30-SEP-2004

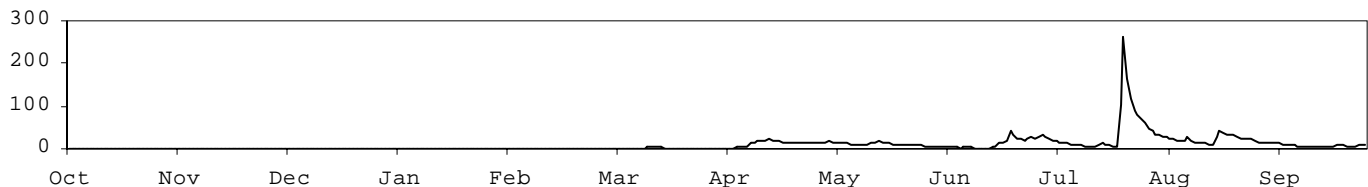
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.96	-	-	-	-	2.1	15	4.7	33	40	15
2	.53	.96	-	-	-	-	2.1	17	4.3	29	34	14
3	.52	1.5	-	-	-	-	2.3	16	4.1	25	32	12
4	.49	.57	-	-	-	-	2.3	15	3.8	21	28	12
5	.48	.53	-	-	-	-	2.1	14	3.5	18	26	13
6	.47	.53	-	-	-	-	2.6	13	3.3	16	25	12
7	.47	.53	-	-	-	-	2.8	12	2.7	15	23	11
8	.49	.62	-	-	-	-	3	11	2.3	13	20	9.3
9	.51	.57	-	-	-	.96	3.7	9.3	3.4	11	17	8.1
10	.52	.53	-	-	-	1.3	12	9.2	3.7	10	17	7.3
11	.62	-	-	-	-	1.8	14	8.6	2.7	9.3	29	6.6
12	.66	-	-	-	-	2.6	17	8.9	2.3	8.3	20	6.1
13	.74	-	-	-	-	4.8	17	11	2.1	6.9	16	5.8
14	.79	-	-	-	-	4.6	20	13	1.7	6.1	14	5.6
15	.87	-	-	-	-	3.1	22	15	1.4	5.9	13	5.1
16	.89	-	-	-	-	2.4	21	17	1.6	6.4	12	5.2
17	.96	-	-	-	-	2.1	20	15	2.4	11	10	4.7
18	.96	-	-	-	-	1.9	18	13	5.6	12	10	3.9
19	.89	-	-	-	-	1.7	16	12	16	9.1	30	3.5
20	.89	-	-	-	-	1.7	14	11	15	7.3	41	3.3
21	.89	-	-	-	-	1.7	13	10	17	6.6	38	4.5
22	.96	-	-	-	-	1.8	14	9.8	44	7	34	8.5
23	.89	-	-	-	-	1.9	15	9.2	32	101	34	9
24	.81	-	-	-	-	1.9	14	8.6	25	264	32	7.2
25	.8	-	-	-	-	1.7	14	8.9	22	165	28	5.9
26	.81	-	-	-	-	1.8	16	10	21	115	24	5.3
27	.81	-	-	-	-	1.9	14	9.2	25	88	25	4.7
28	.81	-	-	-	-	1.9	13	7.7	28	78	25	11
29	.81	-	-	-	-	2	13	7	25	70	22	8.3
30	.89	-	-	-	---	2	14	6.2	28	59	18	10
31	.96	---	-	-	---	2.1	---	5.5	---	49	16	---
TOTAL	22.76	7.3	-	-	-	49.66	354	348.1	353.6	1275.9	753	237.9
MEAN	.73	.24	-	-	-	1.6	11.8	11.2	11.8	41.2	24	7.9
AC-FT	45	14	-	-	-	99	702	690	701	2530	1490	472
MAX	.96	1.5	-	-	-	4.8	22	17	44	264	41	15
MIN	.47	-	-	-	-	-	2.1	5.5	1.4	5.9	10	3.3

WTR YR 2004 (PARTIAL YEAR) TOTAL 3402.22 MEAN 9.3 MAX 264 MIN - AC-FT 6750

MAX DISCH: 358 CFS AT 03:15 ON Jul. 24, 2004 GH 4.95 FT. SHIFT -0.3 FT.  
MAX GH: 4.95 FT. AT 03:15 ON Jul. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





PLATTE RIVER BASIN

06744000 BIG THOMPSON RIVER AT MOUTH NEAR LA SALLE, CO

**LOCATION.**--Lat 40°21'00", long 104°47'04", in SW1/4, SE1/4, Sec. 33, T.5N., R.66 W., Weld County, CO, on left bank just southeast of gage on Evans Town Ditch, 0.7 miles upstream from bridge on WCR 396, 1.6 miles upstream from mouth and 4 miles West of LaSalle, CO.

**DRAINAGE AREA AND PERIOD OF RECORD.**--828 mi<sup>2</sup>; 1951 to present.

**GAGE.**--8210 data collection platform and a graphic recorder as backup, in wooden shelter with galvanized well section. The drop tape is the primary reference with a supplemental outside chain gage.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart back up. The record is complete. The record is good except for the following days which are estimated and poor due to ice: November 23-24; December 12, 13, 16, 29, 30, 2003; January 6-8, 26-27; February 7-10, 2004. Also the low flow of April 16 should be considered estimated and poor due to lack of any measurements below 7 cfs in recent years. Station maintained and record developed by Shera Sumnerford and Div. I personnel.

**RATING TABLE.**--BIGLASCO25 USED FROM 01-OCT-2003 TO 30-SEP-2004

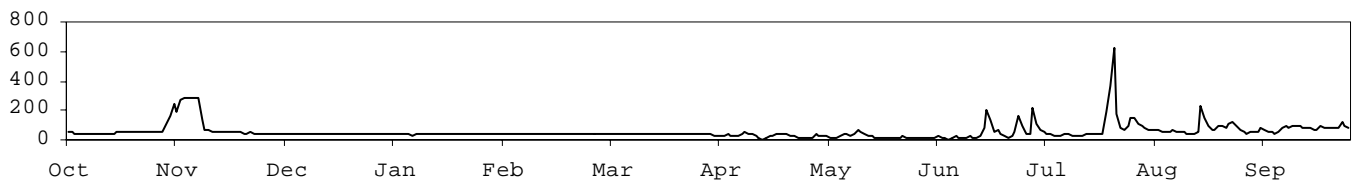
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	196	43	36	39	40	34	44	13	46	108	45
2	52	273	43	36	38	40	31	32	13	215	101	49
3	42	288	43	37	38	40	32	25	19	103	85	51
4	44	289	42	37	38	40	32	23	19	63	69	50
5	45	288	42	36	38	43	31	17	21	59	64	77
6	47	290	42	36	38	42	35	10	18	47	69	66
7	43	287	43	33	38	40	32	12	8.7	40	70	48
8	44	130	44	38	38	40	31	27	6.1	32	58	57
9	41	72	44	37	38	40	33	37	11	32	50	44
10	42	63	44	37	38	39	44	39	21	32	53	49
11	39	58	44	37	38	39	52	26	16	36	69	87
12	42	55	43	39	40	39	45	36	15	34	56	89
13	42	53	42	38	39	39	43	65	20	24	54	82
14	39	52	41	37	40	39	27	50	21	22	49	96
15	52	50	41	36	38	38	9.5	38	19	21	47	98
16	57	50	40	36	38	37	4.3	31	16	22	43	93
17	57	49	40	36	38	36	14	21	30	46	39	88
18	57	49	40	37	38	37	21	18	81	45	58	83
19	54	48	38	37	39	37	23	14	210	36	224	79
20	54	47	39	38	38	36	39	10	137	41	154	69
21	54	46	38	37	37	36	35	11	57	39	98	70
22	55	48	37	37	37	37	38	15	71	42	67	94
23	56	46	37	38	38	38	47	16	46	187	68	86
24	55	47	37	37	38	38	32	7.6	30	370	89	75
25	55	47	37	38	37	38	23	10	18	627	95	83
26	57	44	36	38	39	37	15	26	23	179	84	83
27	57	42	36	38	41	37	11	17	53	81	105	79
28	52	42	36	39	42	37	7.3	14	162	63	118	119
29	108	42	36	38	41	37	6.8	17	92	95	100	90
30	163	42	36	38	---	36	18	18	46	151	66	75
31	246	---	37	39	---	37	---	20	---	144	54	---
TOTAL	1901	3133	1241	1151	1119	1189	845.9	746.6	1312.8	2974	2464	2254
MEAN	61	104	40	37	39	38	28.2	24.1	43.8	96	80	75
AC-FT	3770	6210	2460	2280	2220	2360	1680	1480	2600	5900	4890	4470
MAX	246	290	44	39	43	43	52	65	210	627	224	119
MIN	39	42	36	33	37	36	4.3	7.6	6.1	21	39	44

WTR YR 2004 TOTAL 20331.3 MEAN 55.5 MAX 627 MIN 4.3 AC-FT 40330

MAX DISCH: 691 CFS AT 04:00 ON Jul. 25, 2004 GH 3.75 FT. DATUM CORRECTION +0.01 SHIFT -0.07 FT.  
MAX GH: 3.75 FT. AT 04:00 ON Jul. 25, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06752000 CACHE LA POUFRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, CO

**LOCATION.**--Lat 40°39'52", long 105°13'26", in NW¼ sec. 15, T.8 N., R.70 W., Larimer County, Hydrologic Unit 10190007, on left bank at mouth of canyon, 0.5 mi downstream from headgate of Poudre Valley Canal, 1.2 mi upstream from Lewistone Creek, and 9.3 mi northwest of courthouse in Fort Collins.

**DRAINAGE AREA AND PERIOD OF RECORD.**--1,056 mi<sup>2</sup>. Sporadic and somewhat unreliable data from June 1881 to Aug. 1883. Reliable data from Oct. 1883 to current year. Periodic water-quality data from 1962 to 1995.

**GAGE.**--Stevens F-type water stage recorder and satellite monitoring in a concrete shelter and stilling well. The 8004 DCP was replaced September 24, 2004 with a Satlink logger with speech card. There is a supplemental chain gage.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart as back up. The record is complete and reliable except for the following periods. November 18-30, December 1,4-6, and 8-15 were ice affected; December 16-31, January 1-31, February 1-22 the station was closed. Flows were estimated. Mean daily chart values were used October 26, 2003 and April 4, 2004 to correct for Daylight Savings Time. The record is good, except for the estimated periods and when the station was closed. Station maintained and record developed by George Sievers.

**RATING TABLE.**--CLAFTCC011 USED FROM 01-OCT-2003 TO 16-DEC-2003 (STATION CLOSED 16-DEC-2004)  
 CLAFTCC011 USED FROM 23-FEB-2004 TO 30-SEP-2004 (STATION REOPENED 23-FEB-2004)

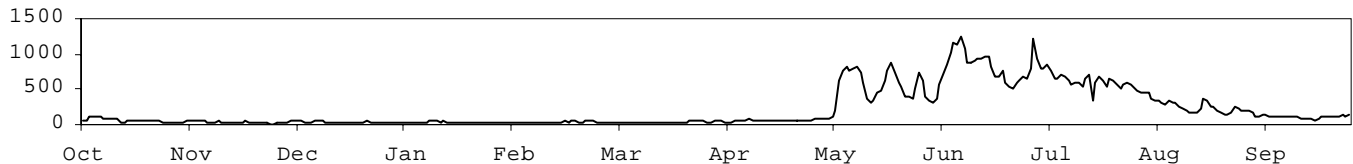
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	46	59	28	25	34	55	97	330	1210	441	186
2	46	54	52	33	24	27	48	85	304	932	450	176
3	108	56	47	40	24	25	42	79	381	784	442	121
4	122	52	36	34	30	30	38	113	575	798	375	107
5	110	44	30	28	32	33	35	202	719	861	338	129
6	105	31	29	19	31	28	48	631	849	771	338	135
7	95	38	49	26	26	27	51	765	1030	659	308	116
8	88	40	45	38	24	34	51	814	1160	649	293	109
9	86	44	44	53	24	41	59	762	1120	703	332	110
10	85	42	29	43	19	40	72	803	1250	684	324	104
11	80	42	20	43	21	32	48	823	1080	626	311	106
12	40	36	21	40	21	34	49	741	870	570	268	109
13	37	34	21	44	22	39	51	595	871	601	224	102
14	43	42	27	37	19	34	52	371	907	591	184	111
15	56	40	38	35	22	34	52	305	928	536	174	112
16	54	36	35	29	25	34	52	330	930	640	163	95
17	53	43	28	29	68	32	50	462	951	712	169	85
18	54	32	28	27	36	31	53	487	953	343	228	80
19	53	20	32	26	64	33	58	612	815	589	379	72
20	52	41	32	25	46	35	52	765	672	681	334	69
21	52	36	38	28	28	37	57	871	675	631	264	97
22	51	38	46	33	25	37	63	724	757	537	242	127
23	45	31	26	27	48	38	64	588	599	661	196	112
24	31	12	31	31	48	43	62	529	538	626	162	106
25	29	12	38	32	62	46	65	402	510	569	141	113
26	33	20	41	23	40	47	69	390	589	507	130	120
27	25	24	30	19	34	47	63	357	615	562	166	123
28	23	27	25	24	31	48	65	500	678	590	254	144
29	27	32	24	23	31	42	85	734	665	577	235	114
30	33	45	19	27	---	36	97	636	799	497	202	128
31	48	---	27	27	---	46	---	391	---	474	191	---
TOTAL	1814	1090	1047	971	950	1124	1706	15964	23120	20171	8258	3418
MEAN	59	36	34	31	33	36	57	515	771	651	266	114
AC-FT	3600	2160	2080	1930	1880	2230	3380	31660	45860	40010	16380	6780
MAX	122	56	59	53	68	48	97	871	1250	1210	450	186
MIN	23	12	19	19	19	25	35	79	304	343	130	69

WTR YR 2004 TOTAL 79633 MEAN 218 MAX 1250 MIN 12 AC-FT 158000

MAX DISCH: 1600 CFS AT 05:00 ON Jul. 1, 2004 GH 4.31 FT. SHIFT -0.01 FT.  
 MAX GH: 4.31 FT. AT 05:00 ON Jul. 1, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06752500 CACHE LA POUDDRE RIVER NEAR GREELEY, CO

**LOCATION.**--Lat 40°25'04", long 104°39'22", in NW¼ sec. 11, T.5 N., R.65 W., Weld County, Hydrologic Unit 10190007, on right bank 15 ft. downstream from highway bridge, 2.9 mi east of courthouse in Greeley, and 3.0 mi upstream from mouth.

**DRAINAGE AREA.**--1,877 mi<sup>2</sup>.

**GAGE.**--Stevens A-35 water stage recorder and satellite monitoring DCP with shaft encoder in a 48-inch metal shelter and well. The DCP was upgraded from an 8004 to a new 8210 with hourly transmissions on August 27, 2003. The outside gage is a wire weight on the bridge above the station, and some distance from the inlets. Elevation of gage is 4,610 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Primary record is taken from the hourly satellite gage readings and is mostly complete. The A-35 chart values were used October 26,2003 and April 4, 2004. These two days were the end and beginning of daylight savings time. There were two periods when the satellite data was incomplete, October 31, and April 4-6. Chart values were entered into the records program spreadsheet on these 4 days. Due to a firmware problem between the Sutron 8210 DCP and the new Satlink (Hourly) transmitter, the data was logged throughout the year 1 hour fast. In record development a new textfile of yearly primary values was created with the correct time stamp, and loaded into the record spreadsheet. The record is fair because of the condition of the channel. Station maintained and record developed by George Sievers.

**RATING TABLE.**--CLAGRECO26 USED FROM 01-OCT-2003 TO 30-SEP-2004

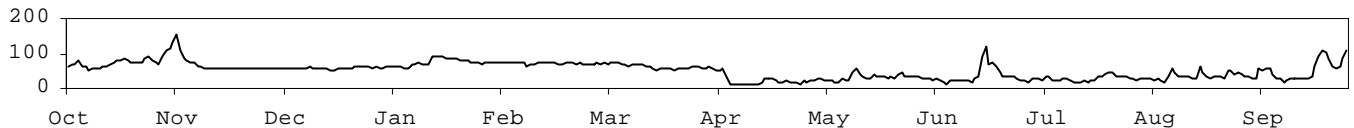
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	152	58	61	74	68	61	24	31	20	25	36
2	69	106	58	62	72	74	58	27	28	27	26	33
3	66	85	57	63	72	68	54	30	26	27	26	30
4	80	81	56	64	75	73	51	24	24	29	28	27
5	64	77	55	57	72	72	57	21	26	25	28	59
6	63	76	55	59	74	72	34	21	21	36	23	54
7	54	65	56	66	77	69	14	19	17	36	26	56
8	56	63	59	70	75	68	9.8	18	13	24	23	59
9	60	59	61	72	65	64	10	27	23	25	18	39
10	59	58	59	71	70	70	11	21	22	22	32	28
11	64	55	58	68	68	68	10	24	23	27	56	26
12	64	56	58	70	73	66	9.9	43	21	27	47	15
13	69	56	55	93	75	66	10	55	24	24	33	22
14	77	56	55	92	74	64	10	39	21	19	34	29
15	80	55	51	91	74	61	11	34	19	18	34	30
16	78	56	51	90	74	57	15	30	26	17	32	26
17	84	56	58	86	73	54	26	31	33	21	28	27
18	81	55	59	83	70	59	29	38	93	19	28	26
19	75	55	56	84	70	57	28	33	120	23	64	26
20	74	55	58	85	76	58	22	33	70	24	48	35
21	72	56	60	80	75	57	20	32	73	33	35	65
22	73	57	64	78	73	54	19	31	63	33	31	90
23	85	57	64	79	70	57	21	32	45	40	35	110
24	91	57	63	77	73	58	16	31	35	43	35	102
25	80	55	61	77	71	55	19	41	33	44	33	84
26	72	56	61	74	71	60	17	47	34	34	30	63
27	71	55	60	70	71	61	12	37	32	34	52	59
28	89	56	61	76	71	62	22	35	30	33	51	61
29	106	58	57	74	72	61	19	34	23	34	42	88
30	112	58	60	74	---	57	25	34	22	29	43	111
31	132	---	63	74	---	58	---	33	---	27	42	---
TOTAL	2362	1942	1807	2320	2100	1948	720.7	979	1071	874	1088	1516
MEAN	76	65	58	75	72	63	24	32	36	28	35	51
AC-FT	4690	3850	3580	4600	4170	3860	1430	1940	2120	1730	2160	3010
MAX	132	152	64	93	77	74	61	55	120	44	64	111
MIN	54	55	51	57	65	54	9.8	18	13	17	18	15

WTR YR 2004 TOTAL 18727.7 MEAN 51.2 MAX 152 MIN 9.8 AC-FT 37150

MAX DISCH: 192 CFS AT 16:15 ON Jun. 18, 2004 GH 3.11 FT. SHIFT -0.73 FT.  
MAX GH: 3.11 FT. AT 16:15 ON Jun. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06754000 SOUTH PLATTE RIVER NEAR KERSEY, CO

**LOCATION.**--Lat 40°24'44", long 104°33'46", in NW¼SW¼ sec. 9, T.5 N., R.64 W., Weld County, Hydrologic Unit 10190003, on downstream side of bridge on State Highway 37, 1.9 mi north of railroad in Kersey, and 2.5 mi downstream from Cache la Poudre River.

**DRAINAGE AREA AND PERIOD OF RECORD.**--9,659 mi<sup>2</sup>. May 1901 to Dec. 1903, Mar. 1905 to current year. Monthly totals only for some periods. Periodic water-quality data available from 1950.

**GAGE.**--A graphic water-stage recorder and digital shaft encoder activated by a manometer in a concrete block shelter, also equipped with a satellite monitoring DCP. Both devices are hooked to the manometer. An outside wire weight is used for referencing the gage. A land-line phone is installed and the DCP is equipped with a voice modem card.

**REMARKS.**--The primary record is hourly data taken from the manometer. The chart and DCP provide duplicate sources for this data. The chart is used to provide data if the SE appears to be not tracking with the manometer, or if satellite transmissions are missed. The chart is also used in record development to check for errors generated in Satellite data transmission and collection. The daily max and min GH's in the satellite record for this year checked to within + 0.02 with what could be seen on the chart. The orifice has become more of a problem here as the channel under the line has continued to fill in. Record is rated fair due to manometer operation and channel instability, except for August 20-23 which is estimated due to trash or a buried orifice and should be considered poor. (The August 20 peak flow is "Fair" and NOT estimated.) Some days when "painting" was present had variance in hourly values, but the daily average was still considered "Fair". Station maintained and record developed by George Sievers.

**RATING TABLE.**--PLAKERCO22 USED FROM 01-OCT-2003 TO 30-SEP-2004  
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

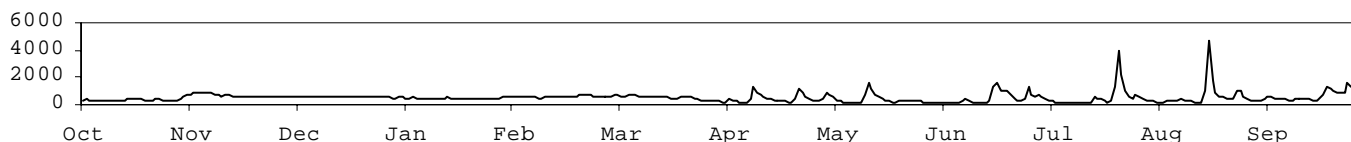
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	307	778	549	522	550	651	264	504	206	592	468	331
2	369	858	566	510	546	696	215	927	173	682	307	286
3	337	925	579	503	523	679	204	741	147	635	268	258
4	361	943	559	521	523	651	428	541	133	434	238	238
5	351	912	547	487	521	636	337	350	131	302	210	379
6	361	855	544	445	523	725	220	241	125	227	183	551
7	342	812	562	458	522	732	149	177	117	210	202	515
8	307	748	556	472	520	678	134	175	127	181	227	493
9	318	667	578	499	505	648	197	191	135	161	235	440
10	311	647	574	481	492	601	484	187	279	144	237	388
11	311	684	571	436	513	594	1250	147	397	151	265	367
12	323	661	560	404	573	611	925	166	257	142	456	352
13	355	628	557	485	589	591	750	695	169	133	345	338
14	369	615	565	523	603	571	653	1680	143	125	261	368
15	392	591	572	495	608	554	493	1120	127	129	226	383
16	392	583	563	480	614	543	397	797	131	128	203	381
17	405	578	576	474	628	513	322	600	159	127	169	383
18	388	579	584	479	636	483	284	415	332	551	169	371
19	362	575	572	473	637	470	261	321	1280	449	1080	346
20	364	570	554	485	629	508	233	238	1570	401	4670	344
21	361	564	534	480	706	517	191	186	967	289	1770	401
22	373	560	537	492	705	520	213	189	1010	210	910	691
23	366	549	545	487	679	576	450	230	1080	275	647	1370
24	362	552	538	483	666	536	1160	234	691	1370	550	1150
25	355	575	540	471	646	391	863	296	461	3940	475	1010
26	343	575	545	459	635	368	588	332	340	2250	432	851
27	327	567	521	458	653	349	400	307	325	1010	448	875
28	357	568	516	477	650	332	282	264	419	566	955	907
29	425	564	500	504	631	306	222	222	1360	468	1060	1660
30	598	558	495	568	---	265	246	207	801	748	592	1280
31	733	---	532	568	---	283	---	216	---	650	435	---
TOTAL	11625	19841	17091	15079	17226	16578	12815	12896	13592	17680	18693	17707
MEAN	375	661	551	486	594	535	427	416	453	570	603	590
AC-FT	23060	39350	33900	29910	34170	32880	25420	25580	26960	35070	37080	35120
MAX	733	943	584	568	706	732	1250	1680	1570	3940	4670	1660
MIN	307	549	495	404	492	265	134	147	117	125	169	238

WTR YR 2004 TOTAL 190823 MEAN 521 MAX 4670 MIN 117 AC-FT 378500

MAX DISCH: 6850 CFS AT 05:30 ON Aug. 20, 2004 GH 8.3 FT. SHIFT -0.17 FT.

MAX GH: 8.3 FT. AT 05:30 ON Aug. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO

**LOCATION.**--Lat 40°19'16", long 103°55'10", in SW¼SW¼ sec. 7, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190003, on left bank 875 ft downstream from bridge on State Highway 144, 2.8 mi southeast of Weldona, and 4.2 mi upstream from Bijou Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--13,190 mi<sup>2</sup>. October 1952 to current year.

**GAGE.**--Graphic water-stage recorder and satellite monitoring equipment in a corrugated metal pipe and stilling well. The satellite equipment is a Sutron 8004 with digital shaft encoder. The 8004 was replaced with a SATLINK LOGGER on June 28. This encoder was replaced in late September after not working properly for several weeks. An electric tape inside the station references the gage. There is no outside reference.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart back up. The record is complete and reliable, except for the following days: January 8-13, when the DCP and chart both malfunctioned. June 8 & July 7, when the inlets did not function properly. A mild winter resulted in no ice. Mean gage heights from the chart were used October 26, 2003, and April 4, 2004 to compute discharge on daylight savings time days. Chart values were also used January 14, May 14, June 7, 12-18 and 22, and September 6, 16-17, 22-23, 25-28. The record is considered fair because of all the shifting sand, except for the following days which are estimated and poor: January 8-13, June 8, and July 7. Station maintained and record developed by George Sievers.

**RATING TABLE.**--PLAWELCO17 USED FROM 01-OCT-2003 TO 30-SEP-2004

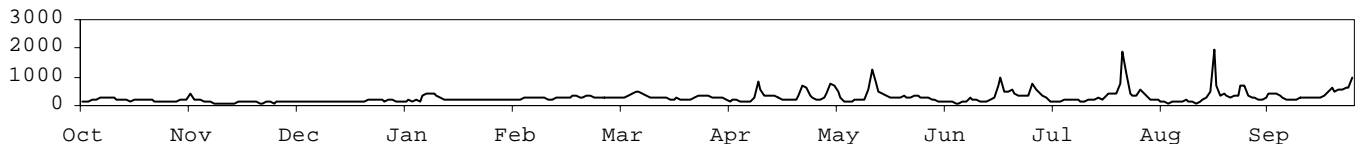
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	402	115	167	190	260	309	267	228	563	417	281
2	168	243	158	168	189	255	262	440	188	488	342	256
3	165	197	171	177	189	261	194	802	150	382	241	189
4	188	175	165	172	211	257	168	669	148	293	191	220
5	236	158	153	175	249	307	220	482	174	151	223	286
6	256	134	139	117	247	377	240	303	159	154	163	393
7	274	113	133	357	249	413	156	158	139	129	127	444
8	270	98	134	390	246	459	143	114	104	131	97	425
9	255	96	134	420	248	456	138	135	103	184	105	379
10	252	95	134	400	250	418	148	196	116	228	124	293
11	238	92	131	330	250	345	246	219	138	210	130	228
12	224	96	129	270	243	306	805	201	270	186	137	204
13	209	103	117	230	244	276	574	232	238	178	204	215
14	190	104	109	215	246	264	330	547	187	172	157	223
15	160	116	116	208	252	258	322	1230	149	166	121	249
16	181	116	121	201	254	251	358	801	141	215	93	250
17	220	114	109	195	278	248	336	520	144	224	105	246
18	227	105	114	190	313	244	282	437	175	223	200	258
19	215	107	110	185	317	241	233	365	282	303	261	271
20	195	105	109	184	314	247	207	310	709	215	476	267
21	180	101	111	184	312	240	177	287	951	355	1930	287
22	171	99	190	185	312	223	175	308	509	436	672	357
23	168	105	192	187	318	209	199	297	493	391	360	489
24	153	108	186	188	316	222	322	317	542	414	397	623
25	141	101	182	190	313	292	713	305	386	792	319	505
26	147	115	176	186	286	374	612	289	314	1910	306	562
27	149	122	174	191	262	346	373	341	332	1090	355	575
28	153	115	180	190	257	334	267	328	354	410	382	606
29	185	110	185	190	259	316	235	286	367	330	692	639
30	208	108	172	192	---	289	223	279	774	382	731	953
31	241	---	164	194	---	254	---	253	---	527	382	---
TOTAL	6191	3853	4513	6828	7614	9242	8967	11718	8964	11832	10440	11173
MEAN	200	128	146	220	263	298	299	378	299	382	337	372
AC-FT	12280	7640	8950	13540	15100	18330	17790	23240	17780	23470	20710	22160
MAX	274	402	192	420	318	459	805	1230	951	1910	1930	953
MIN	141	92	109	117	189	209	138	114	103	129	93	189

WTR YR 2004 TOTAL 101335 MEAN 277 MAX 1930 MIN 92 AC-FT 201000

MAX DISCH: 2520 CFS AT 05:15 ON Aug. 21, 2004 GH 4.85 FT. SHIFT 0 FT.  
MAX GH: 4.85 FT. AT 05:15 ON Aug. 21, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06759910 SOUTH PLATTE RIVER AT BALZAC, CO

**LOCATION.**--Lat 40°21'23", long 103°31'39", in SW¼NE¼ sec. 33, T.5 N., R.55 W., Morgan County, Hydrologic Unit 10190012, on bank 4.3 mi northeast of Snyder, and .7 mi downstream from North Sterling Canal.

**DRAINAGE AREA.**--16,623 mi<sup>2</sup>.

**GAGE.**--Stevens A-35 type graphic water stage recorder, satellite monitoring Sutron 8210 DCP and shaft encoder and stilling well. Gage is referenced with an electric tape and there is a supplemental outside wire weight. The DCP is equipped with a speech modem.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart back up. The record is complete and reliable except for days when the inlets were partially plugged. These days are: October 20-21, 28; November 14; January 9, 12-13, 21-25; February 19-26; March 8-9, 12, 15, 29; April 7, 9, 13-14, 28, 30; May 6, 10-11, 15, 21, 24; June 17, 23-25, 30; July 1-3, 5, 22, 28-30; August 5, 17-20; September 2, 6. Record is good, except for the days with partially plugged inlets, which were fair to poor. A great deal of effort is required to get a good record at this gage due to the movement of large amounts of sand in the channel. Station maintained and record developed by George Sievers and Bob Cooper.

**RATING TABLE.**--PLABALCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

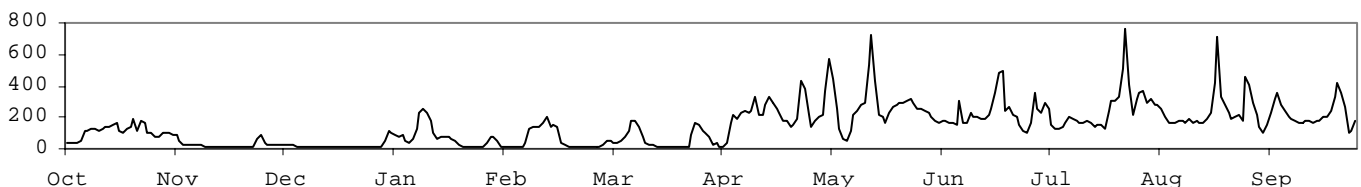
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	84	22	99	17	25	30	201	223	350	367	289
2	38	47	22	83	16	50	37	210	202	260	287	212
3	38	24	22	71	16	47	14	363	178	230	319	138
4	36	21	20	84	17	40	15	567	168	296	276	100
5	52	21	17	57	17	37	41	447	174	250	275	147
6	114	20	17	40	19	50	162	250	182	157	251	224
7	119	20	17	58	18	76	210	123	167	133	208	320
8	133	20	17	122	37	120	194	58	163	132	163	354
9	127	18	17	230	123	180	230	50	148	139	164	279
10	110	17	17	254	134	180	238	120	309	160	164	238
11	124	16	15	232	134	143	231	210	160	197	181	206
12	136	16	15	180	134	70	235	241	159	194	173	192
13	144	16	15	100	165	39	330	282	226	174	171	175
14	156	14	15	65	204	29	210	289	198	160	193	163
15	160	13	15	75	146	20	212	530	197	166	169	168
16	120	14	15	77	152	19	281	727	187	178	177	182
17	101	14	14	74	146	18	326	429	190	169	161	178
18	126	13	14	68	39	18	295	216	211	141	168	161
19	143	13	14	50	20	18	260	205	259	153	191	175
20	190	13	15	22	15	18	234	166	354	149	230	178
21	110	12	15	15	15	18	181	223	481	131	425	200
22	179	12	15	15	15	16	180	267	497	240	714	200
23	163	12	15	15	15	15	146	280	240	307	336	237
24	99	64	15	15	15	15	152	290	270	300	280	327
25	98	83	15	15	15	15	186	297	220	327	231	421
26	82	37	15	17	15	87	430	300	201	505	188	353
27	82	24	15	18	15	160	386	312	158	761	207	270
28	100	23	15	42	15	152	220	294	111	410	210	99
29	101	23	14	77	16	120	143	249	96	220	184	117
30	106	23	52	82	---	101	180	260	170	320	457	179
31	88	---	111	46	---	75	---	246	---	353	412	---
TOTAL	3411	747	632	2398	1705	1971	5989	8702	6499	7662	7932	6482
MEAN	110	25	20	77	59	64	200	281	217	247	256	216
AC-FT	6770	1480	1250	4760	3380	3910	11880	17260	12890	15200	15730	12860
MAX	190	84	111	254	204	180	430	727	497	761	714	421
MIN	36	12	14	15	15	15	14	50	96	131	161	99

WTR YR 2004 TOTAL 54130 MEAN 148 MAX 761 MIN 12 AC-FT 107400

MAX DISCH: 870 CFS AT 13:15 ON Aug. 22, 2004 GH 3.94 FT. SHIFT -0.8 FT.

MAX GH: 3.94 FT. AT 13:15 ON Aug. 22, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



PLATTE RIVER BASIN

06763990 SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 2

**LOCATION.**--Lat 40°58'37", long 102°14'52", in NE¼SE¼ sec. 33, T.12 N., R.44 W., Sedgwick County, on right bank of channel No 2 (right channel) 5 ft downstream from bridge on U.S. Highway 385, 0.9 mi southeast of Julesburg, 3.0 mi upstream from Colorado-Nebraska State line, and 8 mi downstream from Lodgepole Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--23,821 mi<sup>2</sup>. April 1902 to current year. Monthly data only for some periods. Published as near Julesburg and at Ovid in earlier years. Water quality data available from 1945 to 1995.

**GAGE.**--Satellite monitoring DCP and connected to a Sutron Accubbler. A wire weight gage on the bridge is used to reference the bubbler. The accubbler was moved this summer from the concrete shelter on the bridge abutment out onto the bridge next to the shaft encoder in the bridge well. Datum of gage is 3,448.51 ft. above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Gage Height record was not used in 2004, due to observation of zero flow conditions. The Acubbler was removed for replacement of the bridge guard rail on October 29, 2003 and was not replaced in the 2004 Water Year. Our water commissioner based in Julesburg drove over the bridge daily and did not observe flow. No measurable flow was observed in 2004. Flow at Julesburg occurred only in channels 1 and 4. Record developed by Robert Cooper.

**RATING TABLE.**--PLAJURCO

SOUTH PLATTE RIVER AT JULESBURG (RIGHT CHAN. #2)

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 2003 TOTAL 0 MEAN 0 MAX 0 MIN 0 AC-FT 0  
WTR YR 2004 TOTAL 0 MEAN 0 MAX 0 MIN 0 AC-FT 0

MAX DISCH: 0 CFS AT 00:00 ON Dec. 30, 1899 GH 0 FT. SHIFT 0 FT.  
MAX GH: 0 FT. AT 00:00 ON N/A

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.

PLATTE RIVER BASIN

06763990 SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 1

**LOCATION.**--Lat 40°58'37", long 102°14'52", in NE¼SE¼ sec. 33, T.12 N., R.44 W., on Highway 385 bridge south of Julesburg CO.

**DRAINAGE AREA.**--23,821 mi<sup>2</sup>.

**GAGE.**--Satellite monitoring DCP (Sutron 8210) are connected to an AccuBubbler manometer. A wire weight gage on the bridge is used to reference the gage, with a supplemental staff located on the bridge pier closest to the shelter. A telephone & speech modem are installed so that the gage can be accessed by phone. (970-474-0948).

**REMARKS.**--The primary record is the hourly satellite monitoring data. The record is complete and reliable except for the following periods: November 23, 24, 28; and December 5, 10, 13, 17-20, 24, 28-31; January 4-13, 26-30; and February 2, 5, 6-8, 12, 13; February 14-29; March 1-10, 13-23; Acububbler failed. June 26-28: DCP failed. Discharge was estimated from adjacent good record. The record is good, except for the following periods: the following days have some degree of estimation due to ice peaks and are rated fair: November 28; December 10, 13, 17-20, 24, 28, 2003; January 10-13, 30; and February 2, 5, 6-8, 12, 2004. The following periods of missing or ice record were estimated and rated poor: November 23, 24; December 5, 29-31, 2003; January 4-9, 26-29; February 14-29; March 1-10, 13-23; and June 26-28, 2004. Station maintained and record developed by Div. I personnel.

**RATING TABLE.**--ONEJURCO05 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

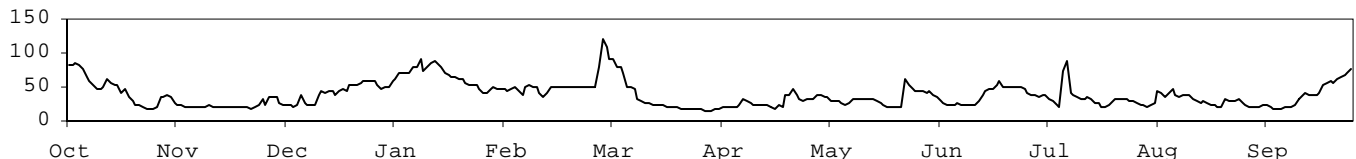
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	24	23	59	48	120	16	37	42	39	24	22
2	81	23	23	63	46	110	19	37	43	38	23	21
3	85	22	23	70	45	90	19	35	39	36	21	21
4	81	21	22	70	47	90	20	34	36	37	23	21
5	77	21	25	70	49	80	22	29	30	37	26	25
6	66	21	37	70	44	80	22	30	27	33	45	24
7	58	20	27	80	39	70	21	28	24	28	40	21
8	53	21	25	80	50	50	22	26	23	25	36	18
9	48	22	23	90	54	50	25	25	23	20	42	17
10	46	23	23	73	51	47	31	27	27	74	46	18
11	49	22	38	79	51	33	28	33	24	88	39	22
12	62	22	43	84	42	30	27	32	24	42	35	21
13	55	21	41	87	36	27	24	32	24	37	37	21
14	52	22	43	85	42	26	24	32	24	34	39	23
15	53	21	44	80	50	25	23	32	24	32	37	32
16	41	20	38	72	50	25	23	32	30	33	33	38
17	46	20	45	67	50	24	25	33	39	35	28	40
18	36	20	48	66	50	23	21	30	44	33	26	38
19	29	20	45	65	50	22	19	27	47	27	28	37
20	25	20	52	62	50	21	23	23	47	26	27	37
21	24	20	54	61	50	20	22	20	53	22	25	41
22	20	19	53	56	50	20	38	20	58	21	23	54
23	17	20	55	54	50	19	39	21	51	24	22	57
24	19	23	59	53	50	18	46	20	51	29	22	59
25	19	31	60	52	50	17	38	21	50	32	31	57
26	21	24	60	48	50	18	32	62	51	32	28	62
27	35	36	60	40	50	18	30	53	50	32	30	66
28	36	35	52	40	50	18	31	48	49	32	30	68
29	39	36	46	46	80	17	32	43	46	28	31	71
30	34	27	51	49	---	16	32	45	42	29	27	76
31	26	---	51	47	---	16	---	43	---	26	23	---
TOTAL	1416	697	1289	2018	1424	1240	794	1010	1142	1061	947	1128
MEAN	46	23	42	65	49	40	27	33	38	34	31	38
AC-FT	2810	1380	2560	4000	2820	2460	1570	2000	2270	2100	1880	2240
MAX	85	36	60	90	80	120	46	62	58	88	46	76
MIN	17	19	22	40	36	16	16	20	23	20	21	17

WTR YR 2004 TOTAL 14166 MEAN 38.7 MAX 120 MIN 16 AC-FT 28100

MAX DISCH: 159 CFS AT 23:30 ON Jul. 10, 2004 GH 3.41 FT. SHIFT -0.04 FT.

MAX GH: 3.41 FT. AT 23:30 ON Jul. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





PLATTE RIVER BASIN

06763980 SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 4 (INCLUDES FLOW FROM CHANNEL NO 3)

**LOCATION.**--Lat 40°58'46", long 102°15'15", in NW¼NE¼ sec. 33, T.12 N., R.44 W., Sedgwick County, Hydrologic Unit 10190018, on left bank of channel No 4 (left channel) 215 ft downstream from bridge on U.S. Highway 385, 0.9 mi southeast of Julesburg, 3.0 mi upstream from Colorado-Nebraska State line, and 8 mi downstream from Lodgepole Creek.

**DRAINAGE AREA.**--23,821 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and satellite monitoring DCP in a metal pipe shelter and well. Supplemental outside chain gage. DCP was updated to an hourly reporting this year. Station description is in the South Platte at Julesburg-combined flow-record envelope.

**REMARKS.**--The primary record is hourly data taken from satellite monitoring with chart backup. The record is completely unreliable for the entire year. In October, observations showed no flow and the gage to be isolated from ponded water in the channel. Through the winter observations of no flow continued and the well drained out. The record is estimated and poor for the entire year, due to ponding conditions at the gage. This record is added to the daily flows of channels 1 and 2 to form the record for the South Platte River at Julesburg, Combined flow. Station maintained and record developed by Division I personnel.

**RATING TABLE.**--PLAJULCO USED FROM 01-OCT-2003 TO 30-SEP-2004

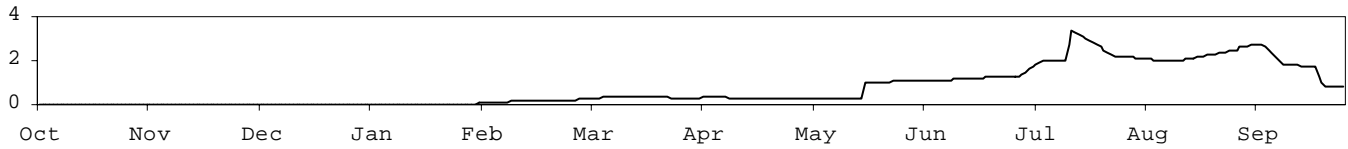
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.1	.3	.3	.3	1.1	1.3	2.2	2.6
2	0	0	0	0	.1	.3	.3	.3	1.1	1.4	2.2	2.6
3	0	0	0	0	.1	.3	.3	.3	1.1	1.5	2.1	2.6
4	0	0	0	0	.1	.3	.4	.3	1.1	1.6	2.1	2.7
5	0	0	0	0	.1	.3	.4	.3	1.1	1.7	2.1	2.7
6	0	0	0	0	.1	.3	.4	.3	1.1	1.8	2.1	2.7
7	0	0	0	0	.1	.4	.4	.3	1.1	1.9	2.1	2.7
8	0	0	0	0	.1	.4	.4	.3	1.1	2	2	2.6
9	0	0	0	0	.1	.4	.4	.3	1.1	2	2	2.5
10	0	0	0	0	.2	.4	.4	.3	1.1	2	2	2.4
11	0	0	0	0	.2	.4	.3	.3	1.1	2	2	2.2
12	0	0	0	0	.2	.4	.3	.3	1.1	2	2	2
13	0	0	0	0	.2	.4	.3	.3	1.2	2	2	1.8
14	0	0	0	0	.2	.4	.3	.3	1.2	2	2	1.8
15	0	0	0	0	.2	.4	.3	.3	1.2	2.7	2	1.8
16	0	0	0	0	.2	.4	.3	.3	1.2	3.4	2	1.8
17	0	0	0	0	.2	.4	.3	.3	1.2	3.3	2.1	1.8
18	0	0	0	0	.2	.4	.3	.3	1.2	3.2	2.1	1.7
19	0	0	0	0	.2	.4	.3	1	1.2	3.1	2.1	1.7
20	0	0	0	0	.2	.4	.3	1	1.2	3	2.2	1.7
21	0	0	0	0	.2	.4	.3	1	1.2	2.9	2.2	1.7
22	0	0	0	0	.2	.4	.3	1	1.3	2.8	2.2	1.7
23	0	0	0	0	.2	.4	.3	1	1.3	2.7	2.3	1.3
24	0	0	0	0	.2	.4	.3	1	1.3	2.6	2.3	1
25	0	0	0	0	.2	.4	.3	1	1.3	2.5	2.3	.8
26	0	0	0	0	.2	.3	.3	1	1.3	2.4	2.4	.8
27	0	0	0	0	.2	.3	.3	1.1	1.3	2.3	2.4	.8
28	0	0	0	0	.2	.3	.3	1.1	1.3	2.2	2.4	.8
29	0	0	0	0	.3	.3	.3	1.1	1.3	2.2	2.5	.8
30	0	0	0	0	---	.3	.3	1.1	1.3	2.2	2.5	.8
31	0	---	0	0	---	.3	---	1.1	---	2.2	2.5	---
TOTAL	0	0	0	0	5	11.2	9.7	18.9	35.7	70.9	67.4	54.9
MEAN	0	0	0	0	.17	.36	.32	.61	1.2	2.3	2.2	1.83
AC-FT	0	0	0	0	9.9	22	19	37	71	141	134	109
MAX	0	0	0	0	.3	.4	.4	1.1	1.3	3.4	2.5	2.7
MIN	0	0	0	0	.1	.3	.3	.3	1.1	1.3	2	.8

WTR YR 2004 TOTAL 273.7 MEAN .75 MAX 3.4 MIN 0 AC-FT 543

MAX DISCH: NOT DETERMINED  
MAX GH: NOT DETERMINED

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO (COMBINED)

LOCATION.--See Channel No.2 and Channel No.4.

DRAINAGE AREA.--23,821 mi<sup>2</sup>.

GAGE.--See Channel No.2 and Channel No. 4. During the drought conditions experienced this year, Channel No. 2 was dry all year. Channel No. 4 was dry from October through January, and had to be estimated for the rest of the year due to ponding conditions at the gage. Channels 1 and 4 were combined for total flow at Julesburg, with 98% of the total flow coming from Channel 1. Many daily flows at channel 4 were less than 0.5 cfs, and after rounding did not contribute to the total combined flow for the day.

REMARKS.--The record is fair due to ice activity in Channel 1, and the winter and estimation of flows in Channel 4 in the summer, except for the following days that were estimated and should be considered poor: November 23, 24; December 5, 29-31, 2003; January 4-9, 26-29; February 14-29; March 1-10, 13-23; June 26-28, 2004.

RATING TABLE.--SOUTH PLATTE RIVER AT JULESBURG (COMBINED)

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

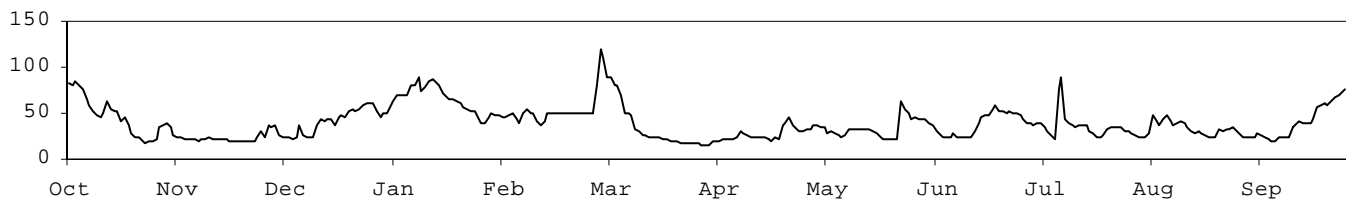
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	24	23	59	48	120	16	37	43	40	26	25
2	81	23	23	63	46	110	19	37	44	39	25	24
3	85	22	23	70	45	90	19	35	40	38	23	24
4	81	21	22	70	47	90	20	34	37	39	25	24
5	77	21	25	70	49	80	22	29	31	39	28	28
6	66	21	37	70	44	80	22	30	28	35	47	27
7	58	20	27	80	39	70	21	28	25	30	42	24
8	53	21	25	80	50	50	22	26	24	27	38	21
9	48	22	23	90	54	50	25	25	24	22	44	20
10	46	23	23	73	51	47	31	27	28	76	48	20
11	49	22	38	79	51	33	28	33	25	90	41	24
12	62	22	43	84	42	30	27	32	25	44	37	23
13	55	21	41	87	36	27	24	32	25	39	39	23
14	52	22	43	85	42	26	24	32	25	36	41	25
15	53	21	44	80	50	25	23	32	25	35	39	34
16	41	20	38	72	50	25	23	32	31	36	35	40
17	46	20	45	67	50	24	25	33	40	38	30	42
18	36	20	48	66	50	23	21	30	45	36	28	40
19	29	20	45	65	50	22	19	28	48	30	30	39
20	25	20	52	62	50	21	23	24	48	29	29	39
21	24	20	54	61	50	20	22	21	54	25	27	43
22	20	19	53	56	50	20	38	21	59	24	25	56
23	17	20	55	54	50	19	39	22	52	27	24	58
24	19	23	59	53	50	18	46	21	52	32	24	60
25	19	31	60	52	50	17	38	22	51	35	33	58
26	21	24	60	48	50	18	32	63	52	34	30	63
27	35	36	60	40	50	18	30	54	51	34	32	67
28	36	35	52	40	50	18	31	49	50	34	32	69
29	39	36	46	46	80	17	32	44	47	30	34	72
30	34	27	51	49	---	16	32	46	43	31	30	77
31	26	---	51	47	---	16	---	44	---	28	26	---
TOTAL	1416	697	1289	2018	1424	1240	794	1023	1172	1132	1012	1189
MEAN	46	23	42	65	49	40	27	33	39	37	33	40
AC-FT	2810	1380	2560	4000	2820	2460	1570	2030	2320	2250	2010	2360
MAX	85	36	60	90	80	120	46	63	59	90	48	77
MIN	17	19	22	40	36	16	16	21	24	22	23	20

WTR YR 2004 TOTAL 14406 MEAN 39.4 MAX 120 MIN 16 AC-FT 28570

MAX DISCH: (Channel 1 only) 159 CFS AT 23:30 ON Jul. 10, 2004 GH 3.41 FT. SHIFT -0.04 FT.

MAX GH: (Channel 1 only) 3.41 FT. AT 23:30 ON Jul. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

## TRANSMOUNTAIN DIVERSIONS INTO THE SOUTH PLATTE BASIN IN COLORADO

## TRANSMOUNTAIN DIVERSIONS INTO THE SOUTH PLATTE BASIN IN COLORADO, WY 2004

WATER YEAR 2004 (October 2003 - September 2004)

FROM THE COLORADO RIVER BASIN													
NAME	2003			2004									TOTAL
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Adams Tunnel*	1248.7	11443	15389	15451	15235	13726	12804	11443	12369	2641	2856	8164	122,770
Berthoud Pass Ditch	0	0	0	0	0	0	0	0	98.4	91.4	12.44	0	202
Boreas Pass Ditch	0	0	0	0	0	0	0	1.1	14.29	5.63	0	0	21
Grand River Ditch	0	0	0	0	0	0	4.5	1346.5	3002	1988	663.1	371.5	7,376
A.P. Gumlick Tunnel**	0	0	0	0	0	0	0	0	0	0	0	0	0
Moffat Tunnel	1702	875	565	371	276.7	437.5	1041	7262	10108	4335	1912	1977	30,862
Roberts Tunnel	7540	3046	1451	1286	2288	3967	3673	3594	7057	3705	3630	4462	45,699
Straight Creek Tunnel	10.85	10.5	10.85	10.85	10.69	11.47	11.1	18.19	27.82	18.03	12.83	11.1	164
Vidler Tunnel	0	0	0	0	0	0	0	19.13	153.7	21.52	0	0	194
TOTALS FROM THE COLORADO RIVER BASIN (DAY-CFS)													207,288
TOTALS FROM THE COLORADO RIVER BASIN (ACRE-FT)													411,157
*West slope water only													**Direct release to Clear Creek only. All other flow included in Moffat Tunnel

FROM THE LARAMIE RIVER BASIN													
NAME	2003			2004									TOTAL
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Bob Creek Ditch	0	0	0	0	0	0	0	45.1	28.92	0.58	0	0	75
Columbine Ditch	0	0	0	0	0	0	0	0	0	0	0	0	0
Deadman Ditch	0	0	0	0	0	0	0	221.7	185.8	37.1	0	0	445
Laramie-Poudre Tunnel	0	0	0	0	0	0	0	1997.1	4164	2623	717	0	9,501
Skyline Ditch	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS FOR THE LARAMIE RIVER (DAY-CFS)													10,020
TOTALS FOR THE LARAMIE RIVER (Acre Feet, 19875 AF per CALENDAR Year Allowed Under Laramie River Agreement)													19,875
NAME	2003			2004									TOTAL
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Wilson Supply Ditch (Gage)	0	0	0	0	0	0	0	442.7	221	33.3	0	0	697
minus Deadman Ditch	0	0	0	0	0	0	0	221.7	185.8	37.1	0	0	445
= SAND CR. DIVERSION	0	0	0	0	0	0	0	221	35.2	0	0	0	252
TOTALS FROM THE LARAMIE RIVER BASIN (DAY-CFS)													10,273
TOTALS FROM THE LARAMIE RIVER BASIN (ACRE-FT)													20,376

FROM THE NORTH PLATTE RIVER BASIN													
NAME	2003			2004									TOTAL
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Cameron Pass Ditch	0	0	0	0	0	0	0	3.5	36.6	0	0	0	40
Michigan Ditch	65.3	38.1	29.02	21.35	16.5	17.82	23.92	7.7	544.8	212.7	232.9	189.1	1,399
TOTALS FROM THE NORTH PLATTE RIVER BASIN (DAY-CFS)													1,439
TOTALS FROM THE NORTH PLATTE RIVER BASIN (ACRE-FT)													2,855

SPECIAL CATEGORIES													
NAME	2003			2004									TOTAL
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Hoosier Pass Tunnel *	459.51	58.36	0.45	0	0	0.32	65.64	708.3	1318	602.4	32.6	19.97	3,266
Aurora Homestake Pipeline**	1339	2799	8.15	15.07	5.45	2.17	180.97	1319	2242	2340	2137	2220	14,608
* Diverts into Division One, but entire flow is piped to the City of Colorado Springs in Division 2													** Contains a Mixture of Colorado River Water and Water Transferred from the Arkansas River

## PLATTE RIVER BASIN

## AURORA HOMESTAKE PIPELINE ABOVE ELEVENMILE RESERVOIR

**LOCATION.**--Lat 38°56'38", long 105°39'15", in Park County above Spinney Mountain Reservoir.

**GAGE.**--Two valves with venturi meters off a pipeline, equipped with satellite monitoring. The DCP, meters, and facilities are owned and maintained by the City of Aurora. The primary discharge valve is referred to as the "Spinney Tap". The other valve is known as the "Surge Valve." -this valve is the Colorado Springs pipeline pressure release and formerly discharged on to the mountainside. Improvements made in 2003 incorporated the surge release into the Spinney pipeline.

**REMARKS.**--The primary record is hourly discharges taken from satellite monitoring. The record is the combined total of two metered pipelines. The record must be regarded as poor until the meters are calibrated with discharge measurements. No measurements were made this year. Reported means were compared with means computed from the same data by the City of Aurora, and found to be nearly identical, except for flows on startup days and near zero flow days. Occasional days differed by 1 cfs in the two records due to rounding. Record developed by Garver Brown.

**RATING TABLE.**--HOMSPCCO USED FROM 01-OCT-2003 TO 30-SEP-2004

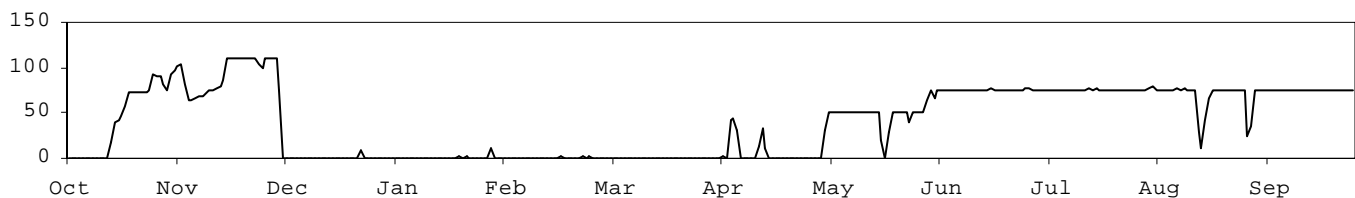
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	102	0	0	0	0	0	0	65	75	75	35
2	0	103	0	0	0	.23	.47	0	75	75	75	75
3	0	81	0	0	0	0	0	30	66	75	77	75
4	0	63	0	0	0	0	2.5	50	76	75	79	75
5	0	63	0	0	0	0	0	50	75	75	75	75
6	0	66	0	0	0	0	43	50	75	75	75	75
7	0	69	0	0	0	1	45	50	75	76	75	75
8	0	68	0	0	0	0	31	50	75	75	75	76
9	0	72	0	0	0	0	0	50	76	75	75	76
10	0	74	0	0	0	0	0	50	75	76	76	75
11	0	74	0	0	0	0	1	50	75	76	77	75
12	0	77	0	0	0	0	0	50	75	76	76	75
13	18	79	0	0	0	.19	0	50	75	75	78	75
14	40	86	0	0	0	0	13	50	76	76	75	75
15	43	111	0	.06	0	0	34	50	75	75	76	75
16	47	111	0	.07	0	0	11	50	75	76	76	75
17	58	111	.05	0	0	0	0	50	75	77	28	75
18	73	111	0	0	2.6	0	0	50	75	75	10	75
19	73	111	0	0	0	.19	0	20	77	77	43	75
20	73	111	0	2.7	0	0	0	0	75	75	67	76
21	73	111	0	.71	0	.36	0	29	75	75	75	75
22	73	111	0	1.2	0	0	0	50	75	76	75	75
23	72	111	8.1	0	0	0	0	50	75	76	75	76
24	76	104	0	0	1.2	0	0	50	75	76	75	76
25	92	100	0	0	0	.2	0	50	75	76	75	76
26	90	111	0	0	1.5	0	0	50	76	75	75	76
27	91	111	0	0	0	0	0	40	75	75	75	75
28	81	111	0	0	.15	0	0	50	75	75	75	76
29	75	111	0	10	0	0	0	50	77	76	75	76
30	93	75	0	.33	---	0	0	50	78	75	75	76
31	98	---	0	0	---	0	---	50	---	75	24	---
TOTAL	1339	2799	8.15	15.07	5.45	2.17	180.97	1319	2242	2340	2137	2220
MEAN	43.2	93	.26	.49	.19	.07	6.03	42.5	75	76	69	74
AC-FT	2660	5550	16	30	11	4.3	359	2620	4450	4640	4240	4400
MAX	98	111	8.1	10	2.6	1	45	50	78	77	79	76
MIN	0	63	0	0	0	0	0	0	65	75	10	35

WTR YR 2004 TOTAL 14607.81 MEAN 39.9 MAX 111 MIN 0 AC-FT 28970

MAX AVERAGE DAILY DISCH: 111 CFS ON Nov. 15, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

09042000 EAST PORTAL HOOSIER PASS TUNNEL NEAR ALMA, CO

**LOCATION.**--Lat 39°21'33", long 106°04'37"; Park County, tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Res. (Middle Fork South Platte River) in sec. 14, T. 8 S., R. 78 W., in Platte River basin.

**GAGE.**--Graphic water-stage recorder (weekly) and satellite monitoring DCP at an 8-foot Parshall flume with a metal stilling well. Flume and equipment are housed inside the tunnel entrance. Facilities are owned and maintained by the City of Colorado Springs. Satellite equipment is owned and maintained by DWR.

**REMARKS.**--The record is developed from hourly gage heights from the satellite record, with chart back up. The record is complete and reliable. The record is good due to increased definition by measurements. The flow is controlled by numerous diversions into the tunnel inlet from the Blue River drainage. Station maintained and record developed by Garver Brown.

**RATING TABLE.**--STD08FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

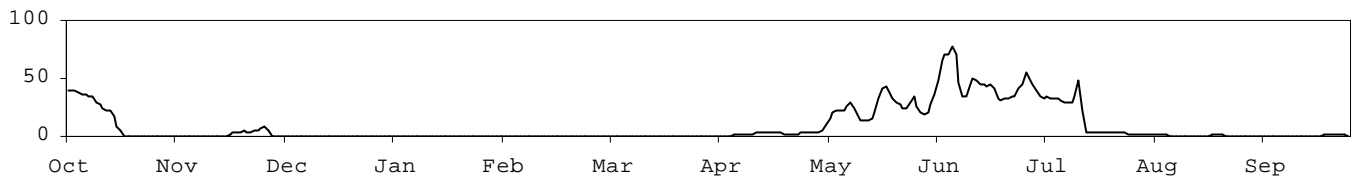
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	.18	.18	0	0	0	0	3	19	49	2.3	.45
2	40	.18	.18	0	0	0	.11	3.5	21	45	2.2	.45
3	39	.18	.09	0	0	0	.48	5.9	27	40	2.2	.45
4	38	.18	0	0	0	0	.58	9.9	36	35	2.2	.45
5	37	.18	0	0	0	0	.67	15	49	33	2.2	.45
6	36	.18	0	0	0	0	.63	20	65	35	2.1	.45
7	35	.18	0	0	0	0	.67	22	71	33	2.2	.45
8	34	.18	0	0	0	0	1.1	23	71	33	2.1	.45
9	30	.18	0	0	0	0	2	23	77	32	1.7	.45
10	27	.18	0	0	0	0	2	26	70	31	.67	.45
11	24	.18	0	0	0	0	2	29	46	30	.51	.45
12	23	.18	0	0	0	0	2	25	34	29	.45	.45
13	22	.18	0	0	0	0	2.1	18	34	30	.45	.45
14	17	.18	0	0	0	0	2.6	14	45	35	.42	.45
15	9.2	.18	0	0	0	0	2.8	13	50	48	.37	.45
16	5.2	1.3	0	0	0	0	3.2	14	48	22	.35	.45
17	.26	4.2	0	0	0	0	4.1	15	44	3.5	.35	.45
18	.26	3.9	0	0	0	0	4.1	20	44	3.2	.35	.45
19	.26	3.2	0	0	0	0	3.4	33	43	3.1	.35	.45
20	.26	4.8	0	0	0	0	3	42	44	3.1	.35	.45
21	.26	4.1	0	0	0	0	2.7	43	42	2.9	.39	.45
22	.19	2.6	0	0	0	0	2.5	40	33	2.8	1.7	.78
23	.18	4.5	0	0	0	0	2.3	32	31	2.9	1.6	1.3
24	.18	5.4	0	0	0	0	2.1	30	32	2.9	1.5	1.4
25	.18	6.6	0	0	0	0	2.1	27	33	2.8	.89	1.5
26	.18	8.7	0	0	0	0	2.3	25	34	2.7	.45	1.5
27	.18	5.4	0	0	0	0	3.3	25	34	2.7	.45	1.4
28	.18	.35	0	0	0	.2	4.1	30	41	2.6	.45	1.4
29	.18	.35	0	0	0	.12	3.6	35	45	2.5	.45	1
30	.18	.26	0	0	---	0	3.1	26	55	2.4	.45	.24
31	.18	---	0	0	---	0	---	21	---	2.3	.45	---
TOTAL	459.51	58.36	.45	0	0	.32	65.64	708.3	1318	602.4	32.6	19.97
MEAN	14.8	1.95	.02	0	0	.01	2.19	22.8	44	19.4	1.05	.67
AC-FT	911	116	.9	0	0	.6	130	1400	2610	1190	65	40
MAX	40	8.7	.18	0	0	.2	4.1	43	77	49	2.3	1.5
MIN	.18	.18	0	0	0	0	0	3	19	2.3	.35	.24

WTR YR 2004 TOTAL 3265.55 MEAN 8.92 MAX 77 MIN 0 AC-FT 6480

MAX DISCH: 97.4 CFS AT 23:00 ON Jun. 9, 2004 GH 1.98 FT. SHIFT 0.02 FT.  
MAX GH: 1.98 FT. AT 23:00 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

09046000 BOREAS PASS DITCH AT BOREAS PASS, CO

**LOCATION.**--Diverts water from tributaries of Blue River in Colorado River basin to Tarryall Creek in sec. 26, T.7 S., R.77 W., in Platte River basin.

**GAGE.**--A Sutron 8200 satellite monitoring DCP at an 18-inch Parshall flume with a metal stilling well. The ditch goes underground after collection, and the flume and equipment are housed inside a manhole. The flume is set into the concrete pipeline, approximately 14 ft. underground. Staff gage is used without tape/RP. The gage and equipment are owned by the City of Englewood. The DCP and ditch gates are operated by the water commissioner under a special contract arrangement with Englewood.

**REMARKS.**--The primary record is hourly satellite data with no chart as back up. From May 26 until July 28, satellite data was collected. The gage was visited 12 times with one correction of -.03 to the satellite record. The record is good. The gage is seasonal and runs typically from June to August. The permanent nature of the flume installation suggests that some permanent level of shift is built into the flume. Record developed by Garver Brown.

**RATING TABLE.**--STD01HFTPF USED FROM 26-MAY-2004 TO 28-JUL-2004

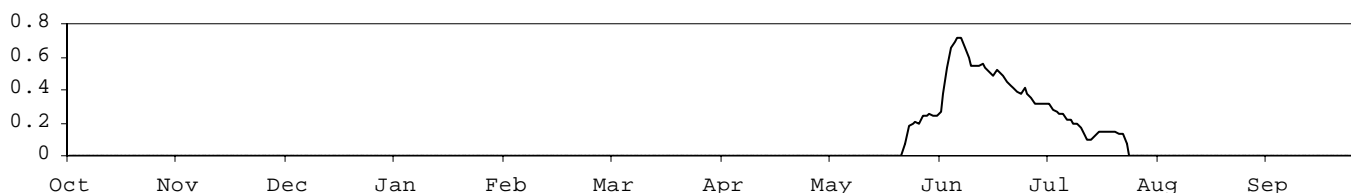
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	.24	.35	0	0
2	0	0	0	0	0	0	0	0	.25	.32	0	0
3	0	0	0	0	0	0	0	0	.24	.32	0	0
4	0	0	0	0	0	0	0	0	.24	.32	0	0
5	0	0	0	0	0	0	0	0	.27	.32	0	0
6	0	0	0	0	0	0	0	0	.37	.31	0	0
7	0	0	0	0	0	0	0	0	.53	.28	0	0
8	0	0	0	0	0	0	0	0	.66	.27	0	0
9	0	0	0	0	0	0	0	0	.69	.25	0	0
10	0	0	0	0	0	0	0	0	.72	.25	0	0
11	0	0	0	0	0	0	0	0	.72	.22	0	0
12	0	0	0	0	0	0	0	0	.66	.22	0	0
13	0	0	0	0	0	0	0	0	.6	.19	0	0
14	0	0	0	0	0	0	0	0	.55	.19	0	0
15	0	0	0	0	0	0	0	0	.54	.17	0	0
16	0	0	0	0	0	0	0	0	.55	.12	0	0
17	0	0	0	0	0	0	0	0	.56	.1	0	0
18	0	0	0	0	0	0	0	0	.53	.1	0	0
19	0	0	0	0	0	0	0	0	.51	.12	0	0
20	0	0	0	0	0	0	0	0	.49	.15	0	0
21	0	0	0	0	0	0	0	0	.52	.15	0	0
22	0	0	0	0	0	0	0	0	.51	.15	0	0
23	0	0	0	0	0	0	0	0	.49	.15	0	0
24	0	0	0	0	0	0	0	0	.45	.14	0	0
25	0	0	0	0	0	0	0	0	.43	.14	0	0
26	0	0	0	0	0	0	0	.07	.41	.13	0	0
27	0	0	0	0	0	0	0	.18	.39	.13	0	0
28	0	0	0	0	0	0	0	.2	.38	.07	0	0
29	0	0	0	0	0	0	0	.21	.41	0	0	0
30	0	0	0	0	---	0	0	.2	.38	0	0	0
31	0	---	0	0	---	0	---	.24	---	0	0	---
TOTAL	0	0	0	0	0	0	0	1.1	14.29	5.63	0	0
MEAN	0	0	0	0	0	0	0	.04	.48	.18	0	0
AC-FT	0	0	0	0	0	0	0	2.2	28	11	0	0
MAX	0	0	0	0	0	0	0	.24	.72	.35	0	0
MIN	0	0	0	0	0	0	0	0	.24	0	0	0

WTR YR 2004 TOTAL 21.02 MEAN .057 MAX .72 MIN 0 AC-FT 42

MAX DISCH: 0.8 CFS AT 00:30 ON Jun. 11, 2004 GH 0.31 FT. SHIFT -0.04 FT.  
MAX GH: 0.31 FT. AT 00:30 ON Jun. 11, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

09050590 HAROLD D. ROBERTS TUNNEL NEAR GRANT, CO

**LOCATION.**--Lat 39°27'50", long 105°41'01"; Harold D. Roberts tunnel diverts water from Dillon Reservoir in Blue River basin, to North Fork South Platte River (tributary to South Platte River) in SW¼SW¼ sec. 4, T. 7 S., R. 74 W., in Platte River basin.

**GAGE.**--A Stevens A-35 graphic stage recorder and Sutron 8210 DCP with digital shaft encoder in a concrete shelter and well at a 20' Parshall Flume. Primary reference is a drop tape with the R.M. on the front edge of the equipment shelf. The Sutron 8210 DCP was converted to High Data Rate on 17 April 2002. Station is owned and maintained by the Denver Water Dept., who also generate power from the tunnel flow.

**REMARKS.**--The record is taken from hourly satellite data with chart backup. It is complete and reliable. The recording equipment functions well and is considered reliable during cold weather due to a heat lamp installed within the shelter and well. During zero-flow periods, there is a residual gage height due to standing water in the well & flume. The level seems to vary from .05 ft to 0.15 ft. Denver Water Board Department records were used to verify periods of zero flow. The record is rated as good. Station maintained and record developed by Garver Brown.

**RATING TABLE.**--STD20FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

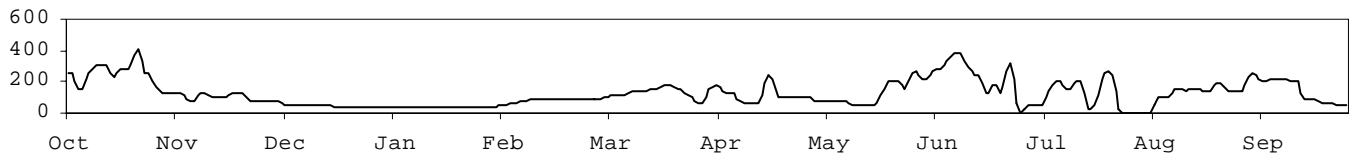
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	131	68	40	45	88	150	82	220	51	0	176
2	256	131	57	40	45	96	172	73	220	51	0	230
3	200	109	53	40	51	108	173	73	242	51	0	250
4	153	85	53	40	58	115	172	73	273	52	0	248
5	152	81	53	40	59	113	145	73	286	52	0	222
6	215	81	53	40	68	113	125	73	285	102	56	201
7	253	111	53	41	72	113	125	73	308	145	105	201
8	284	132	53	41	72	112	125	73	328	182	101	217
9	303	134	53	41	78	122	93	74	355	208	100	219
10	303	119	53	41	85	136	71	74	389	208	99	214
11	303	108	53	41	87	140	70	61	389	177	123	213
12	303	106	53	41	87	139	70	49	389	156	147	212
13	257	105	53	41	87	139	69	49	334	157	147	211
14	229	105	53	41	87	139	69	49	294	190	148	209
15	260	104	48	41	87	148	67	49	273	210	146	209
16	280	116	42	41	87	154	112	50	246	204	147	199
17	280	128	40	41	87	154	197	51	246	134	147	133
18	280	127	40	41	87	172	239	51	194	23	147	88
19	301	128	40	41	87	184	218	70	128	25	147	88
20	366	128	40	41	87	185	141	118	128	49	146	86
21	410	102	40	41	87	185	106	157	173	119	146	86
22	326	75	40	41	87	166	106	201	184	216	145	74
23	254	75	40	42	87	156	108	204	125	261	175	66
24	254	75	40	43	87	147	108	204	165	273	195	67
25	209	75	40	43	87	134	108	204	270	244	195	67
26	170	75	40	43	87	110	108	173	313	144	160	69
27	148	75	40	43	87	98	108	156	217	21	141	57
28	134	75	40	44	88	75	108	201	59	0	140	50
29	134	75	40	44	88	62	108	250	0	0	142	50
30	134	75	40	44	---	63	102	265	24	0	142	50
31	133	---	40	44	---	101	---	241	---	0	143	---
TOTAL	7540	3046	1451	1286	2288	3967	3673	3594	7057	3705	3630	4462
MEAN	243	102	47	42	79	128	122	116	235	120	117	149
AC-FT	14960	6040	2880	2550	4540	7870	7290	7130	14000	7350	7200	8850
MAX	410	134	68	44	88	185	239	265	389	273	195	250
MIN	133	75	40	40	45	62	67	49	0	0	0	50

WTR YR 2004 TOTAL 45699 MEAN 125 MAX 410 MIN 0 AC-FT 90640

MAX DISCH: 412 CFS AT 16:00 ON Oct. 20, 2003 GH 2.84 FT. SHIFT 0.03 FT.  
MAX GH: 2.84 FT. AT 16:00 ON Oct. 20, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## PLATTE RIVER BASIN

## STRAIGHT CREEK TUNNEL AT EAST PORTAL EISENHOWER TUNNEL

**LOCATION.**--Lat 39°40'45", long 105°54'12", manhole is located in the East Portal CDOT parking lot between the East and West bound lanes.

**DRAINAGE AREA.**--Eisenhower Tunnel seepage with effluent from sewage treatment facility.

**GAGE.**--A 12-inch Parshall flume located in a manhole in the CDOT parking lot between eastbound and westbound lanes of I-70. The tunnel pipeline is approximately 12 ft. underground. There is a condensing environment in the tunnel; the moisture has destroyed electronic and electrical equipment placed there previously. Most metal objects are corroded. The air is of poor quality within the tunnel.

**REMARKS.**--Employees of Coors take one instantaneous gage height reading at intervals during the fair weather months. The parking lot is covered with ice in the winter and such readings are not made. The record is not rated for accuracy. The site does not have continuous record. Yearly data is based on the interpolation of 13 user-supplied instantaneous observations of flow. However, it is noted that weekly observations were made during May and June this year, which seemed to identify the period of higher flows. This record is requested by DWR Division 5 and the Upper Colorado River Commission to complete their accounting of transmountain diversions. Record developed by Robert Cooper.

**RATING TABLE.**--STD01FTPAR USED FROM 01-OCT-2003 TO 30-SEP-2004

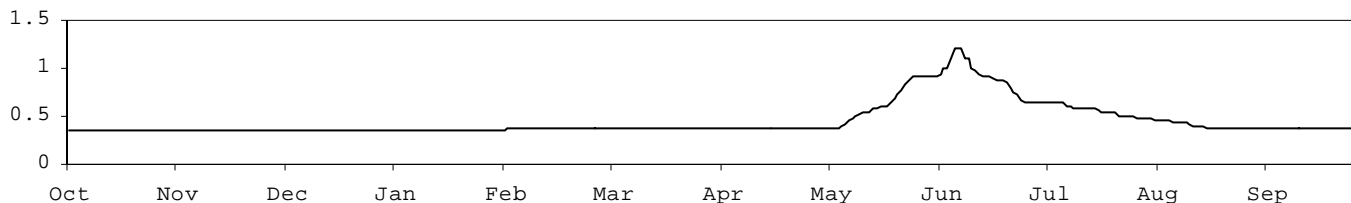
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.35	.35	.35	.35	.37	.37	.37	.92	.64	.48	.37
2	.35	.35	.35	.35	.35	.37	.37	.37	.92	.64	.48	.37
3	.35	.35	.35	.35	.37	.37	.37	.37	.92	.64	.48	.37
4	.35	.35	.35	.35	.37	.37	.37	.37	.92	.64	.48	.37
5	.35	.35	.35	.35	.37	.37	.37	.37	.94	.64	.46	.37
6	.35	.35	.35	.35	.37	.37	.37	.37	1	.64	.46	.37
7	.35	.35	.35	.35	.37	.37	.37	.37	1	.64	.46	.37
8	.35	.35	.35	.35	.37	.37	.37	.39	1.1	.64	.46	.37
9	.35	.35	.35	.35	.37	.37	.37	.41	1.2	.64	.46	.37
10	.35	.35	.35	.35	.37	.37	.37	.45	1.2	.64	.43	.37
11	.35	.35	.35	.35	.37	.37	.37	.47	1.2	.61	.43	.37
12	.35	.35	.35	.35	.37	.37	.37	.49	1.1	.61	.43	.37
13	.35	.35	.35	.35	.37	.37	.37	.53	1.1	.59	.43	.37
14	.35	.35	.35	.35	.37	.37	.37	.55	1	.58	.43	.37
15	.35	.35	.35	.35	.37	.37	.37	.55	.98	.58	.41	.37
16	.35	.35	.35	.35	.37	.37	.37	.55	.94	.58	.4	.37
17	.35	.35	.35	.35	.37	.37	.37	.58	.92	.58	.4	.37
18	.35	.35	.35	.35	.37	.37	.37	.58	.92	.58	.4	.37
19	.35	.35	.35	.35	.37	.37	.37	.6	.92	.58	.4	.37
20	.35	.35	.35	.35	.37	.37	.37	.61	.9	.57	.38	.37
21	.35	.35	.35	.35	.37	.37	.37	.61	.88	.55	.37	.37
22	.35	.35	.35	.35	.37	.37	.37	.64	.88	.55	.37	.37
23	.35	.35	.35	.35	.37	.37	.37	.69	.88	.55	.37	.37
24	.35	.35	.35	.35	.37	.37	.37	.73	.85	.55	.37	.37
25	.35	.35	.35	.35	.37	.37	.37	.78	.8	.54	.37	.37
26	.35	.35	.35	.35	.37	.37	.37	.83	.76	.51	.37	.37
27	.35	.35	.35	.35	.37	.37	.37	.88	.72	.51	.37	.37
28	.35	.35	.35	.35	.37	.37	.37	.92	.67	.51	.37	.37
29	.35	.35	.35	.35	.37	.37	.37	.92	.64	.51	.37	.37
30	.35	.35	.35	.35	---	.37	.37	.92	.64	.51	.37	.37
31	.35	---	.35	.35	---	.37	---	.92	---	.48	.37	---
TOTAL	10.85	10.5	10.85	10.85	10.69	11.47	11.1	18.19	27.82	18.03	12.83	11.1
MEAN	.35	.35	.35	.35	.37	.37	.37	.59	.93	.58	.41	.37
AC-FT	22	21	22	22	21	23	22	36	55	36	25	22
MAX	.35	.35	.35	.35	.37	.37	.37	.92	1.2	.64	.48	.37
MIN	.35	.35	.35	.35	.35	.37	.37	.37	.64	.48	.37	.37

WTR YR 2004 TOTAL 164.28 MEAN .45 MAX 1.2 MIN .35 AC-FT 326

MAX DISCH: 1.19 CFS AT 12:00 ON Jun. 10, 2004 GH 0.45 FT. SHIFT 0 FT.  
MAX GH: 0.45 FT. AT 12:00 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

09047300 VIDLER TUNNEL NEAR ARGENTINE PASS, CO

**LOCATION.**--Lat 39°37'28", long 105°47'28", sec.6, T.5 S., R.75 W., Summit County, at Argentine Pass above Keystone Ski Area.

**DRAINAGE AREA.**--N/A

**GAGE.**--Stevens F-type recorder and digital shaft encoder mounted on a prefabricated steel three-foot Parshall flume. The flume is inside the tunnel, approximately 320 feet from the DCP. The primary reference is the flume staff. An 8004 Sutron data collection platform was installed in 2000.

**REMARKS.**--The primary record is hourly GH's taken from satellite telemetry with chart backup. The record is complete and reliable. The record is considered good. Station maintained and record developed by Steve Barrett.

**RATING TABLE.**--VIDTUNCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

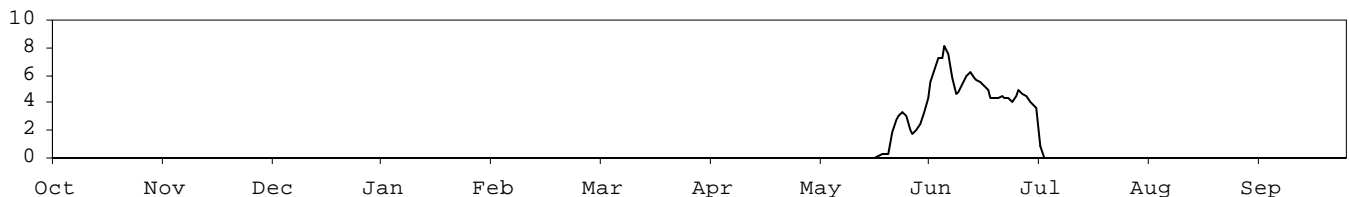
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	2	4.7	0	0
2	0	0	0	0	0	0	0	0	2.4	4.5	0	0
3	0	0	0	0	0	0	0	0	3.3	4.1	0	0
4	0	0	0	0	0	0	0	0	4.4	3.8	0	0
5	0	0	0	0	0	0	0	0	5.5	3.6	0	0
6	0	0	0	0	0	0	0	0	6.4	.82	0	0
7	0	0	0	0	0	0	0	0	7.2	0	0	0
8	0	0	0	0	0	0	0	0	7.2	0	0	0
9	0	0	0	0	0	0	0	0	8.1	0	0	0
10	0	0	0	0	0	0	0	0	7.6	0	0	0
11	0	0	0	0	0	0	0	0	5.8	0	0	0
12	0	0	0	0	0	0	0	0	4.7	0	0	0
13	0	0	0	0	0	0	0	0	4.8	0	0	0
14	0	0	0	0	0	0	0	0	5.4	0	0	0
15	0	0	0	0	0	0	0	0	6	0	0	0
16	0	0	0	0	0	0	0	0	6.2	0	0	0
17	0	0	0	0	0	0	0	0	5.8	0	0	0
18	0	0	0	0	0	0	0	0	5.6	0	0	0
19	0	0	0	0	0	0	0	0	5.5	0	0	0
20	0	0	0	0	0	0	0	.03	5.2	0	0	0
21	0	0	0	0	0	0	0	.17	4.9	0	0	0
22	0	0	0	0	0	0	0	.22	4.3	0	0	0
23	0	0	0	0	0	0	0	.25	4.3	0	0	0
24	0	0	0	0	0	0	0	.26	4.4	0	0	0
25	0	0	0	0	0	0	0	1.9	4.5	0	0	0
26	0	0	0	0	0	0	0	2.8	4.4	0	0	0
27	0	0	0	0	0	0	0	3.1	4.3	0	0	0
28	0	0	0	0	0	0	0	3.4	4.1	0	0	0
29	0	0	0	0	0	0	0	3.1	4.5	0	0	0
30	0	0	0	0	---	0	0	2.1	4.9	0	0	0
31	0	---	0	0	---	0	---	1.8	---	0	0	---
TOTAL	0	0	0	0	0	0	0	19.13	153.7	21.52	0	0
MEAN	0	0	0	0	0	0	0	.62	5.1	.69	0	0
AC-FT	0	0	0	0	0	0	0	38	305	43	0	0
MAX	0	0	0	0	0	0	0	3.4	8.1	4.7	0	0
MIN	0	0	0	0	0	0	0	0	2	0	0	0

WTR YR 2004 TOTAL 194.35 MEAN .53 MAX 8.1 MIN 0 AC-FT 385

MAX DISCH: 9.82 CFS AT 16:30 ON Jun. 7, 2004 GH 0.93 FT. SHIFT -0.05 FT.  
MAX GH: 0.93 FT. AT 16:30 ON Jun. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

09021500 BERTHOUD PASS DITCH AT BERTHOUD PASS, CO

**LOCATION.**--Lat 39°47'55", long 105°46'35"; Berthoud Pass Ditch diverts water from tributaries of Fraser River between headgate in sec. 33, T. 2 S., R. 75 W., Grand County, and Berthoud Pass, in Colorado River basin, to Hoop Creek, tributary to west fork Clear Creek in sec. 10, T. 3 S., R. 75 W., in Platte River Basin.

**GAGE.**--A-35 graphic water-stage recorder mounted on 30" cutthroat flume in a 42-inch metal shelter. The stilling well has been divided to accommodate two recorders, one for Ha and one for Hb.

**REMARKS.**--The primary record is mean daily gage heights taken from the chart. The record is complete and reliable, except for some discrepancies between the recorder and actual outside gage height, taken with a hand-held staff. The record is considered good. Station maintained and record developed by Steve Barrett.

**RATING TABLE.**--BERDITCO02 USED FROM 04-JUN-2004 TO 13-AUG-2004

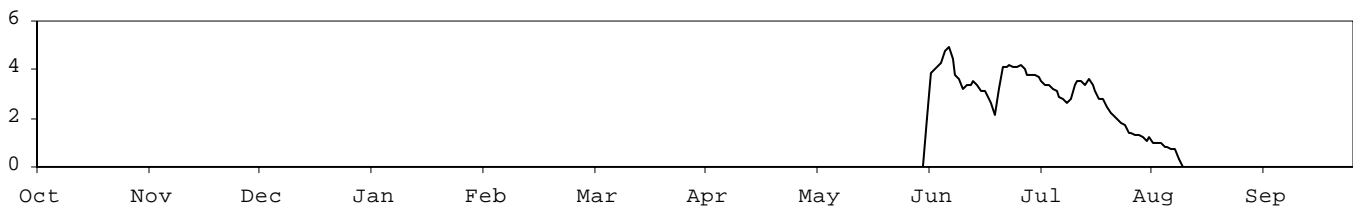
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	4	1.3	0
2	0	0	0	0	0	0	0	0	0	3.8	1.3	0
3	0	0	0	0	0	0	0	0	0	3.8	1.2	0
4	0	0	0	0	0	0	0	0	2	3.8	1.1	0
5	0	0	0	0	0	0	0	0	3.9	3.7	1.2	0
6	0	0	0	0	0	0	0	0	4	3.5	1	0
7	0	0	0	0	0	0	0	0	4.1	3.4	.98	0
8	0	0	0	0	0	0	0	0	4.3	3.4	.98	0
9	0	0	0	0	0	0	0	0	4.8	3.2	.85	0
10	0	0	0	0	0	0	0	0	4.9	3.1	.79	0
11	0	0	0	0	0	0	0	0	4.4	2.9	.72	0
12	0	0	0	0	0	0	0	0	3.8	2.8	.72	0
13	0	0	0	0	0	0	0	0	3.6	2.6	.3	0
14	0	0	0	0	0	0	0	0	3.2	2.8	0	0
15	0	0	0	0	0	0	0	0	3.4	3.4	0	0
16	0	0	0	0	0	0	0	0	3.4	3.5	0	0
17	0	0	0	0	0	0	0	0	3.5	3.5	0	0
18	0	0	0	0	0	0	0	0	3.4	3.4	0	0
19	0	0	0	0	0	0	0	0	3.1	3.6	0	0
20	0	0	0	0	0	0	0	0	3.1	3.4	0	0
21	0	0	0	0	0	0	0	0	2.8	3.1	0	0
22	0	0	0	0	0	0	0	0	2.6	2.8	0	0
23	0	0	0	0	0	0	0	0	2.1	2.8	0	0
24	0	0	0	0	0	0	0	0	3.2	2.5	0	0
25	0	0	0	0	0	0	0	0	4.1	2.2	0	0
26	0	0	0	0	0	0	0	0	4.1	2.1	0	0
27	0	0	0	0	0	0	0	0	4.2	2	0	0
28	0	0	0	0	0	0	0	0	4.1	1.8	0	0
29	0	0	0	0	0	0	0	0	4.1	1.7	0	0
30	0	0	0	0	---	0	0	0	4.2	1.4	0	0
31	0	---	0	0	---	0	---	0	---	1.4	0	---
TOTAL	0	0	0	0	0	0	0	0	98.4	91.4	12.44	0
MEAN	0	0	0	0	0	0	0	0	3.28	3	.4	0
AC-FT	0	0	0	0	0	0	0	0	195	181	25	0
MAX	0	0	0	0	0	0	0	0	4.9	4	1.3	0
MIN	0	0	0	0	0	0	0	0	0	1.4	0	0

WTR YR 2004 TOTAL 202.24 MEAN .55 MAX 4.9 MIN 0 AC-FT 401

MAX DISCH: 5.56 CFS AT 21:00 ON Jun. 8, 2004 GH 0.72 FT. SHIFT 0.02 FT.  
MAX GH: 0.72 FT. AT 21:00 ON Jan. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

09022500 EAST PORTAL MOFFAT TUNNEL NEAR ROLLINSVILLE, CO

**LOCATION.**--Lat 39°54'16", long 105°38'45"; diverts water from tributaries of William's Fork River and main stem and tributaries of Fraser River in Colorado River basin, to South Boulder Creek, in sec. 2, T.2 S., R.74 W., in Platte River basin, Gilpin County.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder and satellite telemetry in a timber shelter at a concrete stilling well and 15-foot Parshall Flume. A High Data Rate Sutron 8210 having logging capability as well as telephone line access. Electric tape was installed April 18, 2001.

**REMARKS.**--Primary record is hourly satellite data with chart backup and is complete and reliable. Mean daily gage heights were taken from the charts on days where satellite data was missing and the range in stage was negligible. The flume is not subject to ice as the water is still warm from the tunnel. DCP firmware was upgraded on June 11, 2004. Record is good. Station maintained and record developed by Lee Cunning.

**RATING TABLE.**--STD15FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

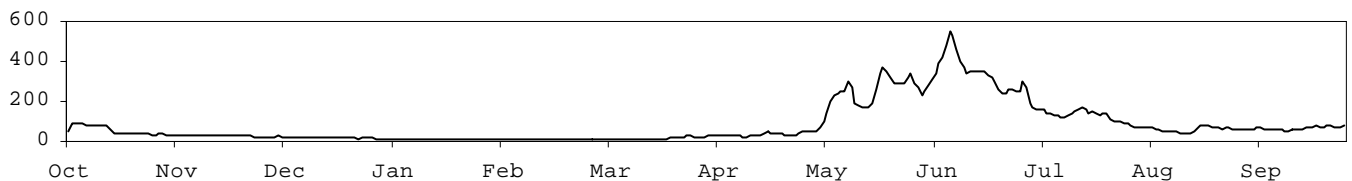
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	34	25	14	11	9.4	27	49	232	271	75	58
2	90	34	20	14	11	9.9	28	51	252	191	73	56
3	92	34	22	14	11	10	26	66	277	174	75	56
4	88	28	20	13	11	10	26	99	309	162	69	59
5	86	29	21	13	11	9.8	30	142	336	159	69	68
6	83	32	23	14	10	9.5	31	199	394	158	67	67
7	79	34	23	14	10	9.4	32	231	418	145	62	63
8	79	34	21	13	10	9.7	31	242	479	139	58	58
9	78	32	20	13	10	10	30	249	551	131	54	56
10	76	34	20	13	10	10	26	246	527	126	51	57
11	83	33	21	13	10	10	25	300	459	120	49	62
12	77	33	18	12	9.9	10	25	267	402	116	48	56
13	65	33	20	12	9.7	11	26	195	372	130	46	55
14	40	33	21	12	9.6	11	29	185	343	137	44	54
15	43	31	18	12	9.6	10	31	170	350	153	43	57
16	42	29	16	12	9.8	9.8	35	172	348	158	42	65
17	41	27	16	12	9.2	10	44	168	349	171	42	65
18	40	27	16	12	7.9	10	52	195	346	164	47	64
19	39	28	16	11	8.1	11	43	261	349	141	69	68
20	39	30	17	12	8	14	41	344	331	155	80	73
21	41	30	16	11	8.1	17	39	375	324	142	81	75
22	40	26	16	11	8.1	19	36	348	297	134	76	76
23	39	20	15	11	8.1	21	34	319	260	138	74	72
24	38	24	16	11	9.2	21	31	291	244	138	69	73
25	31	25	16	11	9.6	22	31	294	237	115	66	79
26	31	25	16	10	9.3	26	32	289	263	104	65	78
27	40	23	16	10	9.2	26	42	295	265	103	67	75
28	38	22	15	10	9.2	20	51	322	251	100	68	74
29	33	25	15	10	9.1	19	55	339	247	93	63	74
30	29	26	15	10	---	20	52	292	296	86	61	84
31	30	---	15	11	---	22	---	267	---	81	59	---
TOTAL	1702	875	565	371	276.7	437.5	1041	7262	10108	4335	1912	1977
MEAN	55	29	18	12	9.5	14.1	35	234	337	140	62	66
AC-FT	3380	1740	1120	736	549	868	2060	14400	20050	8600	3790	3920
MAX	92	34	25	14	11	26	55	375	551	271	81	84
MIN	29	20	15	10	7.9	9.4	25	49	232	81	42	54

WTR YR 2004 TOTAL 30862.2 MEAN 84.3 MAX 551 MIN 7.9 AC-FT 61220

MAX DISCH: 628 CFS AT 21:00 ON Jun. 9, 2004 GH 4.27 FT. SHIFT 0.17 FT.  
MAX GH: 4.27 FT. AT 21:00 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL NEAR ESTES PARK, COLORADO

**LOCATION.**--Lat 40°19'40", long 105°34'39", in NW¼ sec. 9, T.3 N., R.75 W.**GAGE.**--Water-stage recorder with satellite telemetry in a concrete shelter and well at a 15-foot Parshall flume. DCP is primary record with chart as backup.**REMARKS.**--Primary record is hourly data, taken from satellite monitoring with chart back up. The record is complete and reliable. In the winter months a bubble device is used to keep the well open. Accuracy is not affected. Zero flow is determined operationally. Small residuals draining through the flume after the tunnel is turned off can be considered to be zero. Record is good. In the past, ADATUNCO (Adams Tunnel plus Wind River diversion) has been published with a remark as to the total amount of Wind River (East slope) water included. Beginning in the 2000 water year, ADANETCO (West slope delivery only) has been published to provide the west slope delivery on a daily basis. Also published are the records for Wind River above Adams Tunnel (WINDESCO) and Wind River below Adams Tunnel (WINBYPCO). Station maintained and record developed by Merlin Friedrichsen.**RATING TABLE.**--ADANETCODISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

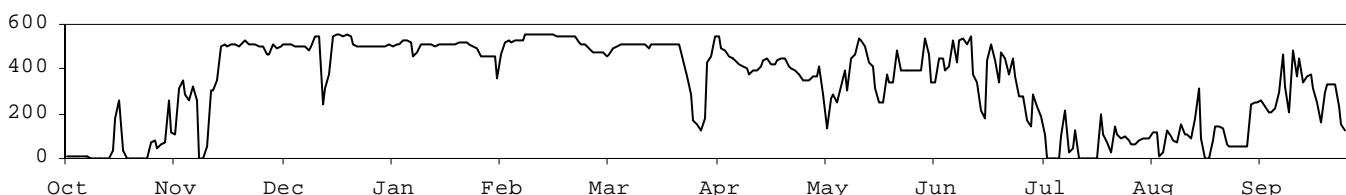
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	104	502	506	357	479	427	371	391	166	60	50
2	6.7	309	507	503	464	478	455	370	536	140	85	50
3	6.7	349	509	508	516	455	545	416	466	291	90	242
4	6.7	291	506	508	524	464	549	286	341	237	90	254
5	6.7	257	498	529	523	494	496	137	343	190	89	255
6	6.7	318	499	524	527	504	486	271	444	105	112	256
7	6.5	260	504	519	531	513	457	285	444	1	113	229
8	0	3	504	459	531	509	452	247	396	2	12	203
9	0	0	486	477	555	509	436	318	415	2	31	203
10	0	58	504	508	557	508	418	395	529	2	124	225
11	0	308	545	509	554	506	415	308	428	101	102	299
12	0	303	545	507	556	507	404	452	526	215	80	463
13	0	352	246	506	553	508	380	469	534	26	68	320
14	33	498	313	505	552	508	391	538	506	46	152	204
15	177	506	375	508	551	493	391	525	542	125	103	481
16	263	505	549	507	551	506	409	500	373	1	103	371
17	35	510	553	507	551	509	436	430	344	1	92	448
18	0	507	551	509	549	507	452	408	211	1	179	338
19	0	503	550	510	549	508	425	317	183	1	311	371
20	0	509	553	510	550	508	423	251	442	1	91	376
21	0	528	542	517	550	508	439	250	512	0	0	309
22	0	506	510	515	549	508	448	376	439	196	0	255
23	0	509	502	516	548	508	449	341	339	110	78	158
24	0	508	503	507	515	509	411	341	478	71	146	293
25	68	501	505	505	513	436	401	482	450	23	145	333
26	78	501	504	495	513	370	398	395	380	147	138	334
27	44	465	504	458	489	286	372	392	447	108	62	335
28	59	465	505	456	478	173	349	393	367	93	50	237
29	73	514	505	455	479	152	345	397	281	98	50	150
30	260	496	505	455	---	126	345	390	282	79	50	122
31	112	---	505	453	---	177	---	392	---	62	50	---
TOTAL	1248.7	11443	15389	15451	15235	13726	12804	11443	12369	2641	2856	8164
MEAN	40.3	381	496	498	525	443	427	369	412	85.2	92.1	272
AC-FT	2480	22700	30520	30650	30220	27230	25400	22700	24530	5240	5660	16190
MAX	263	528	553	529	557	513	549	538	542	291	311	481
MIN	0	0	246	453	357	126	345	137	183	0	0	50

WTR YR 2004 TOTAL 122769.7 MEAN 335 MAX 557 MIN 0 AC-FT 243500

MAX DISCH: Not Determined

MAX GH: Not Determined

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

09010000 GRAND RIVER DITCH AT LA POUVRE PASS, CO

LOCATION.--Lat 40°28'22", long 105°49'17", in NW¼ sec. 21, T.6 N., R.75 W., in Platte River Basin, to La Poudre Pass Creek, tributary to Cache La Poudre River.

GAGE.--F-type water stage recorder with satellite telemetry. The wooden station is located at a 10 foot Parshall flume. A drop tape is the primary reference.

REMARKS.--The primary record is hourly data, taken from satellite monitoring with chart backup. The satellite equipment and recorder were installed on April 29, 2004 but the flume was mostly full of ice with water running under and on top of the ice. The flume was running ice-free by May 4. However, snow and ice in the ditch continued to affect the flow in the ditch until May 8. The record is good except for the estimated days of April 29-30 and May 1-4. The record is prepared by George Sievers, with the help from the district water commissioners.

RATING TABLE.--STD10FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

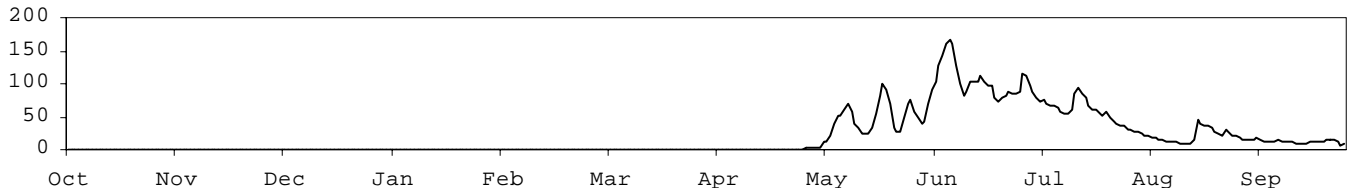
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	3	40	112	27	16
2	0	0	0	0	0	0	0	3.5	43	97	26	15
3	0	0	0	0	0	0	0	4	71	87	23	14
4	0	0	0	0	0	0	0	11	91	80	21	16
5	0	0	0	0	0	0	0	11	104	74	20	17
6	0	0	0	0	0	0	0	21	127	76	19	15
7	0	0	0	0	0	0	0	40	143	70	17	13
8	0	0	0	0	0	0	0	52	161	68	16	12
9	0	0	0	0	0	0	0	53	166	66	14	11
10	0	0	0	0	0	0	0	61	161	64	13	12
11	0	0	0	0	0	0	0	69	128	59	13	14
12	0	0	0	0	0	0	0	58	100	56	12	12
13	0	0	0	0	0	0	0	39	83	55	11	12
14	0	0	0	0	0	0	0	32	89	62	10	13
15	0	0	0	0	0	0	0	25	104	86	9.6	11
16	0	0	0	0	0	0	0	23	104	94	9.1	10
17	0	0	0	0	0	0	0	23	102	85	9.4	9.5
18	0	0	0	0	0	0	0	32	113	80	15	8.8
19	0	0	0	0	0	0	0	56	104	67	44	8.6
20	0	0	0	0	0	0	0	83	97	62	40	11
21	0	0	0	0	0	0	0	99	97	62	35	13
22	0	0	0	0	0	0	0	92	80	54	37	12
23	0	0	0	0	0	0	0	69	74	53	32	12
24	0	0	0	0	0	0	0	33	79	57	27	13
25	0	0	0	0	0	0	0	28	81	47	24	14
26	0	0	0	0	0	0	0	27	88	43	22	15
27	0	0	0	0	0	0	0	48	86	40	30	15
28	0	0	0	0	0	0	0	69	85	37	27	12
29	0	0	0	0	0	0	2	77	87	35	22	6.9
30	0	0	0	0	---	0	2.5	58	114	31	20	7.7
31	0	---	0	0	---	0	---	47	---	29	18	---
TOTAL	0	0	0	0	0	0	4.5	1346.5	3002	1988	663.1	371.5
MEAN	0	0	0	0	0	0	.15	43.4	100	64	21.4	12.4
AC-FT	0	0	0	0	0	0	8.9	2670	5950	3940	1320	737
MAX	0	0	0	0	0	0	2.5	99	166	112	44	17
MIN	0	0	0	0	0	0	0	3	40	29	9.1	6.9

WTR YR 2004 TOTAL 7375.6 MEAN 20.2 MAX 166 MIN 0 AC-FT 14630

MAX DISCH: 185 CFS AT 21:30 ON Jun. 9, 2004 GH 2.63 FT. SHIFT 0 FT.  
MAX GH: 2.63 FT. AT 21:30 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

06745500 CAMERON PASS DITCH AT CAMERON PASS, CO

**LOCATION.**--Lat 40°31'14", long 105°53'32"; Diverts water from Michigan River and tributaries, to Joe Wright Creek (tributary to Cache La Poudre River) in sec. 2, T.6 N., R.76 W.

**GAGE.**--F-type graphic water-stage recorder at a 2 foot Parshall flume with staff gage inside the stilling well in a wooden shelter.

**REMARKS.**--Primary record is mean daily chart values. These charts are worked by the District 3 deputy water commissioner Mark Simpson and checked by George Sievers. Record is good. Water was run from May 21 until June 29, 2004. Record developed by George Sievers and Mark Simpson.

**RATING TABLE.**--CAPDCPC01 USED FROM 21-MAY-2004 TO 29-JUN-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

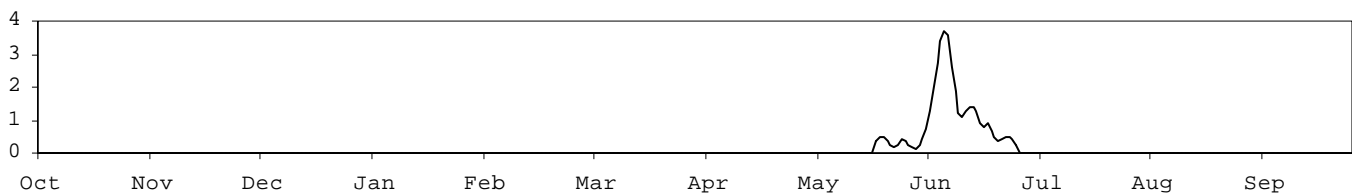
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	.13	0	0	0
2	0	0	0	0	0	0	0	0	.24	0	0	0
3	0	0	0	0	0	0	0	0	.42	0	0	0
4	0	0	0	0	0	0	0	0	.71	0	0	0
5	0	0	0	0	0	0	0	0	1.3	0	0	0
6	0	0	0	0	0	0	0	0	2	0	0	0
7	0	0	0	0	0	0	0	0	2.7	0	0	0
8	0	0	0	0	0	0	0	0	3.4	0	0	0
9	0	0	0	0	0	0	0	0	3.7	0	0	0
10	0	0	0	0	0	0	0	0	3.6	0	0	0
11	0	0	0	0	0	0	0	0	2.6	0	0	0
12	0	0	0	0	0	0	0	0	1.9	0	0	0
13	0	0	0	0	0	0	0	0	1.2	0	0	0
14	0	0	0	0	0	0	0	0	1.1	0	0	0
15	0	0	0	0	0	0	0	0	1.3	0	0	0
16	0	0	0	0	0	0	0	0	1.4	0	0	0
17	0	0	0	0	0	0	0	0	1.4	0	0	0
18	0	0	0	0	0	0	0	0	1.3	0	0	0
19	0	0	0	0	0	0	0	0	.93	0	0	0
20	0	0	0	0	0	0	0	0	.77	0	0	0
21	0	0	0	0	0	0	0	.36	.88	0	0	0
22	0	0	0	0	0	0	0	.51	.66	0	0	0
23	0	0	0	0	0	0	0	.47	.47	0	0	0
24	0	0	0	0	0	0	0	.34	.38	0	0	0
25	0	0	0	0	0	0	0	.23	.44	0	0	0
26	0	0	0	0	0	0	0	.19	.47	0	0	0
27	0	0	0	0	0	0	0	.23	.47	0	0	0
28	0	0	0	0	0	0	0	.42	.44	0	0	0
29	0	0	0	0	0	0	0	.36	.27	0	0	0
30	0	0	0	0	---	0	0	.23	0	0	0	0
31	0	---	0	0	---	0	---	.16	---	0	0	---
TOTAL	0	0	0	0	0	0	0	3.5	36.58	0	0	0
MEAN	0	0	0	0	0	0	0	.11	1.22	0	0	0
AC-FT	0	0	0	0	0	0	0	6.9	73	0	0	0
MAX	0	0	0	0	0	0	0	.51	3.7	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

WTR YR 2004 TOTAL 40.08 MEAN .11 MAX 3.7 MIN 0 AC-FT 79

MAX DISCH: 4.01 CFS AT 16:00 ON June 9, 2004 GH 0.66 FT. SHIFT -.02 FT.

MAX GH: 0.66 FT. AT 16:00 ON June 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

06746000 MICHIGAN DITCH AT CAMERON PASS, CO

**LOCATION.**--Lat 40°31'14", long 105°53'30"; Diverts water from Michigan River and tributaries, to Joe Wright Creek (tributary to Cache la Poudre River) in sec. 2, T.6 N., R. 76 W.

**GAGE.**--Weekly graphic water-stage recorder in a log shelter with a PVC well at 8 foot Parshall flume. The staff in the Parshall flume is the only reference point October 1-17. However, the gage was equipped with satellite monitoring equipment on October 17, 2003. An inside electric tape to the stilling well, the primary reference, was also installed at this time. The new structure also has a .75-foot or 9 inch Parshall that sits side by side with the 8-foot flume. This will allow winter and low flows (flows below about 4.5 cfs) to be measured. Two tables will be needed and the crest height for both flumes will be tied to the electric tape, as both flumes share a common stilling well.

**REMARKS.**-- From October 1-16 the record is mean daily gage heights taken from the chart, and the rest of the year is the hourly averages taken from satellite monitoring. The record is considered good, even the winter record, now that low flows are being measured with the 9 inch flume. April 23-27 was estimated due to backwater from ice jams downstream. Station maintained and record developed by George Sievers.

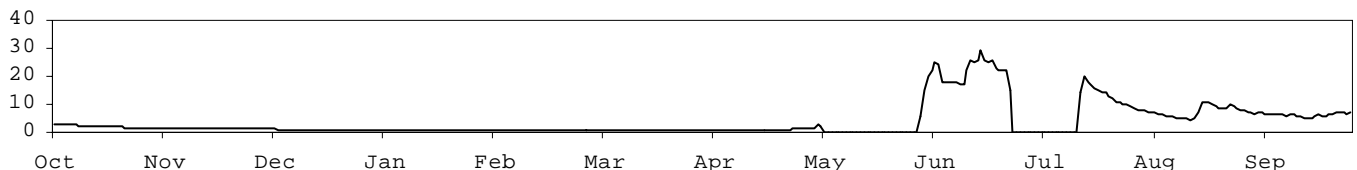
**RATING TABLE.**--MICDCPC02 USED FROM 01-OCT-2003 TO 17-OCT-2003  
 STD09INPF USED FROM 17-OCT-2003 TO 04-MAY-2004  
 MICDCPC02 USED FROM 04-MAY-2004 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	1.3	1.1	.74	.63	.51	.64	1.5	5.8	0	8.2	7.3
2	3.2	1.4	1.1	.75	.62	.53	.64	1.6	15	0	8.1	6.9
3	3	1.3	1	.76	.62	.54	.63	2.6	20	0	7.7	6.5
4	3	1.2	.98	.76	.62	.54	.59	2	22	0	7.4	7
5	2.8	1.4	.97	.75	.62	.54	.62	0	25	0	7.1	7.1
6	2.8	1.4	1	.75	.62	.54	.61	0	24	0	6.9	6.7
7	2.6	1.5	1	.73	.62	.54	.62	0	18	0	6.6	6.5
8	2.4	1.4	.97	.73	.62	.55	.62	0	18	0	6.3	6.4
9	2.2	1.4	1	.73	.59	.59	.62	0	18	0	6	6.1
10	2.4	1.3	1	.73	.58	.59	.6	0	18	0	5.8	6.4
11	2.4	1.3	1	.73	.59	.59	.59	0	18	0	5.5	6.5
12	2.2	1.4	1	.72	.58	.59	.59	0	17	0	5.3	5.9
13	2.2	1.5	.99	.71	.57	.59	.6	0	17	0	5.1	6.1
14	2.2	1.2	.99	.71	.56	.57	.61	0	22	0	4.8	6.1
15	2.2	1.4	.96	.7	.56	.53	.61	0	26	0	4.8	5.7
16	2.2	1.4	.98	.7	.54	.51	.63	0	25	14	4.6	5.4
17	2	1.2	.97	.67	.54	.54	.65	0	26	20	4.7	5.3
18	1.9	1.1	.96	.67	.54	.55	.65	0	29	18	6.9	5
19	1.8	1.3	.94	.65	.54	.57	.62	0	26	17	11	5.2
20	1.8	1.3	.94	.64	.54	.6	.86	0	25	16	11	5.9
21	1.7	1.2	.9	.64	.53	.62	.78	0	26	15	11	6.4
22	1.7	1.2	.94	.64	.54	.63	.71	0	23	14	9.8	6
23	1.7	1.1	.91	.64	.54	.64	.81	0	22	14	9.2	5.8
24	1.6	1.1	.88	.64	.54	.63	.81	0	22	13	8.9	6.2
25	1.3	1.2	.87	.64	.54	.6	.81	0	22	12	8.5	6.5
26	1.6	1.2	.85	.64	.53	.62	1.1	0	15	11	8.5	6.9
27	1.5	1.1	.83	.63	.53	.62	1.5	0	0	11	10	6.8
28	1.5	1.1	.8	.64	.52	.61	1.6	0	0	10	9.2	6.8
29	1.5	1.1	.75	.64	.53	.57	1.7	0	0	9.8	8.4	6.6
30	1.4	1.1	.73	.64	---	.57	1.5	0	0	9.3	8	7.1
31	1.3	---	.71	.63	---	.6	---	0	---	8.6	7.6	---
TOTAL	65.3	38.1	29.02	21.35	16.5	17.82	23.92	7.7	544.8	212.7	232.9	189.1
MEAN	2.1	1.3	.94	.69	.57	.57	.8	.25	18.2	6.86	7.5	6.3
AC-FT	130	76	58	42	33	35	47	15	1080	422	462	375
MAX	3.2	1.5	1.1	.76	.63	.64	1.7	2.6	29	20	11	7.3
MIN	1.3	1.1	.71	.63	.52	.51	.59	0	0	0	4.6	5

WTR YR 2004 TOTAL 1399.21 MEAN 3.82 MAX 29 MIN 0 AC-FT 2780

MAX DISCH: 40.1 CFS AT 20:30 ON Jun. 17, 2004 GH 1.15 FT. SHIFT 0 FT.  
 MAX GH: 1.15 FT. AT 20:30 ON Jun. 17, 2004



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

06746500 SKYLINE DITCH NEAR CHAMBERS LAKE, CO

**LOCATION.**--Lat 40°39'50", long 105°53'10"; Diverts water from West Branch Laramie River, to Chambers Lake (tributary to Cache la Poudre River) in sec. 31, T.8 N., R.75 W.

**GAGE.**--F-type graphic water-stage recorder at 10' Parshall flume.

**REMARKS.**--No water run in Water Year 2004.

**RATING TABLE.**-- SKYLINE DITCH AT CHAMBERS LAKE

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

WTR YR 2004 TOTAL 0 MEAN 0 MAX 0 MIN 0 AC-FT 0

MAX DISCH: 0 CFS AT 00:00 ON GH FT. SHIFT 0 FT.

MAX GH: 0 FT. AT 00:00 ON

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

06747000 LARAMIE-POUDRE TUNNEL NEAR CHAMBERS LAKE, CO

**LOCATION.**--Lat 40°40'34", long 105°50'49"; Laramie-Poudre tunnel diverts water from Laramie River and tributaries to Cache la Poudre River in sec 9, T.8 N., R.75 W.

**GAGE.**--F-type graphic water stage recorder with satellite telemetry at a 10 foot Parshall flume. The gage is referenced with a drop tape from an IG reference point. There is also an outside staff gage that we replaced on May 1, 2004 when the DCP was installed.

**REMARKS.**--Primary record is hourly GH's, taken from satellite monitoring with chart back up. The record is complete and reliable. The DCP was installed on May 1 because we anticipated the tunnel turning on early. The DCP developed some problems in late July and was replaced on August 2<sup>nd</sup>. The missing DCP data was filled in with chart values as needed during this period. Record is good. Station maintained and record developed by George Sievers.

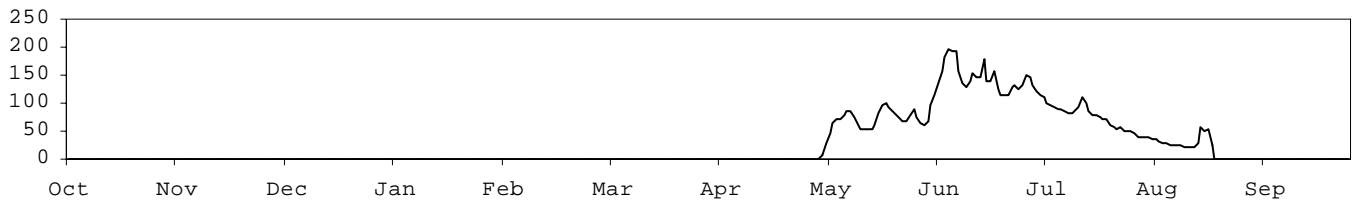
**RATING TABLE.**--STD10FTPF USED FROM 01-MAY-2004 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	62	148	41	0
2	0	0	0	0	0	0	0	0	69	132	40	0
3	0	0	0	0	0	0	0	7.1	95	121	40	0
4	0	0	0	0	0	0	0	27	115	115	38	0
5	0	0	0	0	0	0	0	48	137	109	36	0
6	0	0	0	0	0	0	0	63	156	101	34	0
7	0	0	0	0	0	0	0	70	183	96	32	0
8	0	0	0	0	0	0	0	72	197	92	30	0
9	0	0	0	0	0	0	0	77	194	91	28	0
10	0	0	0	0	0	0	0	84	193	88	26	0
11	0	0	0	0	0	0	0	85	158	84	26	0
12	0	0	0	0	0	0	0	74	136	82	25	0
13	0	0	0	0	0	0	0	62	129	83	24	0
14	0	0	0	0	0	0	0	54	138	86	22	0
15	0	0	0	0	0	0	0	52	155	93	21	0
16	0	0	0	0	0	0	0	54	147	112	21	0
17	0	0	0	0	0	0	0	55	146	100	20	0
18	0	0	0	0	0	0	0	62	179	86	30	0
19	0	0	0	0	0	0	0	82	141	80	56	0
20	0	0	0	0	0	0	0	97	141	80	50	0
21	0	0	0	0	0	0	0	100	157	74	52	0
22	0	0	0	0	0	0	0	94	126	72	25	0
23	0	0	0	0	0	0	0	84	114	72	0	0
24	0	0	0	0	0	0	0	77	113	62	0	0
25	0	0	0	0	0	0	0	72	116	57	0	0
26	0	0	0	0	0	0	0	68	127	54	0	0
27	0	0	0	0	0	0	0	67	133	57	0	0
28	0	0	0	0	0	0	0	80	125	51	0	0
29	0	0	0	0	0	0	0	89	131	50	0	0
30	0	0	0	0	---	0	0	75	151	49	0	0
31	0	---	0	0	---	0	---	66	---	46	0	---
TOTAL	0	0	0	0	0	0	0	1997.1	4164	2623	717	0
MEAN	0	0	0	0	0	0	0	64.4	139	85	23.1	0
AC-FT	0	0	0	0	0	0	0	3960	8260	5200	1420	0
MAX	0	0	0	0	0	0	0	100	197	148	56	0
MIN	0	0	0	0	0	0	0	0	62	46	0	0
CAL YR 2003	TOTAL		0	MEAN	0	MAX	0	MIN	0	AC-FT	0	
WTR YR 2004	TOTAL	9501.1	MEAN		26	MAX	197	MIN	0	AC-FT	18850	

MAX DISCH: 234 CFS AT 21:00 ON Jun. 17, 2004 GH 3.05 FT. SHIFT 0 FT.  
MAX GH: 3.05 FT. AT 21:00 ON Jun. 17, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

## BOB CREEK DITCH NEAR GLENDEVEY, CO

**LOCATION.**--Lat 40°31'50", long 105°45'40" NESWNW, sec. 11, 9 N., 75 W.

**GAGE.**--Stevens F-type graphic water-stage recorder in a metal shelter with stilling well at a 3-foot Parshall flume. The staff in the flume is the only reference point.

**REMARKS.**--Primary record was taken from mean daily chart gage heights. Access to this gage is very difficult and the recorder was set on a 16-day cycle when the ditch was started on May 11 until June 10. The cycle was changed to 8 day from June 10 through July 1, when the ditch was turned off. Water diverted from May 11 until July 1, 2004. This record should be considered poor since a compressed chart was used, and the chart calibration was not consistent. Water commissioner George Varra and the City of Greeley employees who set the chart worked the record. Hydrographic staff checked only the peak flow. Record developed by George Sievers and George Varra.

**RATING TABLE**--STDPF01FT USED FROM MAY 11-MAY-2004 TO 01-JUL-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

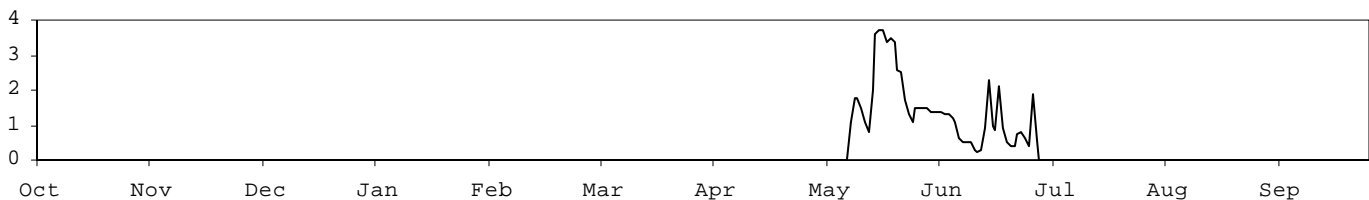
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	1.5	.58	0	0
2	0	0	0	0	0	0	0	0	1.4	0	0	0
3	0	0	0	0	0	0	0	0	1.4	0	0	0
4	0	0	0	0	0	0	0	0	1.4	0	0	0
5	0	0	0	0	0	0	0	0	1.4	0	0	0
6	0	0	0	0	0	0	0	0	1.3	0	0	0
7	0	0	0	0	0	0	0	0	1.3	0	0	0
8	0	0	0	0	0	0	0	0	1.2	0	0	0
9	0	0	0	0	0	0	0	0	1.1	0	0	0
10	0	0	0	0	0	0	0	0	.64	0	0	0
11	0	0	0	0	0	0	0	1.1	.52	0	0	0
12	0	0	0	0	0	0	0	1.8	.52	0	0	0
13	0	0	0	0	0	0	0	1.8	.49	0	0	0
14	0	0	0	0	0	0	0	1.5	.31	0	0	0
15	0	0	0	0	0	0	0	1.1	.24	0	0	0
16	0	0	0	0	0	0	0	.8	.29	0	0	0
17	0	0	0	0	0	0	0	2	.94	0	0	0
18	0	0	0	0	0	0	0	3.6	2.3	0	0	0
19	0	0	0	0	0	0	0	3.7	1	0	0	0
20	0	0	0	0	0	0	0	3.7	.86	0	0	0
21	0	0	0	0	0	0	0	3.4	2.1	0	0	0
22	0	0	0	0	0	0	0	3.5	.94	0	0	0
23	0	0	0	0	0	0	0	3.4	.52	0	0	0
24	0	0	0	0	0	0	0	2.6	.38	0	0	0
25	0	0	0	0	0	0	0	2.5	.39	0	0	0
26	0	0	0	0	0	0	0	1.7	.77	0	0	0
27	0	0	0	0	0	0	0	1.3	.81	0	0	0
28	0	0	0	0	0	0	0	1.1	.61	0	0	0
29	0	0	0	0	0	0	0	1.5	.39	0	0	0
30	0	0	0	0	---	0	0	1.5	1.9	0	0	0
31	0	---	0	0	---	0	---	1.5	---	0	0	---
TOTAL	0	0	0	0	0	0	0	45.1	28.92	.58	0	0
MEAN	0	0	0	0	0	0	0	1.45	.96	.02	0	0
AC-FT	0	0	0	0	0	0	0	.89	.57	1.2	0	0
MAX	0	0	0	0	0	0	0	3.7	2.3	.58	0	0
MIN	0	0	0	0	0	0	0	0	.24	0	0	0

WTR YR 2004 TOTAL 74.6 MEAN .2 MAX 3.7 MIN 0 AC-FT 148

MAX DISCH: 7.0 CFS AT 17:30 ON June 30, 2004 GH 0.68 FT. SHIFT 1.06%

MAX GH: 0.68 FT. AT 17:30 ON June 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

PLATTE RIVER BASIN

DEADMAN DITCH NEAR DEADMAN PARK, CO

**LOCATION.**--Lat 40°50'04", long 105°48'05", sec. 9, T. 10 N., R. 75 W., Diverts water from Laramie River and tributaries, to Sheep Creek (tributary to Cache La Poudre River) via Sand Creek.

**GAGE.**--F-type graphic water-stage recorder at a 6 foot Parshall flume. The recorder is in a steel shelter and the gage is referenced with an outside staff gage in the flume.

**REMARKS.**--The primary record is mean daily gage heights from the chart. The record is complete and reliable, except for days when the Steven's clock was stopped. These days (May 31, June 28-30, and July 1 were estimated.) The gage height record is worked by the district 3 water commissioner, George Varra, and checked by me. Record is good, except for the May 31, June 28-30, and July 1 which were estimated. Water was run from May 7, until July 12, 2004. Station maintained and record developed by George Sievers and George Varra.

**RATING TABLE.**--DEADPC001 USED FROM 07-MAY-2004 TO 12-JUL-2004

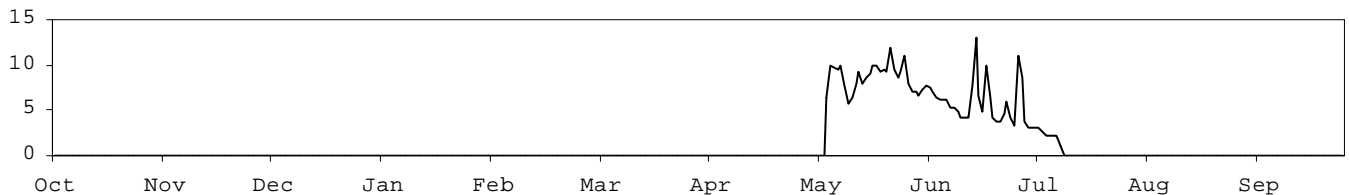
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	7	8.7	0	0
2	0	0	0	0	0	0	0	0	6.7	3.7	0	0
3	0	0	0	0	0	0	0	0	7.2	3.1	0	0
4	0	0	0	0	0	0	0	0	7.7	3	0	0
5	0	0	0	0	0	0	0	0	7.4	3.1	0	0
6	0	0	0	0	0	0	0	0	7	3.1	0	0
7	0	0	0	0	0	0	0	6.3	6.5	2.6	0	0
8	0	0	0	0	0	0	0	10	6.2	2.3	0	0
9	0	0	0	0	0	0	0	9.8	6.2	2.1	0	0
10	0	0	0	0	0	0	0	9.5	6.2	2.1	0	0
11	0	0	0	0	0	0	0	10	5.3	2.2	0	0
12	0	0	0	0	0	0	0	7.7	5.3	1.1	0	0
13	0	0	0	0	0	0	0	5.8	4.9	0	0	0
14	0	0	0	0	0	0	0	6.5	4.3	0	0	0
15	0	0	0	0	0	0	0	7.9	4.1	0	0	0
16	0	0	0	0	0	0	0	9.3	4.3	0	0	0
17	0	0	0	0	0	0	0	7.9	7.8	0	0	0
18	0	0	0	0	0	0	0	8.5	13	0	0	0
19	0	0	0	0	0	0	0	9	6.6	0	0	0
20	0	0	0	0	0	0	0	10	4.9	0	0	0
21	0	0	0	0	0	0	0	10	10	0	0	0
22	0	0	0	0	0	0	0	9.3	6.5	0	0	0
23	0	0	0	0	0	0	0	9.5	4.1	0	0	0
24	0	0	0	0	0	0	0	9.3	3.7	0	0	0
25	0	0	0	0	0	0	0	12	3.7	0	0	0
26	0	0	0	0	0	0	0	9.5	4.7	0	0	0
27	0	0	0	0	0	0	0	8.7	6	0	0	0
28	0	0	0	0	0	0	0	9.3	4.3	0	0	0
29	0	0	0	0	0	0	0	11	3.2	0	0	0
30	0	0	0	0	---	0	0	7.9	11	0	0	0
31	0	---	0	0	---	0	---	7	---	0	0	---
TOTAL	0	0	0	0	0	0	0	221.7	185.8	37.1	0	0
MEAN	0	0	0	0	0	0	0	7.15	6.2	1.2	0	0
AC-FT	0	0	0	0	0	0	0	440	369	74	0	0
MAX	0	0	0	0	0	0	0	12	13	8.7	0	0
MIN	0	0	0	0	0	0	0	0	3.2	0	0	0

WTR YR 2004 TOTAL 444.6 MEAN 1.21 MAX 13 MIN 0 AC-FT 882

MAX DISCH: 31 CFS AT 19:00 (Estimated Time) ON June 30, 2004 GH 1.17 FT. SHIFT 0 FT.  
MAX GH: 1.17 FT. AT 19:00 (Estimated Time) ON June 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## PLATTE RIVER BASIN

06750500 WILSON SUPPLY DITCH NEAR EATON RESERVOIR, CO

**LOCATION.**--Lat 40°54'31", long 105°46'43"; Diverts water from Sand Creek and Deadman Creek in Laramie River basin to Sheep Creek (tributary to North Fork Cache la Poudre River) in sec. 23, T.11 N., R.75 W., in the Cache la Poudre River basin.

**GAGE.**--F-type, graphic water-stage recorder at 10' Parshall flume. Satellite telemetry was added in the spring of 1994. Gage is referenced with an IG drop tape.

**REMARKS.**--Primary record is the hourly data taken from satellite monitoring, with the chart as a back up. The data is complete and reliable. Chart data was used for the following: On May 2<sup>nd</sup> the recorder was installed. The recorder was the only source of record for May 2-5, and part of May 6<sup>th</sup>. The satellite equipment was installed on May 6<sup>th</sup> and hourly chart values were inserted into the records program for this period. Water Commissioner George Varra works the chart record, and his figures are used as a check for the published figures developed from the DCP data. Record is good. Water was run from May 2<sup>nd</sup> until July 13<sup>th</sup> when the ditch was shut off. Station maintained and record developed by George Sievers and George Varra.

**RATING TABLE.**--WSDEARCO02 USED FROM 01-MAY-2004 TO 14-JUL-2004

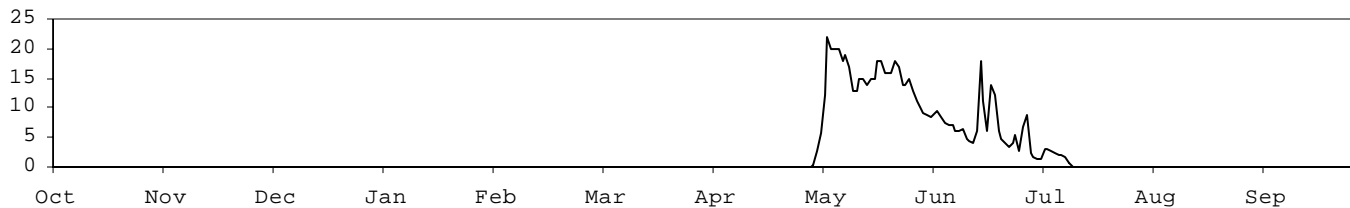
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	9.9	8.7	0	0
2	0	0	0	0	0	0	0	.33	9.2	2.5	0	0
3	0	0	0	0	0	0	0	2.6	8.8	1.7	0	0
4	0	0	0	0	0	0	0	5.8	8.5	1.5	0	0
5	0	0	0	0	0	0	0	12	9.2	1.5	0	0
6	0	0	0	0	0	0	0	22	9.5	2.9	0	0
7	0	0	0	0	0	0	0	20	8.3	3	0	0
8	0	0	0	0	0	0	0	20	7.4	2.6	0	0
9	0	0	0	0	0	0	0	20	7	2.2	0	0
10	0	0	0	0	0	0	0	18	7.2	2.1	0	0
11	0	0	0	0	0	0	0	19	6.1	2	0	0
12	0	0	0	0	0	0	0	17	6.1	1.8	0	0
13	0	0	0	0	0	0	0	13	6.3	.76	0	0
14	0	0	0	0	0	0	0	13	4.8	0	0	0
15	0	0	0	0	0	0	0	15	4.3	0	0	0
16	0	0	0	0	0	0	0	15	4.1	0	0	0
17	0	0	0	0	0	0	0	14	6.2	0	0	0
18	0	0	0	0	0	0	0	15	18	0	0	0
19	0	0	0	0	0	0	0	15	11	0	0	0
20	0	0	0	0	0	0	0	18	6.2	0	0	0
21	0	0	0	0	0	0	0	18	14	0	0	0
22	0	0	0	0	0	0	0	16	12	0	0	0
23	0	0	0	0	0	0	0	16	6.1	0	0	0
24	0	0	0	0	0	0	0	16	4.8	0	0	0
25	0	0	0	0	0	0	0	18	3.9	0	0	0
26	0	0	0	0	0	0	0	17	3.3	0	0	0
27	0	0	0	0	0	0	0	14	4	0	0	0
28	0	0	0	0	0	0	0	14	5.3	0	0	0
29	0	0	0	0	0	0	0	15	2.6	0	0	0
30	0	0	0	0	---	0	0	13	6.9	0	0	0
31	0	---	0	0	---	0	---	11	---	0	0	---
TOTAL	0	0	0	0	0	0	0	442.73	221	33.26	0	0
MEAN	0	0	0	0	0	0	0	14.3	7.4	1.07	0	0
AC-FT	0	0	0	0	0	0	0	878	438	66	0	0
MAX	0	0	0	0	0	0	0	22	18	8.7	0	0
MIN	0	0	0	0	0	0	0	0	2.6	0	0	0

WTR YR 2004 TOTAL 696.99 MEAN 1.9 MAX 22 MIN 0 AC-FT 1380

MAX DISCH: 29.8 CFS AT 19:00 ON May. 6, 2004 GH 0.84 FT. SHIFT 0 FT.  
MAX GH: 0.84 FT. AT 19:00 ON May. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



REPUBLICAN RIVER BASIN

PIONEER DITCH AT HEADGATE NEAR LAIRD, CO

LOCATION.--Lat 40°05'05", long 102°08'30", SW¼NE¼ sec. 2, T.1 N., R.43 W., Yuma County, 4 mi east of Wray, Co., 1000 ft south of U.S. Highway 34.

DRAINAGE AREA.--N/A

GAGE.--Type-F weekly graphic recorder and a high data rate Satellite Monitoring DCP, in metal box enclosure and well section at a 5-foot Parshall flume. The flume is installed in concrete canal section and is referenced with an outside staff.

REMARKS.--The record is taken from hourly satellite readings, with chart back up. The record is complete and reliable, except for the following days: October 11-13, 2003: Floats in mud and shift corrected GH values were less than 0.00; so small flows were estimated; May 3-18: No chart or DCP record at start of season. Chart clock broken and DCP not transmitting. July 13-15: SE & Chart float problems. The canal was off from October 11, 2003, to May 2, 2004. The record is good, except for October 11-13, May 3-18 and July 13-15 which are estimated and poor. The peak flow of May 15 was recorded as a once daily staff reading. Station maintained and record developed by Div. I personnel.

RATING TABLE.--STD05FTPF USED FROM 01-OCT-2003 TO 10-OCT-2003  
 STD05FTPF USED FROM 03-MAY-2004 TO 30-SEP-2004

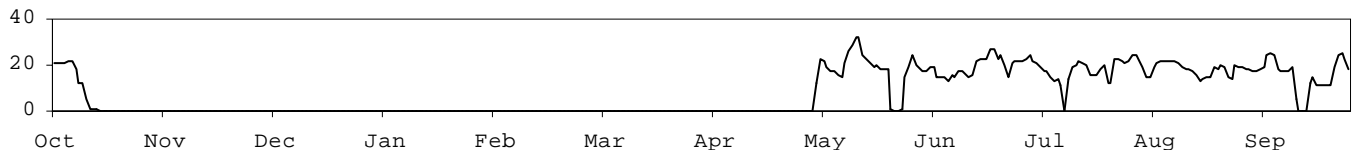
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	0	0	0	0	0	0	0	18	23	24	18
2	21	0	0	0	0	0	0	0	17	24	23	18
3	21	0	0	0	0	0	0	12	17	22	19	17
4	21	0	0	0	0	0	0	23	19	21	15	17
5	22	0	0	0	0	0	0	22	19	19	15	18
6	22	0	0	0	0	0	0	19	15	17	19	19
7	18	0	0	0	0	0	0	17	15	17	21	24
8	12	0	0	0	0	0	0	17	15	15	22	25
9	12	0	0	0	0	0	0	16	13	13	22	24
10	5.5	0	0	0	0	0	0	15	16	14	22	18
11	1	0	0	0	0	0	0	21	15	11	22	17
12	1	0	0	0	0	0	0	26	17	0	22	17
13	.5	0	0	0	0	0	0	29	17	14	21	17
14	0	0	0	0	0	0	0	32	16	19	19	19
15	0	0	0	0	0	0	0	32	15	20	18	4.8
16	0	0	0	0	0	0	0	24	16	22	18	0
17	0	0	0	0	0	0	0	23	22	21	17	0
18	0	0	0	0	0	0	0	21	23	20	16	0
19	0	0	0	0	0	0	0	19	23	16	13	12
20	0	0	0	0	0	0	0	20	23	16	14	15
21	0	0	0	0	0	0	0	18	27	16	15	11
22	0	0	0	0	0	0	0	18	27	18	15	11
23	0	0	0	0	0	0	0	18	23	20	19	11
24	0	0	0	0	0	0	0	1.2	24	12	18	11
25	0	0	0	0	0	0	0	0	20	12	20	11
26	0	0	0	0	0	0	0	0	15	23	19	19
27	0	0	0	0	0	0	0	1.2	21	23	15	24
28	0	0	0	0	0	0	0	15	22	22	14	25
29	0	0	0	0	0	0	0	19	22	21	20	23
30	0	0	0	0	---	0	0	24	22	22	19	18
31	0	---	0	0	---	0	---	20	---	24	19	---
TOTAL	178	0	0	0	0	0	0	522.4	574	557	575	463.8
MEAN	5.74	0	0	0	0	0	0	16.9	19	18	19	15.5
AC-FT	353	0	0	0	0	0	0	1040	1140	1100	1140	920
MAX	22	0	0	0	0	0	0	32	27	24	24	25
MIN	0	0	0	0	0	0	0	0	13	0	13	0

WTR YR 2004 TOTAL 2870.2 MEAN 7.84 MAX 32 MIN 0 AC-FT 5690

MAX DISCH: 32.2 CFS AT 08:00 ON May. 15, 2004 GH 1.4 FT. SHIFT -0.05 FT.  
 MAX GH: 1.4 FT. AT 08:00 ON May. 15, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## REPUBLICAN RIVER BASIN

## PIONEER DITCH AT COLORADO-NEBRASKA STATE LINE

**LOCATION.**--Lat 40°03'25", long 102°03'10", SW¼SW¼ sec. 10, T.1 N., R.42 W., Yuma County; 1200 ft south of U.S. Highway 34 at Colorado/Nebraska State line.

**DRAINAGE AREA.**--N/A

**GAGE.**--Type-F graphic water-stage recorder and a Sutron High Data Rate DCP in metal box and well. The site is equipped with a 4-foot Parshall Flume with two outside vertical enameled steel staffs (Ha-Hb, with the Hb staff set with 4.0 ft = 0.0). The Ha staff is the primary reference. Station maintained by Pioneer Ditch Company.

**REMARKS.**--The record is hourly data taken from satellite monitoring, with the chart as back-up. The record is complete. The ditch did not run October 11, 2003 through May 2, 2004. The record is reliable except for the following periods: June 17-25: Possible submergence. The record is good, except for June 17-25, which is fair due to possible submergence. Record developed by Robert Cooper.

**RATING TABLE.**--STD04FTPF USED FROM 01-OCT-2003 TO 10-OCT-2003  
STD04FTPF USED FROM 03-MAY-2004 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

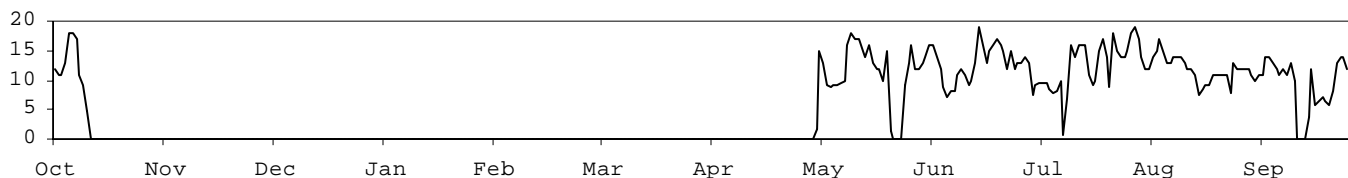
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	0	0	0	0	0	0	0	12	14	19	12
2	11	0	0	0	0	0	0	0	13	13	17	12
3	11	0	0	0	0	0	0	1.8	14	7.4	14	11
4	13	0	0	0	0	0	0	15	16	9	12	10
5	18	0	0	0	0	0	0	13	16	9.6	12	11
6	18	0	0	0	0	0	0	9.2	14	9.4	14	11
7	17	0	0	0	0	0	0	8.8	12	9.5	15	14
8	11	0	0	0	0	0	0	9	8.9	8.6	17	14
9	9.1	0	0	0	0	0	0	9.1	7.2	7.8	15	13
10	4.9	0	0	0	0	0	0	9.5	8.3	8	13	12
11	0	0	0	0	0	0	0	9.9	8.3	10	13	11
12	0	0	0	0	0	0	0	16	11	.72	14	12
13	0	0	0	0	0	0	0	18	12	6.7	14	11
14	0	0	0	0	0	0	0	17	11	16	14	13
15	0	0	0	0	0	0	0	17	9.3	14	13	10
16	0	0	0	0	0	0	0	15	9.8	16	12	0
17	0	0	0	0	0	0	0	14	13	16	12	0
18	0	0	0	0	0	0	0	16	19	16	11	0
19	0	0	0	0	0	0	0	13	16	11	7.6	3.7
20	0	0	0	0	0	0	0	12	13	9.1	8.6	12
21	0	0	0	0	0	0	0	12	15	10	9.1	5.9
22	0	0	0	0	0	0	0	10	16	15	9.2	6.4
23	0	0	0	0	0	0	0	15	17	17	11	7.2
24	0	0	0	0	0	0	0	1.5	16	14	11	6.6
25	0	0	0	0	0	0	0	0	15	8.9	11	5.9
26	0	0	0	0	0	0	0	0	12	18	11	8.2
27	0	0	0	0	0	0	0	0	15	15	11	13
28	0	0	0	0	0	0	0	9.2	12	14	7.9	14
29	0	0	0	0	0	0	0	13	13	14	13	14
30	0	0	0	0	---	0	0	16	13	15	12	12
31	0	---	0	0	---	0	---	12	---	18	12	---
TOTAL	125	0	0	0	0	0	0	312	387.8	370.72	385.4	285.9
MEAN	4.03	0	0	0	0	0	0	10.1	12.9	12	12.4	9.53
AC-FT	248	0	0	0	0	0	0	619	769	735	764	567
MAX	18	0	0	0	0	0	0	18	19	18	19	14
MIN	0	0	0	0	0	0	0	0	7.2	.72	7.6	0

WTR YR 2004 TOTAL 1866.82 MEAN 5.1 MAX 19 MIN 0 AC-FT 3700

MAX DISCH: 28.4 CFS AT 20:30 ON Sep. 14, 2004 GH 1.36 FT. SHIFT 0.08 FT.

MAX GH: 1.36 FT. AT 20:30 ON Sep. 14, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07082500 LAKE FORK CREEK BELOW SUGAR LOAF DAM NEAR LEADVILLE, CO

**LOCATION.**--Lat 39°15'05" long 106°22'28", Lake County, SE¼NW¼ sec. 19, T.9 S., R.80 W., on right bank 4.2 miles upstream from junction of Lake Fork Creek and Arkansas River.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron high data rate SatLink Logger) and shaft encoder in 42-inch diameter corrugated metal pipe (CMP) shelter and concrete well. Shaft encoder and chart set to inside electric tape gage mounted on instrument shelf. Satellite data are primary record (graphic chart record is used for back-up purposes). Outside staff gage also used for reference purpose. Shelter is equipped with AC power for well heater. Control is a concrete weir with ogee lip, tapered lower from the left to right bank, located at the gage. Elevation of gage is 9,720 ft. from topographic map.

**REMARKS.**--Record is complete and reliable, except for Oct. 9, 2003, during construction of the measuring apron. Record good. With the refurbishment of the control, leakage below the old control has attenuated, and a much improved and more accurate measuring section has been facilitated. Station maintained and record developed by L.R. Schultz.

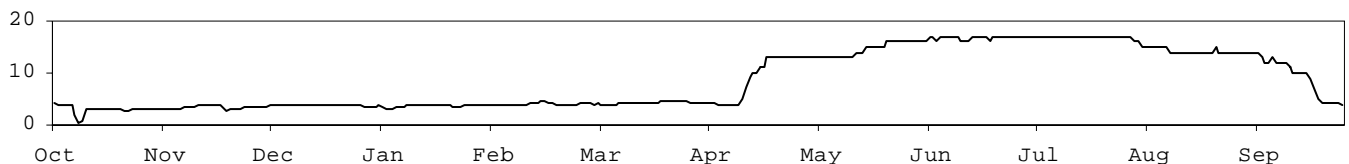
**RATING TABLE.**--LFCBSLCO04A USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.1	3.7	3.7	4	4.1	4.3	13	16	17	17	14
2	3.9	3.1	3.7	3.6	4	4	4.3	13	16	17	16	14
3	3.7	3.1	3.7	3.2	3.9	4.1	4.3	13	16	17	16	14
4	3.7	3.1	3.7	3.1	3.7	4	4.3	13	16	17	15	14
5	3.7	3.1	3.7	3.1	3.9	4	4.3	13	17	17	15	14
6	3.7	3.1	3.7	3.3	4	4	4	13	17	17	15	14
7	1.9	3.3	3.7	3.4	4	4	4	13	16	17	15	13
8	.42	3.4	3.7	3.6	4	4	4	13	17	17	15	12
9	.95	3.4	3.7	3.7	4	4.1	4	13	17	17	15	12
10	2.9	3.5	3.7	3.7	4	4.1	4	13	17	17	15	13
11	2.9	3.7	3.7	3.7	4	4.1	4	13	17	17	15	12
12	2.9	3.7	3.7	3.7	4	4.2	4	13	17	17	14	12
13	2.9	3.7	3.7	3.7	4.2	4.2	5.1	13	17	17	14	12
14	2.9	3.7	3.7	3.7	4.3	4.3	7.3	13	16	17	14	12
15	2.9	3.9	3.7	3.7	4.3	4.3	9.2	14	16	17	14	11
16	2.9	4	3.7	3.7	4.5	4.3	10	14	16	17	14	10
17	2.9	3.8	3.7	3.7	4.6	4.3	10	14	17	17	14	10
18	2.9	3.1	3.7	3.7	4.4	4.3	11	15	17	17	14	10
19	2.9	2.8	3.7	3.7	4.1	4.4	11	15	17	17	14	10
20	2.9	3.1	3.7	3.7	4	4.4	13	15	17	17	14	10
21	2.7	3.1	3.7	3.7	4	4.6	13	15	17	17	14	8.9
22	2.6	3.1	3.7	3.6	4	4.6	13	15	16	17	14	7
23	2.9	3.1	3.7	3.4	4	4.6	13	15	17	17	14	5.1
24	3.1	3.3	3.7	3.6	4	4.6	13	16	17	17	14	4.3
25	3.1	3.4	3.7	3.7	4	4.6	13	16	17	17	15	4.2
26	3.1	3.4	3.7	3.7	4	4.6	13	16	17	17	14	4.2
27	3.1	3.4	3.7	3.7	4.1	4.6	13	16	17	17	14	4.3
28	3	3.4	3.4	3.7	4.1	4.5	13	16	17	17	14	4.3
29	2.9	3.4	3.4	3.9	4.1	4.3	13	16	17	17	14	4.1
30	2.9	3.5	3.4	4	---	4.3	13	16	17	17	14	4
31	2.9	---	3.6	4	---	4.3	---	16	---	17	14	---
TOTAL	90.27	100.8	113.7	112.4	118.2	132.8	256.1	442	501	527	450	293.4
MEAN	2.91	3.4	3.7	3.6	4.1	4.3	8.5	14	17	17	15	9.8
AC-FT	179	200	226	223	234	263	508	877	994	1050	893	582
MAX	4.1	4	3.7	4	4.6	4.6	13	16	17	17	17	14
MIN	.42	2.8	3.4	3.1	3.7	4	4	13	16	17	14	4
CAL YR 2003	TOTAL	2256.47	MEAN	6.18	MAX	16	MIN	.42	AC-FT	4480		
WTR YR 2004	TOTAL	3137.67	MEAN	8.57	MAX	17	MIN	.42	AC-FT	6220		

MAX DISCH: 17.2 CFS AT 00:00 ON Jun. 9, 2004 GH 0.52 FT. SHIFT 0.01 FT. (DATUM CORR. +0.02 FT.)  
MAX GH: 0.52 FT. AT 00:00 ON Jun. 9, 2004 (DATUM CORR. +0.02 FT.)

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07084500 LAKE CREEK ABOVE TWIN LAKES RESERVOIR, CO

**LOCATION.**--Lat 39°03'47", long 106°24'26", Lake County, Hydrologic Unit 11020001, on left bank 1.2 mi upstream from water line of Twin Lakes Reservoir at elevation 9,200 ft and 1.9 mi southwest of village of Twin Lakes.

**DRAINAGE AREA AND PERIOD OF RECORD.**--75 mi<sup>2</sup>. April 1946 to Sept. 1962, Oct. 1963 to current year. Monthly data only for some periods.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron 8004 DCP) and shaft encoder in 36-inch diameter corrugated metal pipe (CMP) shelter and well. Shaft encoder and chart set to inside drop tape gage with adjustable RP on instrument shelf. DCP data are primary record (graphic chart record is used for back-up purposes). Cableway approximately 15 feet downstream from gage. Concrete apron control section is located under the cableway. Channel work to remove large boulders in the channel above the concrete apron was performed on April 8, 2004. High data rate Sutron SatLink DCP installed July 21, 2004. Elevation of gage is 9,310 ft. Prior to May 20, 1950, at site 190 ft downstream, at different datum. May 20, 1950, to Apr. 7, 1953, at site 10 ft upstream, at present datum.

**REMARKS.**--Record is complete and reliable except for the following periods: Nov. 6, 9, 2003; Mar. 27-31; Apr. 10-12, 19, 24, 2004, when ice affected the stage discharge relationship; Nov. 16, 2003 to Mar. 24, 2004, when the station was closed for the winter. Record good, except during periods of no gage height record and ice effect, which is poor. Station maintained and record developed by L.R. Schultz.

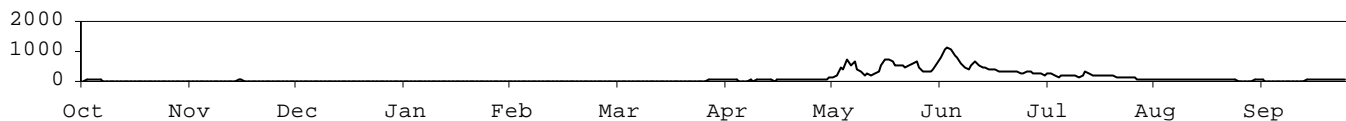
**RATING TABLE.**--LAKATLCO21 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	18	22	14	11	12	38	54	328	344	97	31
2	39	19	18	17	11	11	39	63	343	298	91	29
3	42	19	17	25	11	12	37	74	411	261	61	29
4	38	17	16	24	11	11	36	109	613	234	57	40
5	36	19	15	23	10	9	41	137	811	191	57	42
6	34	19	15	24	9.5	10	45	232	1040	249	56	35
7	32	21	16	18	9.2	11	45	448	1110	236	54	32
8	32	20	15	13	9.5	11	29	424	1080	212	50	31
9	30	18	14	13	9.2	10	33	744	898	166	47	30
10	29	21	21	13	9	9	33	559	798	168	44	31
11	32	20	25	12	9	10	35	666	583	187	41	31
12	29	19	22	11	8.5	10	33	406	436	169	40	29
13	27	21	14	11	9	10	39	334	382	185	38	29
14	23	23	20	12	11	10	42	202	539	169	36	28
15	25	35	17	13	12	10	42	237	640	153	35	27
16	24	34	12	13	12	10	39	228	534	208	34	26
17	24	27	12	12	13	11	39	259	445	348	35	26
18	24	25	12	11	12	12	31	348	454	268	38	25
19	23	26	11	11	10	13	42	509	402	192	53	34
20	22	28	11	12	10	13	46	709	413	203	51	58
21	22	29	12	11	10	13	48	743	385	179	46	59
22	23	26	11	11	10	13	47	688	319	178	52	54
23	27	23	11	13	10	13	45	561	317	173	54	59
24	27	23	11	13	10	13	37	518	317	179	55	81
25	24	27	12	12	11	21	42	507	356	167	44	86
26	21	32	12	10	12	29	39	487	310	132	41	81
27	27	26	11	10	13	28	44	528	311	155	39	73
28	21	31	10	10	13	31	43	630	284	126	40	77
29	20	30	10	11	12	32	48	692	267	118	35	70
30	20	30	12	12	---	41	48	455	362	104	33	43
31	15	---	13	12	---	42	---	361	---	107	32	---
TOTAL	845	726	450	427	307.9	491	1205	12912	15488	6059	1486	1326
MEAN	27	24	15	14	10.6	15.8	40	417	516	195	48	44
AC-FT	1680	1440	893	847	611	974	2390	25610	30720	12020	2950	2630
MAX	42	35	25	25	13	42	48	744	1110	348	97	86
MIN	15	17	10	10	8.5	9	29	54	267	104	32	25
CAL YR 2003	TOTAL	51020	MEAN	140	MAX	1710	MIN	7	AC-FT	101200		
WTR YR 2004	TOTAL	41722.9	MEAN	114	MAX	1110	MIN	8.5	AC-FT	82760		

MAX DISCH: 1360 CFS AT 22:00 ON Jun. 6, 2004 GH 3.3 FT. SHIFT -0.31 FT. DATUM CORR. -0.01 FT.  
MAX GH: 3.3 FT. (DATUM CORR. -0.01 FT.) AT 22:00 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





ARKANSAS RIVER BASIN

LAKE CREEK BELOW TWIN LAKES RESERVOIR, CO

**LOCATION.**--Lat 39°04'34", long 106°18'35", in NE¼SE¼, sec. 22, T.11 S., R. 80 W., Lake County, on right bank 1.2 miles upstream from confluence of Lake Creek and Arkansas River and 1500 ft downstream of Twin Lakes Dam.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron high data rate SatLink DCP) and shaft encoder in a concrete shelter and well. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to an inside electric tape-down mounted on instrument shelf. Outside staff gage installed in flume but generally used as backup to primary reference tape-down gage. Control is a 30-foot concrete Parshall flume. Elevation of gage is 9,200 ft. above mean sea level.

**REMARKS.**--Record is complete and reliable for the entire year. Record good. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--STD30FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

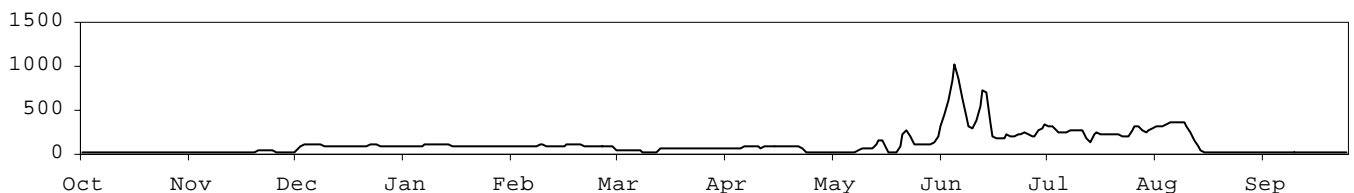
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	30	32	102	101	101	79	23	121	205	328	14
2	12	30	48	102	101	86	79	23	121	205	282	14
3	12	31	82	102	101	56	79	23	132	262	252	14
4	12	31	108	102	101	49	79	22	210	292	275	14
5	12	31	108	101	101	49	79	16	320	342	302	14
6	12	31	107	101	101	49	79	15	449	327	320	14
7	12	31	108	101	101	49	79	15	604	308	318	14
8	12	31	108	103	101	49	79	15	845	280	317	14
9	12	31	105	104	101	48	80	15	1020	254	340	14
10	12	31	102	104	103	48	80	16	868	252	375	14
11	13	31	102	103	103	33	80	16	641	253	374	14
12	13	31	102	103	102	24	80	50	429	268	375	14
13	13	32	102	103	102	24	80	75	320	268	375	14
14	13	32	102	103	102	24	79	76	295	267	374	14
15	23	32	102	103	102	34	80	76	384	269	312	23
16	33	32	102	102	101	62	80	75	549	269	241	30
17	30	32	102	102	101	79	80	107	721	191	164	14
18	30	32	102	101	104	79	80	154	699	147	96	14
19	30	27	102	101	104	79	80	154	364	222	37	14
20	30	28	102	101	104	78	80	67	200	246	13	14
21	30	35	102	100	103	78	80	28	172	232	13	14
22	30	35	102	100	103	78	80	28	173	232	13	14
23	30	35	103	100	102	78	80	28	188	233	13	14
24	30	35	103	100	102	78	80	94	216	233	13	14
25	30	35	103	100	102	78	80	224	201	233	14	14
26	29	34	102	99	102	78	64	263	214	222	14	14
27	29	34	102	100	102	79	31	215	223	210	14	14
28	30	34	102	101	101	78	24	119	235	210	14	14
29	30	34	102	101	101	78	23	119	239	209	15	13
30	30	34	102	101	---	79	23	120	217	278	14	13
31	30	---	102	101	---	78	---	121	---	329	14	---
TOTAL	676	962	3053	3147	2955	1960	2156	2392	11370	7748	5621	443
MEAN	22	32	99	102	102	63	72	77	379	250	181	15
AC-FT	1340	1910	6060	6240	5860	3890	4280	4740	22550	15370	11150	879
MAX	33	35	108	104	104	101	80	263	1020	342	375	30
MIN	12	27	32	99	101	24	23	15	121	147	13	13

CAL YR	2003	TOTAL	49176	MEAN	135	MAX	1160	MIN	12	AC-FT	97540
WTR YR	2004	TOTAL	42483	MEAN	116	MAX	1020	MIN	12	AC-FT	84270

MAX DISCH: 1040 CFS AT 19:00 ON Jun. 9, 2004 GH 3.98 FT. SHIFT 0.03 FT.  
MAX GH: 3.98 FT. AT 19:00 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07086000 ARKANSAS RIVER AT GRANITE, CO

**LOCATION.**--Lat 39°02'34", long 106°15'55", in SE¼SW¼ sec. 31, T.11 S., R.79 W., Chaffee County, Hydrologic Unit 11020001, on right bank at Granite, 100 ft east of U.S. Highway 24, 100 ft downstream from county bridge, and 200 ft upstream from Cache Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--427 mi<sup>2</sup>. Sporadic data from April 1895 to May 1901. Complete data from April 1910 to current year. Monthly data for some periods only.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron 8200 DCP) and shaft encoder in 42-inch diameter corrugated metal pipe (CMP) shelter and well. Shaft encoder and chart set to inside electric tape gage. DCP data are primary record (A-35 chart record is used for back-up purposes). Stock tank heater used inside well during periods of freezing weather to keep well open. Cableway approximately 100 feet downstream from gage. On May 31, 2004, a new 4 ft x 4 ft steel shelter was installed. A Sutron SatLink high data-rate DCP and logger was installed on July 21, 2004. Elevation of gage is 8,914.86 ft above National Geodetic Vertical Datum of 1929, supplementary adjustment of 1960.

**REMARKS.**--Record is complete and reliable except for the following periods: Nov. 5, 6, 16-19, 23-26, 29, 30; Dec. 1-3, 9-16, 18-27, 30, 31, 2003; Jan. 1-3, 5, 7, 9, 10, 17-26, 28-31; Feb. 5, 8, 20, 21, 23-29; Mar. 1, 2, 4-8, 11-14, 28-31, 2004 when stage-discharge relationship was affected by ice. Nov. 27, 28; Dec. 17, 28, 29, 2003; Jan. 4, 6, 8, 11-16, 27; Feb. 1-4, 6, 7, 9-17, 22; Mar. 3, 2004, when intakes may have been frozen and/ or clock stopped. Jan 11-16, 2004 electrical outage causing the well to freeze up. May 31-June 1, 2004 when new shelter was being installed. Record good, except during periods of no gage height record and ice effect, which is poor. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--ARKGRNC011A USED FROM 01-OCT-2003 TO 30-SEP-2004

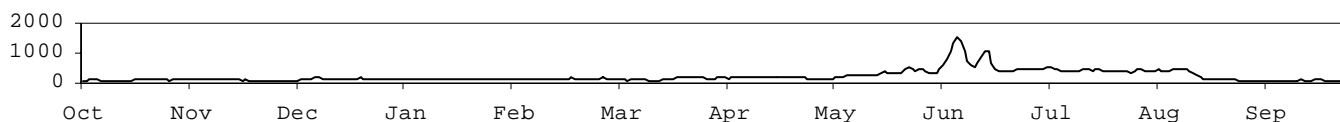
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	107	87	160	152	165	168	134	342	492	440	93
2	92	114	98	163	150	150	174	129	346	440	404	93
3	103	132	133	162	152	115	174	135	361	463	373	92
4	108	121	162	160	154	103	166	158	455	476	390	94
5	104	103	159	158	150	105	185	177	597	530	428	99
6	97	110	164	155	145	100	188	206	795	518	437	96
7	96	118	168	157	145	106	186	212	1050	486	424	93
8	92	119	170	160	147	113	188	238	1350	455	417	91
9	88	110	165	158	147	119	197	250	1550	416	432	90
10	85	120	159	158	143	125	185	244	1390	415	466	90
11	91	116	158	156	145	101	170	265	1060	411	461	92
12	88	102	159	158	140	90	172	299	745	423	463	88
13	85	114	154	156	135	90	168	298	579	419	459	90
14	82	114	156	156	137	89	174	270	553	421	458	87
15	95	107	160	158	140	98	179	257	664	438	407	94
16	116	93	160	156	142	123	179	249	844	449	343	109
17	115	104	162	152	148	150	182	280	1050	488	272	82
18	112	100	164	152	164	155	183	335	1050	431	207	80
19	109	93	165	152	167	165	175	380	650	464	162	88
20	109	92	168	154	165	174	175	362	456	459	141	101
21	108	100	165	152	160	177	174	348	423	423	128	102
22	109	95	162	152	163	178	176	345	431	407	123	104
23	109	94	160	154	162	174	179	311	403	403	126	98
24	109	93	162	158	163	179	178	355	416	419	116	92
25	106	95	164	156	165	187	189	486	398	399	113	90
26	100	88	158	152	165	187	175	528	439	382	107	90
27	109	90	157	145	166	188	137	500	455	382	103	88
28	109	88	155	150	170	168	129	412	453	373	103	92
29	108	89	158	152	165	156	130	463	446	357	99	94
30	107	90	159	156	---	163	135	450	480	404	97	101
31	107	---	161	158	---	165	---	380	---	449	94	---
TOTAL	3131	3111	4832	4826	4447	4358	5170	9456	20231	13492	8793	2793
MEAN	101	104	156	156	153	141	172	305	674	435	284	93
AC-FT	6210	6170	9580	9570	8820	8640	10250	18760	40130	26760	17440	5540
MAX	116	132	170	163	170	188	197	528	1550	530	466	109
MIN	82	88	87	145	135	89	129	129	342	357	94	80
CAL YR 2003	TOTAL	97808	MEAN	268	MAX	2150	MIN	40	AC-FT	194000		
WTR YR 2004	TOTAL	84640	MEAN	231	MAX	1550	MIN	80	AC-FT	167900		

MAX DISCH: 1610 CFS AT 07:45 ON Jun. 10, 2004 GH 4.75 FT. SHIFT 0.14 FT.

MAX GH: 4.75 FT. AT 07:45 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07086500 CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR, CO

**LOCATION.**--Lat 39°01'05", long 106°16'38", in SE¼ sec. 12, T,12 S., R.80 W., Chaffee County, Hydrologic Unit 11020001, on right bank 0.5 mi upstream from water line of Clear Creek Reservoir at elevation 8,875 ft, 1.5 mi downstream from unnamed tributary, and 1.9 mi southwest of Granite.

**DRAINAGE AREA.**--67.1 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron high data rate SaltLink Logger DCP) and shaft encoder in a 42-inch diameter corrugated metal pipe (CMP) shelter and well. Shaft encoder and chart set to inside drop tape gage with adjustable RP on instrument shelf. DCP data are primary record (graphic chart record is used for back-up purposes). Control is a concrete dam tapered lower towards the center, located approximately 15 feet downstream. An outside staff gage is used as a supplemental reference gage. However, since its installation, it does not agree with the inside tape, most likely due to draw-down.

**REMARKS.**--Record is complete and reliable except for the following periods: Nov. 6, 16-19, 2003; Mar. 29-30, 2004, when the stage-discharge relationship was affected by ice. Nov. 21, 2003 to March 18, 2004, when the station was closed for the winter. Record good, except during periods of no gage height record and ice effect, which is poor. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--CCACCRC014 USED FROM 01-OCT-2003 TO 30-SEP-2004

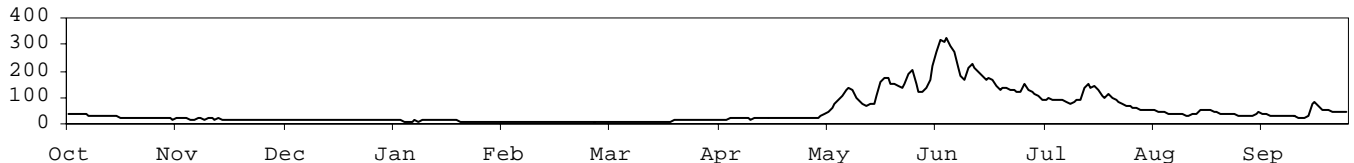
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	19	17	13	10	11	15	26	122	131	57	31
2	36	20	17	14	10	10	15	26	136	124	55	29
3	38	23	16	13	9.5	11	16	28	168	112	56	28
4	37	20	16	12	9	10	15	35	219	102	53	34
5	35	18	16	11	8	9.5	17	44	272	93	52	42
6	34	17	16	10	8	9.5	18	57	319	93	53	38
7	33	19	16	11	9	10	19	73	310	96	49	35
8	32	19	14	12	9	10	20	93	325	92	46	33
9	31	18	13	11	8	10	21	106	292	89	42	31
10	30	19	13	12	9	9	20	126	268	89	40	30
11	31	19	13	12	8	9	19	136	214	88	38	31
12	30	17	13	12	7	9	19	131	182	82	37	29
13	29	19	12	13	7	8.5	18	101	166	79	35	29
14	27	18	13	13	8	8.5	19	84	208	82	34	27
15	27	18	14	13	9	9	19	73	229	87	33	27
16	26	18	13	13	9	9	19	68	210	89	32	26
17	26	17	13	12	10	9	21	72	194	136	35	25
18	25	16	14	12	11	9	21	76	181	149	36	25
19	25	16	14	12	10	9.1	20	102	165	133	52	32
20	24	17	15	12	10	9.9	20	155	170	140	56	76
21	23	16	15	11	10	11	21	172	167	125	50	80
22	23	17	14	10	9	12	20	170	143	105	52	65
23	22	16	13	10	9	13	20	149	130	100	49	56
24	22	15	14	11	8.5	14	21	153	139	113	43	51
25	21	15	14	10	9	14	22	147	139	95	39	50
26	19	15	14	9	10	14	22	138	132	88	37	47
27	20	14	13	8	11	15	23	154	128	85	37	45
28	20	14	12	9	11	14	25	189	124	76	38	44
29	19	15	13	9.5	10	13	26	204	123	70	35	45
30	19	16	13	10	---	13	26	151	148	67	33	47
31	18	---	13	11	---	14	---	122	---	63	31	---
TOTAL	837	520	436	351.5	266	337	597	3361	5723	3073	1335	1188
MEAN	27	17	14	11.3	9.2	10.9	20	108	191	99	43	40
AC-FT	1660	1030	865	697	528	668	1180	6670	11350	6100	2650	2360
MAX	38	23	17	14	11	15	26	204	325	149	57	80
MIN	18	14	12	8	7	8.5	15	26	122	63	31	25

CAL YR	2003	TOTAL	22018.6	MEAN	60.3	MAX	750	MIN	6	AC-FT	43670
WTR YR	2004	TOTAL	18024.5	MEAN	49.2	MAX	325	MIN	7	AC-FT	35750

MAX DISCH: 441 CFS AT 01:30 ON Jun. 8, 2004 GH 4.4 FT. SHIFT 0.06 FT.  
MAX GH: 4.4 FT. AT 01:30 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

## CLEAR CREEK BELOW CLEAR CREEK RESERVOIR, NEAR GRANITE, CO

**LOCATION.**--Lat 39°01'20", long 106°14'07", Lake County, on left bank 200 ft. upstream from junction Clear Creek and Arkansas River.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Float activated graphic water-stage recorder and shaft encoder in a metal-sided wood frame shelter and concrete well. Shaft encoder connected by data cable to High-Data-Rate Sutron Sat-Link DCP, installed at Clear Creek Dam on Sept. 14, 2004. Shaft encoder and chart set to inside drop tape gage with adjustable RP on instrument shelf. Outside gage used as supplemental reference. Outside gage reads 0.01 ft low. DCP data are primary record (graphic chart record is used for back-up purposes). Control is a 20-ft. wide, compound, broad-crested weir located at the gage.

**REMARKS.**--Record is complete and reliable. Record good. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--CCBCCRCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

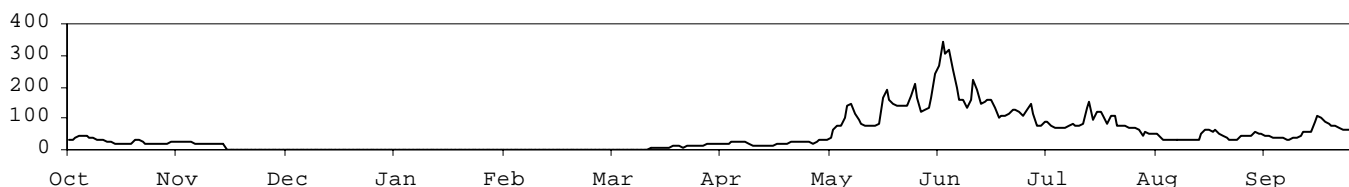
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	28	1.5	1.6	1.7	1.7	16	26	124	145	62	45
2	34	28	1.5	1.7	1.7	1.7	16	30	132	117	44	45
3	39	28	1.5	1.7	1.7	1.7	16	30	163	76	59	59
4	45	28	1.5	1.6	1.6	1.7	16	30	243	76	53	49
5	46	25	1.6	1.6	1.6	1.7	16	40	264	87	49	49
6	45	22	1.6	1.6	1.7	1.7	20	65	340	89	49	47
7	40	18	1.6	1.6	1.7	1.8	23	78	307	78	42	42
8	36	16	1.6	1.7	1.7	1.8	24	79	315	70	33	37
9	33	16	1.6	1.7	1.7	1.7	28	102	252	70	34	37
10	31	16	1.6	1.6	1.7	1.8	27	142	195	70	33	37
11	29	20	1.6	1.6	1.7	1.8	23	145	158	70	33	35
12	27	20	1.6	1.6	1.7	1.8	18	116	158	76	33	34
13	27	19	1.6	1.6	1.7	1.7	15	94	133	80	31	34
14	20	18	1.6	1.6	1.7	2.1	15	81	159	78	29	35
15	17	1.7	1.6	1.6	1.7	5	15	75	222	75	29	41
16	16	1.7	1.6	1.6	1.7	5	15	74	192	80	29	43
17	16	1.7	1.6	1.6	1.7	5	15	75	145	135	29	60
18	16	1.6	1.6	1.6	1.7	5	14	75	152	154	29	56
19	18	1.6	1.6	1.6	1.7	5	15	82	161	98	50	56
20	30	1.6	1.6	1.6	1.7	7	17	163	157	120	66	90
21	34	1.6	1.6	1.6	1.7	9.9	19	189	131	120	62	105
22	23	1.6	1.6	1.6	1.6	9.8	19	158	99	109	58	102
23	17	1.5	1.6	1.6	1.6	9.7	22	147	107	80	63	91
24	17	1.6	1.6	1.6	1.6	9.5	25	141	107	111	51	80
25	17	1.6	1.6	1.6	1.6	11	25	141	112	105	44	76
26	17	1.6	1.6	1.6	1.7	11	25	141	129	75	36	76
27	17	1.6	1.6	1.6	1.6	11	25	141	129	75	33	69
28	17	1.6	1.6	1.6	1.6	11	25	171	123	76	33	64
29	17	1.5	1.6	1.7	1.7	11	24	208	107	70	34	64
30	24	1.5	1.6	1.6	---	14	22	168	125	67	44	64
31	28	---	1.6	1.7	---	16	---	123	---	67	44	---
TOTAL	827	327.6	49.2	50.2	48.5	180.6	595	3330	5141	2799	1318	1722
MEAN	27	10.9	1.6	1.6	1.7	5.8	20	107	171	90	43	57
AC-FT	1640	650	98	100	96	358	1180	6610	10200	5550	2610	3420
MAX	46	28	1.6	1.7	1.7	16	28	208	340	154	66	105
MIN	16	1.5	1.5	1.6	1.6	1.7	14	26	99	67	29	34

CAL YR 2003 TOTAL 18258.7 MEAN 50.0 MAX 350 MIN 1.1 AC-FT 36220  
WTR YR 2004 TOTAL 16388.1 MEAN 44.8 MAX 340 MIN 1.5 AC-FT 32510

MAX DISCH: 348 CFS AT 08:00 ON Jun. 6, 2004 GH 3.07 FT. SHIFT -0.02 FT.  
MAX GH: 3.07 FT. AT 08:00 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07089520 COTTONWOOD CREEK AT BUENA VISTA, CO

**LOCATION.**--Lat 38°50'04", long 106°07'20", in NW¼NW¼NW¼, sec. 16, T.14 S., R. 78 W., in Chaffee County, on left bank, about 1500 ft. upstream from Arkansas River, and 1200 ft. upstream from bridge at Buena Vista High School.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink HDR DCP) and shaft encoder in a 42-inch corrugated metal pipe shelter and well. Shaft encoder and chart set to inside drop tape gage with adjustable RP on instrument shelf. Outside staff gage used for supplemental reference. Satellite-monitored data are the primary record (graphic chart record is used for back-up purposes). Datum of gage 7930 ft. from topographic map.

**REMARKS.**-- On Jan. 8, 2004, a 10 ft. piece of 1.5" PVC pipe was inserted into the upper intake to extend beyond the duning sand in the channel and ensure hydraulic contact between the stream and stilling well. On Jan 26, 2004, channel work was completed above the control removing two large boulders. Record is complete and reliable except for the following periods: Nov. 18, 23-25, 27-29; Dec. 10-14, 16-19, 23-24, 27-31, 2003; Jan.1, 4-6, 9, 12-15, 18, 19, 21-30; Feb. 1, 2, 7-18; Mar.1, 6, 2004, when ice affected the stage-discharge relationship. Jan. 7, 8; Feb. 3-6, 2004 when the upper & lower intakes were plugged with sand; Apr. 13-16, 28-30; May 1-7, 2004 when vandals rotated the upper intake extension & elbow to a vertical position, thereby isolating the Creek from the well. Record good, except that for periods of ice effect and missing record, which is poor. Station maintained and record developed by L.R. Schultz.

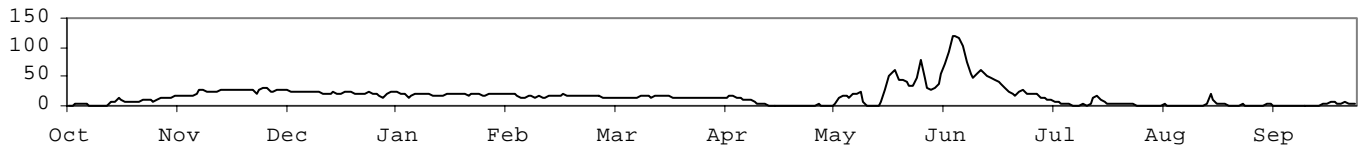
**RATING TABLE.**--COCRBVCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	17	26	23	19	15	14	.8	26	19	.75	.56
2	1	17	26	23	20	15	14	1	30	15	.69	.54
3	3.7	18	25	22	21	15	15	1	36	13	.65	.65
4	4.6	18	25	19	20	15	15	.5	54	11	.6	2.4
5	3	18	25	12	18	15	17	2	71	9.4	.78	3.7
6	2.4	22	25	18	14	14	18	14	93	7.7	2.1	.84
7	1.5	26	25	19	15	15	14	17	119	6.1	.88	.73
8	1.2	26	25	20	18	15	13	16	121	4.3	.68	1.2
9	1.1	24	24	19	16	15	11	15	117	3.6	.65	.67
10	1.1	25	23	20	15	15	11	20	103	2.5	.65	.76
11	1.1	25	23	19	16	16	9.3	22	74	1.7	.65	.89
12	1.2	25	22	18	13	16	7.3	23	56	1.3	.8	1.1
13	7	26	21	17	12	16	2	5.5	48	1.5	.65	1.2
14	6.8	27	22	16	17	15	3	.5	55	2	.77	.56
15	12	27	23	18	17	16	4	.45	61	1.4	.72	.48
16	11	26	20	20	16	16	.55	.45	56	3.6	.65	.46
17	7.2	27	22	20	18	16	.54	1.1	52	15	.65	.45
18	6.5	26	23	19	19	16	.47	7.5	48	18	.3	.45
19	6.6	26	23	20	17	16	.45	26	44	11	19	.79
20	5.3	27	23	21	17	14	.43	51	41	8.2	11	4.8
21	5.8	26	22	20	16	13	.47	59	36	4.7	3.6	4
22	9.1	26	21	18	16	14	.57	61	31	3.7	3.8	5.6
23	9.3	20	20	20	16	14	1.2	45	23	3.8	2.6	5.2
24	8.7	28	21	21	16	14	.46	44	21	4.8	1.1	4.9
25	7.8	31	23	20	16	15	.46	40	18	3.7	.58	5
26	11	31	22	17	16	15	.5	34	23	4	.67	5.7
27	14	25	21	16	16	15	.5	33	27	5	1.2	4.6
28	14	24	16	20	16	15	.5	48	22	2.2	2	3.8
29	15	26	15	21	15	14	.55	79	19	.66	1.4	5.1
30	14	27	22	22	---	14	2	47	19	.83	.58	6.4
31	16	---	24	22	---	14	---	31	---	1.6	.56	---
TOTAL	209.56	737	698	600	481	463	177.25	745.8	1544	190.29	64.41	73.53
MEAN	6.76	25	23	19	17	15	5.91	24.1	52	6.14	2.08	2.45
AC-FT	416	1460	1380	1190	954	918	352	1480	3060	377	128	146
MAX	16	31	26	23	21	16	18	79	121	19	19	6.4
MIN	.56	17	15	12	12	13	.43	.45	18	.66	.56	.45
CAL YR 2003	TOTAL	7423.6	MEAN	20.3	MAX	312	MIN	.22	AC-FT	14720		
WTR YR 2004	TOTAL	5983.84	MEAN	16.3	MAX	121	MIN	.43	AC-FT	11870		

MAX DISCH: 145 CFS AT 03:00 ON Jun. 8, 2004 GH 3.16 FT. SHIFT 0.02 FT.  
MAX GH: 3.16 FT. AT 03:00 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



07091000 CHALK CREEK AT NATHROP, CO

**LOCATION.**--Lat 38°44'30", long 106°04'57", in SW¼SE¼NE¼SW¼ sec. 14, T.15 S., R.78 W., Chaffee County, on left bank, 640' north of the Junction of Co. Hwy. 162 and U.S. 285 on the frontage rd. parallel to U.S. 285, ¼ mi. south of Nathrop, Co., and 1 mi. west of the confluence of Chalk Creek and the Arkansas River.

**DRAINAGE AREA.**--N\A.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink Logger HDR DCP) and shaft encoder in 32-inch diameter corrugated metal pipe (CMP) shelter and well. Shaft encoder and chart set to inside drop tape gage with adjustable RP on instrument shelf. DCP data are primary record (graphic chart record is used for back-up purposes). Outside staff gage also used for reference purpose. Control is a concrete dam, tapered lower towards the center, located approximately 5 feet downstream. Elevation of gage 7660' from topographic map.

**REMARKS.**--Record is complete and reliable except for the following periods: Dec. 28-30, 2003; Jan. 4-7, 27; Feb. 6-15, 2004, when ice affected the stage-discharge relationship. Record good, except during periods of ice effect, when a tree was on the control and when boulders were on the control, which are poor. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--CHCRNACO6 USED FROM 01-OCT-2003 TO 30-SEP-2004

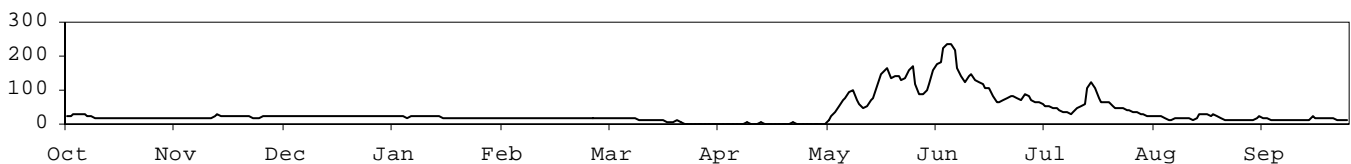
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	24	22	20	18	1.9	2.8	89	83	33	10
2	23	19	25	22	19	18	1.7	2.4	102	71	31	10
3	30	18	26	22	19	18	2.1	2.1	119	66	30	12
4	31	18	26	22	20	18	2.1	2.7	157	62	26	19
5	32	16	26	21	19	18	2.1	9.8	174	58	24	21
6	27	16	26	20	18	17	2.1	22	181	54	26	16
7	24	17	25	21	18	19	2.2	38	221	52	24	15
8	23	17	25	22	19	18	2.8	53	238	49	23	13
9	20	16	25	22	18	16	2.5	70	237	46	20	12
10	19	17	23	22	18	15	2.5	77	219	41	14	12
11	20	19	24	21	19	15	2.5	93	167	37	14	11
12	20	23	23	21	18	14	3	102	142	34	17	11
13	19	27	23	21	17	14	2.8	73	126	32	16	11
14	18	26	23	21	18	13	2.5	58	140	36	16	13
15	18	25	24	21	18	12	2.9	49	147	50	15	11
16	18	24	23	20	19	11	3.5	51	130	51	15	12
17	18	25	23	20	19	11	1.9	69	125	60	14	12
18	18	23	23	19	18	9.9	1.6	76	115	106	17	12
19	17	22	23	19	18	8.9	1.6	109	106	122	27	13
20	17	23	22	19	19	7	1.6	147	104	105	30	22
21	17	23	23	19	18	6.3	1.5	158	85	77	28	20
22	16	24	23	19	18	6.1	1.8	167	66	67	26	20
23	16	20	22	20	18	9.3	2.4	137	62	62	27	19
24	16	19	22	19	18	4.9	2.8	144	73	62	21	18
25	16	20	22	19	18	1.9	3	142	77	55	15	18
26	16	21	22	19	18	1.6	2.6	132	80	49	13	15
27	16	21	23	19	18	1.6	2.1	138	85	49	12	14
28	16	21	22	20	19	1.6	2.1	159	77	45	12	14
29	15	22	21	20	18	1.6	2.1	168	71	44	11	14
30	18	24	21	20	---	1.6	2.5	118	90	41	11	14
31	20	---	22	20	---	2.8	---	91	---	38	11	---
TOTAL	615	626	725	632	534	330.1	68.8	2660.8	3805	1804	619	434
MEAN	20	21	23	20	18	10.6	2.3	85.8	127	58	20	15
AC-FT	1220	1240	1440	1250	1060	655	136	5280	7550	3580	1230	861
MAX	32	27	26	22	20	19	3.5	168	238	122	33	22
MIN	15	16	21	19	17	1.6	1.5	2.1	62	32	11	10

CAL YR 2003 TOTAL 13785.5 MEAN 37.8 MAX 435 MIN 0.77 AC-FT 27340  
WTR YR 2004 TOTAL 12853.7 MEAN 35.1 MAX 238 MIN 1.5 AC-FT 25500

MAX DISCH: 279 CFS AT 01:15 ON Jun. 8, 2004 GH 4.63 FT. SHIFT -0.01 FT. DATUM CORR. -0.13 FT.  
MAX GH: 4.63 FT. (DATUM CORR. -0.13 FT) AT 01:15 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07091500 ARKANSAS RIVER AT SALIDA, CO

**LOCATION.**--Lat 38°32'45", long 106°00'36", in NE¼ sec. 31, T.50 N., R.9 E., Chaffee County on right bank at Salida, 450 ft. upstream from bridge on State Highway 291, and 2.7 mi. upstream from South Arkansas River.

**DRAINAGE AREA.**--1,218 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron Model 8210 DCP with high data rate transmitter) and shaft encoder in a 4'x 4' steel shelter placed over a stilling well. Shaft encoder and chart set to inside drop tape gage with adjustable RP on instrument shelf (augmented by an outside staff gage). Outside gage set 0.01 ft low. DCP log data are primary record (satellite data and A-35 chart used for back-up purposes). Cableway approximately 35 feet downstream from gage. Datum of gage is 7,050.45 ft.

**REMARKS.**--Record is complete and reliable except for the following periods: Nov. 23-25, 27-29; Dec. 10-14, 16-20, 23-25, 27-31, 2003; Jan. 1, 17-19, 21-30; Feb. 2-18, 23, 26, 27, 29, 2004, when gage height was affected by ice on the control; Oct. 1-3, 5-13; Nov. 19, 20, 26, 2003; Jan. 4-15; Apr. 1-5, 14-22, 28, 29; May 2-4; Sept. 12, 14-19, 2004, when the intakes were plugged by moving sand. May 7-20, 2004 when perforated tapes caught on the float-wheel index. Record good, except for those periods of no gage-height and ice affected record, which are poor. Station maintained and record developed by L.R.Schultz.

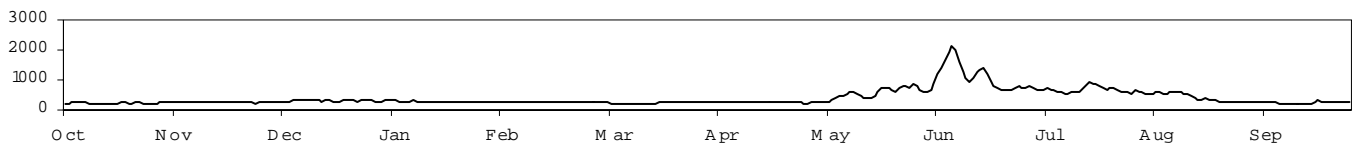
**RATING TABLE.**--ARKSALCO29 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	270	265	320	288	258	250	263	612	826	626	241
2	230	274	259	311	270	263	257	252	610	727	593	248
3	241	281	268	315	271	246	283	238	665	663	530	241
4	277	284	296	300	276	227	264	240	852	667	534	254
5	273	269	307	280	271	220	260	272	1170	693	561	267
6	260	266	311	275	260	217	279	326	1430	717	597	264
7	241	271	317	285	260	218	279	398	1690	671	583	257
8	232	273	318	305	261	223	293	439	1960	647	560	254
9	220	270	315	295	260	227	287	457	2140	583	541	259
10	215	268	308	290	257	228	300	537	2020	579	570	221
11	209	273	307	295	260	229	277	580	1580	566	570	226
12	207	278	310	294	250	214	265	617	1300	563	579	223
13	206	280	290	287	245	210	259	555	1040	567	577	222
14	210	281	305	280	250	208	251	463	959	576	566	209
15	205	276	317	280	263	208	261	402	1100	625	560	208
16	217	259	288	289	270	210	261	379	1240	646	473	217
17	236	260	287	282	272	227	256	404	1360	821	416	226
18	235	258	300	279	275	241	246	467	1430	914	366	217
19	231	252	312	280	280	245	244	590	1200	840	364	223
20	229	256	314	280	277	247	234	710	904	876	368	254
21	237	258	304	274	273	253	236	742	769	776	345	305
22	237	262	309	272	273	256	250	766	714	722	307	298
23	230	238	300	267	268	259	279	667	656	685	307	289
24	230	222	307	276	270	257	272	626	663	702	300	269
25	230	247	306	277	266	258	281	741	659	709	273	259
26	228	253	312	260	263	261	284	815	697	639	261	259
27	232	250	307	250	265	261	263	812	759	613	250	261
28	241	240	270	260	271	256	230	762	778	594	252	253
29	248	254	270	275	263	243	228	897	730	577	247	256
30	257	263	290	285	---	240	257	826	759	543	241	259
31	268	---	315	286	---	244	---	671	---	648	253	---
TOTAL	7236	7886	9284	8804	7728	7354	7886	16914	32446	20975	13570	7439
MEAN	233	263	299	284	266	237	263	546	1082	677	438	248
AC-FT	14350	15640	18410	17460	15330	14590	15640	33550	64360	41600	26920	14760
MAX	277	284	318	320	288	263	300	897	2140	914	626	305
MIN	205	222	259	250	245	208	228	238	610	543	241	208
CAL YR 2003	TOTAL	163703	MEAN	449	MAX	3190	MIN	160	AC-FT	324700		
WTR YR 2004	TOTAL	147522	MEAN	403	MAX	2140	MIN	205	AC-FT	292600		

MAX DISCH: 2200 CFS AT 04:00 ON Jun. 9, 2004 GH 4.98 FT. SHIFT 0.07 FT.  
MAX GH: 4.98 FT. AT 04:00 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07093700 ARKANSAS RIVER NEAR WELLSVILLE, CO

**LOCATION.**--Lat 38°30'10", long 105°56'21", in SW¼NE¼ sec. 14, T.49 N., R.9 E., Chaffee County, Hydrologic Unit 11020001, on right bank 50 ft upstream from Chaffee-Fremont County line, 2.0 mi northwest of Wellsville, 2.8 mi downstream from South Arkansas River, and 3.5 mi southeast of Salida.

**DRAINAGE AREA AND PERIOD OF RECORD.**--1,485 mi<sup>2</sup>. April 1961 to current year.

**GAGE.**--Station is equipped with a satellite-monitored data collection platform (Sutron 8210 DCP) with a Sutron Accububbler. The 8210 DCP log is the primary record, the satellite-monitored data are used as back-up. Accububbler set to outside horizontal chain weight gage. DCP upgraded to high data rate (hourly) transmissions on June 18, 2002. Concrete flood block with provisions for high and low stage orifice lines installed September 2002. The new orifice lines were installed Aug. 28, 2003. Cableway located 400 feet downstream from gage. Datum of gage is 6,883.4 ft above National Geodetic Vertical Datum of 1929 (river-profile survey).

**REMARKS.**--Record is complete and reliable except for the following periods: Nov. 23-30; Dec. 10-13, 16-31, 2003; Jan. 1, 3-15, 18-20, 22-31; Feb.1-19, 2004, when the orifice line was temporarily frozen; May 21-27, 2004, when the Accububble malfunctioned. Record good, except during periods of orifice freezing and Accububble malfunction, which is poor. Station maintained and record developed by L.R. Schultz.

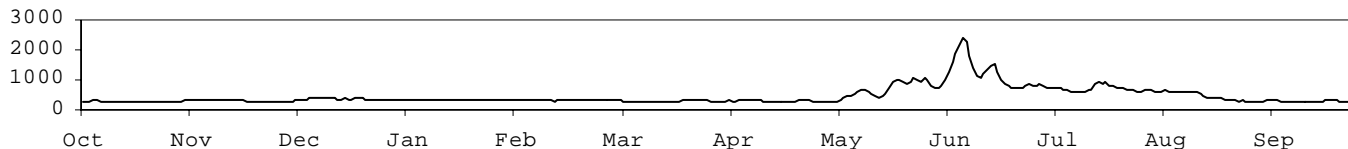
**RATING TABLE.**--ARKWELCO06A USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	252	317	333	365	340	316	284	295	755	874	668	290
2	258	324	325	353	320	323	291	284	747	784	642	291
3	285	337	331	355	325	302	317	270	805	717	587	283
4	322	344	363	335	327	278	299	272	994	716	590	308
5	313	324	378	315	329	268	300	304	1300	733	606	316
6	300	311	383	305	320	258	336	373	1570	756	639	304
7	281	324	386	320	311	264	331	445	1880	711	627	306
8	272	330	390	340	318	272	348	486	2130	686	603	294
9	260	320	383	330	320	278	339	514	2380	634	577	288
10	255	317	377	325	315	281	357	597	2260	623	607	260
11	249	323	377	330	310	278	327	644	1770	610	607	262
12	247	326	370	329	305	255	311	687	1430	609	609	258
13	246	328	360	327	300	248	299	615	1140	615	611	257
14	254	333	363	320	302	242	283	520	1050	622	594	244
15	248	324	375	323	325	240	293	449	1170	663	592	240
16	259	302	360	336	330	238	293	426	1310	692	519	249
17	287	300	365	337	334	258	291	451	1440	849	464	258
18	287	296	370	333	338	282	278	527	1530	952	414	251
19	279	290	380	334	348	289	276	706	1290	876	421	258
20	278	294	379	335	345	299	266	935	989	923	417	291
21	287	292	361	333	337	308	269	994	845	827	381	338
22	290	299	365	330	335	314	283	1020	787	772	367	347
23	280	275	359	333	334	314	313	919	720	732	363	334
24	267	255	360	321	335	309	312	878	720	751	357	310
25	266	285	358	320	332	310	331	963	716	762	326	297
26	266	288	356	310	329	315	333	1040	762	684	311	296
27	273	290	355	305	332	314	294	1030	819	659	299	296
28	287	280	345	310	334	307	261	927	846	647	302	288
29	296	295	340	320	328	286	260	1070	791	632	291	291
30	304	298	345	328	---	277	289	994	812	603	287	294
31	317	---	360	335	---	283	---	826	---	683	295	---
TOTAL	8565	9221	11252	10192	9458	8806	9064	20461	35758	22397	14973	8599
MEAN	276	307	363	329	326	284	302	660	1192	722	483	287
AC-FT	16990	18290	22320	20220	18760	17470	17980	40580	70930	44420	29700	17060
MAX	322	344	390	365	348	323	357	1070	2380	952	668	347
MIN	246	255	325	305	300	238	260	270	716	603	287	240
CAL YR 2003	TOTAL	180125	MEAN	493	MAX	3320	MIN	178	AC-FT	357300		
WTR YR 2004	TOTAL	168746	MEAN	461	MAX	2380	MIN	238	AC-FT	334700		

MAX DISCH: 2510 CFS AT 07:45 ON Jun. 9, 2004 GH 6.12 FT. SHIFT 0.11 FT.  
MAX GH: 6.13 FT. AT 07:45 ON Jun. 9, 2004 (-0.01 FT. Datum Correction)

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





ARKANSAS RIVER BASIN

07095000 GRAPE CREEK NEAR WESTCLIFFE, CO

**LOCATION.**--Lat 38°11'10", long 105°28'59", in NW¼NW¼ sec. 31, T.21 S., R.72 W., Custer County, Hydrologic Unit 110200001, on left bank 0.5 mi upstream from water line of De Weese Reservoir at elevation 7,665 ft, 0.5 mi downstream from Swift Creek, and 3.6 mi northwest of Westcliffe.

**DRAINAGE AREA.**--320 mi².

**GAGE.**--Graphic water stage recorder, satellite monitored data collection platform (Sutron Model 8210 DCP) and shaft encoder in a 48-inch diameter metal pipe (CMP) shelter and well. Primary record is DCP log data with the graphic chart recorder and satellite data used for backup purposes. Primary reference gage is electric drop tape inside well. No outside staff gage. The control is a compound, broad-crested weir located 17 ft. downstream from the gage. Elevation of gage is 7,690 ft, from topographic map. Prior to Mar, 17. 1939, at site 30 ft upstream at present datum.

**REMARKS.**-- Record is complete and reliable except for the following periods: November 16, 18, 19, 23-25, 27-30, December 1, 3-6, 9-16, 2003 when the stage-discharge relationship was affected by shore ice and ice on the control. December 17-31, 2003; January 1-31, February 1-29, and March 1-4, 2004 when chart and shaft encoder floats were frozen in ice in the well, the well was frozen, intakes were frozen, and the control was frozen over. Record good, except for periods of ice effect and no gage height record, which are poor. Station maintained and record developed by Thomas W. Ley.

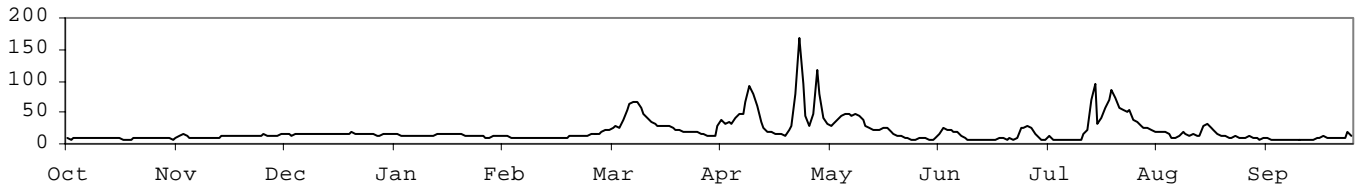
**RATING TABLE.**--GRAWESCO08 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	8.3	15	16	12	19	14	117	8.5	26	27	12
2	7.5	12	15	15	12	21	14	78	7.6	16	24	11
3	8.2	15	15	15	12	23	30	40	7.9	11	25	8.4
4	9.8	14	14	14	11	25	38	31	11	7.6	21	7.8
5	10	10	15	13	11	29	32	29	17	6.7	19	8.2
6	9.6	9.7	16	12	10	25	35	32	25	13	18	8
7	9.3	10	17	12	10	37	31	37	22	7.4	18	7.6
8	9.1	10	17	13	10	53	40	45	22	6.2	18	7.1
9	9	11	17	13	10	63	49	47	20	6	15	6.9
10	8.7	11	17	13	10	68	48	47	20	6.7	11	6.9
11	8.8	10	16	14	9	66	68	43	14	7.4	11	7
12	9.5	10	16	14	9	56	93	48	11	5.7	13	7
13	9.2	11	16	14	8	49	80	45	7.7	5.2	19	6.8
14	9.4	12	17	15	8	41	59	39	7	4.9	17	6.7
15	9.5	12	17	15	9	36	35	30	6.1	7.5	14	6.6
16	8.4	12	15	16	9	31	25	24	7.1	17	15	6.8
17	7.5	12	16	16	10	30	19	23	6.8	21	14	6.8
18	7.6	12	16	17	10	29	18	21	6.3	6.9	12	6.6
19	7.9	12	16	16	11	28	17	21	7.7	9.5	29	6.9
20	8.1	12	17	15	11	27	16	25	7.8	33	33	8.5
21	8	13	18	15	12	25	15	25	7.7	40	24	10
22	8	12	17	14	12	23	14	19	9.4	58	21	12
23	8.2	12	16	14	14	21	23	16	8.6	70	17	10
24	8.4	12	16	14	13	19	30	13	6.9	85	14	9.5
25	8.1	13	16	13	14	19	79	12	9.3	73	12	9.3
26	8.2	15	15	12	14	18	167	9.1	7.9	58	11	9.5
27	8.6	14	15	12	16	18	95	8	11	55	11	9.5
28	8.4	13	14	11	17	18	43	6.9	25	51	13	9.3
29	8.1	14	14	11	16	17	28	6.7	25	55	11	18
30	8	14	15	12	---	15	47	9.9	30	38	9.7	12
31	7.7	---	15	12	---	14	---	11	---	34	10	---
TOTAL	265.4	358	491	428	330	963	1302	958.6	383.3	989.3	526.7	262.7
MEAN	8.6	11.9	16	14	11.4	31	43	30.9	12.8	31.9	17	8.8
AC-FT	526	710	974	849	655	1910	2580	1900	760	1960	1040	521
MAX	10	15	18	17	17	68	167	117	30	95	33	18
MIN	7.5	8.3	14	11	8	14	14	6.7	6.1	4.9	9.7	6.6
CAL YR 2003	TOTAL	6256.8	MEAN	17.1	MAX	121	MIN	3.9	AC-FT	12410		
WTR YR 2004	TOTAL	7258	MEAN	19.8	MAX	167	MIN	4.9	AC-FT	14400		

MAX DISCH: 235 CFS AT 19:45 ON Apr. 26, 2004 GH 2.03 FT. SHIFT 0.05 FT.  
MAX GH: 2.03 FT. AT 19:45 ON Apr. 26, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07096000 ARKANSAS RIVER AT CANON CITY, CO

**LOCATION.**--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec. 31, T.18 S., R.70 W., Fremont County, Hydrologic Unit 11020002, on right bank 800 ft upstream from Sand Creek, 0.7 mi downstream from Grape Creek, and 0.7 mi upstream from First Street Bridge in Canon City.

**DRAINAGE AREA AND PERIOD OF RECORD.**--3,117 mi<sup>2</sup>. January 1888 to current year. Monthly data only for some periods. Published as near Canyon 1900-1906.

**GAGE.**--Graphic water-stage recorder, with high data rate DCP (Sutron 8210) and SDI shaft encoder installed July 25, 2002, in 42-inch diameter CMP shelter and well. Primary reference gage is electric drop tape inside well. Control is man-made concrete diversion dam located approximately 200 feet downstream. Cableway 15-20 feet downstream from gage. USGS Hydrolab is co-located at gage. Datum of gage is 5,342.13 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for the following days when ice on the control affected the gage height: Nov. 23-29; Dec. 9-19, 28-31, 2003; January 1-12, 21-29, Feb 5-17, 2004. Record good, except for days on which ice affected the stage-discharge relationship, which should be considered poor. Station maintained and record developed by Thomas W. Ley.

**RATING TABLE.**--ARKCANCO23 USED FROM 01-OCT-2003 TO 30-SEP-2004

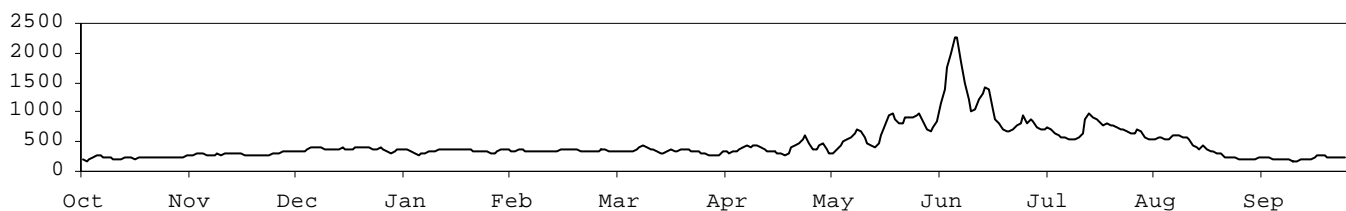
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	269	350	360	371	344	272	428	723	871	710	205
2	185	275	343	370	348	350	270	482	691	843	676	203
3	198	289	338	370	353	345	340	362	729	739	587	204
4	248	302	348	350	365	343	325	318	857	706	529	215
5	265	295	387	310	355	334	299	312	1160	709	525	235
6	254	277	393	280	350	321	321	362	1400	738	556	241
7	242	276	401	300	330	326	349	449	1740	702	585	229
8	225	286	405	320	340	347	384	500	1980	643	584	224
9	221	290	395	330	335	370	406	530	2250	616	550	207
10	212	285	380	340	330	408	425	572	2250	588	531	202
11	209	291	370	350	335	434	419	655	1860	589	603	200
12	207	292	380	360	330	411	424	708	1490	545	592	201
13	222	299	385	380	325	376	423	670	1200	544	597	198
14	232	310	385	369	330	377	394	566	1010	539	564	192
15	225	307	390	370	345	325	361	477	1050	577	566	185
16	214	293	385	376	360	320	340	426	1220	634	525	178
17	234	279	370	376	375	320	330	419	1320	875	454	188
18	243	283	380	383	380	342	329	462	1420	968	399	198
19	233	271	390	377	376	357	317	610	1380	908	381	195
20	229	268	400	363	368	343	291	790	1060	870	427	200
21	229	276	402	360	357	349	277	950	884	844	378	221
22	238	276	409	350	352	356	290	988	794	771	350	277
23	239	270	397	345	348	356	416	893	722	796	324	273
24	227	275	378	345	354	357	431	797	675	764	314	262
25	223	295	382	350	352	348	460	820	691	791	290	240
26	223	310	393	340	350	350	540	914	705	741	247	231
27	226	315	385	305	347	323	602	907	789	694	234	225
28	231	325	340	320	361	313	478	905	805	699	230	232
29	240	325	295	340	359	295	357	951	930	687	228	249
30	248	337	340	366	---	274	375	989	807	641	206	246
31	261	---	360	368	---	271	---	857	---	657	205	---
TOTAL	7074	8741	11656	10823	10181	10685	11245	20069	34592	22289	13947	6556
MEAN	228	291	376	349	351	345	375	647	1153	719	450	219
AC-FT	14030	17340	23120	21470	20190	21190	22300	39810	68610	44210	27660	13000
MAX	265	337	409	383	380	434	602	989	2250	968	710	277
MIN	185	268	295	280	325	271	270	312	675	539	205	178

CAL YR 2003 TOTAL 169615 MEAN 465 MAX 3540 MIN 119 AC-FT 336400  
WTR YR 2004 TOTAL 167858 MEAN 459 MAX 2250 MIN 178 AC-FT 332900

MAX DISCH: 2380 CFS AT 15:30 ON Jun. 9, 2004 GH 8.02 FT. SHIFT -0.05 FT.  
MAX GH: 8.02 FT. AT 15:30 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07097000 ARKANSAS RIVER AT PORTLAND, CO

**LOCATION.**--Lat 38°23'18", long 105°00'56", in NE¼NE¼ sec. 20, T.19 S., R.68 W., Fremont County, Hydrologic Unit 11020002, on right bank at bridge on State Highway 120 at Portland and 1 mi downstream from Hardscrabble Creek.

**DRAINAGE AREA.**--4,024 mi<sup>2</sup>.

**GAGE.**--Sutron 8210 satellite-monitored data collection platform (DCP) and high data rate transmitter (HDR) with shaft encoder and a graphic water-stage recorder in 36-inch diameter CMP shelter and well. Primary record is 8210 data logger with the graphic chart recorder used for backup purposes. Primary reference gage is a drop tape referenced to an adjustable RP mounted on the instrument shelf inside the shelter. A cablecar is suspended from a monorail attached to upstream side of Highway 120 bridge 10-15 feet downstream from gage. USGS Hydrolab monitored by DCP for water temperature and specific conductance.

**REMARKS.**--Record is complete and reliable except for: November 22 - 26; December 28 - 31, 2003; January 4 - 8, 25 - 29 and February 5, 12 - 15, 2004 when ice in the channel affected the stage - discharge relationship. Record is good, except during periods of estimated flows, which is poor. Station maintained and record developed by Anthony Gutierrez.

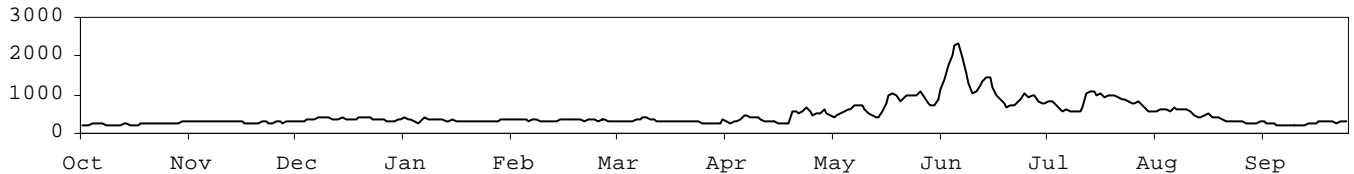
**RATING TABLE.**--ARKPORCO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	305	326	384	382	332	254	539	769	964	821	278
2	190	312	333	390	358	333	254	609	722	981	750	260
3	191	331	325	376	352	332	347	501	742	853	627	264
4	245	332	334	360	386	333	322	447	868	801	554	260
5	263	315	365	325	360	333	282	410	1160	793	547	289
6	257	322	384	270	346	310	287	447	1410	837	593	289
7	246	305	386	350	329	310	332	517	1740	820	614	269
8	226	320	397	410	342	330	372	572	2000	727	640	269
9	222	321	433	385	338	342	447	599	2290	657	597	246
10	223	313	408	377	333	375	477	630	2340	575	567	229
11	226	304	388	370	335	432	433	711	1980	603	647	214
12	223	309	386	362	308	399	412	746	1560	573	633	211
13	236	319	377	352	304	369	415	738	1270	578	632	205
14	235	313	380	322	318	354	371	625	1060	563	597	199
15	232	322	408	325	335	316	333	520	1070	592	598	214
16	227	311	387	337	354	313	333	445	1220	655	555	217
17	228	284	352	335	361	302	304	416	1320	1060	468	215
18	244	274	382	334	374	316	294	431	1450	1090	409	226
19	248	272	384	318	378	332	283	580	1460	1100	414	243
20	243	263	388	329	360	312	260	789	1170	1000	477	234
21	248	281	397	333	348	310	243	993	978	1010	507	261
22	260	285	394	315	345	313	272	1030	856	926	425	332
23	275	300	396	306	333	308	553	981	757	974	407	332
24	265	270	366	311	338	305	556	841	673	988	391	323
25	254	275	364	305	341	304	528	855	723	1000	379	295
26	263	305	374	315	337	302	564	965	732	941	333	293
27	262	314	366	285	327	293	664	966	850	888	321	275
28	266	283	315	310	345	280	564	970	884	885	331	291
29	280	296	290	330	344	279	491	977	1030	851	327	313
30	287	306	310	366	---	252	514	1080	908	771	297	307
31	300	---	360	373	---	242	---	940	---	757	286	---
TOTAL	7550	9062	11455	10560	10011	9963	11761	21870	35992	25813	15744	7853
MEAN	244	302	370	341	345	321	392	705	1200	833	508	262
AC-FT	14980	17970	22720	20950	19860	19760	23330	43380	71390	51200	31230	15580
MAX	300	332	433	410	386	432	664	1080	2340	1100	821	332
MIN	185	263	290	270	304	242	243	410	673	563	286	199
CAL YR 2003	TOTAL	177223	MEAN	486	MAX	3740	MIN	142	AC-FT	351500		
WTR YR 2004	TOTAL	177634	MEAN	485	MAX	2340	MIN	185	AC-FT	352300		

MAX DISCH: 2540 CFS AT 17:45 ON Jun. 9, 2004 GH 4.72 FT. SHIFT 0.04 FT.  
MAX GH: 4.72 FT. AT 17:45 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO

**LOCATION.**--Lat 38°16'18", long 104°43'03", in SE¼NE¼ sec. 36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on left bank of Arkansas River, 200' downstream from NE corner of Arkansas River bridge, approx. 0.4 mi. downstream from Pueblo Dam, and 7 mi. West of Pueblo.

**DRAINAGE AREA AND PERIOD OF RECORD.**--4,670 mi<sup>2</sup>. October 1965 to current year. Periodic water quality and sediment data available Oct. 1965 to current year.

**GAGE.**--Satellite-monitored data collection platform (high data rate Sutron 8210 DCP), Sutron Accububble, shaft encoder and chart recorder in a 4 ft x 4 ft concrete block shelter over a stilling well. Primary record is the DCP log of accububble data with the graphic chart recorder and shaft encoder used for backup purposes when the stilling well is not isolated (gage height 1.80 ft and below). Primary reference gage is outside staff gage for lower flows (maximum gage height of 2.69 feet), and an electric drop tape referenced to a fixed index mounted on the instrument shelf inside the shelter when well has contact to the river (gage height 1.80 feet and above). Cableway approximately 20 feet upstream from gage. USGS Hydrolab monitored by DCP. Elevation of gage is 4740 ft above NGV Datum of 1929 (from topographic map).

**REMARKS.**--Record is complete and reliable for entire water year. Good chart record and shaft encoder data from periods when the stilling well was not isolated; and reservoir operations data were used when accububble problems were experienced: 1415 June 7 to 1500 June 9 and from 1300 August 1 to 1000 August 5 due to a fitting leak in the Accububble the shaft encoder data was used. Record good. Station maintained and record developed by Anthony Gutierrez.

**RATING TABLE.**--ARKPUECO17 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

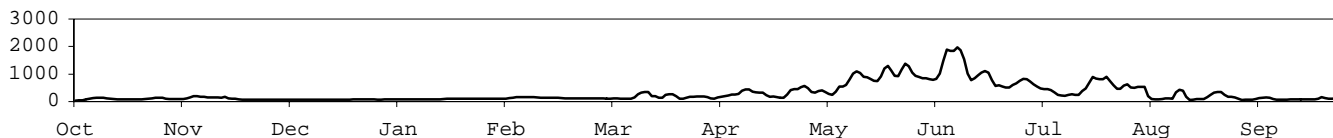
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	88	72	77	102	113	121	328	850	813	501	62
2	46	113	72	77	109	104	108	381	843	735	535	66
3	52	150	73	78	123	110	146	404	816	623	535	69
4	86	194	73	78	140	113	175	352	789	540	530	74
5	107	195	74	78	158	113	195	276	819	475	200	93
6	125	169	74	78	167	110	224	249	1020	453	95	124
7	135	169	74	77	167	110	251	356	1480	450	85	136
8	137	155	74	77	166	110	255	542	1890	421	86	152
9	135	147	74	78	167	110	283	543	1840	335	94	138
10	118	146	74	78	167	145	395	608	1840	240	118	91
11	106	145	75	78	153	263	438	798	1970	216	120	64
12	96	140	75	78	139	324	439	1020	1860	213	108	64
13	85	179	75	78	138	351	355	1100	1540	244	341	65
14	80	111	75	80	139	346	333	1040	1020	265	424	75
15	80	102	74	92	139	196	330	902	776	247	391	82
16	80	103	74	101	139	193	319	879	843	241	178	77
17	80	85	74	101	139	140	235	817	956	378	60	77
18	80	69	75	101	130	142	176	755	1050	480	69	77
19	80	70	75	101	119	246	182	743	1110	684	93	77
20	80	70	76	102	119	263	160	919	1050	891	93	76
21	91	71	76	102	119	263	140	1200	781	836	91	77
22	100	71	77	102	119	201	143	1300	563	808	167	77
23	120	71	77	101	119	108	258	1130	586	814	247	108
24	135	70	77	102	119	110	417	942	545	898	319	158
25	134	71	77	102	119	139	454	921	511	746	346	123
26	134	71	76	102	119	177	456	1170	513	585	346	101
27	107	71	75	103	119	178	522	1380	607	466	246	110
28	88	71	75	102	119	181	562	1290	660	466	169	119
29	87	71	76	102	119	182	483	1050	748	575	170	119
30	88	72	76	102	---	182	346	944	825	629	145	118
31	89	---	77	102	---	158	---	887	---	509	106	---
TOTAL	3001	3310	2321	2810	3891	5481	8901	25226	30701	16276	7008	2849
MEAN	97	110	75	91	134	177	297	814	1023	525	226	95
AC-FT	5950	6570	4600	5570	7720	10870	17660	50040	60900	32280	13900	5650
MAX	137	195	77	103	167	351	562	1380	1970	898	535	158
MIN	40	69	72	77	102	104	108	249	511	213	60	62

CAL YR 2003 TOTAL 123920 MEAN 340 MAX 1.2 MIN 0 AC-FT 245800  
WTR YR 2004 TOTAL 111775 MEAN 305 MAX 1970 MIN 40 AC-FT 221700

MAX DISCH: 2070 CFS AT 10:15 ON Jun. 11, 2004 GH 5.16 FT. SHIFT 0.07 FT.

MAX GH: 5.16 FT. AT 10:15 ON Jun. 11, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07111000 HUERFANO RIVER AT MANZANARES CROSSING NEAR REDWING, CO

**LOCATION.**--Lat 37°43'40", long 105°21'03", in sec 5, T.27 S., R.71 W., Huerfano County, on left bank at Manzanares crossing, 500 ft downstream from private bridge, .2 mi downstream from Manzanares Creek, and 3.5 mi southwest of Redwing.

**DRAINAGE AREA.**--73 mi<sup>2</sup>.

**GAGE.**--Sutron 8210 satellite-monitored high data rate data collection platform (DCP) with shaft encoder and graphic water-stage recorder, inside a 48-inch diameter corrugated metal pipe (CMP) shelter and well. Shaft encoder and chart set to inside electric tape gage. DCP logger is primary record with DCP data and A-35 chart record used for back-up purposes. A temperature sensor was installed November 5 and started on November 27, 2002.

**REMARKS.**--Record complete and reliable except for the following periods: October 26; November 4 - 9, 18 - 30; December 1 - 31, 2003; and January 1 - 31; February 1 - 29; March 1 - 16, 2004 when the stage-discharge relationship was affected by ice in the well and/ or the river. Record fair except for periods of ice effect, which should be considered poor. Station maintained and record developed by Anthony Gutierrez.

**RATING TABLE.**--HURREDCO23 USED FROM 01-OCT-2003 TO 30-SEP-2004

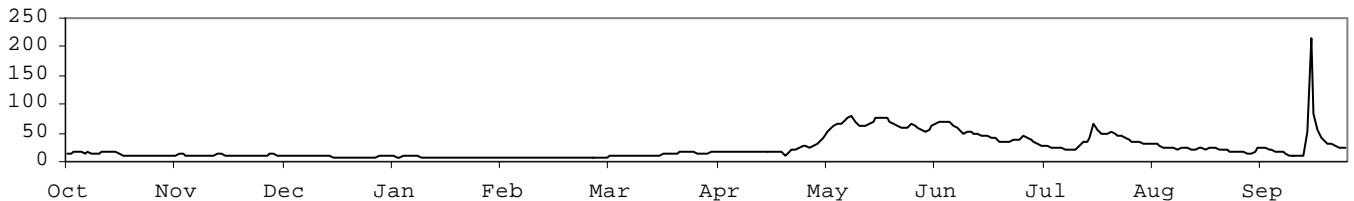
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	12	9	8	8	15	27	55	42	33	16
2	13	14	11	9	8	8	17	30	53	37	33	14
3	16	14	11	8.5	8	8	18	35	57	34	32	14
4	18	12	11	8.5	8	9	17	42	62	32	31	19
5	16	11	11	9	8	9	18	51	66	29	32	25
6	15	11	10	9	8	9	19	59	68	29	32	24
7	16	11	10	10	8	9	17	63	71	28	31	23
8	15	11	10	10	8	9	18	67	70	26	29	21
9	15	11	10	9	8	10	17	66	68	24	26	20
10	15	11	11	8.5	8	10	17	74	63	23	24	19
11	16	12	11	8.5	8	10	16	78	59	23	23	18
12	16	12	10	8.5	8	10	17	79	55	22	23	16
13	16	13	10	8.5	7	11	16	70	50	21	22	13
14	16	13	9	8.5	7	11	17	64	51	21	23	11
15	16	12	9	8.5	7	11	16	61	52	22	24	11
16	14	11	8.5	8.5	7	11	16	61	50	27	23	11
17	12	12	8.5	8.5	7	12	17	65	48	34	22	9.3
18	12	10	8.5	8.5	7	12	18	68	46	33	22	8.8
19	12	10	8.5	8.5	7	13	16	75	45	41	25	52
20	12	10	8.5	8	7	14	16	76	44	65	23	217
21	12	10	8.5	8	7	14	16	77	43	57	22	85
22	11	10	8.2	8	7	14	16	77	41	49	26	57
23	11	10	8.5	8	7	15	9.2	70	36	50	24	41
24	11	11	8.5	8	7	16	16	65	35	50	23	34
25	11	11	8.5	8	7	17	20	62	34	51	21	32
26	9.2	12	8.5	8	7	17	21	58	35	49	20	31
27	11	12	8.5	8	8	18	26	58	39	46	20	28
28	11	13	8.5	8	8	16	29	60	38	45	19	26
29	10	13	9	8	8	15	29	67	39	42	18	25
30	10	11	9	8	---	15	26	63	45	38	18	24
31	10	---	9	8	---	15	---	58	---	35	17	---
TOTAL	411.2	346	293.2	263	218	376	546.2	1926	1518	1125	761	945.1
MEAN	13.3	12	9.5	8.5	7.5	12.1	18.2	62	51	36	25	31.5
AC-FT	816	686	582	522	432	746	1080	3820	3010	2230	1510	1870
MAX	18	14	12	10	8	18	29	79	71	65	33	217
MIN	9.2	10	8.2	8	7	8	9.2	27	34	21	17	8.8

CAL YR 2003 TOTAL 8501 MEAN 23.3 MAX 144 MIN 5.8 AC-FT 16860  
WTR YR 2004 TOTAL 8728.7 MEAN 23.8 MAX 217 MIN 7 AC-FT 17310

MAX DISCH: 380 CFS AT 03:30 ON Sep. 20, 2004 GH 4.25 FT. SHIFT 0 FT.  
MAX GH: 4.25 FT. AT 03:30 ON Sep. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07114000 CUCHARAS RIVER AT BOYD RANCH NEAR LA VETA, CO

**LOCATION.**--Lat 37°25'12", long 105°03'08", in SE¼NE¼SE¼ sec. 24, T.30 S., R.69 W., Huerfano County, on left bank at Boyd Ranch, 29 ft. downstream from private bridge, 1.4 mi downstream from Chaparral Creek, and 6.5 mi southwest of La Veta.

**DRAINAGE AREA.**--56 mi<sup>2</sup>.

**GAGE.**--Sutron model 8210 satellite-monitored data collection platform (DCP) with a High Data Rate (HDR) radio transmitter, with shaft encoder and graphic water-stage recorder in a 42-inch diameter corrugated metal pipe (CMP) shelter over 48-inch corrugated pipe well. Shaft encoder and chart are set using a drop-tape from a reference mark on the front of the equipment shelf. DCP log is primary record with graphic chart record and satellite data used for back-up purposes. A temperature sensor was installed November 5, 2002 and was started in use on November 27, 2002. Supplemental outside staff gage is not currently used.

**REMARKS.**--Record is complete and reliable except for the following periods: October 26; November 5-7, 16, 18-19, 21, 23-29; December 1, 3-6, 9-20, 22-31, 2003; January 1, 5-8, 10-15, 18-31; February 1-3, 20, 22-27, 29; March 1-10, 28 - 30; April 3, 11, 22-25, 2004 when the stage-discharge relationship was affected by ice in the river channel. February 4-18, 2004 when the floats were frozen in ice in the well. April 28, 2004 when debris on the control temporarily affected the stage-discharge relationship. Record considered good, except during periods of ice effect, which is poor. Station maintained and record developed by Anthony Gutierrez.

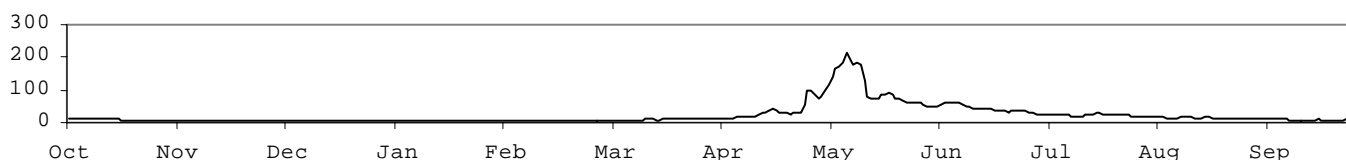
**RATING TABLE.**--CRBRLVCO14 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.4	8.5	6.9	6	6.2	11	74	52	29	18	11
2	10	8.3	8.2	7	5.8	6.5	11	78	49	26	18	11
3	13	8.9	8.3	7	5.6	7	11	98	49	25	17	9.9
4	12	8.3	8.2	6.9	5.4	7	14	119	50	24	17	11
5	11	8.2	8.1	6.9	5.4	7.3	14	143	56	23	17	12
6	11	8.1	8	6.9	5.3	7.4	15	168	59	23	16	10
7	11	7.9	7.7	6.8	5.3	7.5	15	169	59	23	16	9.9
8	10	8.1	7.7	6.7	5.3	7.6	18	181	60	23	15	9.7
9	10	8.4	8.4	6.6	5.2	7.7	20	212	60	22	15	9.5
10	10	8.4	9	6.6	5.2	8	19	189	60	22	15	9.2
11	9.8	8.6	8.9	6.5	5.2	8.5	19	175	56	22	15	9.2
12	9.7	8.5	8.8	6.5	5.3	9.1	19	183	50	21	16	9
13	9.4	9	8.7	6.6	5.3	9.6	19	175	47	21	17	8.6
14	9.3	8.8	8.6	6.6	5.4	9.4	24	130	45	21	16	8.4
15	9.2	8.4	8.5	6.5	5.4	9.4	28	80	43	21	16	8.3
16	9	8.3	8.5	6.5	5.6	8.9	30	75	42	23	15	7.6
17	8.6	8.5	8.4	6.4	5.6	8.9	35	76	42	27	14	7.1
18	8.5	8.5	8.3	6.4	5.8	9.9	42	76	41	26	14	7.4
19	8.5	8.6	8.1	6.4	5.7	11	37	83	40	32	16	8.5
20	8.4	8.7	7.9	6.3	5.8	12	33	87	38	31	16	9.2
21	8.3	8.5	7.7	6.2	6	13	30	94	37	26	14	8.3
22	8.2	8.3	7.5	6.1	5.8	13	28	84	37	23	13	8.9
23	8.2	8.3	7.5	6.2	5.9	14	27	75	34	24	13	8.2
24	8.5	8.4	7.4	6.2	5.8	15	28	75	33	24	13	7.9
25	8.3	8.5	7.2	6.1	5.9	15	28	68	34	23	12	8.1
26	8.3	8.4	7	6.1	5.9	14	29	61	36	22	12	8.8
27	8.3	8.4	6.8	6.1	6	14	58	61	35	22	12	8.2
28	8.3	8.5	6.4	6.2	6	12	95	60	38	22	12	12
29	8.4	8.6	6.3	6.2	6	11	98	62	34	21	12	9.1
30	8.1	8.7	6.5	6.2	---	11	87	62	32	20	12	8.1
31	7.9	---	6.7	6.2	---	11	---	57	---	19	12	---
TOTAL	289.2	253.5	243.8	200.8	162.9	311.9	942	3330	1348	731	456	274.1
MEAN	9.3	8.5	7.9	6.5	5.6	10.1	31	107	45	24	15	9.1
AC-FT	574	503	484	398	323	619	1870	6610	2670	1450	904	544
MAX	13	9	9	7	6	15	98	212	60	32	18	12
MIN	7.9	7.9	6.3	6.1	5.2	6.2	11	57	32	19	12	7.1
CAL YR 2003	TOTAL	5629.9	MEAN	15.4	MAX	77	MIN	3.1	AC-FT	11170		
WTR YR 2004	TOTAL	8543.2	MEAN	23.3	MAX	212	MIN	5.2	AC-FT	16950		

MAX DISCH: 242 CFS AT 09:00 ON May. 9, 2004 GH 1.68 FT. SHIFT 0.13 FT.  
MAX GH: 1.68 FT. AT 09:00 ON May. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

CUCHARAS RIVER AT HARRISON BRIDGE NEAR LA VETA, CO

**LOCATION.**--Lat 37° 33' 02", Long 104° 56' 11", in the NE¼ SW¼ Sec.6, T29S, R67W Huerfano County, on right bank at the Valley Road Harrison Bridge crossing of Cucharas River approximately ¾ mile south of the intersection of Valley Road and Highway 160.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Sutron 8210 data collection platform (DCP) and shaft encoder. The shaft encoder is housed inside of a 20" x 30" metal shelter atop an 18-inch stilling well attached to the center bridge pier. DCP is in a 4' x 4' steel shelter approximately 150 feet south of the right bank. Primary reference gage is a drop tape from a reference mark on the bridge guardrail 20 feet to the right of the stilling well. DCP log is primary record with satellite data used for back-up purposes. Elevation of gage is 6654 ft MSL from topographic map.

**REMARKS.**--Record is complete and reliable except for the following periods: November 22-30; December 9-15, 18-20, 22-31, 2003; January 1-4, 8-15, 18-26, 29-31; February 1, 6-11, 14, 15, 19, 29; March 1, 6, 2004 when the stage-discharge relationship was affected by ice in river channel. December 16, 17, 2003; January 5-7, 27, 28; February 2-5, 12, 13, 16-18, 2004 when the float was frozen in the well. July 1-14; August 4-9, 21-23, 2004 when the DCP was not working properly. August 26-September 8, 2004 when the well was isolated. Record fair, except during periods of ice effect and no gage height, which are poor. Station maintained and record developed by Anthony Gutierrez.

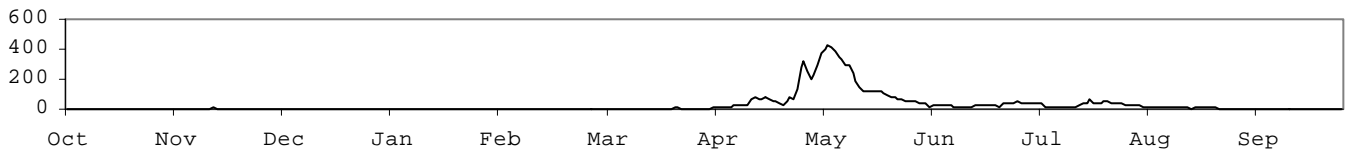
**RATING TABLE.**--CRHBLVCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.2	6.5	5	5	5.2	3.3	204	43	43	23	3
2	4.3	5	5	5	4.8	5.2	4	231	41	40	24	3
3	4.3	5	4.8	5	4.8	5.3	14	291	37	39	22	2.5
4	5.8	5	5.4	4.8	4.8	5.4	12	372	17	38	20	2
5	4.7	5	5.5	4.6	4.8	5	12	396	25	37	18	2
6	4.7	5	5.1	4.5	4.9	4.7	12	423	28	37	15	1.5
7	4.5	5	4.8	4.7	5	4.3	11	412	25	20	15	1.5
8	3.9	5	4.4	4.7	5	4.3	17	387	24	20	12	1.3
9	4	5	4.5	4.8	5	4.3	22	349	23	20	12	1.5
10	4	5	4.5	4.9	4.9	4.3	24	328	23	18	9.5	1
11	3.8	6.6	4.6	5	4.8	4.3	25	300	19	18	9.4	.79
12	3.7	7.4	4.7	5	4.3	4.3	28	293	19	18	10	.68
13	3.7	5.8	4.7	5.1	4.2	4.3	32	243	18	16	16	.43
14	3.6	4.8	4.8	5.2	4.3	4.3	62	184	17	15	11	.27
15	3.6	4.5	4.9	5.2	4.4	4.3	74	146	18	14	14	.09
16	3.8	4.4	4.8	5.2	4.5	4.3	73	125	20	17	10	0
17	4	5	4.7	4.8	4.5	4.3	67	126	24	30	7	0
18	3.9	5.8	4.7	4.6	4.6	4.3	79	122	25	36	6.5	0
19	5	5.5	4.8	4.6	4	4.3	71	120	30	37	13	0
20	5	6.6	4.5	4.8	4.1	4.3	58	118	24	62	20	0
21	5	5.3	4.5	4.8	4.4	4.3	49	116	23	43	16	0
22	5	5.5	4.2	4.8	4.8	5.5	41	112	26	36	14	.11
23	5	5.3	4.2	4.8	4.8	9.2	26	97	22	38	12	1.1
24	5	5.3	4.2	5	5.4	9	54	86	18	51	9.6	1.1
25	5	5.5	4.2	5.4	5.4	5.6	78	77	40	51	8.8	1
26	5	5.6	4.2	5	5.4	4.4	67	70	39	45	5.5	1.8
27	5	5.5	4.2	4.8	5.4	3.9	130	61	37	44	5.2	2.4
28	5	5.4	4	4.8	5.4	3.8	274	56	36	43	5	4.6
29	5	5.7	4.4	5	5.4	3.4	323	54	51	39	4.5	3.5
30	5	6	4.6	5	---	3.4	252	52	44	32	4	3.6
31	5	---	4.8	5	---	3.3	---	49	---	27	3.5	---
TOTAL	139.6	161.7	145.2	151.9	139.1	146.8	1994.3	6000	836	1024	375.5	40.77
MEAN	4.5	5.4	4.7	4.9	4.8	4.7	66.5	194	28	33	12.1	1.36
AC-FT	277	321	288	301	276	291	3960	11900	1660	2030	745	81
MAX	5.8	7.4	6.5	5.4	5.4	9.2	323	423	51	62	24	4.6
MIN	3.6	4.4	4	4.5	4	3.3	3.3	49	17	14	3.5	0
CAL YR 2003	TOTAL	3517.75	MEAN	9.64	MAX	75	MIN	0	AC-FT	6980		
WTR YR 2004	TOTAL	11154.87	MEAN	30.5	MAX	423	MIN	0	AC-FT	22130		

MAX DISCH: 450 CFS AT 11:30 ON May 6, 2004 GH 3.62 FT. SHIFT -0.16 FT. DATUM CORR. +0.01 FT.  
MAX GH: 3.62 FT. (DATUM CORR. +0.01 FT.) AT 11:30 ON May 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

OXFORD FARMERS DITCH NEAR NEPESTA, CO

**LOCATION.**--Lat 38° 10' 34", Long 104° 8' 42", in the NE¼ NW¼ SW¼ Sec.32, T21S, R60W Pueblo County, Hydrologic Unit 11020005, approximately 0.33 mi upstream from Arkansas River at Nepesta Rd. Bridge river gage.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Sutron SatLink DCP/logger with High Data Rate radio, which monitors a shaft encoder in a stilling well inside a wood frame shelter. A float-activated A-35 graphic water-stage recorder is also in the stilling well. Primary record is the DCP log data with satellite-monitored data with the graphic chart recorder used for backup purposes. Twelve-foot standard concrete Parshall flume is the control. Primary reference gage is outside staff gage installed in flume.

**REMARKS.**--Record is complete and reliable. Record good. Station maintained and record developed by Anthony D. Gutierrez.

**RATING TABLE.**--OXFDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

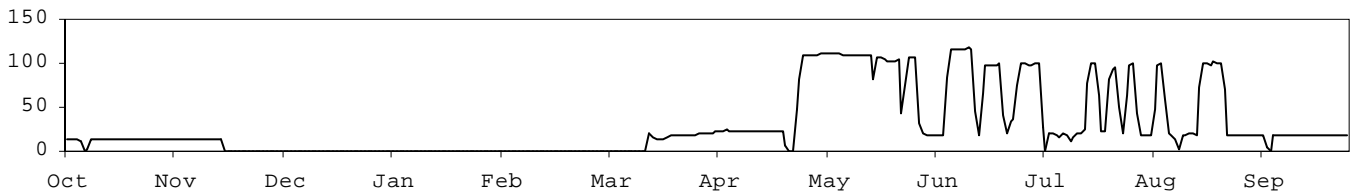
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	0	0	0	0	20	110	20	98	44	18
2	13	14	0	0	0	0	21	110	18	98	19	18
3	13	14	0	0	0	0	22	111	18	99	18	18
4	13	14	0	0	0	0	23	111	19	99	18	18
5	11	13	0	0	0	0	23	111	19	28	18	18
6	0	13	0	0	0	0	24	111	18	0	48	18
7	2.7	14	0	0	0	0	23	111	18	20	97	5
8	13	14	0	0	0	0	23	111	84	20	99	.75
9	13	13	0	0	0	0	22	110	116	19	59	18
10	13	13	0	0	0	0	22	110	116	16	20	18
11	13	13	0	0	0	0	22	110	115	20	19	18
12	14	13	0	0	0	0	22	110	115	19	13	18
13	13	13	0	0	0	0	22	109	115	12	3.3	18
14	13	13	0	0	0	.56	22	109	119	15	18	18
15	13	0	0	0	0	21	22	109	117	20	19	18
16	13	0	0	0	0	15	23	110	46	21	20	18
17	13	0	0	0	0	14	22	109	19	24	20	18
18	13	0	0	0	0	14	22	82	67	77	19	18
19	13	0	0	0	0	14	22	107	98	100	72	19
20	13	0	0	0	0	17	22	106	98	99	99	19
21	13	0	0	0	0	18	23	105	98	64	99	18
22	13	0	0	0	0	18	23	103	97	22	97	18
23	13	0	0	0	0	19	7	103	99	22	103	18
24	13	0	0	0	0	19	0	103	41	81	100	19
25	13	0	0	0	0	18	0	104	20	94	99	18
26	13	0	0	0	0	18	47	44	35	96	70	18
27	13	0	0	0	0	18	82	74	37	50	18	18
28	13	0	0	0	0	18	109	106	75	20	19	18
29	13	0	0	0	0	20	110	106	99	63	19	18
30	13	0	0	0	---	20	110	106	99	98	18	19
31	14	---	0	0	---	20	---	32	---	99	18	---
TOTAL	379.7	188	0	0	0	301.56	955	3153	2055	1613	1402.3	513.75
MEAN	12.2	6.27	0	0	0	9.73	31.8	102	69	52	45.2	17.1
AC-FT	753	373	0	0	0	598	1890	6250	4080	3200	2780	1020
MAX	14	14	0	0	0	21	110	111	119	100	103	19
MIN	0	0	0	0	0	0	0	32	18	0	3.3	.75

CAL YR 2003	TOTAL	7514.8	MEAN	20.6	MAX	128	MIN	0	AC-FT	14905
WTR YR 2004	TOTAL	10561.31	MEAN	28.9	MAX	119	MIN	0	AC-FT	20950

MAX DISCH: 126 CFS AT 12:00 ON Jun. 14, 2004 GH 1.85 FT. SHIFT 0 FT.  
MAX GH: 1.85 FT. AT 12:00 ON Jun. 14, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





ARKANSAS RIVER BASIN

07117000 ARKANSAS RIVER AT NEPESTA ROAD BRIDGE NEAR NEPESTA, CO (RIVER ONLY)

**LOCATION.**--Lat 38° 10' 44", Long 104° 8' 20", in the NE¼ SE¼ NW¼ Sec.32, T21S, R60W Pueblo County, Hydrologic Unit 11020005, on the left bank downstream side of the Nepesta Road Bridge crossing the Arkansas River, 0.8 mi downstream of Kramer Creek, 9 mi downstream from Huerfano River, 1 mile NNW of the Nepesta Cemetery.

**DRAINAGE AREA.**--9,345 mi<sup>2</sup>.

**GAGE.**--Sutron 8210 High Data Rate satellite-monitored data collection platform (DCP) with data logger and Sutron Accubar with constant nitrogen bubbling using a site feed assembly with purges in a 4" x 4" steel shelter. The primary record is the DCP log data with satellite data used for backup. The primary gage is a wire weight gage attached to the bridge approximately 120 ft south of the shelter. Elevation of gage is 4,355 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable, except for the periods: November 23-26, 28; December 10-14, 16-19, 23-31, 2003; January 1, 4-15, 22-31; and February 10-17, 2004 when ice affected the stage-discharge relationship. June 11-14 when the nitrogen tank was turned off. Record is considered fair during period of good data collection and considered poor during periods of ice or missing data. Station maintained and record developed by Anthony D. Gutierrez.

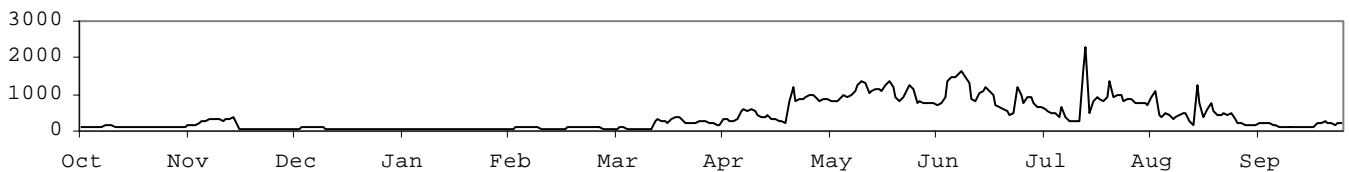
**RATING TABLE.**--ARKNEPC015 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	147	51	48	50	75	201	853	769	915	752	208
2	86	157	62	49	53	80	165	797	756	954	755	163
3	85	170	77	40	79	81	187	881	769	771	739	159
4	92	244	86	42	92	81	309	863	763	642	744	161
5	104	285	86	40	97	88	319	814	731	633	703	157
6	135	285	90	38	103	83	248	812	757	594	921	201
7	135	308	89	40	98	80	280	794	932	526	1110	229
8	137	352	97	44	93	79	317	912	1350	514	455	227
9	147	332	97	42	94	77	570	1000	1500	477	389	199
10	145	322	83	44	85	74	599	940	1480	406	500	188
11	132	296	75	36	80	71	543	955	1550	665	417	147
12	122	307	60	45	75	77	580	1080	1640	395	333	113
13	117	320	50	55	70	64	533	1280	1500	294	355	113
14	107	382	46	65	72	62	419	1380	1310	276	440	102
15	104	157	42	70	75	254	357	1320	893	259	492	99
16	99	67	40	75	75	305	388	1040	837	262	469	110
17	95	79	44	71	77	295	415	1070	1010	1690	278	117
18	88	71	46	70	81	276	345	1140	1110	2310	182	117
19	88	64	47	65	91	234	306	1130	1200	498	1270	116
20	92	73	48	66	97	312	292	1090	1110	832	755	122
21	89	72	42	68	91	370	255	1250	991	930	372	106
22	92	77	47	60	84	365	244	1340	709	853	575	131
23	104	68	50	60	85	307	808	1220	678	813	745	211
24	106	67	52	62	88	222	1220	927	604	913	553	244
25	122	66	54	60	84	211	835	819	553	1380	441	259
26	120	60	56	50	82	223	894	934	432	908	454	238
27	129	60	54	45	85	237	864	1170	471	966	495	208
28	128	58	50	40	85	249	928	1250	1190	962	433	188
29	119	59	46	48	79	268	994	1130	972	833	467	200
30	110	58	48	45	---	254	987	778	781	869	319	216
31	118	---	50	43	---	241	---	816	---	857	226	---
TOTAL	3431	5063	1865	1626	2400	5695	15402	31785	29348	24197	17139	5049
MEAN	111	169	60	53	83	184	513	1025	978	781	553	168
AC-FT	6810	10040	3700	3230	4760	11300	30550	63050	58210	47990	34000	10010
MAX	147	382	97	75	103	370	1220	1380	1640	2310	1270	259
MIN	84	58	40	36	50	62	165	778	432	259	182	99
CAL YR 2003	TOTAL	125050	MEAN	343	MAX	3550	MIN	17	AC-FT	248000		
WTR YR 2004	TOTAL	143000	MEAN	391	MAX	2310	MIN	36	AC-FT	283600		

MAX DISCH: 3900 CFS AT 21:30 ON Jul. 17, 2004 GH 14.21 FT. SHIFT -0.45 FT.  
MAX GH: 14.21 FT. AT 21:30 ON Jul. 17, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07117000 ARKANSAS RIVER AT NEPESTA ROAD BRIDGE NEAR NEPESTA, CO (COMBINED)

**LOCATION.**--Lat 38° 10' 44", Long 104° 8' 20", in the NE¼ SE¼ NW¼ Sec.32, T21S, R60W Pueblo County, Hydrologic Unit 11020005, on the left bank downstream side of the Nepesta Road Bridge crossing the Arkansas River, 0.8 mi downstream of Kramer Creek, 9 mi downstream from Huerfano River, 1 mile NNW of the Nepesta Cemetery.

**DRAINAGE AREA.**--9,345 mi<sup>2</sup>.

**REMARKS.**--The combined record of mean daily discharge was obtained by the addition of Oxford Farmers Ditch mean daily flows to the corresponding mean daily flows in the Arkansas River at Nepesta Road Bridge. The peak discharge for the year was 3920 cfs at 21:30 July 17, 2004. Combined record is fair, except during periods of estimated flow, which should be considered poor. The Arkansas River near Nepesta CO gaging station was moved from above the Oxford Farmers Ditch diversion to the Nepesta Road bridge below the diversion beginning October 1, 2000. For consistency and comparison with previously published historical record in this reach of the Arkansas River, the total Arkansas River flow is computed by combining the Oxford Ditch mean daily discharge with the mean daily discharge measured at Arkansas River at Nepesta Road Bridge near Nepesta CO gaging station. Record developed by Div. II Personnel.

ARKANSAS RIVER AT NEPESTA BRIDGE AND OXFORD FARMERS DITCH (COMBINED)

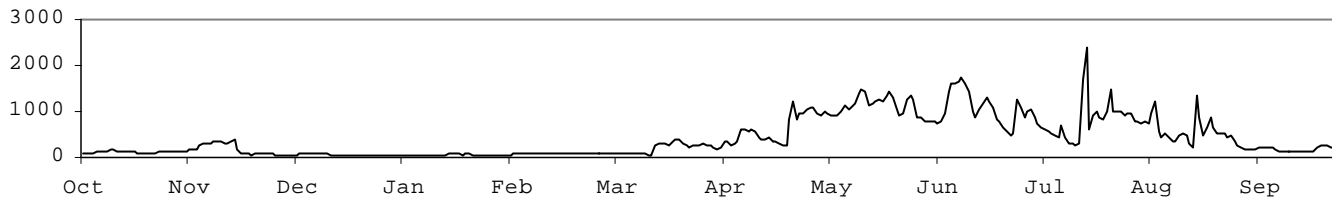
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	161	51	48	50	75	221	963	789	1010	796	226
2	99	171	62	49	53	80	186	907	774	1050	774	181
3	98	184	77	40	79	81	209	992	787	870	757	177
4	105	258	86	42	92	81	332	974	782	741	762	179
5	115	298	86	40	97	88	342	925	750	661	721	175
6	135	298	90	38	103	83	272	923	775	594	969	219
7	138	322	89	40	98	80	303	905	950	546	1210	234
8	150	366	97	44	93	79	340	1020	1430	534	554	228
9	160	345	97	42	94	77	592	1110	1620	496	448	217
10	158	335	83	44	85	74	621	1050	1600	422	520	206
11	145	309	75	36	80	71	565	1070	1670	685	436	165
12	136	320	60	45	75	77	602	1190	1760	414	346	131
13	130	333	50	55	70	64	555	1390	1620	306	358	131
14	120	395	46	65	72	63	441	1490	1430	291	458	120
15	117	157	42	70	75	275	379	1430	1010	279	511	117
16	112	67	40	75	75	320	411	1150	883	283	489	128
17	108	79	44	71	77	309	437	1180	1030	1710	298	135
18	101	71	46	70	81	290	367	1220	1180	2390	201	135
19	101	64	47	65	91	248	328	1240	1300	598	1340	135
20	105	73	48	66	97	329	314	1200	1210	931	854	141
21	102	72	42	68	91	388	278	1360	1090	994	471	124
22	105	77	47	60	84	383	267	1440	806	875	672	149
23	117	68	50	60	85	326	815	1320	777	835	848	229
24	119	67	52	62	88	241	1220	1030	645	994	653	263
25	135	66	54	60	84	229	835	923	573	1470	540	277
26	133	60	56	50	82	241	941	978	467	1000	524	256
27	142	60	54	45	85	255	946	1240	508	1020	513	226
28	141	58	50	40	85	267	1040	1360	1270	982	452	206
29	132	59	46	48	79	288	1100	1240	1070	896	486	218
30	123	58	48	45	---	274	1100	884	880	967	337	235
31	132	---	50	43	---	261	---	848	---	956	244	---
TOTAL	3811	5251	1865	1626	2400	5997	16359	34952	31436	25800	18542	5563
MEAN	123	175	60	53	83	193	545	1127	1048	832	598	185
AC-FT	7560	10420	3700	3230	4760	11900	32450	69330	62350	51170	36780	11030
MAX	160	395	97	75	103	388	1220	1490	1760	2390	1340	277
MIN	97	58	40	36	50	63	186	848	467	279	201	117

CAL YR	2003	TOTAL	132570	MEAN	363	MAX	3670	MIN	17	AC-FT	262900
WTR YR	2004	TOTAL	153602	MEAN	421	MAX	2390	MIN	36	AC-FT	304700

MAX DISCH.: 3920 CFS AT 21:30 ON Jul. 17, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07119700 ARKANSAS RIVER BELOW CATLIN DAM, NEAR FOWLER, CO

**LOCATION.**--Lat 38°07'33", long 103°54'41", in NW¼NW¼ sec. 21, T.22 S., R.58 W., Otero County, Hydrologic Unit 11020005, at Catlin Canal gage, on right bank 2.2 mi downstream from diversion dam for Catlin Canal, 2.3 mi downstream from Apishapa River, and 6.0 mi east of Fowler.

**DRAINAGE AREA AND PERIOD OF RECORD.**--10,901 mi². October 1964 to current year.

**GAGE.**--Satellite-monitored data collection platform (Sutron Model 8210 DCP), and accubar in 8' by 8' shelter. Primary record is DCP data log. Satellite-monitored data used for backup purposes. Outside staff gage is primary reference gage. Cableway approximately 1 mile upstream. Catlin Canal flume gage height and USGS water quality monitor also monitored by this DCP.

**REMARKS.**--Record is complete and reliable except for the following periods: Apr 5, 6, 2004 due to DCP malfunction and missing satellite data. Nov 5-6, 23-29, Dec 10-21, 24-31, 2003; Jan 4-10, 13, 14, 23-30, Feb 2, 6-16, 2004 due to ice affecting the stage-discharge relationship. Record good, except for periods of missing record and ice effect, which should be considered poor. Station maintained and record developed by Adam Adame.

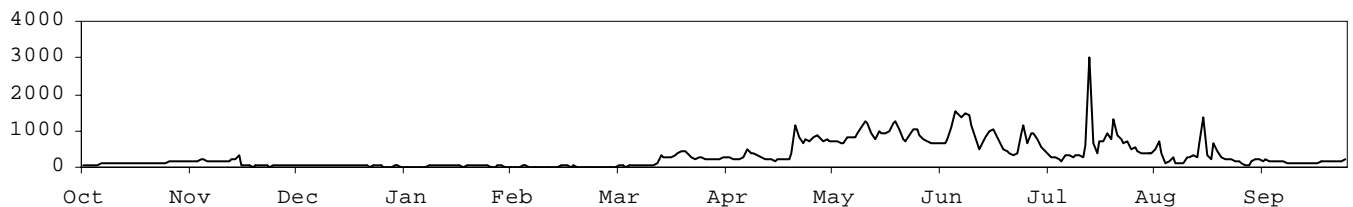
**RATING TABLE.**--ARKCATCO11 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	160	30	26	25	25	214	824	723	915	452	57
2	73	168	31	23	22	25	231	713	645	912	377	77
3	74	175	29	23	23	26	257	750	651	741	376	153
4	73	201	30	23	25	28	282	723	681	554	400	194
5	78	195	28	22	29	32	250	687	650	435	383	199
6	100	190	30	22	28	21	245	692	655	405	513	188
7	116	184	31	26	26	29	241	655	759	293	706	198
8	122	183	33	26	25	33	236	668	1100	250	357	185
9	126	168	34	28	22	29	260	836	1510	227	108	167
10	119	142	34	28	20	29	501	828	1470	179	146	174
11	118	153	32	30	22	28	387	824	1390	315	256	165
12	105	187	30	30	22	31	398	922	1460	303	122	151
13	104	196	30	28	21	43	356	1120	1440	289	86	126
14	99	216	32	28	20	28	298	1250	1170	312	117	133
15	98	307	34	29	23	91	202	1230	800	312	289	117
16	100	80	34	29	28	306	244	950	501	301	298	116
17	101	49	33	28	33	267	244	787	732	596	333	114
18	101	29	32	28	30	258	181	962	835	3040	276	105
19	100	25	34	27	26	255	199	918	982	638	644	101
20	101	28	32	28	29	349	192	921	1030	398	1370	101
21	102	36	32	29	24	405	204	981	911	701	339	96
22	100	33	29	29	24	422	225	1230	698	727	238	129
23	111	30	26	29	23	424	401	1260	474	922	654	143
24	125	25	28	29	24	316	1140	1030	429	779	411	191
25	136	30	30	30	24	265	815	758	359	1310	291	180
26	153	35	30	28	24	241	651	725	344	886	226	169
27	159	40	22	26	23	252	775	869	399	775	219	170
28	175	35	22	27	23	252	687	1060	911	666	211	151
29	162	40	25	30	26	241	826	1020	1140	691	163	167
30	164	38	28	29	---	233	870	864	648	507	160	195
31	170	---	32	26	---	216	---	742	---	535	111	---
TOTAL	3534	3378	937	844	714	5200	12012	27799	25497	19914	10632	4412
MEAN	114	113	30	27	25	168	400	897	850	642	343	147
AC-FT	7010	6700	1860	1670	1420	10310	23830	55140	50570	39500	21090	8750
MAX	175	307	34	30	33	424	1140	1260	1510	3040	1370	199
MIN	69	25	22	22	20	21	181	655	344	179	86	57
CAL YR 2003	TOTAL	106055	MEAN	291	MAX	3230	MIN	15	AC-FT	210400		
WTR YR 2004	TOTAL	114873	MEAN	314	MAX	3040	MIN	20	AC-FT	227900		

MAX DISCH: 3820 CFS AT 16:30 ON Jul. 18, 2004 GH 5.99 FT. SHIFT -0.06 FT.  
MAX GH: 5.99 FT. AT 16:30 ON Jul. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07119705 CATLIN CANAL, NEAR FOWLER, CO

LOCATION.--Lat 38°07'33", long 103°54'41", in NW¼NW¼ sec. 21, T.22 S., R.58 W., Otero County, Hydrologic Unit 11020005, at river gage.

DRAINAGE AREA.--N/A.

GAGE.--Float-activated graphic water-stage recorder and shaft encoder in 8' x 8' shelter with well (with equipment for Arkansas River below Catlin Dam near Fowler CO river gage). Shaft encoder is connected to satellite-monitored data collection platform (DCP) used for river gage. Primary record is DCP log file with the graphic chart recorder used for backup purposes. Fifteen-foot standard concrete Parshall flume is the control. Primary reference gage is outside staff gage installed in flume. Elevation of canal gage is 4,257.87 ft. above National Geodetic Vertical Datum of 1929.

REMARKS.--Record is complete and reliable. Record good. Station maintained and record developed by Adam Adame.

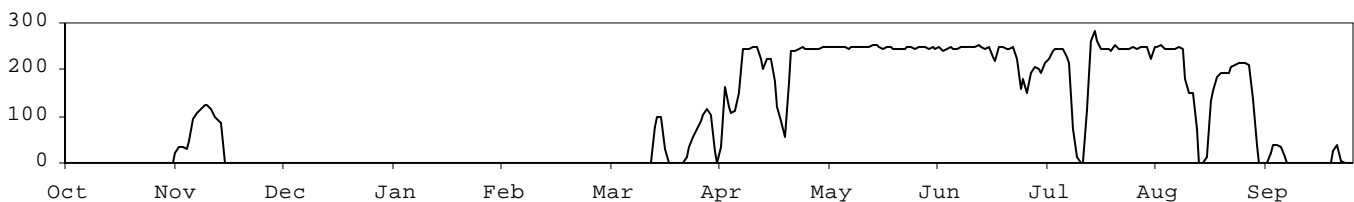
RATING TABLE.--STD15FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	21	0	0	0	0	101	244	247	191	247	212
2	0	34	0	0	0	0	24	246	246	204	247	139
3	0	34	0	0	0	0	0	248	248	200	248	37
4	0	28	0	0	0	0	33	249	246	195	223	1.8
5	0	48	0	0	0	0	161	249	247	214	249	0
6	0	94	0	0	0	0	121	250	242	223	248	0
7	0	107	0	0	0	0	106	250	245	238	252	22
8	0	114	0	0	0	0	111	249	247	243	243	37
9	0	123	0	0	0	0	148	250	245	244	244	39
10	0	124	0	0	0	0	245	246	244	244	244	33
11	0	114	0	0	0	0	243	249	247	226	245	11
12	0	97	0	0	0	0	246	249	247	216	249	0
13	0	90	0	0	0	0	247	247	247	73	246	0
14	0	87	0	0	0	0	247	248	247	12	180	0
15	0	.17	0	0	0	0	225	250	247	0	151	0
16	0	0	0	0	0	77	201	248	251	0	150	0
17	0	0	0	0	0	99	225	251	250	113	73	0
18	0	0	0	0	0	97	221	253	245	261	0	0
19	0	0	0	0	0	30	174	248	248	283	1.3	0
20	0	0	0	0	0	0	119	243	226	262	13	0
21	0	0	0	0	0	0	89	249	219	245	135	0
22	0	0	0	0	0	0	55	247	249	246	153	0
23	0	0	0	0	0	0	170	245	249	244	186	0
24	0	0	0	0	0	0	242	244	245	241	194	0
25	0	0	0	0	0	15	240	244	245	251	193	24
26	0	0	0	0	0	33	243	244	247	243	194	38
27	0	0	0	0	0	55	247	247	223	246	206	5.1
28	0	0	0	0	0	75	246	247	158	245	212	0
29	0	0	0	0	0	89	245	245	178	245	216	0
30	0	0	0	0	---	104	244	250	148	248	216	0
31	0	---	0	0	---	116	---	250	---	245	216	---
TOTAL	0	1115.17	0	0	0	790	5219	7679	7073	6341	5874.3	598.9
MEAN	0	37.2	0	0	0	25.5	174	248	236	205	189	20
AC-FT	0	2210	0	0	0	1570	10350	15230	14030	12580	11650	1190
MAX	0	124	0	0	0	116	247	253	251	283	252	212
MIN	0	0	0	0	0	0	0	243	148	0	0	0
CAL YR 2003	TOTAL	21745.36	MEAN	59.6	MAX	335	MIN	0	AC-FT	43100		
WTR YR 2004	TOTAL	34690.37	MEAN	94.8	MAX	283	MIN	0	AC-FT	68810		

MAX DISCH: 309 CFS AT 15:45 ON Jul. 19, 2004 GH 2.85 FT. SHIFT 0 FT.  
MAX GH: 2.85 FT. AT 15:45 ON Jul. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07119700 ARKANSAS RIVER BELOW CATLIN DAM, NEAR FOWLER, CO (COMBINED)

LOCATION.--Lat 38°07'33", long 103°54'41", in NW¼NW¼ sec. 21, T.22 S., R.58 W., Otero County.

DRAINAGE AREA.--10,901 mi<sup>2</sup>.

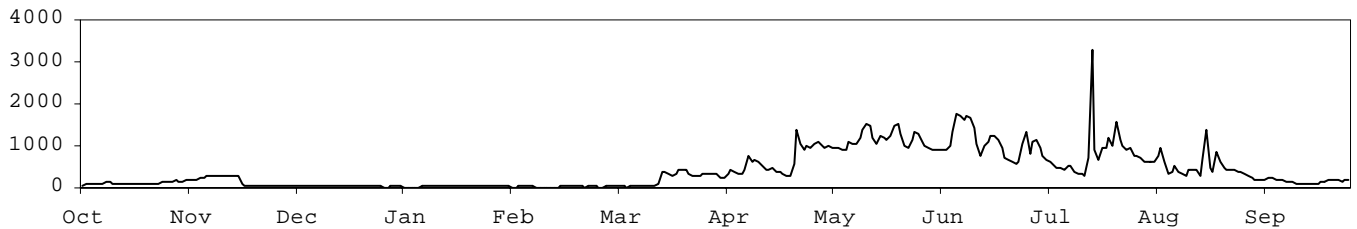
REMARKS.--The combined record of discharges was obtained by the addition of Catlin Canal daily flows to the corresponding daily flows in the Arkansas River below Catlin Dam. The peak discharge for the year was 4110 cfs at 1630 July 18, 2004. Combined record is good, except during periods of estimated flow, which should be considered poor. Record developed by Div. II Personnel.

ARKANSAS RIVER AND CATLIN CANAL (COMBINED)

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	181	30	26	25	25	315	1070	970	1110	699	269
2	73	202	31	23	22	25	255	959	891	1120	624	216
3	74	209	29	23	23	26	257	998	899	941	624	190
4	73	229	30	23	25	28	315	972	927	749	623	196
5	78	243	28	22	29	32	411	936	897	649	632	199
6	100	284	30	22	28	21	366	942	897	628	761	188
7	116	291	31	26	26	29	347	905	1000	531	958	220
8	122	297	33	26	25	33	347	917	1350	493	600	222
9	126	291	34	28	22	29	408	1090	1760	471	352	206
10	119	266	34	28	20	29	746	1070	1710	423	390	207
11	118	267	32	30	22	28	630	1070	1640	541	501	176
12	105	284	30	30	22	31	644	1170	1710	519	371	151
13	104	286	30	28	21	43	603	1370	1690	362	332	126
14	99	303	32	28	20	28	545	1500	1420	324	297	133
15	98	307	34	29	23	91	427	1480	1050	312	440	117
16	100	80	34	29	28	383	445	1200	752	301	448	116
17	101	49	33	28	33	366	469	1040	982	709	406	114
18	101	29	32	28	30	355	402	1220	1080	3300	276	105
19	100	25	34	27	26	285	373	1170	1230	921	645	101
20	101	28	32	28	29	349	311	1160	1260	660	1380	101
21	102	36	32	29	24	405	293	1230	1130	946	474	96
22	100	33	29	29	24	422	280	1480	947	973	391	129
23	111	30	26	29	23	424	571	1510	723	1170	840	143
24	125	25	28	29	24	316	1380	1270	674	1020	605	191
25	136	30	30	30	24	280	1060	1000	604	1560	484	204
26	153	35	30	28	24	274	894	969	591	1130	420	207
27	159	40	22	26	23	307	1020	1120	622	1020	425	175
28	175	35	22	27	23	327	933	1310	1070	911	423	151
29	162	40	25	30	26	330	1070	1270	1320	936	379	167
30	164	38	28	29	---	337	1110	1110	796	755	376	195
31	170	---	32	26	---	332	---	992	---	780	327	---
TOTAL	3534	4493	937	844	714	5990	17227	35500	32592	26265	16503	5011
MEAN	114	150	30	27	25	193	574	1145	1086	847	532	167
AC-FT	7010	8910	1860	1670	1420	11880	34170	70410	64650	52100	32730	9940
MAX	175	307	34	30	33	424	1380	1510	1760	3300	1380	269
MIN	69	25	22	22	20	21	255	905	591	301	276	96
CAL YR 2003	TOTAL	127860	MEAN	350	MAX	3530	MIN	15	AC-FT	253600		
WTR YR 2004	TOTAL	149610	MEAN	409	MAX	3300	MIN	20	AC-FT	296800		
MAX DISCH:	4110 CFS AT	16:30 ON	Jul. 18, 2004									

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07120500 ARKANSAS RIVER near ROCKY FORD, CO

**LOCATION.**--Lat 38°03'52", Long 103°41'24" in SE ¼, NW ¼, Sec. 9, T23S, R56W, Hydrologic Unit 11020005, Otero County, on right bank of Arkansas River, approximately 250 feet upstream from State Highway 266, and approximately 1.6 miles NE of Rocky Ford, Colorado.

**DRAINAGE AREA AND PERIOD OF RECORD.**-- Undetermined. Gage established October 8, 1992.

**GAGE.**--High data rate Sutron 8210 DCP and Accububble in a 4' x 4' steel gage shelter. A wire weight gage installed on upstream side of Hwy 266 bridge is the primary reference gage. Primary record is DCP log data with satellite-monitored data used for backup purposes. New orifice line installed on Oct 1-2, 2003. Channel work completed on October 10, 2003. Elevation of gage datum is 4130.46 ft MSL.

**REMARKS.**--Record is complete and reliable for the entire water year, except for the following period(s): Oct 1-2, 2003; due to orifice line replacement. Nov 23-29, Dec 10-20, 23-25, 28-31, 2003; Jan 4-9, 26-29, Feb 12-16, 2004; due to ice affecting the stage-discharge relationship. Record fair, except for periods of missing record and ice effect, which should be considered poor. Station maintained and record developed by Adam Adame.

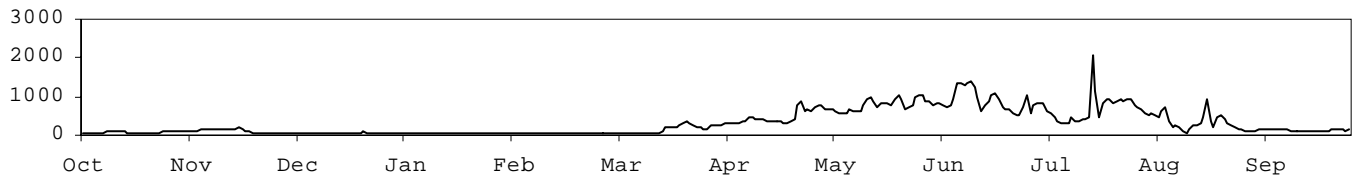
**RATING TABLE.**--ARKROCCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	120	54	51	46	44	268	770	863	785	674	99
2	50	123	49	47	44	41	275	689	801	847	556	82
3	49	129	46	43	46	41	312	672	812	822	534	107
4	54	134	47	38	46	41	314	686	851	845	566	148
5	55	157	48	40	46	42	309	605	789	646	494	145
6	58	169	51	50	49	43	299	579	749	570	455	148
7	76	158	54	53	47	41	319	591	776	486	620	163
8	88	142	55	55	50	44	340	583	940	380	745	162
9	91	141	55	55	48	46	369	658	1330	325	342	162
10	98	138	50	60	48	43	476	624	1340	311	229	142
11	92	136	55	52	50	41	470	602	1300	291	246	151
12	89	144	52	49	48	42	408	642	1320	462	184	151
13	80	162	50	45	50	42	405	783	1420	358	88	128
14	74	164	45	42	52	47	423	946	1220	379	66	119
15	68	219	45	42	50	43	368	980	961	394	152	119
16	63	163	42	43	56	123	357	883	628	400	258	114
17	63	106	46	44	65	195	372	746	768	474	267	111
18	65	92	50	44	57	205	346	817	863	2090	288	100
19	64	65	55	44	58	203	339	837	1010	1160	479	97
20	62	51	64	44	58	230	318	833	1100	462	945	96
21	62	44	80	46	53	281	312	790	933	812	360	94
22	64	47	70	45	50	326	341	948	702	911	223	101
23	68	45	54	44	47	343	411	1010	663	924	446	111
24	80	38	52	46	47	328	768	908	680	848	519	123
25	81	44	54	47	47	246	904	696	570	878	412	154
26	95	46	55	42	47	193	605	746	515	942	309	144
27	100	50	51	40	46	182	690	785	502	875	265	142
28	104	55	42	47	45	172	600	974	719	922	232	137
29	111	62	37	50	46	165	711	1010	1030	937	174	127
30	108	64	50	56	---	236	790	1010	585	758	152	152
31	108	---	48	49	---	263	---	859	---	726	118	---
TOTAL	2367	3208	1606	1453	1442	4332	13219	24262	26740	22020	11398	3829
MEAN	76	107	52	47	50	140	441	783	891	710	368	128
AC-FT	4690	6360	3190	2880	2860	8590	26220	48120	53040	43680	22610	7590
MAX	111	219	80	60	65	343	904	1010	1420	2090	945	163
MIN	47	38	37	38	44	41	268	579	502	291	66	82
CAL YR 2003	TOTAL	84697.3	MEAN	232	MAX	2240	MIN	9.3	AC-FT	168000		
WTR YR 2004	TOTAL	115876	MEAN	317	MAX	2090	MIN	37	AC-FT	229800		

MAX DISCH: 3200 CFS AT 23:00 ON Jul. 18, 2004 GH 4.34 FT. SHIFT 0.05 FT.  
MAX GH: 4.34 FT. AT 23:00 ON Jul. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07122400 CROOKED ARROYO NEAR SWINK, CO

**LOCATION.**--Lat 37°58'56", long 103°35'52", in SW¼SW¼ sec. 5, T.24 S., R.55 W., Otero County, on right bank 54 ft. downstream from bridge on State Highway 10, 2.0 mi. upstream from mouth, and 2.8 mi. southeast of Swink.

**DRAINAGE AREA.**--108 mi².

**GAGE.**--High data rate Sutron 8210 DCP and Accububble installed in a 4' x 4' steel shelter. Primary record is DCP log file with satellite-monitored data used for backup. Primary reference gage is a tapedown to the water surface from an RP in the channel. Elevation of gage is 4,100 ft. above sea level.

**REMARKS.**--Record is complete and reliable, except for the following periods: Nov 22-29, 2003; Jan 5-7, 26-28, and Feb 12-14, 2004, when the stage-discharge relationship was affected by ice. Record fair, except for periods of ice effect, which should be considered poor. Station maintained and record developed by Adam Adame.

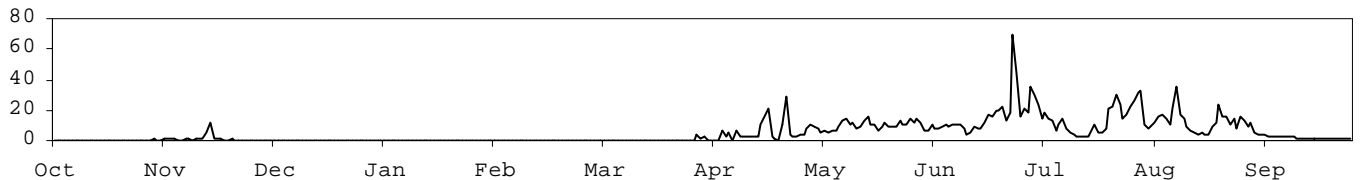
**RATING TABLE.**--CANSWKCO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.74	.6	.2	.1	.06	2.4	11	12	18	32	9.1
2	.54	.73	.65	.21	.09	.06	.52	9.6	6.1	35	33	12
3	.53	.73	.65	.19	.09	.06	.02	7.3	6.4	30	11	5.2
4	.52	.71	.6	.19	.1	.07	.02	5.2	11	23	7.3	4.1
5	.52	.56	.61	.16	.09	.07	.02	6.3	7.7	14	11	3.6
6	.52	.56	.53	.16	.09	.07	6.2	5.8	7.7	18	12	3.4
7	.52	1.6	.45	.16	.09	.06	2.3	6.6	8.6	14	16	3.1
8	.52	.85	.39	.17	.09	.06	4.6	6.7	10	13	17	2.8
9	.39	.46	.37	.17	.07	.07	.21	9.1	8.8	7	15	2.6
10	.4	1.1	.35	.17	.07	.06	6.8	13	11	11	11	2.5
11	.38	1.8	.33	.16	.07	.07	2.4	15	11	15	21	2.4
12	.39	1.1	.3	.15	.05	.07	3	11	10	7.9	35	2.3
13	.39	5.1	.3	.16	.05	.17	3.2	12	7.4	4.7	17	2.2
14	.39	12	.3	.16	.05	.09	2.3	8.3	4.4	3.8	15	2
15	.35	1.4	.31	.17	.06	.07	2.5	9.5	5.1	2.5	8.9	1.8
16	.35	.77	.28	.17	.07	.05	2.9	13	9.1	2.2	6.5	1.6
17	.5	.7	.28	.17	.07	.04	10	16	7.3	2.1	4.8	1.5
18	.5	.65	.27	.16	.07	.03	16	11	8.1	3.1	4.4	1.3
19	.53	.63	.28	.16	.08	.03	21	11	12	5.7	5	1.4
20	.51	.67	.28	.17	.07	.06	2	6.5	17	11	4.4	1.4
21	.5	.64	.28	.17	.07	.04	1.1	9	16	5.9	3.6	1.5
22	.54	.6	.28	.17	.07	.04	.37	12	20	4.8	9.2	1.5
23	.55	.4	.28	.17	.06	.05	10	9.7	20	7.8	12	1.3
24	.55	.4	.28	.17	.06	.09	29	8.7	22	21	23	1.2
25	.54	.4	.28	.18	.07	.06	3.3	9	13	22	16	1.3
26	.61	.4	.28	.15	.06	.06	2.5	13	18	30	16	1.3
27	.63	.4	.22	.07	.06	.06	2	10	69	24	11	1.3
28	.63	.4	.2	.1	.06	.06	4.1	9.9	45	14	14	1.4
29	.69	.5	.19	.1	.06	.07	3.6	14	16	17	7.5	1.5
30	.65	.63	.2	.11	---	4	8.1	12	21	22	16	1.2
31	.62	---	.19	.1	---	1	---	14	---	26	13	---
TOTAL	15.8	37.63	10.81	4.9	2.09	6.85	152.46	315.2	440.7	435.5	428.6	79.8
MEAN	.51	1.25	.35	.16	.07	.22	5.08	10.2	14.7	14	13.8	2.7
AC-FT	31	75	21	9.7	4.1	14	302	625	874	864	850	158
MAX	.69	12	.65	.21	.1	4	29	16	69	35	35	12
MIN	.35	.4	.19	.07	.05	.03	.02	5.2	4.4	2.1	3.6	1.2
CAL YR 2003	TOTAL	1182.31	MEAN	3.24	MAX	45	MIN	.06	AC-FT	2350		
WTR YR 2004	TOTAL	1930.34	MEAN	5.27	MAX	69	MIN	.02	AC-FT	3830		

MAX DISCH: 88.9 CFS AT 06:15 ON Jun. 27, 2004 GH 3.11 FT. SHIFT -0.09 FT.  
MAX GH: 3.11 FT. AT 06:15 ON Jun. 27, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07123000 ARKANSAS RIVER AT LA JUNTA, CO

**LOCATION.**--Lat 37°59'26", long 103°31'55", in SE¼NE¼ sec. 2, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, 450 ft upstream from King Arroyo.

**DRAINAGE AREA AND PERIOD OF RECORD.**--12,210 mi<sup>2</sup>. Staff gage originally established by USGS in 1889, with sporadic data and various locations. Water stage recorder in use since Oct. 1933 at several locations also. Gage site in continuous use since then.

**GAGE.**--Satellite-monitored data collection platform (Sutron 8210 DCP), and Accububble in 4' x 4' steel shelter. DCP log file is primary record with satellite data use for backup. Wire-weight gage on bridge serves as primary reference gage. High data rate Sutron 8210 DCP installed May 20, 2002. Datum of gage is 4,039.60 ft above National Geodetic Vertical Datum of 1929. See WSP 1711 or 1731 for history of changes prior to June 13, 1940. June 13, 1940, to June 6, 1967, water-stage recorder at site 300 ft upstream at present datum.

**REMARKS.**--Record is complete and reliable except for: November 21, 2003 when channel work was done to remove a large sand bar upstream of the gage. November 23-29, December 11-20, 23-26, 28-31, 2003; January 4-14, 22-23, 26-31, February 2, 6-17, 2004 when ice affected the stage-discharge relationship. Record good, except for periods of missing record or ice effect, which should be considered poor. Station maintained and record developed by Adam Adame.

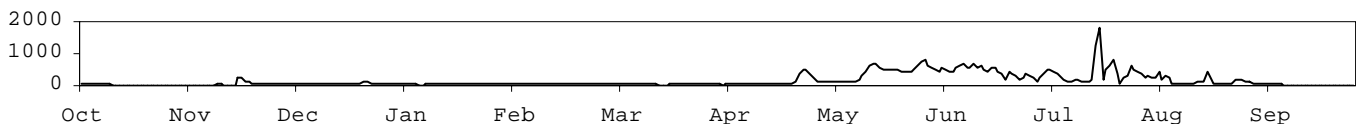
**RATING TABLE.**--ARKLAJCO41 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	5.9	69	63	65	61	49	143	552	106	258	83
2	52	5.1	64	58	55	53	24	141	504	243	292	59
3	58	7.8	60	49	55	51	38	137	460	391	267	37
4	61	7.4	61	44	58	56	55	139	540	510	266	42
5	58	5.8	63	39	62	63	66	139	473	472	431	55
6	57	5.2	61	20	58	64	64	137	431	439	218	50
7	45	3.9	64	25	60	61	45	140	437	354	282	38
8	32	13	64	40	60	56	49	134	538	251	241	39
9	34	38	61	45	55	58	65	134	617	190	77	32
10	25	32	56	50	55	57	92	135	709	154	66	25
11	17	9.2	57	50	50	58	82	173	557	121	62	23
12	16	7.3	64	50	40	59	78	334	574	217	64	21
13	13	14	75	50	35	58	68	429	673	167	57	17
14	19	27	82	50	45	61	64	640	591	124	46	15
15	17	247	90	53	55	21	64	694	597	117	52	14
16	14	255	92	54	75	13	56	683	521	109	131	14
17	15	137	87	52	80	31	63	565	416	164	130	13
18	14	104	89	49	83	52	58	488	569	1270	138	12
19	15	89	83	51	80	49	64	508	564	1820	460	13
20	14	83	75	54	88	47	32	498	457	160	162	13
21	15	60	99	61	78	36	36	483	369	472	87	13
22	15	75	105	59	76	52	48	475	171	627	50	15
23	15	55	70	59	71	86	154	456	413	833	68	14
24	10	48	60	59	66	91	358	452	377	387	48	13
25	9.5	56	55	61	62	45	485	433	286	88	45	23
26	11	65	60	55	60	45	490	448	216	226	71	31
27	9.3	70	57	35	63	47	404	481	220	328	184	20
28	15	68	43	40	62	53	277	622	369	654	190	21
29	16	70	32	45	60	66	143	777	291	526	171	14
30	10	75	42	60	---	57	143	814	237	461	137	13
31	6.3	---	85	70	---	49	---	625	---	383	120	---
TOTAL	766.1	1738.6	2125	1550	1812	1656	3714	12457	13729	12364	4871	792
MEAN	24.7	58	69	50	63	53	124	402	458	399	157	26
AC-FT	1520	3450	4210	3070	3590	3280	7370	24710	27230	24520	9660	1570
MAX	61	255	105	70	88	91	490	814	709	1820	460	83
MIN	6.3	3.9	32	20	35	13	24	134	171	88	45	12
CAL YR 2003	TOTAL	40563.7	MEAN	111	MAX	1540	MIN	2.2	AC-FT	80460		
WTR YR 2004	TOTAL	57574.7	MEAN	157	MAX	1820	MIN	3.9	AC-FT	114200		

MAX DISCH: 3710 CFS AT 05:00 ON Jul. 19, 2004 GH 10.48 FT. SHIFT -0.58 FT.  
MAX GH: 10.48 FT. AT 05:00 ON Jul. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





ARKANSAS RIVER BASIN

07123675 HORSE CREEK at HIGHWAY 194 nr LAS ANIMAS, CO

**LOCATION.**--Lat 38°05'06", long 103°21'12", in SE1/4,SW1/4, sec. 33, T.22S., R.53 W., Bent County, Hydrological Unit 11020008, on right bank 15 ft upstream from right end of box culverts on State Highway 194, 3.2 mi upstream from mouth, 3.4 mi downstream from Ft. Lyon Canal Aqueduct, and 7.5 mi west of Las Animas, Co.

**DRAINAGE AREA AND PERIOD OF RECORD.**--Drainage undetermined. Established and operated Oct. 19, 1979 to Sep. 30, 1993 by USGS. Operated and maintained by State of Colorado, Oct. 01, 1993 to present.

**GAGE.**--Accububble and satellite-monitored data collection platform (Sutron 8210 HDR DCP) in a 4' x 4' steel shelter. Primary record is DCP data log with satellite-monitored data used for backup purposes. An outside staff gage installed on the right side of the channel approximately 30 ft. upstream of the box culverts under Highway 194 is the primary reference gage.

**REMARKS.**--Record is complete and reliable, except for the following period(s): Nov. 22-29, Dec. 10-20, 23-31, 2003; Jan. 5-8, 22-24, 27-29; Feb. 2, 7-9, 12-14, 2004 do to ice in the channel affecting the stage-discharge relationship. Record fair, except during periods of ice affected gage height record, which should be considered poor. Station maintained and record developed by Adam Adame.

**RATING TABLE.**--HRC194C006 USED FROM 01-OCT-2003 TO 30-SEP-2004

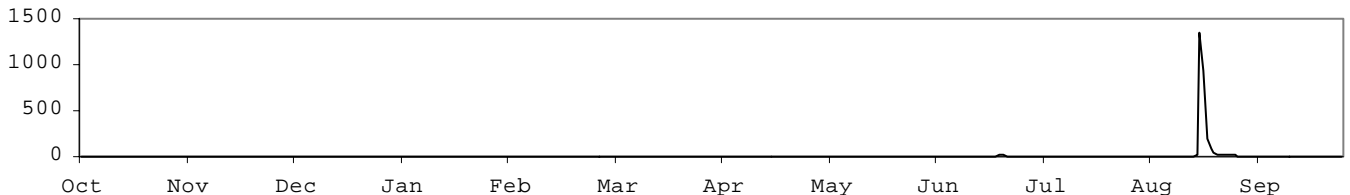
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	.79	1.3	1.5	1.4	1.2	3.5	1.5	5.4	1.6	9.5
2	.01	0	.81	1.3	1.4	1.4	1.2	2.7	1.5	4.2	1.6	8.7
3	.01	0	.98	1.4	1.5	1.4	1.2	2.4	1.5	4.1	1.5	8
4	0	.01	1.2	1.4	1.5	1.5	1.2	2.3	1.8	3.9	1.5	7.6
5	.01	.01	1.3	1.3	1.4	1.5	1.3	2.1	1.7	3.8	3	7
6	.01	0	1.3	1.3	1.4	1.4	1.3	1.9	1.5	4.3	1.3	6
7	.01	.01	1.3	1.3	1.4	1.4	1.5	1.9	1.2	3.8	1.1	5.5
8	0	.01	1.3	1.3	1.3	1.4	1.6	1.9	1.1	3.1	1.2	5
9	.01	.01	1.3	1.4	1.3	1.4	1.7	2.2	1.2	2.5	1.1	4.7
10	0	.39	1.3	1.3	1.4	1.4	1.8	2.1	1.3	2.9	1.5	4.5
11	0	1.3	1.3	1.3	1.4	1.4	1.9	1.8	1.9	1.8	1.3	4.3
12	0	2	1.2	1.3	1.4	1.4	1.9	1.8	2.8	1.4	1.2	4.1
13	0	2	1.2	1.3	1.4	1.4	1.9	1.8	1.9	1.2	1.4	3.8
14	0	1.7	1.2	1.3	1.4	1.3	1.9	1.9	1.3	1.4	1.2	3.7
15	0	1.3	1.2	1.3	1.4	1.3	1.9	2	1.2	1.5	1.1	3.4
16	0	.89	1.3	1.3	1.4	1.4	1.9	1.9	1.4	1.6	1.2	3.1
17	0	.62	1.4	1.3	1.4	1.2	1.9	1.8	2.2	1.6	1.2	2.8
18	0	.57	1.3	1.3	1.5	1.3	1.9	2	2.7	1.6	1.3	2.7
19	0	.6	1.3	1.3	1.5	1.2	2	1.9	3.1	1.6	32	2.8
20	0	.62	1.3	1.4	1.5	1.2	2.1	1.8	3	1.6	1350	2.8
21	0	.64	1.3	1.4	1.5	1.2	2.1	2	3.6	1.6	925	2.7
22	0	.65	1.3	1.4	1.5	1.2	2.2	2.1	4.3	1.7	203	2.8
23	0	.67	1.2	1.3	1.5	1.2	2.7	2	12	1.5	91	2.8
24	0	.68	1.3	1.3	1.5	1.2	4.2	1.9	13	1.5	52	2.7
25	0	.7	1.3	1.4	1.5	1.1	3.9	1.9	8.3	1.3	30	2.7
26	0	.65	1.3	1.6	1.5	1.1	3.3	2.1	6.1	1.3	21	2.7
27	0	.66	1.3	1.5	1.5	1.1	2.9	1.9	5	1.5	15	2.8
28	0	.69	1.3	1.5	1.4	1.1	2.6	1.7	4.6	1.5	13	3
29	0	.74	1.3	1.4	1.4	1.1	2.6	1.6	4.2	1.5	12	2.9
30	0	.77	1.2	1.4	---	1.1	3.2	1.6	4.8	1.5	11	2.9
31	0	---	1.2	1.4	---	1.1	---	1.5	---	1.5	10	---
TOTAL	.07	18.89	38.28	42	41.7	39.8	63	62	101.7	69.7	2790.3	128
MEAN	0	.63	1.23	1.4	1.4	1.3	2.1	2	3.4	2.3	90	4.3
AC-FT	.1	37	76	83	83	79	125	123	202	138	5530	254
MAX	.01	2	1.4	1.6	1.5	1.5	4.2	3.5	13	5.4	1350	9.5
MIN	0	0	.79	1.3	1.3	1.1	1.2	1.5	1.1	1.2	1.1	2.7

CAL YR 2003 TOTAL 646.57 MEAN 1.77 MAX 7.8 MIN 0 AC-FT 1280  
WTR YR 2004 TOTAL 3395.44 MEAN 9.28 MAX 1350 MIN 0 AC-FT 6730

MAX DISCH: 3180 CFS AT 15:00 ON Aug. 20, 2004 GH 7.88 FT. SHIFT 0.00 FT.  
MAX GH: 7.88 FT. AT 15:00 ON Aug. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

RATON CREEK ABOVE STARKVILLE, CO (WY2003)

**LOCATION.**--Lat 37°07'35.5", Long 104°31'24.8" in NW¼, NE¼, NE¼, Section 35,T33S, R64W, Las Animas County, 20 feet away from the creek on the left upstream side of bridge for county road 18.3, approximately half a mile south of Interstate 25, exit 8, south of Trinidad, CO.

**DRAINAGE AREA.**--Undetermined.

**GAGE.**--Sutron SatLink satellite-monitored data collection platform (DCP), with High Data Rate (HDR) radio and shaft encoder. The data logger is housed inside a 4' x 4' metal shelter about 20 feet away from the creek, while the shaft encoder is in a 20" x 30" metal shelter on an 18" corrugated metal pipe stilling well attached to the left bridge wing wall. Shaft encoder is set to an electric drop tape inside the half shelter. Primary record is the DCP data log with satellite data used for back-up purposes.

**REMARKS.**-- This is a new gage started this water year on July 8, 2003. Record is complete and reliable except for the following periods: October 1, 2002 through July 7, 2003 - when there was no recording device at the gage site. July 8, 2003--partial day record when the gage was started in operation. Record fair. This is a partial year record. Station maintained and record developed by Anthony D. Gutierrez.

**RATING TABLE.**-- RACRSTCO01 USED FROM 08-JUL-2003 TO 30-SEP-2003

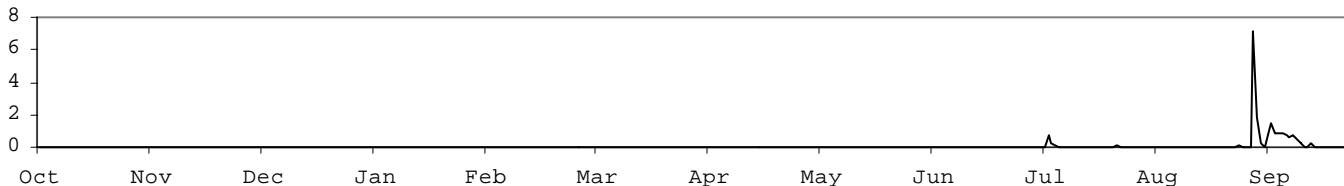
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003 (PARTIAL YEAR RECORD)  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	.02
2											0	.02
3											0	7.1
4											0	1.8
5											0	.25
6											0	0
7											0	1
8										.74	0	1.5
9										.29	0	.89
10										.11	0	.9
11										0	0	.85
12										0	0	.71
13										0	0	.57
14										0	0	.79
15										0	0	.52
16										0	0	.24
17										0	0	0
18										0	0	.01
19										0	0	.27
20										0	0	.01
21										0	0	0
22										0	0	0
23										0	0	0
24										0	0	0
25										0	0	0
26										0	0	0
27										.08	0	0
28										0	0	0
29										0	0	0
30										0	.11	0
31										0	.02	---
TOTAL										1.22	.13	17.45
MEAN										.04	0	.58
AC-FT										2.4	.3	35
MAX										.74	.11	7.1
MIN										0	0	0

WTR YR 2003 TOTAL NA MEAN NA MAX NA MIN NA AC-FT NA

MAX DISCH (PARTIAL YEAR RECORD): 55.5 CFS AT 18:00 ON Sep. 3, 2003 GH 4.01 FT. SHIFT 0 FT.  
MAX GH (PARTIAL YEAR RECORD): 4.01 FT. AT 18:00 ON Sep. 3, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

RATON CREEK ABOVE STARKVILLE, CO

**LOCATION.**--Lat 37°07'35.5", Long 104°31'24.8" in NW¼, NE¼, NE¼, Section 35,T33S, R64W, Las Animas County, 20 feet away from the creek on the left upstream side of bridge for road 18.3 approximately half a mile south of Interstate 25 exit 8 south of Trinidad.

**DRAINAGE AREA.**--Undetermined.

**GAGE.**--Sutron SatLink satellite-monitored data collection platform (DCP), with High Data Rate (HDR) radio and shaft encoder. The data logger is housed inside a 4' x 4' metal shelter about 20 feet away from the creek, while the shaft encoder is in a 20" x 30" metal shelter on an 18" corrugated metal pipe stilling well attached to the left bridge wing wall. Shaft encoder is set to an electric drop tape inside the half shelter. Primary record is the DCP data log with satellite data used for back-up purposes.

**REMARKS.**--Record is complete and reliable except for the following periods: November 21 - 28; December 11 - 31, 2003; January 1 - 31; February 1 - 17, 2004, when ice in the creek affected the stage-discharge relationship and/or the well was frozen; and April 6, 7, 2004, when the DCP malfunctioned. Record considered good, except for periods of mean daily flows greater than 20 cfs, periods of ice effect and when the DCP malfunctioned, which should be considered poor. Station maintained and record developed by Anthony D. Gutierrez.

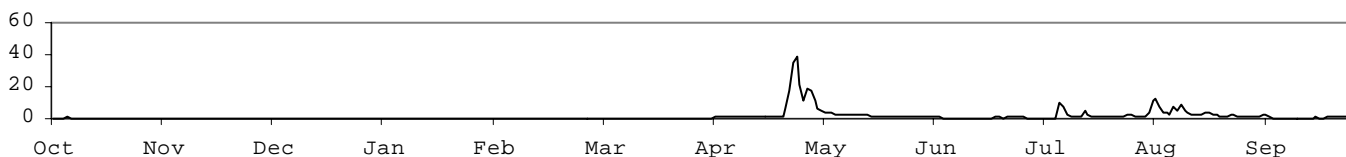
**RATING TABLE.**--RACRSTCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.22	.17	.13	.16	.34	.44	18	.79	.61	.91	1.6
2	0	.22	.17	.13	.17	.34	.45	11	.76	.47	.87	1.3
3	0	.22	.17	.13	.2	.36	.62	6.4	.73	.38	.86	1.1
4	.29	.23	.17	.12	.2	.37	.74	4.7	.69	.36	3.8	1.3
5	.71	.23	.17	.12	.2	.37	.81	3.9	.65	.34	11	2.1
6	.43	.23	.17	.12	.22	.36	.86	3.6	.65	.31	12	2.1
7	.15	.24	.17	.12	.22	.36	.91	3.3	.56	.29	8.1	1.5
8	.05	.24	.17	.12	.22	.36	.92	3.1	.52	.28	3.9	.59
9	.04	.24	.17	.12	.24	.36	.94	2.9	.5	.6	3.3	.59
10	0	.24	.17	.13	.24	.38	1.1	2.6	.45	10	2.2	.52
11	0	.25	.16	.13	.24	.38	1.4	2.5	.39	7.6	7.4	.38
12	0	.25	.14	.13	.22	.4	1.4	2.4	.36	2.8	4.5	.36
13	0	.26	.14	.15	.22	.4	1.5	2.4	.34	.9	9.2	.35
14	0	.26	.14	.15	.23	.4	1.3	2.4	.3	.77	4.9	.39
15	.03	.26	.14	.15	.25	.4	.98	2.3	.31	.74	3.7	.39
16	.05	.26	.14	.15	.3	.4	.97	2.1	.34	.97	2.9	.45
17	.06	.26	.14	.15	.32	.41	.97	2	.34	5.2	2.3	.48
18	.07	.26	.14	.16	.34	.41	.97	1.7	.3	2.4	2.1	.5
19	.11	.24	.14	.16	.34	.41	.96	1.3	.32	.94	2.8	.6
20	.14	.22	.14	.18	.34	.41	.96	.99	.32	1.1	3.3	.68
21	.18	.2	.14	.18	.34	.42	.96	.97	.44	.89	4.2	.58
22	.09	.2	.15	.2	.34	.42	1.1	.95	1.6	.87	2.8	.58
23	.11	.2	.15	.18	.33	.42	1.3	.94	.79	.92	2	.64
24	.14	.2	.15	.18	.35	.42	6.8	.92	.62	1.2	1.7	.66
25	.16	.18	.15	.17	.34	.43	18	.91	.93	.94	1.5	.74
26	.17	.18	.16	.17	.34	.44	35	.89	.73	.86	1.4	.76
27	.18	.18	.16	.16	.34	.45	39	.88	.69	1.7	2.3	.79
28	.18	.18	.16	.16	.34	.45	21	.85	.65	1.7	2.3	.85
29	.19	.19	.16	.16	.34	.45	11	.82	.99	2.4	1.5	.83
30	.2	.17	.15	.16	---	.44	19	.83	.72	2.5	1.3	.83
31	.21	---	.13	.16	---	.44	---	.82	---	.95	1.5	---
TOTAL	3.95	6.71	4.78	4.63	7.93	12.4	172.36	89.37	17.78	51.99	112.54	24.54
MEAN	.13	.22	.15	.15	.27	.4	5.75	2.88	.59	1.68	3.63	.82
AC-FT	7.8	13	9.5	9.2	16	25	342	177	35	103	223	49
MAX	.71	.26	.17	.2	.35	.45	39	18	1.6	10	12	2.1
MIN	0	.17	.13	.12	.16	.34	.44	.82	.3	.28	.86	.35
CAL YR 2003	TOTAL	NA	MEAN	NA	MAX	NA	MIN	NA	AC-FT	NA		
WTR YR 2004	TOTAL	508.98	MEAN	1.39	MAX	39	MIN	0	AC-FT	1010		

MAX DISCH: 98.6 CFS AT 21:00 ON Aug. 5, 2004 GH 4.5 FT. SHIFT -0.14 FT.  
MAX GH: 4.5 FT. AT 21:00 ON Aug. 5, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07124500 PURGATOIRE RIVER AT TRINIDAD, CO

**LOCATION.**--Lat 37°10'15", long 104°30'31", in NW¼SE¼ sec. 13, T.33 S., R.64 W., Las Animas County, in city of Trinidad, on left bank.

**DRAINAGE AREA.**--795 mi<sup>2</sup>.

**GAGE.**--Sutron 8210 High Data Rate DCP (satellite monitored data collection platform) controlling a Sutron Accububble system inside a 4' x 4' steel shelter on the left bank above the channel. Orifice line inside 1-½ inch galvanized pipe anchored to the bank extending down and into the channel. Primary record is the DCP log data with satellite-monitored data used for backup purposes. The primary reference is a staff gage set in the streambed near the orifice.

**REMARKS.**--Record is complete and reliable except for the following periods: November 23-25, 27-29; December 3-5, 10-20, 22-31, 2003; January 3-11, 13-15, 18, 19, 21-30; February 1-4, 6-17, 20, 2004, when ice at or near the gage affected the gage height. Record considered good, except for days of ice affected gage height record, which are poor. Station maintained and record developed by Anthony D. Gutierrez.

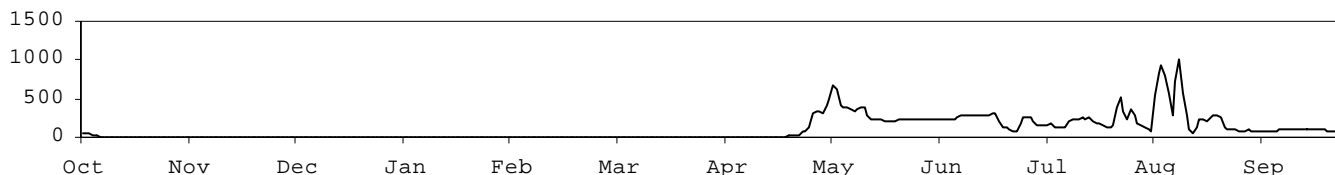
**RATING TABLE.**--PURTRICO26 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	.54	4.7	1.4	.32	5.9	.78	336	239	270	178	68
2	45	.51	6.9	.69	.32	6	2.6	318	235	203	162	97
3	39	.48	6.1	.6	.28	5.4	5.3	405	235	154	128	86
4	33	.62	5.9	.6	.25	5.4	2.7	496	237	151	94	69
5	15	.44	5.7	.6	.23	6.2	2.3	685	237	152	76	69
6	2.5	.33	6	.5	.23	6.8	2.3	609	239	166	534	67
7	2	.32	5.3	.5	.25	6.1	1.5	415	240	169	840	66
8	1.8	.29	4.3	.5	.35	5.6	1.3	396	243	137	934	65
9	1.5	.24	3.2	.5	.4	5.2	2.2	393	243	124	813	65
10	1.3	.2	3	.45	.4	6	3.3	364	254	138	574	81
11	1.2	.23	4	.45	.4	6.7	3.5	341	283	133	297	92
12	1.2	.23	3.5	.4	.6	6	3.3	352	280	203	732	92
13	1.1	.16	4.2	.4	.6	5.6	3.5	389	281	239	1010	91
14	1	1.1	4.5	.4	.6	4.3	5.4	383	280	240	577	92
15	.94	3.2	4	.4	.5	5.6	3.5	290	282	237	281	92
16	.96	2.6	4.6	.42	.5	6.9	2.4	237	280	250	97	91
17	.86	4.5	4.2	.43	.5	6.1	2.2	221	280	244	64	92
18	.77	5.2	4	.44	.56	5.6	2	228	274	260	131	91
19	.81	5	4.8	.44	.53	5.6	2	226	291	216	229	92
20	.76	4.7	5.2	.43	.45	6.1	2.1	217	299	178	232	94
21	2.1	6	6.6	.4	.41	5.6	2	211	310	176	209	92
22	3.8	6.9	5.8	.42	.4	4	14	211	210	144	257	94
23	2.3	6.8	6	.43	.43	1.2	19	212	136	123	287	92
24	.8	6.5	6	.42	.42	1.1	15	224	131	125	284	92
25	.69	6.1	7.2	.41	2.6	3.5	30	231	105	155	251	86
26	1.3	5.9	6.8	.4	8.3	4.8	69	231	83	377	141	83
27	.68	5.2	6.5	.4	7.2	4.2	88	235	84	510	113	83
28	.59	5	8.5	.4	5.1	3.5	131	237	191	342	112	83
29	.54	4.6	9	.4	5.2	2.5	306	240	260	239	108	84
30	.54	3.7	7	.4	---	1	335	243	267	361	87	93
31	.63	---	4.2	.3	---	.86	---	243	---	274	67	---
TOTAL	209.67	87.59	167.7	14.93	38.33	149.36	1063.18	9819	7009	6690	9899	2534
MEAN	6.76	2.92	5.4	.48	1.32	4.82	35.4	317	234	216	319	85
AC-FT	416	174	333	30	76	296	2110	19480	13900	13270	19630	5030
MAX	45	6.9	9	1.4	8.3	6.9	335	685	310	510	1010	97
MIN	.54	.16	3	.3	.23	.86	.78	211	83	123	64	65
CAL YR 2003	TOTAL	17960.02	MEAN	49.2	MAX	421	MIN	.16	AC-FT	35620		
WTR YR 2004	TOTAL	37681.76	MEAN	103	MAX	1010	MIN	.16	AC-FT	74740		

MAX DISCH: 1320 CFS AT 21:15 ON Aug. 12, 2004 GH 4.68 FT. SHIFT 0 FT.  
MAX GH: 4.68 FT. AT 21:15 ON Aug. 12, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07126500 PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO (RIVER ONLY)

**LOCATION.**--Lat 37°42'53", long 103°30'38", in NW¼ sec. 7, T.27 S., R.54 W., Otero County, Hydrologic Unit 11020010, on left bank at Ninemile Dam, 4 mi southwest of Higbee, and 5.5 mi upstream from Smith Canyon. Prior to Apr. 21, 1978 gage located 850 ft, upstream.

**DRAINAGE AREA.**--2,752 mi<sup>2</sup>.

**GAGE.**--Sutron Accubar water level sensor and satellite-monitored data collection platform (Sutron 8210 HDR DCP) in a 4 ft by 4 ft steel shelter. The primary gage is an outside drop tape from a reference point on a steel "I" beam on the wall face between Ninemile Dam and the Ninemile Canal headgate. Control is the Ninemile Dam. DCP data log file is the primary record with satellite-monitored gage height data providing backup.

**REMARKS.**--Record complete and reliable except for the following periods: Dec 10-31, 2003; Jan 1-31, Feb 1-15, 2004, when the stage-discharge relationship was affected by ice. Record fair, except during periods of estimated flow and flows over 500 cfs, which should be considered poor. The record for total flow in the river at this location is computed by adding Ninemile Canal flows to this record. High flows have not been measured at or near the gage due to a lack of facilities. Msmt 923, the high flow measurement for this WY, was made downstream at the Hwy 109 bridge. Station maintained and record developed by Adam Adame.

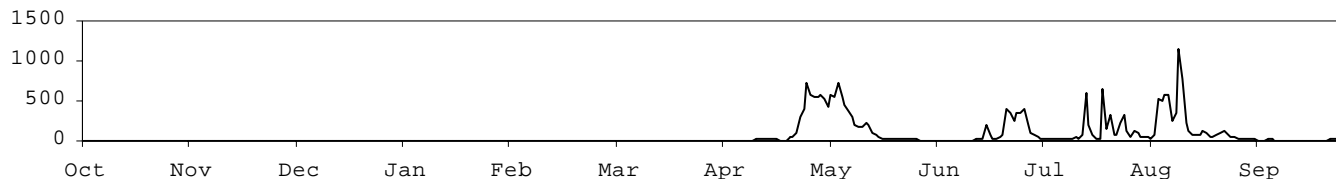
**RATING TABLE.**--PURNINCO17 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	549	11	192	117	31
2	0	0	0	.05	.2	0	0	581	4.4	104	93	26
3	0	0	0	.5	.3	0	0	530	0	72	48	21
4	0	0	0	0	.2	0	0	427	0	54	39	16
5	0	0	0	0	.15	0	0	566	0	26	39	14
6	0	0	0	0	.1	0	0	562	0	20	32	12
7	0	0	0	.5	.25	0	0	735	0	28	64	12
8	0	0	0	1.5	.3	0	0	554	0	19	529	11
9	0	0	0	.4	.2	0	0	451	0	19	498	14
10	0	0	0	.3	0	0	.41	377	0	25	583	13
11	0	0	0	.4	0	0	10	300	0	34	566	11
12	0	0	0	0	0	0	5.1	198	0	24	248	9.3
13	0	0	0	0	0	0	20	175	0	33	359	.01
14	0	0	0	0	.2	0	25	173	0	25	1150	0
15	0	0	0	0	.3	0	13	217	0	38	766	0
16	0	0	0	0	0	0	13	188	20	27	227	0
17	0	0	0	0	0	0	13	108	24	72	113	0
18	0	0	0	0	0	0	15	70	27	600	68	0
19	0	0	0	0	.03	0	13	47	203	200	67	0
20	0	0	0	0	4.4	0	11	31	81	64	70	0
21	0	0	0	0	1.9	0	10	18	35	29	131	0
22	0	0	0	0	2.1	0	11	19	30	33	93	0
23	0	0	0	0	2.5	0	43	19	58	640	52	0
24	0	0	0	.05	1.9	0	62	19	65	139	40	0
25	0	0	0	0	1.7	0	96	15	393	318	72	1.3
26	0	0	0	0	.62	0	307	15	356	79	99	12
27	0	0	0	0	.14	0	402	18	242	64	118	13
28	0	0	0	0	0	0	718	20	354	217	88	13
29	0	0	0	0	0	0	580	18	352	333	55	13
30	0	0	0	0	---	0	546	13	406	132	45	13
31	0	---	0	0	---	0	---	12	---	61	35	---
TOTAL	0	0	0	3.7	17.49	0	2913.51	7025	2661.4	3721	6504	255.61
MEAN	0	0	0	.12	.6	0	97.1	227	88.7	120	210	8.52
AC-FT	0	0	0	7.3	35	0	5780	13930	5280	7380	12900	507
MAX	0	0	0	1.5	4.4	0	718	735	406	640	1150	31
MIN	0	0	0	0	0	0	0	12	0	19	32	0
CAL YR 2003	TOTAL	4981.76	MEAN	13.6	MAX	294	MIN	0	AC-FT	9880		
WTR YR 2004	TOTAL	23101.71	MEAN	63.1	MAX	1150	MIN	0	AC-FT	45820		

MAX DISCH: 3460 CFS AT 21:15 ON Jun. 25, 2004 GH 5.49 FT. SHIFT 0.04 FT. DATUM CORR. -0.01 FT.  
MAX GH: 5.49 FT. (DATUM CORR. -0.01 FT.) AT 21:15 ON Jun. 25, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07126500 NINEMILE CANAL BELOW NINEMILE DAM NEAR HIGBEE, CO.

LOCATION.--Lat 37°42'53", long 103°30'38", in NW¼ sec. 7, T.27 S., R.54 W., Otero County.

DRAINAGE AREA.--N/A

GAGE.--Float-activated graphic water-stage recorder, SDI shaft encoder, and a High Data Rate Sutron SatLink DCP in a 3 ft by 3 ft steel shelter with well. Primary record is DCP data log with satellite-monitored data and the graphic chart recorder used for backup purposes. Six-foot standard concrete Parshall flume is the control. Primary reference gage is outside staff gage installed in flume.

REMARKS.--Record is complete and reliable, except for the periods: Nov 28, 29, Dec 10-20, 23-31, 2003; Jan 1, 4-15, 26-29, and Feb 12-16, 2004, when the stage-discharge relationship was affected by ice. Record good, except during periods of ice effect on the stage-discharge relationship, which should be considered poor. Station maintained and record developed by Adam Adame.

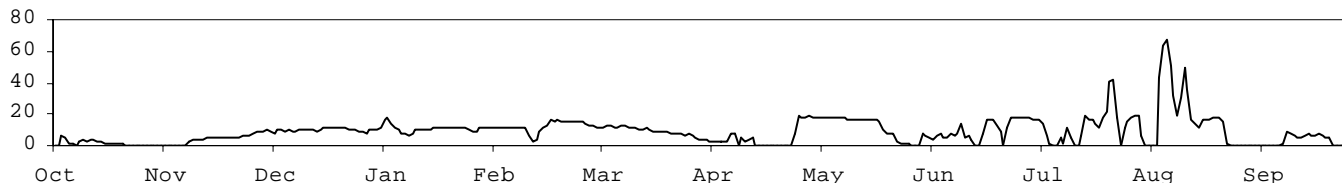
RATING TABLE.--NMCHIGCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	9.1	11	11	13	3.7	19	.52	18	19	0
2	0	0	8.2	16	11	12	3.3	18	7.1	18	19	0
3	5.9	0	10	18	12	12	3	18	6.7	17	6.4	0
4	4.8	0	9.9	14	11	12	3	18	5.2	16	.43	0
5	1.6	0	9.5	12	11	13	2.9	18	4.1	16	.4	0
6	.89	0	9.7	10	11	13	2.8	18	5.9	14	.41	0
7	.45	0	9.5	7.1	12	12	2.6	18	8.1	6.5	.39	0
8	2.5	2.3	9.4	7	12	12	2.6	18	5.1	1.4	43	0
9	3.3	3.3	10	6.9	11	13	7.5	18	4.9	0	64	0
10	3.1	4	10	7.1	11	13	7.4	18	7.5	0	67	0
11	4	3.7	10	9.7	11	12	.43	18	6.5	5.1	51	0
12	3.2	4.4	10	10	6.6	11	5.7	17	8	1.4	32	1.8
13	2.8	4.8	10	9.9	2.9	11	2.9	17	14	12	19	8.7
14	2.2	5	9.4	10	3.2	10	4.1	17	4.6	5.2	31	7
15	1.8	5	9.6	10	9.2	10	4.5	17	6.5	.48	49	5.9
16	1.5	4.9	11	11	12	11	.47	17	3.5	.33	35	5.2
17	1.1	4.9	11	11	13	9.7	.43	16	.2	6.5	17	5.7
18	.71	4.7	11	12	16	9.5	.39	16	.17	19	14	6.6
19	.95	5.3	11	12	15	9.2	.34	16	8.2	17	12	7
20	.86	5.5	11	11	16	8.8	.27	16	16	17	16	6.9
21	.49	5.6	11	11	15	8.6	.2	15	17	14	17	6.5
22	.3	5.7	11	11	15	8.4	.27	9.9	16	12	17	7.2
23	.18	5.9	10	11	15	8.2	.3	7.1	13	18	18	6.4
24	0	5.8	9.8	11	15	7.9	.24	7.1	9.2	22	18	4.9
25	0	6.9	9.9	11	15	7.4	.2	7	.39	41	18	5.5
26	0	8.1	9	10	15	7.1	.21	2.5	12	42	15	.49
27	0	8.8	9	9.4	15	6.6	7.7	.75	18	18	1.8	.44
28	0	8.9	8.2	9.2	14	7.1	19	.71	18	0	0	.38
29	0	9	9.8	11	13	6.7	18	.67	18	12	0	.35
30	0	9.6	10	11	---	5.3	18	.61	18	15	0	.32
31	0	---	10	11	---	4.4	---	.55	---	18	0	---
TOTAL	42.63	132.1	307	332.3	349.9	304.9	122.45	399.89	262.38	402.91	600.83	87.28
MEAN	1.38	4.4	9.9	10.7	12.1	9.8	4.08	12.9	8.75	13	19.4	2.91
AC-FT	85	262	609	659	694	605	243	793	520	799	1190	173
MAX	5.9	9.6	11	18	16	13	19	19	18	42	67	8.7
MIN	0	0	8.2	6.9	2.9	4.4	.2	.55	.17	0	0	0
CAL YR 2003	TOTAL	2691.79	MEAN	7.37	MAX	85	MIN	0	AC-FT	5340		
WTR YR 2004	TOTAL	3344.57	MEAN	9.14	MAX	67	MIN	0	AC-FT	6630		

MAX DISCH: 135 CFS AT 18:30 ON Jul. 27, 2004 GH 2.96 FT. SHIFT 0 FT.  
MAX GH: 2.96 FT. AT 18:30 ON Jul. 27, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## ARKANSAS RIVER BASIN

07126500 PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO (COMBINED)

**LOCATION.**--Lat 37°42'53", long 103°30'38", in NW¼ sec. 7, T.27 S., R.54 W., Otero County, Hydrologic Unit 11020010, on left bank at Ninemile Dam, 4 mi southwest of Higbee, and 5.5 mi upstream from Smith Canyon. Prior to Apr. 21, 1978 gage located 850 ft, upstream.

**DRAINAGE AREA.**--2,752 mi<sup>2</sup>.

**REMARKS.**--The combined record of discharges was obtained by the addition of daily flows from the Ninemile Canal to the corresponding daily flows in the Purgatoire River at Ninemile Dam. The peak discharge for the water year was 3460 cfs at 2115 on June 25, 2004. Combined record is fair, except during periods of estimated flows and during periods of flow over 500 cfs, all of which should be considered poor. Record developed by Div. II Personnel.

## PURGATOIRE RIVER AT NINEMILE DAM AND NINEMILE CANAL (COMBINED)

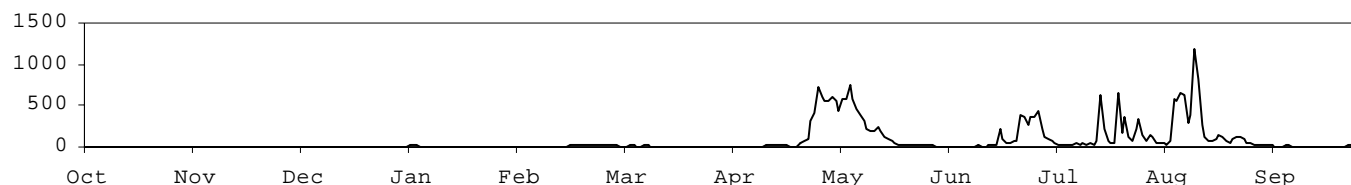
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	9.1	11	11	13	3.7	568	12	210	136	31
2	0	0	8.2	16	11	12	3.3	599	12	122	112	26
3	5.9	0	10	19	12	12	3	548	6.7	89	54	21
4	4.8	0	9.9	14	11	12	3	445	5.2	70	39	16
5	1.6	0	9.5	12	11	13	2.9	584	4.1	42	39	14
6	.89	0	9.7	10	11	13	2.8	580	5.9	34	32	12
7	.45	0	9.5	7.6	12	12	2.6	753	8.1	35	64	12
8	2.5	2.3	9.4	8.5	12	12	2.6	572	5.1	20	572	11
9	3.3	3.3	10	7.3	11	13	7.5	469	4.9	19	562	14
10	3.1	4	10	7.4	11	13	7.8	395	7.5	25	650	13
11	4	3.7	10	10	11	12	10	318	6.5	39	617	11
12	3.2	4.4	10	10	6.6	11	11	215	8	25	280	11
13	2.8	4.8	10	9.9	2.9	11	23	192	14	45	378	8.7
14	2.2	5	9.4	10	3.4	10	29	190	4.6	30	1180	7
15	1.8	5	9.6	10	9.5	10	18	234	6.5	38	815	5.9
16	1.5	4.9	11	11	12	11	13	205	24	27	262	5.2
17	1.1	4.9	11	11	13	9.7	13	124	24	79	130	5.7
18	.71	4.7	11	12	16	9.5	15	86	27	619	82	6.6
19	.95	5.3	11	12	15	9.2	13	63	211	217	79	7
20	.86	5.5	11	11	20	8.8	11	47	97	81	86	6.9
21	.49	5.6	11	11	17	8.6	10	33	52	43	148	6.5
22	.3	5.7	11	11	17	8.4	11	29	46	45	110	7.2
23	.18	5.9	10	11	18	8.2	43	26	71	658	70	6.4
24	0	5.8	9.8	11	17	7.9	62	26	74	161	58	4.9
25	0	6.9	9.9	11	17	7.4	96	22	393	359	90	6.8
26	0	8.1	9	10	16	7.1	307	18	368	121	114	12
27	0	8.8	9	9.4	15	6.6	410	19	260	82	120	13
28	0	8.9	8.2	9.2	14	7.1	737	21	372	217	88	13
29	0	9	9.8	11	13	6.7	598	19	370	345	55	13
30	0	9.6	10	11	---	5.3	564	14	424	147	45	13
31	0	---	10	11	---	4.4	---	13	---	79	35	---
TOTAL	42.63	132.1	307	336.3	366.4	304.9	3033.2	7427	2924.1	4123	7102	340.8
MEAN	1.38	4.4	9.9	10.8	12.6	9.8	101	240	97.5	133	229	11.4
AC-FT	85	262	609	667	727	605	6020	14730	5800	8180	14090	676
MAX	5.9	9.6	11	19	20	13	737	753	424	658	1180	31
MIN	0	0	8.2	7.3	2.9	4.4	2.6	13	4.1	19	32	4.9

CAL YR 2003 TOTAL 7675.93 MEAN 21 MAX 330 MIN 0 AC-FT 15220  
WTR YR 2004 TOTAL 26439.43 MEAN 72.2 MAX 1180 MIN 0 AC-FT 52440

MAX DISCH: 3460 CFS AT 21:15 ON Jun. 25, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

PURGATOIRE RIVER below HIGHLAND DAM near LAS ANIMAS, CO

**LOCATION.**--Lat 37°54'03", Long 103°17'56" (Hackamore Ranch, CO Quadrangle, Scale 1:24,000), NE1/4, SW1/4, Section 1, T25S, R53W. On the left bank approximately ¼ mile downstream of the Highland Canal Diversion Dam, Bent County, 11 mi southwest of Las Animas, Colorado.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Sutron Accubar water level sensor and satellite-monitored data collection platform (Sutron 8200 DCP) in a 4 ft x 4 ft steel shelter. Primary record is DCP data logger data with satellite-monitored data used for backup purposes. Primary reference gage is outside staff gage on left side of channel approximately 150 ft east of shelter. High data rate Sutron 8210 DCP installed July 27, 2004.

**REMARKS.**--Record is complete and reliable except for the following periods: Dec 19-31, 2003; January 1-31, February 1-9, 2004 when ice affected the stage discharge relationship. February 10-29, March 1-31, 2004 when a trash dam downstream affected the stage-discharge relationship. August 19, 2004 when the DCP malfunctioned for several hours during the peak of a high flow event. Record fair, except during periods of ice affect, periods when flows were estimated or were greater than 500 cfs, which should be considered poor. Gage operated and maintained by Adam Adame. Record developed by Thomas W. Ley.

**RATING TABLE.**--PURHILCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

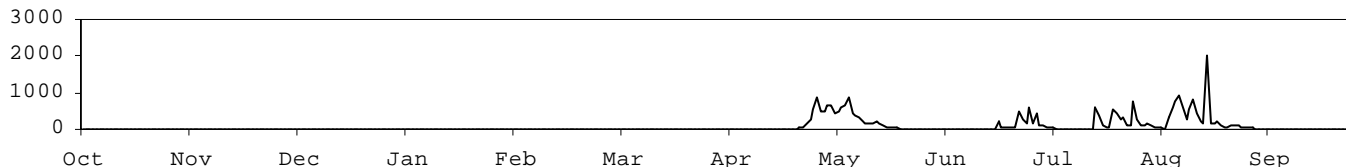
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.03	.12	.08	0	517	7	445	86	31
2	0	0	.01	.04	.1	.08	0	661	5.2	114	176	27
3	0	0	.01	.06	.13	.06	.04	639	4.5	90	89	22
4	0	0	0	.08	.14	.03	.05	456	2.3	73	66	18
5	0	0	0	.06	.12	.02	.08	500	.8	58	36	15
6	0	0	0	.04	.12	.1	.04	599	.71	37	34	13
7	0	0	.04	.04	.1	.15	.04	643	.26	25	27	11
8	0	0	.04	.04	.12	.1	.12	874	.1	17	320	9.7
9	0	0	0	.05	.11	.02	.35	457	.06	12	625	8.3
10	0	0	.01	.08	.08	.05	1.2	386	.02	12	790	8.1
11	0	0	0	.15	.07	.02	.99	320	0	11	917	9.3
12	0	0	0	.2	.05	0	1.5	234	0	16	596	7.7
13	0	0	.01	.22	.04	0	2	182	0	13	283	6.8
14	0	0	.03	.22	.08	0	2.1	168	0	24	572	5.6
15	0	0	0	.22	.12	0	16	184	0	14	804	3.6
16	0	0	0	.25	.2	0	8.6	199	0	15	433	2.7
17	0	0	.01	.2	.35	0	9.7	162	0	14	238	2
18	0	0	0	.1	.33	0	6.4	99	7.2	575	138	1.2
19	0	0	.02	.1	.3	0	11	73	16	390	2000	.85
20	0	0	.04	.1	.2	0	10	56	191	129	149	.64
21	0	0	.06	.08	.3	0	8.4	42	67	49	176	.14
22	0	0	.05	.08	.33	0	8.8	29	41	31	214	.14
23	0	0	.03	.09	.33	0	18	24	28	522	118	.11
24	0	0	.04	.09	.28	0	51	21	56	454	78	.04
25	0	0	.04	.06	.3	.05	61	20	59	253	79	.01
26	0	0	.04	.04	.28	.05	154	16	464	334	94	0
27	0	0	.05	.04	.2	.04	264	12	258	135	120	0
28	0	0	.04	.05	.2	.04	532	15	164	98	95	.09
29	0	.02	.03	.06	.15	.02	892	13	587	767	63	2.6
30	0	.02	.06	.1	---	0	498	14	163	292	40	3.3
31	0	---	.03	.12	---	0	---	9.3	---	125	35	---
TOTAL	0	.04	.69	3.09	5.25	.91	2557.41	7624.3	2122.15	5144	9491	209.92
MEAN	0	0	.02	.1	.18	.03	85.2	246	70.7	166	306	7
AC-FT	0	.08	1.4	6.1	10	1.8	5070	15120	4210	10200	18830	416
MAX	0	.02	.06	.25	.35	.15	892	874	587	767	2000	31
MIN	0	0	0	.03	.04	0	0	9.3	0	11	27	0

CAL YR 2003	TOTAL	5926.1	MEAN	16.2	MAX	570	MIN	0	AC-FT	11750
WTR YR 2004	TOTAL	27158.76	MEAN	74.2	MAX	2000	MIN	0	AC-FT	53870

MAX DISCH: 7650 CFS AT 00:45 ON Aug. 19, 2004 GH 11.68 FT. SHIFT -0.1 FT.  
MAX GH: 11.68 FT. AT 00:45 ON Aug. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





ARKANSAS RIVER BASIN

HIGHLAND CANAL below HIGHLAND DAM near LAS ANIMAS, CO

**LOCATION.**--Lat 37°54'03", Long 103°17'56" (Hackamore Ranch, CO Quadrangle, Scale 1:24,000), NE1/4, Section 1, T25S, R53W. On the left bank approximately ¼ mile downstream of the Highland Canal Diversion Dam, Bent County, 11 mi southwest of Las Animas, Colorado.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Float-activated graphic water-stage recorder and shaft encoder in small shelter over CMP stilling well. Shaft encoder wired to satellite-monitored data collection platform (Sutron 8004 DCP) in Purgatoire River below Highland Dam gage shelter. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder replaced with SDI shaft encoder on April 24, 2003. Shelter was submerged by high flows on June 29, 2003. Shaft encoder and chart recorder replaced on July 1, 2003. Standard 5-ft steel Parshall flume is the control. Primary reference gage is outside staff gage installed in flume.

**REMARKS.**--Record is complete and reliable except for: August 19-August 23, 2004 when a flood submerged the gage shelter and caused the chart recorder and shaft encoder to malfunction. Record good, except for during periods when flooding exceeded the flume capacity, which is poor. Gage is operated and maintained by Adam Adame. Record developed by Thomas W. Ley.

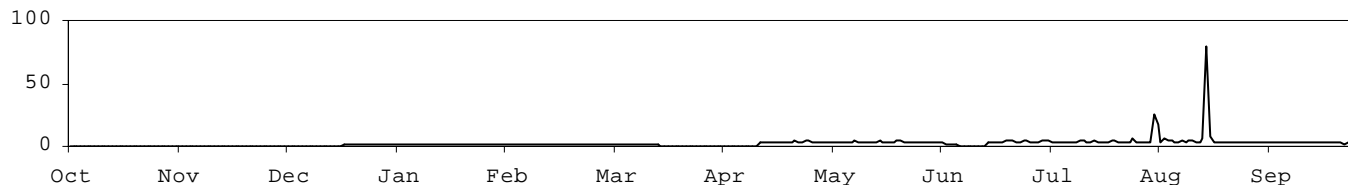
**RATING TABLE.**--STD05FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	1.5	1.7	1.2	0	3.6	3.3	3.3	3.3	3.6
2	0	0	0	1.7	1.7	1.2	0	3.4	3.3	3.7	3.4	3.6
3	0	0	0	1.9	1.7	1.2	0	3.5	3	4.1	3.3	3.6
4	0	0	0	1.9	1.6	1.2	0	3.5	3.5	4	25	3.7
5	0	0	0	1.9	1.7	1.2	0	3.5	3.1	4	18	3.7
6	0	0	0	1.8	1.7	1.2	0	3.9	.91	3.8	3.9	3.7
7	0	0	0	1.8	1.7	1.1	0	3.3	1.2	3.7	6.3	3.8
8	0	0	0	1.7	1.7	1.1	0	3.2	1.1	3.7	4.3	3.8
9	0	0	0	1.7	1.7	1.1	0	3.5	.88	3.8	4	3.8
10	0	0	0	1.7	1.7	1.1	0	3.9	.61	3.8	3.6	3.8
11	0	0	0	1.7	1.6	1.1	0	4	.33	3.8	3.7	3.8
12	0	0	0	1.8	1.6	1.1	0	3.5	.18	3.8	4	3.8
13	0	0	0	1.7	1.6	1.1	0	3.3	.1	3.8	3.8	3.7
14	0	0	0	1.7	1.6	1	2.7	3.2	.07	4	4.5	3.7
15	0	0	0	1.7	1.7	.96	2.9	3.1	.04	4	4.2	3.8
16	0	0	0	1.7	1.7	.87	3.5	3.3	.02	3.9	3.8	3.8
17	0	0	.19	1.7	1.7	.78	3.9	3.8	.02	3.8	3.4	3.7
18	0	0	1.2	1.7	1.7	.76	3.8	4	2.9	4.6	7.1	3.6
19	0	0	1.6	1.7	1.6	.68	3.8	3.8	3.2	3.1	80	3.3
20	0	0	1.9	1.6	1.6	.59	3.8	3.8	3.5	2.8	8	3.3
21	0	0	2.1	1.6	1.5	.21	3.8	3.7	3.2	3.5	3.8	3.3
22	0	0	2.1	1.6	1.4	.34	3.8	3.9	3.2	3.4	3.8	2.9
23	0	0	1.9	1.5	1.3	.19	3.7	4	4	4.1	3.8	2.8
24	0	0	1.7	1.4	1.3	.17	4	4	4	4	3.8	3
25	0	0	1.6	1.6	1.3	.19	3.9	3.9	4	3.2	3.7	2.8
26	0	0	1.7	1.6	1.3	.14	3.8	3.8	3.7	3.3	3.8	2.9
27	0	0	2	1.6	1.3	.08	4	3.8	3.7	2.8	3.9	2.3
28	0	0	2	1.6	1.3	.02	4.1	3.6	4	3.1	3.8	3.2
29	0	0	1.8	1.6	1.2	0	3.4	3.6	4.2	5.9	3.7	3.4
30	0	0	1.8	1.7	---	0	3.8	3.5	3	3	3.6	2.9
31	0	---	1.7	1.7	---	0	---	3.3	---	3.3	3.6	---
TOTAL	0	0	25.29	52.1	45.2	21.88	62.7	112.2	68.26	115.1	238.9	103.1
MEAN	0	0	.82	1.7	1.6	.71	2.09	3.6	2.28	3.7	7.7	3.4
AC-FT	0	0	50	103	90	43	124	223	135	228	474	204
MAX	0	0	2.1	1.9	1.7	1.2	4.1	4	4.2	5.9	80	3.8
MIN	0	0	0	1.4	1.2	0	0	3.1	.02	2.8	3.3	2.3
CAL YR 2003	TOTAL	633.76	MEAN	1.73	MAX	130	MIN	0	AC-FT	1260		
WTR YR 2004	TOTAL	844.73	MEAN	2.31	MAX	80	MIN	0	AC-FT	1680		

MAX DISCH: 380 CFS (ESTIMATED) AT 00:00 ON Aug. 19, 2004 GH 6.42 FT. SHIFT 0 FT.  
MAX GH: 6.42 FT. AT 00:00 ON Aug. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

PURGATOIRE RIVER below HIGHLAND DAM near LAS ANIMAS, CO (COMBINED)

HIGHLAND CANAL near LAS ANIMAS, CO

**LOCATION.**--Lat 37°54'03", Long 103°17'56" (Hackamore Ranch, CO Quadrangle, Scale 1:24,000), NE1/4, SW1/4, Section 1, T25S, R53W. On the left bank approximately ¼ mile downstream of the Highland Canal Diversion Dam, Bent County, 11 mi southwest of Las Animas, Colorado.

**DRAINAGE AREA.**--N/A.

**GAGE.**--The combined record of discharges was obtained by the addition of Highland Canal daily flows to the corresponding daily flows in the Purgatoire River below Highland Dam. The peak discharge for the water year occurred at 0045 August 19, 2004 due to runoff from a rain event upstream. The peak combined river and canal flow is estimated since the peak gage height on the canal exceeded the flume capacity more than 2.50 ft. Estimated peak flow is 8030 cfs. Record developed by Thomas W. Ley.

**REMARKS.**--Combined record is fair, except during periods of estimated flow and flows greater than 500 cfs, which should be considered poor.

PURGATOIRE RIVER BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO AND HIGHLAND CANAL (COMBINED)

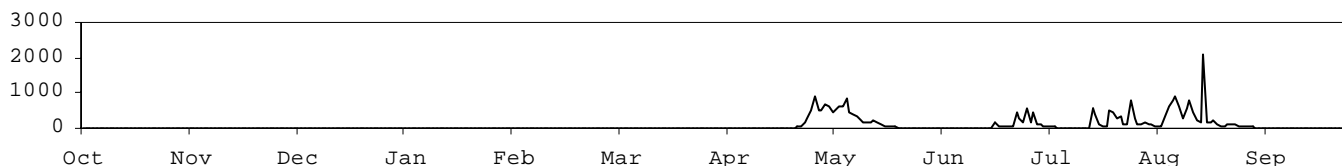
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	1.5	1.8	1.3	0	521	10	448	89	35
2	0	0	.01	1.7	1.8	1.3	0	664	8.5	118	179	31
3	0	0	.01	2	1.8	1.3	.04	643	7.5	94	92	26
4	0	0	0	2	1.7	1.2	.05	460	5.8	77	91	22
5	0	0	0	2	1.8	1.2	.08	504	3.9	62	54	19
6	0	0	0	1.8	1.8	1.3	.04	603	1.6	41	38	17
7	0	0	.04	1.8	1.8	1.3	.04	646	1.5	29	33	15
8	0	0	.04	1.7	1.8	1.2	.12	877	1.2	21	324	14
9	0	0	0	1.8	1.8	1.1	.35	461	.94	16	629	12
10	0	0	.01	1.8	1.8	1.2	1.2	390	.63	16	794	12
11	0	0	0	1.9	1.7	1.1	.99	324	.33	15	921	13
12	0	0	0	2	1.7	1.1	1.5	238	.18	20	600	12
13	0	0	.01	1.9	1.6	1.1	2	185	.1	17	287	11
14	0	0	.03	1.9	1.7	1	4.8	171	.07	28	577	9.3
15	0	0	0	1.9	1.8	.96	19	187	.04	18	808	7.4
16	0	0	0	2	1.9	.87	12	202	.02	19	437	6.5
17	0	0	.2	1.9	2.1	.78	14	166	.02	18	241	5.7
18	0	0	1.2	1.8	2	.76	10	103	10	580	145	4.8
19	0	0	1.6	1.8	1.9	.68	15	77	19	393	2080	4.2
20	0	0	1.9	1.7	1.8	.59	14	60	195	132	157	3.9
21	0	0	2.2	1.7	1.8	.21	12	46	70	53	180	3.4
22	0	0	2.1	1.7	1.7	.34	13	33	44	34	218	3
23	0	0	1.9	1.6	1.6	.19	22	28	32	526	122	2.9
24	0	0	1.7	1.5	1.6	.17	55	25	60	458	82	3
25	0	0	1.6	1.7	1.6	.24	65	24	63	256	83	2.8
26	0	0	1.7	1.6	1.6	.19	158	20	468	337	98	2.9
27	0	0	2	1.6	1.5	.12	268	16	262	138	124	2.3
28	0	0	2	1.7	1.5	.06	536	19	168	101	99	3.3
29	0	.02	1.8	1.7	1.4	.02	895	17	591	773	67	6
30	0	.02	1.9	1.8	---	0	502	18	166	295	44	6.2
31	0	---	1.7	1.8	---	0	---	13	---	128	39	---
TOTAL	0	.04	25.65	55.3	50.4	22.88	2621.21	7741	2190.33	5261	9732	316.6
MEAN	0	0	.83	1.8	1.7	.74	87.4	250	73	170	314	10.6
AC-FT	0	.08	51	110	100	45	5200	15350	4340	10440	19300	628
MAX	0	.02	2.2	2	2.1	1.3	895	877	591	773	2080	35
MIN	0	0	0	1.5	1.4	0	0	13	.02	15	33	2.3

CAL YR 2003	TOTAL	6567.21	MEAN	18	MAX	700	MIN	0	AC-FT	13030
WTR YR 2004	TOTAL	28016.41	MEAN	76.5	MAX	2080	MIN	0	AC-FT	55570

MAX DISCH: 8030 CFS (estimated) AT 00:45 ON Aug. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ARKANSAS RIVER BASIN

07134125 ARKANSAS RIVER below X-Y DITCH DAM nr CARLTON, CO

**LOCATION.**--Lat 38°06'17", long 102°25'17", SE¼SW¼ sec.25, T. 22 S., R.45 W., Prowers Co., Hydrologic Unit 11020009, on the right bank, 0.75 mi. west of Co Rd. 19, 0.3 mi. downstream of the former X-Y Ditch diversion dam and headgate and 1 mile northwest of Carlton, Co.

**DRAINAGE AREA.** --Undetermined.

**GAGE.**--Sutron Accubar water level sensor and satellite-monitored data collection platform (Sutron 8200 DCP) in a 4' x 4' steel shelter. Outside staff gage on right side below shelter is the primary reference gage. Primary record is DCP log data with satellite-monitored data used for backup. Outside staff gage on right side of channel below shelter is primary reference gage. high data rate 8210 DCP installed July 27, 2004.

**REMARKS.**--Record is complete and reliable except for the following periods: Apr 5, 6, 25, 26, July 2-6, and 8, 2004 when the DCP malfunctioned and did not transmit or log data. Record good, except for those periods of missing record, which should be considered poor. Station maintained and record developed by Adam Adame.

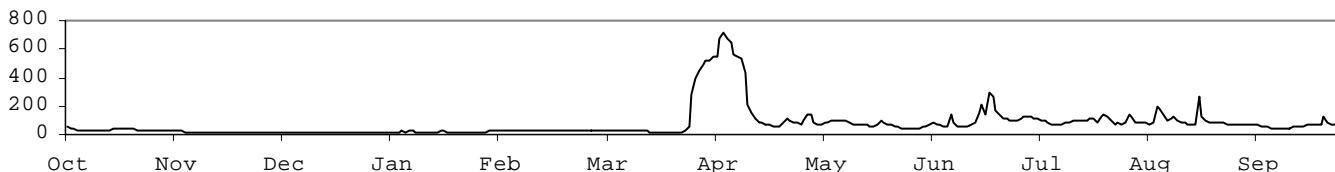
**RATING TABLE.**--ARKCARCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	29	17	20	24	23	516	143	48	127	130	75
2	46	24	17	20	23	22	524	82	54	120	86	75
3	40	22	17	21	23	22	546	69	58	120	88	71
4	35	21	17	21	23	23	547	72	74	110	85	72
5	30	21	17	22	22	24	670	79	78	108	90	74
6	30	21	17	19	22	23	720	90	69	105	75	65
7	30	19	18	22	22	22	679	98	64	104	89	61
8	31	19	19	22	22	23	647	99	56	80	201	56
9	30	18	19	21	22	22	565	100	60	68	185	50
10	31	18	18	21	22	23	552	103	142	71	145	43
11	33	18	19	21	23	22	539	97	91	73	105	43
12	34	18	19	21	22	22	439	80	61	76	114	42
13	35	17	19	21	22	22	206	73	52	85	129	43
14	37	17	19	21	22	22	160	69	52	88	103	41
15	41	17	20	21	22	22	117	67	56	94	86	45
16	39	17	18	22	22	21	90	67	69	94	82	55
17	40	17	19	22	22	20	84	65	89	93	71	60
18	38	16	19	21	22	20	73	63	150	94	68	60
19	37	16	19	21	23	19	67	60	209	100	73	62
20	36	15	19	21	23	19	62	72	147	117	261	65
21	35	12	19	20	22	19	57	96	290	106	120	65
22	35	14	19	20	22	19	56	90	270	82	95	77
23	35	14	20	20	22	20	80	74	174	126	81	74
24	35	14	20	21	22	21	112	67	136	139	78	69
25	34	16	20	21	22	21	100	61	119	128	80	121
26	34	16	19	21	22	22	86	55	112	97	82	82
27	34	16	19	21	22	60	82	45	105	76	82	71
28	31	17	19	21	22	286	76	48	96	83	76	65
29	31	17	19	21	22	388	94	48	95	76	76	58
30	31	17	20	22	---	450	136	44	111	90	76	52
31	31	---	21	23	---	485	---	45	---	146	76	---
TOTAL	1100	533	581	652	646	2227	8682	2321	3187	3076	3188	1892
MEAN	36	18	19	21	22	72	289	75	106	99	103	63
AC-FT	2180	1060	1150	1290	1280	4420	17220	4600	6320	6100	6320	3750
MAX	61	29	21	23	24	485	720	143	290	146	261	121
MIN	30	12	17	19	22	19	56	44	48	68	68	41
CAL YR 2003	TOTAL	14868	MEAN	40.7	MAX	186	MIN	12	AC-FT	29490		
WTR YR 2004	TOTAL	28085	MEAN	76.7	MAX	720	MIN	12	AC-FT	55710		

MAX DISCH: 739 CFS AT 18:15 ON Apr. 6, 2004 GH 3.16 FT. SHIFT -0.14 FT.  
MAX GH: 3.16 FT. AT 18:15 ON Apr. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

09061500 COLUMBINE DITCH NEAR FREEMONT PASS, CO.

**LOCATION.**--Lat 39°22'25", long 106°13'38". Columbine ditch diverts water from tributaries of Eagle River in sec. 5, T.8 S., R. 79 W., in Colorado River basin to Chalk Creek (tributary to East Fork Arkansas River) in NW¼ sec. 9, T.8 S., R 79 W., in Arkansas River basin.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink high data rate DCP) and shaft encoder in a 30" diameter metal pipe shelter and well. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to outside staff gage. Control is a 6-foot steel Parshall flume.

**REMARKS.**--Record is complete and reliable, except for the following days: May 7-27; June 1, 2004 when ice affected the stage-discharge relationship. Record good, except for periods of ice- affected record, which is poor. Station maintained and record developed by L.R.Schultz.

**RATING TABLE.**--COLDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

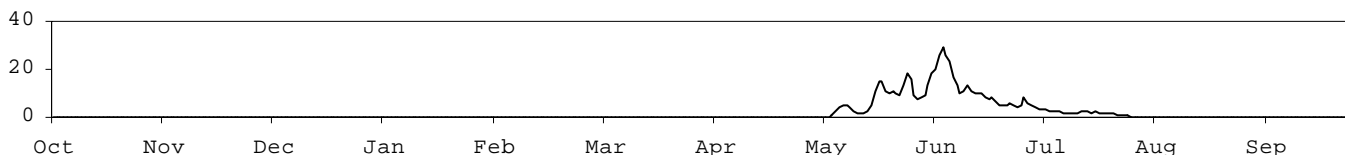
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	8.2	6.1	0	0
2	0	0	0	0	0	0	0	0	9.4	4.7	0	0
3	0	0	0	0	0	0	0	0	13	4.1	0	0
4	0	0	0	0	0	0	0	0	18	3.6	0	0
5	0	0	0	0	0	0	0	0	20	3.4	0	0
6	0	0	0	0	0	0	0	0	26	3.2	0	0
7	0	0	0	0	0	0	0	.8	29	2.6	0	0
8	0	0	0	0	0	0	0	2.8	26	2.3	0	0
9	0	0	0	0	0	0	0	3.9	23	2.1	0	0
10	0	0	0	0	0	0	0	4.9	17	2.1	0	0
11	0	0	0	0	0	0	0	5.4	13	1.9	0	0
12	0	0	0	0	0	0	0	4.1	10	1.7	0	0
13	0	0	0	0	0	0	0	2.3	11	1.6	0	0
14	0	0	0	0	0	0	0	2	13	1.5	0	0
15	0	0	0	0	0	0	0	1.6	11	1.5	0	0
16	0	0	0	0	0	0	0	1.5	10	2.4	0	0
17	0	0	0	0	0	0	0	2.3	10	2.6	0	0
18	0	0	0	0	0	0	0	5	10	2.2	0	0
19	0	0	0	0	0	0	0	11	8.7	1.9	0	0
20	0	0	0	0	0	0	0	15	7.5	2.1	0	0
21	0	0	0	0	0	0	0	15	8	1.9	0	0
22	0	0	0	0	0	0	0	11	6.8	1.6	0	0
23	0	0	0	0	0	0	0	10	5.3	1.6	0	0
24	0	0	0	0	0	0	0	11	4.9	1.9	0	0
25	0	0	0	0	0	0	0	10	5.1	1.3	0	0
26	0	0	0	0	0	0	0	9	5.8	1.2	0	0
27	0	0	0	0	0	0	0	13	5	1.2	0	0
28	0	0	0	0	0	0	0	18	4.4	.97	0	0
29	0	0	0	0	0	0	0	16	5.2	.84	0	0
30	0	0	0	0	---	0	0	8.8	8.7	.36	0	0
31	0	---	0	0	---	0	---	7.1	---	0	0	---
TOTAL	0	0	0	0	0	0	0	191.5	353	66.47	0	0
MEAN	0	0	0	0	0	0	0	6.18	11.8	2.14	0	0
AC-FT	0	0	0	0	0	0	0	380	700	132	0	0
MAX	0	0	0	0	0	0	0	18	29	6.1	0	0
MIN	0	0	0	0	0	0	0	0	4.4	0	0	0

CAL YR	2003	TOTAL	977.11	MEAN	2.68	MAX	47	MIN	0	AC-FT	1940
WTR YR	2004	TOTAL	610.97	MEAN	1.67	MAX	29	MIN	0	AC-FT	1210

MAX DISCH: 48.3 CFS AT 17:15 ON Jun. 7, 2004 GH 1.52 FT. SHIFT 0.03 FT.  
MAX GH: 1.52 FT. AT 17:15 ON Jun. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

09062000 EWING DITCH AT TENNESSEE PASS, CO

**LOCATION.**--Lat 39°21'40", long 106°18'22", diverts water from Piney Creek in sec. 11, T.8 S., R.80 W., in Eagle River basin, to Thayer Gulch (tributary to Tennessee Creek) in sec. 11, T. 8 S., R.80 W., in Arkansas River basin

**DRAINAGE AREA.**--N/A.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink high data rate DCP) and shaft encoder in a 30" diameter metal pipe shelter and well. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to outside staff gage. Control is a 4-foot steel Parshall flume.

**REMARKS.**--Record is complete and reliable, except for the following days when the stage- discharge relationship was affected by ice in the flume: May 1-3, 14, 2004. Record good, except for periods of ice effect, which are poor. Station maintained and record developed by L.R. Schultz.

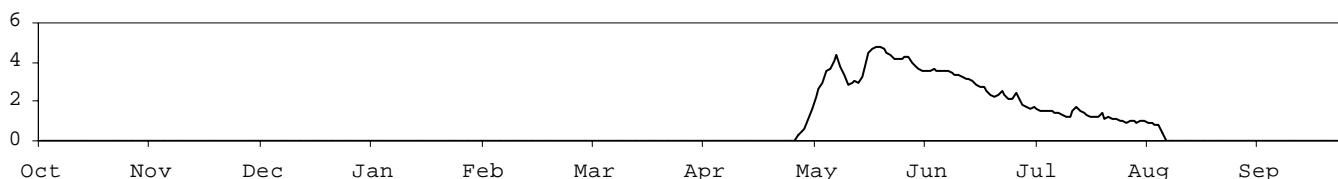
**RATING TABLE.**--EWIDITCO2 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	.5	4	2	.97	0
2	0	0	0	0	0	0	0	.6	3.8	1.8	.98	0
3	0	0	0	0	0	0	0	1.1	3.7	1.7	.95	0
4	0	0	0	0	0	0	0	1.6	3.6	1.6	1	0
5	0	0	0	0	0	0	0	2.2	3.6	1.7	1	0
6	0	0	0	0	0	0	0	2.6	3.6	1.6	.95	0
7	0	0	0	0	0	0	0	3	3.7	1.5	.93	0
8	0	0	0	0	0	0	0	3.6	3.6	1.5	.86	0
9	0	0	0	0	0	0	0	3.7	3.6	1.5	.85	0
10	0	0	0	0	0	0	0	4.1	3.6	1.5	.4	0
11	0	0	0	0	0	0	0	4.4	3.6	1.4	0	0
12	0	0	0	0	0	0	0	3.8	3.5	1.4	0	0
13	0	0	0	0	0	0	0	3.4	3.4	1.3	0	0
14	0	0	0	0	0	0	0	2.8	3.4	1.2	0	0
15	0	0	0	0	0	0	0	2.9	3.3	1.2	0	0
16	0	0	0	0	0	0	0	3.1	3.2	1.5	0	0
17	0	0	0	0	0	0	0	2.9	3.2	1.7	0	0
18	0	0	0	0	0	0	0	3.3	3.1	1.5	0	0
19	0	0	0	0	0	0	0	4.1	2.8	1.4	0	0
20	0	0	0	0	0	0	0	4.5	2.7	1.3	0	0
21	0	0	0	0	0	0	0	4.7	2.7	1.2	0	0
22	0	0	0	0	0	0	0	4.8	2.5	1.2	0	0
23	0	0	0	0	0	0	0	4.8	2.3	1.2	0	0
24	0	0	0	0	0	0	0	4.7	2.2	1.4	0	0
25	0	0	0	0	0	0	0	4.5	2.3	1.1	0	0
26	0	0	0	0	0	0	0	4.4	2.5	1.2	0	0
27	0	0	0	0	0	0	0	4.2	2.3	1.1	0	0
28	0	0	0	0	0	0	0	4.2	2.1	1.1	0	0
29	0	0	0	0	0	0	0	4.2	2.1	1	0	0
30	0	0	0	0	---	0	.28	4.3	2.4	1	0	0
31	0	---	0	0	---	0	---	4.3	---	.95	0	---
TOTAL	0	0	0	0	0	0	.28	107.3	92.4	42.75	8.89	0
MEAN	0	0	0	0	0	0	.01	3.46	3.1	1.38	.29	0
AC-FT	0	0	0	0	0	0	.6	213	183	85	18	0
MAX	0	0	0	0	0	0	.28	4.8	4	2	1	0
MIN	0	0	0	0	0	0	0	.5	2.1	.95	0	0
CAL YR 2003	TOTAL	517.98	MEAN	1.42	MAX	16	MIN	0	AC-FT	1030		
WTR YR 2004	TOTAL	251.62	MEAN	.69	MAX	4.8	MIN	0	AC-FT	499		

MAX DISCH: 5.7 CFS AT 18:15 ON May. 19, 2004 GH 0.55 FT. SHIFT -0.03 FT.  
MAX GH: 0.55 FT. AT 18:15 ON May. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO  
 ARKANSAS RIVER BASIN

09062500 WURTZ DITCH NEAR TENNESSEE PASS, CO

**LOCATION.**--Lat 39°21'15", long 106°21'09"; diverts water from tributaries of Eagle River in Colorado River basin to West Tennessee Creek (tributary to Tennessee Creek) in sec. 17, T.8 S., R.80 W., in Arkansas River basin.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink high data rate DCP and logger) and shaft encoder in a 30" diameter metal pipe shelter and well. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to outside staff gage. Control is a 6-foot steel Parshall flume.

**REMARKS.**--Record is complete and reliable, except for the following period: May 14, 2004 when the stage was ice-affected. Record good, except for the period of ice affected record, which is poor. Station maintained and record developed by L.R.Schultz.

**RATING TABLE.**--WURDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

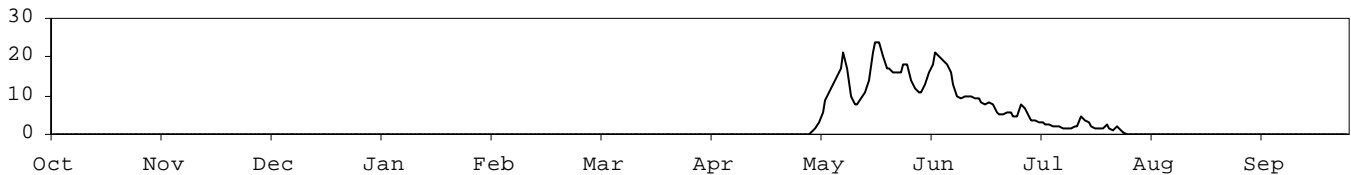
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	11	6.7	0	0
2	0	0	0	0	0	0	0	.44	11	4.6	0	0
3	0	0	0	0	0	0	0	1.5	13	3.7	0	0
4	0	0	0	0	0	0	0	3	16	3.4	0	0
5	0	0	0	0	0	0	0	5.5	18	3.2	0	0
6	0	0	0	0	0	0	0	8.9	21	3.3	0	0
7	0	0	0	0	0	0	0	11	20	2.8	0	0
8	0	0	0	0	0	0	0	13	19	2.5	0	0
9	0	0	0	0	0	0	0	15	18	2.2	0	0
10	0	0	0	0	0	0	0	17	16	2.1	0	0
11	0	0	0	0	0	0	0	21	13	2	0	0
12	0	0	0	0	0	0	0	17	10	1.8	0	0
13	0	0	0	0	0	0	0	10	9.3	1.5	0	0
14	0	0	0	0	0	0	0	8	9.8	1.5	0	0
15	0	0	0	0	0	0	0	7.9	10	2.1	0	0
16	0	0	0	0	0	0	0	9.4	9.7	1.9	0	0
17	0	0	0	0	0	0	0	11	9.3	4.4	0	0
18	0	0	0	0	0	0	0	14	9.3	3.4	0	0
19	0	0	0	0	0	0	0	21	8.2	2.9	0	0
20	0	0	0	0	0	0	0	24	7.6	1.9	0	0
21	0	0	0	0	0	0	0	24	8.5	1.7	0	0
22	0	0	0	0	0	0	0	20	7.7	1.4	0	0
23	0	0	0	0	0	0	0	17	5.6	1.6	0	0
24	0	0	0	0	0	0	0	17	5	2.8	0	0
25	0	0	0	0	0	0	0	16	5.1	1.5	0	0
26	0	0	0	0	0	0	0	16	5.9	1.1	0	0
27	0	0	0	0	0	0	0	16	5.8	2	0	0
28	0	0	0	0	0	0	0	18	4.7	1.2	0	0
29	0	0	0	0	0	0	0	18	4.7	.77	0	0
30	0	0	0	0	---	0	0	14	7.9	.25	0	0
31	0	---	0	0	---	0	---	12	---	0	0	---
TOTAL	0	0	0	0	0	0	0	406.64	320.1	72.22	0	0
MEAN	0	0	0	0	0	0	0	13.1	10.7	2.33	0	0
AC-FT	0	0	0	0	0	0	0	807	635	143	0	0
MAX	0	0	0	0	0	0	0	24	21	6.7	0	0
MIN	0	0	0	0	0	0	0	0	4.7	0	0	0

CAL YR 2003	TOTAL	1211.91	MEAN	3.32	MAX	65	MIN	0	AC-FT	2400
WTR YR 2004	TOTAL	798.96	MEAN	2.18	MAX	24	MIN	0	AC-FT	1580

MAX DISCH: 33.4 CFS AT 21:15 ON May. 20, 2004 GH 1.19 FT. SHIFT 0.04 FT.  
 MAX GH: 1.19 FT. AT 21:15 ON May. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

WURTZ DITCH EXTENSION NEAR LEADVILLE, CO AT TENNESSEE PASS

LOCATION.--Lat 39°23'41", long 106°21'10", sec. 32, T.7 S., R.80 W., Eagle County.

DRAINAGE AREA.--N/A.

GAGE.--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron 8004 DCP) and shaft encoder in a 30" diameter metal pipe shelter and well. A Sutron high data rate SatLink Logger DCP was installed on July 9, 2004. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to outside staff gage. Control is a 6-foot, steel Parshall flume. Control is a 6-foot steel Parshall flume.

REMARKS.--Record is complete and reliable except for the following periods: May 10, 11, 2004 when the DCP battery died and the pen for the chart was not down on the paper. May 14, 24, 30, 31 and June 1, 2004, due to ice-affected flow in the flume. Record good, except that for estimated days, which is poor. Station maintained and record developed by L.R. Schultz.

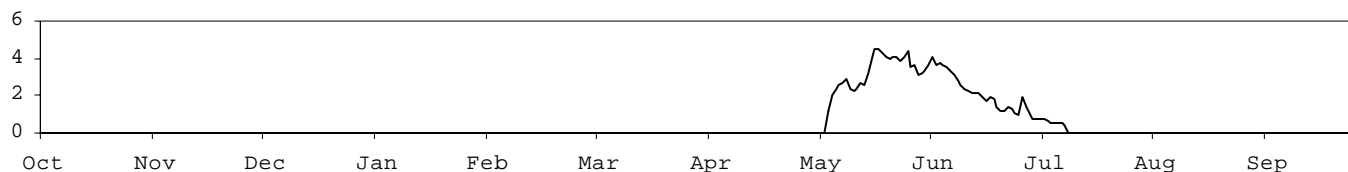
RATING TABLE.-- WUREXD001 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	3.1	1.4	0	0
2	0	0	0	0	0	0	0	0	3.2	.92	0	0
3	0	0	0	0	0	0	0	0	3.3	.77	0	0
4	0	0	0	0	0	0	0	0	3.6	.71	0	0
5	0	0	0	0	0	0	0	0	4.1	.71	0	0
6	0	0	0	0	0	0	0	0	3.6	.75	0	0
7	0	0	0	0	0	0	0	1.2	3.7	.62	0	0
8	0	0	0	0	0	0	0	2	3.6	.57	0	0
9	0	0	0	0	0	0	0	2.4	3.5	.52	0	0
10	0	0	0	0	0	0	0	2.6	3.3	.5	0	0
11	0	0	0	0	0	0	0	2.7	3.1	.5	0	0
12	0	0	0	0	0	0	0	2.9	2.8	.43	0	0
13	0	0	0	0	0	0	0	2.4	2.6	.01	0	0
14	0	0	0	0	0	0	0	2.2	2.4	0	0	0
15	0	0	0	0	0	0	0	2.4	2.3	0	0	0
16	0	0	0	0	0	0	0	2.7	2.1	0	0	0
17	0	0	0	0	0	0	0	2.6	2.1	0	0	0
18	0	0	0	0	0	0	0	3.2	2.1	0	0	0
19	0	0	0	0	0	0	0	4.1	1.9	0	0	0
20	0	0	0	0	0	0	0	4.5	1.7	0	0	0
21	0	0	0	0	0	0	0	4.5	1.9	0	0	0
22	0	0	0	0	0	0	0	4.3	1.8	0	0	0
23	0	0	0	0	0	0	0	4.1	1.4	0	0	0
24	0	0	0	0	0	0	0	4	1.2	0	0	0
25	0	0	0	0	0	0	0	4.1	1.2	0	0	0
26	0	0	0	0	0	0	0	4.1	1.4	0	0	0
27	0	0	0	0	0	0	0	3.9	1.3	0	0	0
28	0	0	0	0	0	0	0	4.1	1.1	0	0	0
29	0	0	0	0	0	0	0	4.4	1	0	0	0
30	0	0	0	0	---	0	0	3.5	1.9	0	0	0
31	0	---	0	0	---	0	---	3.4	---	0	0	---
TOTAL	0	0	0	0	0	0	0	82.3	72.3	8.41	0	0
MEAN	0	0	0	0	0	0	0	2.65	2.4	.27	0	0
AC-FT	0	0	0	0	0	0	0	163	143	17	0	0
MAX	0	0	0	0	0	0	0	4.5	4.1	1.4	0	0
MIN	0	0	0	0	0	0	0	0	1	0	0	0
CAL YR 2003	TOTAL	256.93	MEAN	.70	MAX	18	MIN	0	AC-FT	510		
WTR YR 2004	TOTAL	163.01	MEAN	.45	MAX	4.5	MIN	0	AC-FT	323		

MAX DISCH: 6.96 CFS AT 09:15 ON Jun. 8, 2004 GH 0.46 FT. SHIFT 0 FT.  
MAX GH: 0.46 FT. AT 09:15 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

09063700 HOMESTAKE TUNNEL NEAR GOLD PARK, CO

**LOCATION.**--Lat 39°16'52", long 106°25'56"; Homestake tunnel diverts water from Homestake Lake, in sec. 17, T. 8 S., R. 81 W., in Eagle River basin, to Lake Fork Creek in Arkansas River basin.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink high data rate DCP) and shaft encoder in a 4' x 4' wood shelter and concrete well. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to inside electric tape gage. Control is a 12-foot concrete Parshall flume.

**REMARKS.**--Record is complete and reliable. Record good. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--HOMTUNCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

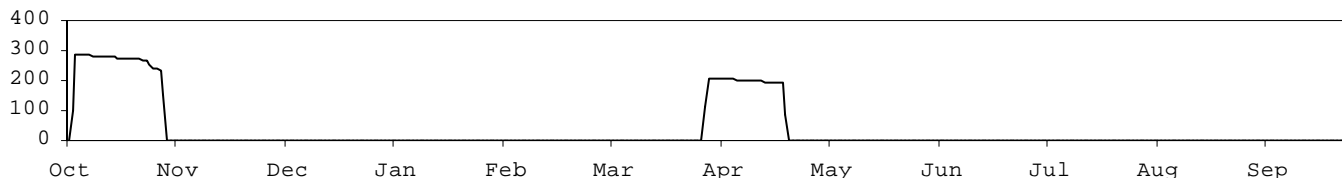
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	207	0	0	0	0	0
2	98	0	0	0	0	0	207	0	0	0	0	0
3	288	0	0	0	0	0	207	0	0	0	0	0
4	287	0	0	0	0	0	206	0	0	0	0	0
5	286	0	0	0	0	0	206	0	0	0	0	0
6	285	0	0	0	0	0	204	0	0	0	0	0
7	284	0	0	0	0	0	204	0	0	0	0	0
8	283	0	0	0	0	0	203	0	0	0	0	0
9	282	0	0	0	0	0	202	0	0	0	0	2.7
10	281	0	0	0	0	0	202	0	0	0	0	0
11	280	0	0	0	0	0	201	0	0	0	0	0
12	280	0	0	0	0	0	199	0	0	0	0	0
13	279	0	0	0	0	0	199	0	0	0	0	0
14	278	0	0	0	0	0	198	0	0	0	0	0
15	276	0	0	0	0	0	197	0	0	0	0	0
16	275	0	0	0	0	0	195	0	0	0	0	0
17	273	0	0	0	0	0	194	0	0	0	0	0
18	273	0	0	0	0	0	193	0	0	0	0	0
19	272	0	0	0	0	0	193	0	0	0	0	0
20	272	0	0	0	0	0	192	0	0	0	0	0
21	271	0	0	0	0	0	191	0	0	0	0	0
22	270	0	0	0	0	0	88	0	0	0	0	0
23	268	0	0	0	0	0	0	0	0	.89	0	0
24	254	0	0	0	0	0	0	0	0	0	0	0
25	239	0	0	0	0	0	0	0	0	0	0	0
26	238	0	0	0	0	0	0	0	0	0	0	0
27	236	0	0	0	0	0	0	0	0	0	0	0
28	151	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	114	0	0	0	0	0	0
31	0	---	0	0	---	209	---	0	---	0	0	---
TOTAL	7059	0	0	0	0	323	4288	0	0	.89	0	2.7
MEAN	228	0	0	0	0	10.4	143	0	0	.03	0	.09
AC-FT	14000	0	0	0	0	641	8510	0	0	1.8	0	5.4
MAX	288	0	0	0	0	209	207	0	0	.89	0	2.7
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 2003	TOTAL	12067	MEAN	33.1	MAX	295	MIN	0	AC-FT	23930
WTR YR 2004	TOTAL	11673.59	MEAN	31.9	MAX	288	MIN	0	AC-FT	23150

MAX DISCH: 320 CFS AT 16:30 ON Sep. 9, 2004 GH 3.27 FT. SHIFT 0.06 FT.  
MAX GH: 3.27 FT. AT 16:30 ON Sep. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

09077160 BOUSTEAD TUNNEL AT EAST PORTAL NEAR LEADVILLE, CO

**LOCATION.**--Lat 39°16'40", long 106°25'40"; Charles H. Boustead Tunnel diverts water from the main stem and tributaries of Fryingspan River in Colorado River basin, to Lake Fork in sec. 10, T. 9 S., R. 81 W., in Arkansas River basin.

**GAGE.**--Graphic water-stage recorder with satellite-monitored data collection platform (Sutron 8210 high data rate DCP) and shaft encoder in a 5'x 5' concrete shelter. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to inside drop tape and RP with an outside staff gage in the flume used as a supplemental reference gage. An electric tape gage was installed on Aug. 20, 2003. Control is a 15-foot concrete Parshall flume.

**REMARKS.**--Record is complete and reliable except for the following periods: Oct. 1, 2003 through Oct. 10, 2003, and July 22, 2004 through Sept. 30, 2004 when maintenance was being performed in the tunnel and a flume by-pass drain was used, resulting in these periods becoming estimated days. Record fair. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--STD15FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

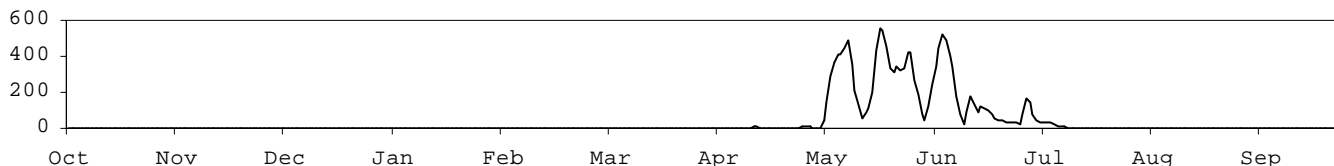
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.7	1.9	1.7	1.9	2.2	1.9	4.7	75	170	1.6	1.5
2	1.7	1.7	1.9	1.7	1.9	2.2	1.8	2.5	48	146	1.6	1.5
3	1.7	1.7	1.9	1.7	1.9	2.2	1.7	2.6	124	82	1.6	1.5
4	1.5	1.7	1.8	1.7	1.9	2.2	1.7	39	250	39	1.6	1.5
5	1.5	1.7	1.8	1.7	1.9	2.2	1.7	144	343	37	1.6	1.5
6	1.5	1.7	1.7	1.7	1.9	2.2	1.7	285	446	36	1.6	1.5
7	1.5	1.7	1.7	1.7	1.9	2.1	1.9	366	519	35	1.6	1.5
8	1.4	1.7	1.7	1.7	1.9	1.9	1.9	409	485	32	1.6	1.5
9	1.4	1.7	1.7	1.7	1.9	1.9	2.4	410	401	19	1.6	1.5
10	1.4	1.7	1.7	1.7	1.9	1.8	3.7	442	340	12	1.6	1.5
11	1.4	1.7	1.7	1.7	1.9	1.9	3.6	488	182	11	1.6	1.5
12	1.4	1.7	1.7	1.7	1.9	1.9	3.3	356	73	10	1.6	1.5
13	1.4	1.7	1.7	1.7	1.9	1.8	4.8	207	17	2.8	1.6	1.5
14	1.4	1.7	1.7	1.7	1.9	1.7	8	134	90	2.5	1.6	1.5
15	1.4	1.7	1.7	1.7	1.9	1.7	6.3	60	177	2.6	1.6	1.5
16	1.4	1.7	1.7	1.7	1.9	1.8	3.4	92	137	1.7	1.6	1.5
17	1.4	1.7	1.7	1.7	1.9	1.9	2.5	109	84	1.7	1.6	1.5
18	1.4	1.7	1.7	1.7	1.9	1.9	2.5	197	121	1.7	1.6	1.5
19	1.4	1.7	1.7	1.7	1.9	1.9	2.5	428	115	1.7	1.6	1.5
20	1.4	1.7	1.7	1.7	1.9	1.8	2.5	556	95	1.7	1.6	1.4
21	1.4	1.7	1.7	1.7	1.9	1.7	2.5	539	79	1.7	1.6	1.4
22	1.4	1.7	1.7	1.7	1.9	1.7	2.4	451	57	1.7	1.6	1.4
23	1.4	1.7	1.7	1.7	1.9	1.8	2.5	338	48	1.7	1.6	1.4
24	1.4	1.7	1.7	1.7	2	1.7	2.4	310	48	1.7	1.6	1.4
25	1.4	1.7	1.7	1.7	2.1	1.7	2.3	342	36	1.7	1.6	1.4
26	1.4	1.7	1.7	1.7	1.9	1.7	2.3	317	29	1.7	1.5	1.4
27	1.4	1.7	1.7	1.7	2	1.8	2.5	335	29	1.7	1.5	1.4
28	1.4	1.7	1.7	1.7	2.2	1.7	7.2	419	28	1.7	1.5	1.4
29	1.4	1.8	1.7	1.7	2.2	1.7	8.5	422	19	1.7	1.5	1.4
30	1.5	1.9	1.7	1.7	--	1.8	7.2	268	82	1.7	1.5	1.4
31	1.7	--	1.7	1.9	--	1.9	--	189	--	1.7	1.5	--
TOTAL	45.1	51.3	53.5	52.9	56.1	58.4	99.6	8661.8	4577	664.1	49	43.9
MEAN	1.5	1.7	1.7	1.7	1.9	1.9	3.3	279	153	21.4	1.6	1.5
AC-FT	89	102	106	105	111	116	198	17180	9080	1320	97	87
MAX	1.7	1.9	1.9	1.9	2.2	2.2	8.5	556	519	170	1.6	1.5
MIN	1.4	1.7	1.7	1.7	1.9	1.7	1.7	2.5	17	1.7	1.5	1.4

CAL YR 2003 TOTAL 29066.7 MEAN 79.6 MAX 893 MIN 1.4 AC-FT 57650  
WTR YR 2004 TOTAL 14412.7 MEAN 39.4 MAX 556 MIN 1.4 AC-FT 28590

MAX DISCH: 762 CFS AT 21:45 ON May. 20, 2004 GH 4.73 FT. SHIFT 0.28 FT.  
MAX GH: 4.73 FT. AT 21:45 ON May. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## ARKANSAS RIVER BASIN

09077500 BUSK-IVANHOE TUNNEL AT EAST PORTAL NEAR MALTA, CO

**LOCATION.**--Lat 39°14'55", long 106°28'14"; Water diverted from Ivanhoe Lake, tributary to Fryingpan River in sec. 13, T. 9 S., R. 82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec. 20, T. 9 S., R. 81 W., in Arkansas River basin.

**GAGE.**--Graphic water-stage recorder, satellite-monitored data collection platform (Sutron SatLink high data rate DCP) and shaft encoder in a 3'x3' metal and wood shelter. Satellite monitored DCP is the primary source of stage data with chart record used for backup. Shaft encoder and chart are set to outside staff gage in the flume. Control is an 8-foot steel Parshall flume.

**REMARKS.**--Record is complete and reliable. Record good. Station maintained and record developed by L.R.Schultz.

**RATING TABLE.**--BUSTUNCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

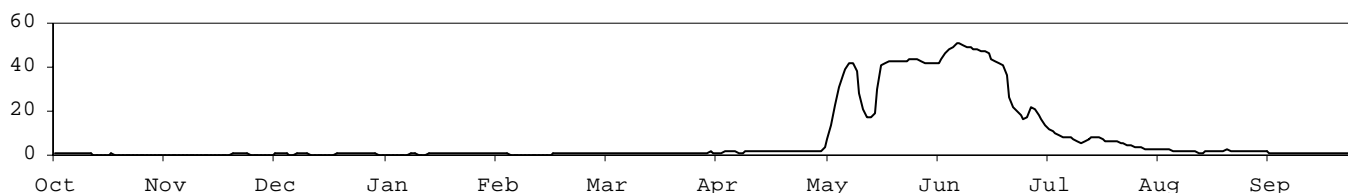
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.35	.45	.45	.67	1.1	1.3	1.9	42	22	3.2	1.7
2	.53	.35	.5	.45	.67	.81	1.4	2	42	21	3.1	1.5
3	.55	.35	.55	.45	.54	.73	1.1	2.2	42	18	3.1	1.5
4	.58	.4	.55	.45	.54	.67	1.2	3.5	42	16	3	1.5
5	.6	.45	.51	.45	.5	.67	1.2	7	42	14	2.8	1.4
6	.67	.45	.45	.45	.41	.67	1.4	14	44	12	2.8	1.1
7	.67	.45	.45	.45	.35	.71	1.4	23	46	11	2.8	.67
8	.6	.45	.49	.45	.35	.79	1.5	31	48	9.8	2.6	.55
9	.53	.36	.55	.5	.35	.77	1.6	36	49	8.9	2.4	.71
10	.49	.45	.55	.51	.35	.77	1.2	39	51	8.3	2	.79
11	.52	.45	.47	.45	.35	.79	1.3	42	51	8.4	1.7	.79
12	.45	.45	.45	.45	.35	.79	1.5	42	50	8.6	1.7	.79
13	.45	.45	.45	.45	.35	.79	1.5	38	49	7.5	1.6	.79
14	.35	.45	.45	.48	.35	.79	1.5	28	49	6.1	1.5	.79
15	.35	.45	.45	.55	.35	.91	1.7	21	48	5.9	1.5	.72
16	.44	.45	.45	.7	.35	.92	1.7	17	48	6	1.5	.66
17	.48	.45	.41	.81	.43	1.1	1.9	17	47	7.1	1.3	.55
18	.45	.29	.45	.85	.56	1.1	1.9	19	47	8	1.2	.55
19	.45	.36	.55	.79	.67	1	1.9	30	46	8.5	1.4	.59
20	.45	.53	.55	.79	.78	1.1	1.7	41	44	8.2	1.5	.67
21	.45	.55	.55	.86	.79	1.1	1.8	42	43	7.5	1.6	.62
22	.45	.55	.55	.92	.79	1.1	1.8	43	42	6.8	1.7	.66
23	.45	.55	.55	.85	.79	1.1	1.5	43	41	6.1	1.7	.67
24	.45	.51	.55	.79	.84	1.2	1.6	43	36	6.1	2	.67
25	.45	.45	.55	.79	.92	1.2	1.7	43	26	6	2.5	.67
26	.45	.45	.55	.71	.92	1.2	1.7	43	22	5.5	2.2	.67
27	.45	.45	.55	.67	1	1.2	1.8	43	20	5.1	2.1	.68
28	.41	.45	.55	.67	1.1	1.2	1.9	44	18	4.7	2	.63
29	.35	.45	.55	.67	1.2	1.2	2.1	44	16	4.3	1.9	.67
30	.35	.45	.48	.67	---	1.2	1.9	44	17	3.6	1.7	.73
31	.35	---	.45	.67	---	1.2	---	43	---	3.2	1.7	---
TOTAL	14.76	13.25	15.61	19.2	17.62	29.88	47.7	929.6	1208	274.2	63.8	24.99
MEAN	.48	.44	.5	.62	.61	.96	1.6	30	40	8.9	2.1	.83
AC-FT	29	26	31	38	35	59	95	1840	2400	544	127	50
MAX	.67	.55	.55	.92	1.2	1.2	2.1	44	51	22	3.2	1.7
MIN	.35	.29	.41	.45	.35	.67	1.1	1.9	16	3.2	1.2	.55

CAL YR 2003 TOTAL 2557.66 MEAN 7 MAX 64 MIN 0 AC-FT 5070  
WTR YR 2004 TOTAL 2658.61 MEAN 7.26 MAX 51 MIN .29 AC-FT 5270

MAX DISCH: 51.3 CFS AT 14:45 ON Jun. 10, 2004 GH 1.27 FT. DATUM CORR. 0.01 FT SHIFT 0.06 FT.  
MAX GH: 1.27 FT. (DATUM CORR. 0.01 FT) AT 14:45 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

09073000 TWIN LAKES TUNNEL AT EAST PORTAL NEAR TWIN LAKES, CO

**LOCATION.**--Lat 39°04'56", long 106°32'24"; diverts water from tributaries of Roaring Fork River in Colorado River Basin to North Fork Lake Creek in sec. 22, T.11 S., R.82 W., in Arkansas River basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder, with Sutron high data rate 8210 DCP and shaft encoder in a 5' x 5' concrete shelter and well. Primary record is satellite-monitored data with the graphic chart recorder used for backup purposes. Shaft encoder and chart are set to outside staff gage. Control is a 12-foot concrete Parshall flume. An electric tape gage was installed on Apr. 24, 2003.

**REMARKS.**--Record is complete and reliable. Record good. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--TWITUNCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

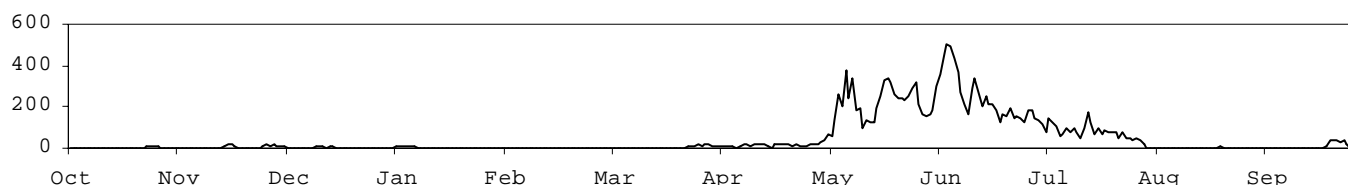
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.1	.59	5.6	3	2	3.5	14	24	156	181	36	.66
2	.11	.38	1.6	5.7	2	3.3	12	32	164	143	23	.66
3	.12	.39	1.6	14	2	3.3	12	35	185	132	.82	.66
4	.09	.52	1.6	14	2	3.4	12	65	300	114	.75	.66
5	.09	.52	1.8	13	2.2	3.6	14	55	354	75	.66	.66
6	.13	.55	1.8	13	2.2	3.6	14	140	458	142	.66	.66
7	.17	.66	1.8	6.6	2.2	3.8	12	257	504	121	.52	.62
8	.17	.8	1.8	1.6	2.3	3.8	4.1	200	497	106	.52	.52
9	.17	.99	1.8	1.6	2.3	3.8	13	381	432	54	.52	.52
10	.17	.99	8.7	1.6	2.2	3.8	16	240	367	68	.48	.53
11	.17	1	13	1.8	2.3	3.8	16	340	275	92	.39	.58
12	.17	1.2	12	1.8	2.3	3.8	14	182	210	74	.39	.66
13	.16	1.2	4.1	1.8	2.5	3.8	20	193	168	96	.39	.66
14	.16	9.1	9.5	1.8	2.5	3.8	20	99	288	74	.36	.66
15	.16	16	7.7	1.8	2.5	3.8	15	135	342	50	.27	.66
16	.17	17	3.5	1.8	2.5	3.8	19	125	268	97	.27	.65
17	.13	7.3	3.6	1.8	2.7	3.8	6.3	127	203	179	.27	.65
18	.15	1.2	3.6	1.8	2.7	3.8	2.8	190	247	127	.27	.65
19	.17	2.3	2.9	1.8	2.7	3.8	21	250	209	68	.27	.65
20	.16	3.7	3	1.8	2.8	3.8	23	328	215	97	.27	.66
21	.17	4.2	3	1.8	3	3.8	24	336	187	68	.27	.66
22	3.9	4.4	3	1.8	3	3.8	24	315	129	87	.27	2.1
23	6.2	4.5	3	1.8	3.2	3.8	21	259	165	79	2.8	13
24	6.2	4.5	3	1.9	3.3	3.8	14	243	153	81	5.2	35
25	5.4	8.8	3	2	3.5	7.6	18	244	191	82	.67	38
26	5	15	3	2	3.4	9.5	14	237	146	46	.66	35
27	3.3	9.5	3	2	3.3	12	14	254	156	74	.66	31
28	.69	15	3	2	3.5	15	8.3	290	141	45	.66	37
29	.9	14	3	2	3.6	10	17	315	129	49	.66	17
30	1.1	14	3	2	---	20	16	214	185	37	.66	.56
31	.93	---	3	2	---	18	---	169	---	44	.66	---
TOTAL	36.71	160.29	124	113.4	76.7	181.2	450.5	6274	7424	2782	80.25	221.95
MEAN	1.18	5.34	4	3.7	2.6	5.9	15	202	247	90	2.59	7.4
AC-FT	73	318	246	225	152	359	894	12440	14730	5520	159	440
MAX	6.2	17	13	14	3.6	20	24	381	504	181	36	38
MIN	.09	.38	1.6	1.6	2	3.3	2.8	24	129	37	.27	.52

CAL YR 2003	TOTAL	22795.92	MEAN	62.5	MAX	612	MIN	.09	AC-FT	45220
WTR YR 2004	TOTAL	17925	MEAN	49	MAX	504	MIN	.09	AC-FT	35550

MAX DISCH: 564 CFS AT 23:30 ON Jun. 6, 2004 GH 4.73 FT. SHIFT 0.01 FT.  
MAX GH: 4.73 FT. AT 23:30 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

ARKANSAS RIVER BASIN

09115000 LARKSPUR DITCH NEAR MARSHALL PASS, CO

**LOCATION.**--Lat 38°23'00", long 106°15'00", diverts water from tributaries of Tomichi Creek between headgates (in sec. 11, T.48 N., R.6 E., and sec. 1, T.47 N., R.6 E.), and Marshall Pass, in Gunnison River basin, to Poncha Creek (tributary to South Arkansas River) in SE¼ sec. 24, T.48 N., R.6 E., in Arkansas River basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder (F-type), satellite-monitored data collection platform (8004 DCP) and shaft encoder in a 30"x 24" metal shelter and well. Primary record is satellite-monitored data with the chart recorder used for backup purposes. Shaft encoder and chart are set to outside staff gage. Control is a 2-foot steel Parshall flume. A high data rate Sutron SatLink Logger DCP was installed July 22, 2004.

**REMARKS.**--The record is complete but not considered fully reliable, due to ditch going in and out of priority multiple times during the year. Record fair. Station maintained and record developed by L.R. Schultz.

**RATING TABLE.**--STD02FTPF USED FROM 01-OCT-2003 TO 30-SEP-2004

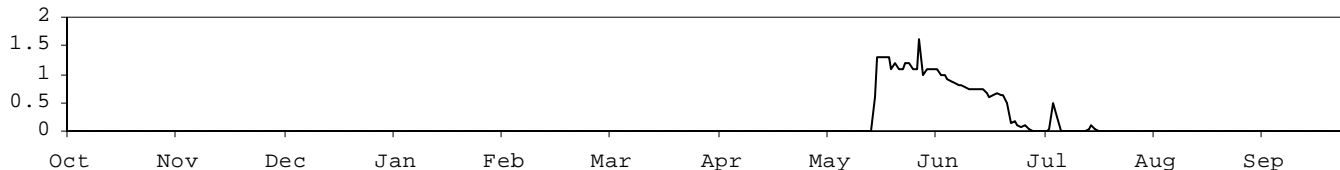
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	1	.05	0	0
2	0	0	0	0	0	0	0	0	1.1	0	0	0
3	0	0	0	0	0	0	0	0	1.1	0	0	0
4	0	0	0	0	0	0	0	0	1.1	0	0	0
5	0	0	0	0	0	0	0	0	1.1	0	0	0
6	0	0	0	0	0	0	0	0	1	0	0	0
7	0	0	0	0	0	0	0	0	.97	.04	0	0
8	0	0	0	0	0	0	0	0	.92	.5	0	0
9	0	0	0	0	0	0	0	0	.87	.26	0	0
10	0	0	0	0	0	0	0	0	.84	0	0	0
11	0	0	0	0	0	0	0	0	.81	.01	0	0
12	0	0	0	0	0	0	0	0	.8	0	0	0
13	0	0	0	0	0	0	0	0	.76	0	0	0
14	0	0	0	0	0	0	0	0	.74	0	0	0
15	0	0	0	0	0	0	0	0	.74	0	0	0
16	0	0	0	0	0	0	0	0	.72	0	0	0
17	0	0	0	0	0	0	0	0	.73	0	0	0
18	0	0	0	0	0	0	0	.58	.73	.02	0	0
19	0	0	0	0	0	0	0	1.3	.67	.1	0	0
20	0	0	0	0	0	0	0	1.3	.61	.03	0	0
21	0	0	0	0	0	0	0	1.3	.64	.01	0	0
22	0	0	0	0	0	0	0	1.3	.68	.01	0	0
23	0	0	0	0	0	0	0	1.1	.63	0	0	0
24	0	0	0	0	0	0	0	1.2	.64	0	0	0
25	0	0	0	0	0	0	0	1.1	.48	0	0	0
26	0	0	0	0	0	0	0	1.1	.15	0	0	0
27	0	0	0	0	0	0	0	1.2	.16	0	0	0
28	0	0	0	0	0	0	0	1.2	.09	0	0	0
29	0	0	0	0	0	0	0	1.1	.07	0	0	0
30	0	0	0	0	---	0	0	1.1	.1	0	0	0
31	0	---	0	0	---	0	---	1.6	---	0	0	---
TOTAL	0	0	0	0	0	0	0	16.48	20.95	1.03	0	0
MEAN	0	0	0	0	0	0	0	.53	.7	.03	0	0
AC-FT	0	0	0	0	0	0	0	33	42	2	0	0
MAX	0	0	0	0	0	0	0	1.6	1.1	.5	0	0
MIN	0	0	0	0	0	0	0	0	.07	0	0	0

CAL YR 2003 TOTAL 0 MEAN 0 MAX 0 MIN 0 AC-FT 0  
WTR YR 2004 TOTAL 38.46 MEAN .11 MAX 1.6 MIN 0 AC-FT 76

MAX DISCH: 6.44 CFS AT 04:00 ON May 31, 2004 GH 0.89 FT. SHIFT 0 FT. DATUM CORR. -0.02 FT.  
MAX GH: 0.89 FT. (DATUM CORR. -0.02 FT) AT 04:00 ON MAY 31, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08213500 RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE, CO

**LOCATION.**--Lat 37°43'30", long 107°15'18", in NE¼ sec. 13, T.40 N., R.4 W., Hinsdale County, Hydrologic Unit 13010001, on right bank 70 ft downstream from bridge, 500 ft upstream from Squaw Creek, 0.7 mi downstream from Rio Grande Reservoir, and 20 mi southwest of Creede.

**DRAINAGE AREA AND PERIOD OF RECORD.**--163 mi². June 1909 to Sep. 1923, May 1925 to current year. No winter records 1910, 1926. Monthly data only for some periods.

**GAGE.**--Water-stage recorder with satellite telemetry in a timber shelter and metal well. Elevation of gage is 9,300 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for Nov. 12, 2003 to Mar 30, 2004 when the station was closed for the winter; and Nov. 10, 11, 2003, Mar. 31, 2004 when the station was isolated for periods during the day. Record good except for periods of no gage-height record, which are fair to poor. Station maintained and record developed by Div. III Personnel.

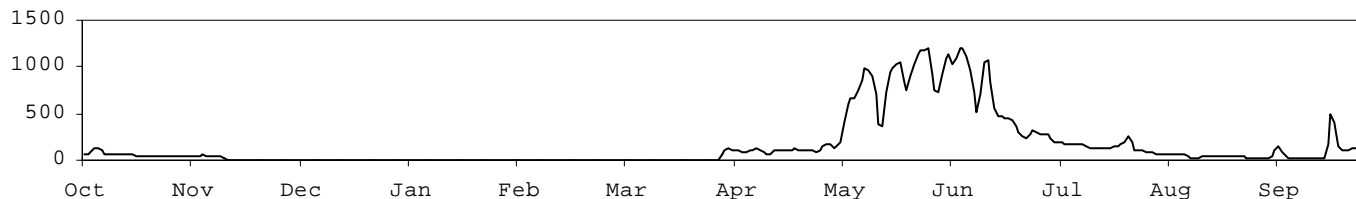
**RATING TABLE.**--RIOMILCO12 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	47	2	2.7	3.2	3.6	113	171	736	275	84	22
2	69	47	2	2.7	3.2	3.6	120	135	932	268	74	24
3	91	52	2	2.7	3.2	3.6	117	155	1100	229	70	29
4	118	54	2.1	2.7	3.2	3.6	117	203	1130	201	67	41
5	128	42	2.1	2.8	3.2	3.6	104	397	1030	188	64	109
6	101	37	2.1	2.8	3.3	3.6	92	591	1100	187	65	152
7	75	37	2.1	2.8	3.3	3.6	90	675	1190	178	64	89
8	68	42	2.2	2.8	3.3	3.6	104	664	1190	170	66	42
9	68	43	2.2	2.8	3.3	3.7	115	745	1120	171	63	32
10	63	25	2.2	2.9	3.3	3.7	118	860	969	172	55	26
11	56	1.4	2.2	2.9	3.3	3.7	102	986	735	172	36	23
12	64	1.4	2.3	2.9	3.3	3.7	77	971	513	162	27	23
13	72	1.4	2.3	2.9	3.3	3.7	67	890	698	142	27	23
14	74	1.5	2.3	2.9	3.4	3.7	72	702	1040	125	30	28
15	61	1.5	2.3	2.9	3.4	3.8	101	389	1080	119	40	28
16	51	1.5	2.3	2.9	3.4	3.8	114	357	842	127	40	22
17	48	1.6	2.4	3	3.4	3.8	103	724	559	132	40	18
18	48	1.6	2.4	3	3.4	3.8	99	942	482	132	42	18
19	48	1.6	2.4	3	3.4	3.8	111	981	462	132	45	27
20	48	1.7	2.4	3	3.4	3.9	117	1030	453	132	53	180
21	48	1.7	2.4	3	3.4	3.9	122	1040	454	141	53	490
22	48	1.7	2.5	3	3.5	3.9	116	843	425	147	47	407
23	44	1.7	2.5	3.1	3.5	4	108	740	370	162	40	159
24	42	1.8	2.5	3.1	3.5	4	109	890	303	187	41	101
25	42	1.8	2.5	3.1	3.5	4.1	111	1020	252	253	48	107
26	42	1.8	2.5	3.1	3.5	4.1	105	1140	242	189	48	111
27	40	1.9	2.6	3.1	3.5	4.2	93	1180	281	111	39	121
28	38	1.9	2.6	3.1	3.5	4.3	109	1170	322	99	30	118
29	38	1.9	2.6	3.1	3.5	4.3	143	1190	297	97	28	122
30	40	1.9	2.6	3.2	---	4.3	174	921	275	96	24	142
31	44	---	2.7	3.2	---	61	---	758	---	92	22	---
TOTAL	1885	459.3	72.3	91.2	97.6	176	3243	23460	20582	4988	1472	2834
MEAN	61	15.3	2.3	2.9	3.4	5.7	108	757	686	161	48	95
AC-FT	3740	911	143	181	194	349	6430	46530	40820	9890	2920	5620
MAX	128	54	2.7	3.2	3.5	61	174	1190	1190	275	84	490
MIN	38	1.4	2	2.7	3.2	3.6	67	135	242	92	22	18
CAL YR 2003	TOTAL	46275.6	MEAN	127	MAX	1230	MIN	1.4	AC-FT	91790		
WTR YR 2004	TOTAL	59360.4	MEAN	162	MAX	1190	MIN	1.4	AC-FT	117700		

MAX DISCH: 1220 CFS AT 08:00 ON May. 26, 2004 GH 3.65 FT. SHIFT 0.02 FT.  
MAX GH: 3.65 FT. AT 08:00 ON May. 26, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08214500 NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR, CO

**LOCATION.**--Lat 37°53'18", long 107°12'10", in NE¼SE¼ sec. 21, T.42 N., R.3 W., Hinsdale County, Hydrologic Unit 13010001, on left bank 100 ft downstream from bridge, 1,000 ft downstream from Continental Reservoir, and 15 mi west of Creede.

**DRAINAGE AREA.**--51.7 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and a Sutron satellite monitoring system in a 4 ft. by 4 ft. timber shelter and concrete well at a concrete ramp flume. Elevation of gage is 10,200 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for Nov. 12, 2003 through April 27, 2004 when the station was closed for the winter. Record is good except for periods of no gage-height record which is fair. Station maintained and record developed by Div. III Personnel.

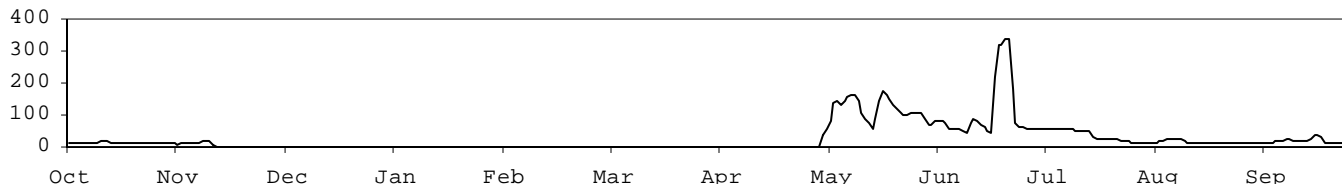
**RATING TABLE.**--NCLCONCO21 USED FROM 01-OCT-2003 TO 26-APR-2004  
 NCLCONCO22 USED FROM 27-APR-2004 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.8	.24	.25	.25	.26	.27	.34	88	59	13	11
2	13	10	.24	.25	.25	.26	.27	.34	67	58	13	11
3	14	11	.24	.25	.25	.26	.27	35	71	58	13	11
4	14	12	.24	.25	.25	.26	.27	59	82	58	13	11
5	13	12	.24	.25	.26	.26	.27	80	84	58	13	12
6	13	13	.24	.25	.26	.26	.27	136	84	58	13	14
7	13	14	.24	.25	.26	.26	.27	145	75	57	17	14
8	13	16	.24	.25	.26	.26	.27	132	59	56	21	15
9	15	16	.24	.25	.26	.26	.27	143	56	56	24	17
10	16	16	.24	.25	.26	.26	.27	156	59	55	26	17
11	16	7.7	.24	.25	.26	.26	.27	161	58	55	26	21
12	17	.24	.24	.25	.26	.26	.27	160	53	55	26	24
13	15	.24	.24	.25	.26	.26	.27	142	42	54	27	24
14	15	.24	.24	.25	.26	.26	.27	106	74	53	19	20
15	15	.24	.24	.25	.26	.26	.27	89	87	52	11	17
16	15	.24	.24	.25	.26	.26	.27	72	81	52	9.5	17
17	15	.24	.24	.25	.26	.26	.27	58	71	52	9.5	17
18	15	.24	.24	.25	.26	.27	.27	86	65	51	9.6	20
19	15	.24	.24	.25	.26	.27	.27	141	50	34	9.9	27
20	15	.24	.24	.25	.26	.27	.27	172	42	23	9.9	37
21	14	.24	.24	.25	.26	.27	.27	164	216	25	11	40
22	12	.24	.24	.25	.26	.27	.27	149	318	25	14	32
23	13	.24	.24	.25	.26	.27	.27	130	318	25	14	14
24	13	.24	.24	.25	.26	.27	.27	119	337	25	14	14
25	12	.24	.25	.25	.26	.27	.27	107	339	25	14	14
26	10	.24	.25	.25	.26	.27	.27	102	183	23	14	14
27	10	.24	.25	.25	.26	.27	.27	102	75	21	14	14
28	10	.24	.25	.25	.26	.27	.29	104	64	21	14	14
29	9.8	.24	.25	.25	.26	.27	.3	109	61	20	12	14
30	9.6	.24	.25	.25	---	.27	.33	109	59	15	11	14
31	9.4	---	.25	.25	---	.27	---	104	---	13	11	---
TOTAL	410.8	141.06	7.51	7.75	7.5	8.2	8.21	3372.68	3318	1292	466.4	541
MEAN	13.3	4.7	.24	.25	.26	.26	.27	109	111	42	15	18
AC-FT	815	280	15	15	15	16	16	6690	6580	2560	925	1070
MAX	17	16	.25	.25	.26	.27	.33	172	339	59	27	40
MIN	9.4	.24	.24	.25	.25	.26	.27	.34	42	13	9.5	11
CAL YR 2003	TOTAL	5466.48	MEAN	15.0	MAX	234	MIN	.12	AC-FT	10840		
WTR YR 2004	TOTAL	9581.11	MEAN	26.2	MAX	339	MIN	.24	AC-FT	19000		

MAX DISCH: 353 CFS AT 09:30 ON Jun. 24, 2004 GH 2.99 FT. SHIFT 0 FT.  
 MAX GH: 2.99 FT. AT 09:30 ON Jun. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08217500 RIO GRANDE RIVER at WAGONWHEEL GAP, CO.

**LOCATION.**--Lat 37°46'01", long 106°49'51", in NW1/4 NE1/4 sec. 35, T. 41N, R. 1E., Mineral County, Hydrologic unit 13010001, on left bank 40 ft. downstream from private bridge, 0.3 mi. upstream from Goose Creek, and 0.3 mi. west of town of Wagonwheel Gap.

**DRAINAGE AREA.**--780 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and Sutron satellite monitoring system in 4 ft. by 4 ft. timber shelter and 4 ft. diameter concrete well. Altitude of gage 8,430 ft. from topographic map. A cableway is located approximately 350 ft. upstream of the gage.

**REMARKS.**--Record is complete and reliable except for Nov. 28, 2003 through Mar. 17, 2004 when the station was closed for the winter. The station was reopened and satellite system started on Mar. 17, 2004, but the inlets could not be completely thawed during the visit. The inlet opened up later that same day. Stage-discharge relation was affected by ice Nov. 23-27, 2003, and Mar. 18-22, 2004. Record is good except for periods of ice affected and no gage height record, which should be considered poor. Station maintained and record developed by Div. III Personnel.

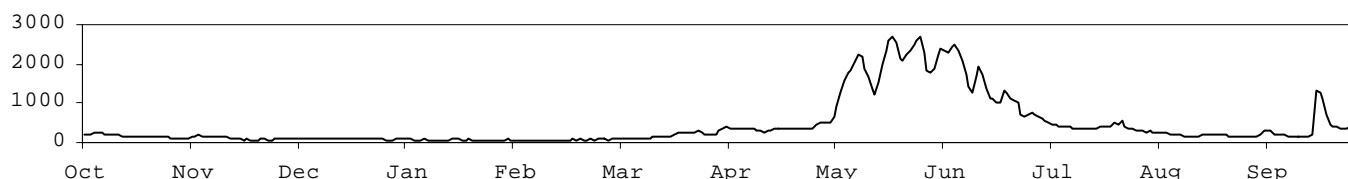
**RATING TABLE.**--RIOWAGCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	142	90	84	74	78	293	498	1780	698	286	143
2	180	175	90	90	70	78	378	488	1880	653	272	141
3	201	213	86	84	72	78	384	497	2240	607	281	143
4	234	169	86	66	74	82	376	669	2380	539	250	202
5	260	150	86	56	68	80	363	892	2360	500	231	318
6	256	152	90	66	64	85	350	1270	2290	444	243	312
7	221	158	100	80	64	90	334	1580	2450	438	246	307
8	195	167	94	75	70	100	340	1760	2470	417	236	227
9	186	159	84	70	62	110	355	1820	2320	407	228	192
10	185	163	84	70	62	110	356	2020	2090	397	219	182
11	179	146	86	68	64	110	348	2230	1740	396	202	180
12	171	108	86	68	60	120	320	2190	1410	381	180	172
13	176	99	82	66	56	130	289	1860	1260	364	169	170
14	177	90	90	68	60	130	273	1690	1690	344	174	169
15	177	79	84	78	64	140	285	1360	1920	333	177	165
16	162	69	78	85	64	140	328	1200	1730	338	177	156
17	155	93	84	80	68	150	348	1550	1370	367	175	152
18	153	76	90	72	72	170	360	1990	1140	375	194	145
19	149	72	90	74	80	200	356	2340	1100	364	195	216
20	150	76	92	78	74	230	367	2590	1030	388	198	1340
21	148	83	100	72	78	240	367	2720	1040	382	205	1250
22	143	81	94	64	76	260	376	2530	1300	382	213	1140
23	138	68	88	66	76	263	376	2150	1250	407	208	713
24	133	74	88	70	80	238	356	2070	1140	508	187	466
25	128	86	92	70	76	279	366	2250	1090	463	180	418
26	118	84	94	66	78	294	354	2330	1000	537	172	393
27	124	80	76	60	84	262	367	2500	689	384	170	370
28	127	80	72	66	80	215	377	2570	669	352	166	366
29	126	86	72	70	74	191	448	2700	721	340	157	373
30	125	90	80	74	---	202	487	2310	767	320	152	405
31	125	---	80	78	---	207	---	1840	---	305	149	---
TOTAL	5190	3368	2688	2234	2044	5062	10677	56464	46316	13130	6292	10926
MEAN	167	112	87	72	71	163	356	1821	1544	424	203	364
AC-FT	10290	6680	5330	4430	4050	10040	21180	112000	91870	26040	12480	21670
MAX	260	213	100	90	84	294	487	2720	2470	698	286	1340
MIN	118	68	72	56	56	78	273	488	669	305	149	141
CAL YR 2003	TOTAL	112394	MEAN	308	MAX	2520	MIN	42	AC-FT	222900		
WTR YR 2004	TOTAL	164391	MEAN	449	MAX	2720	MIN	56	AC-FT	326100		

MAX DISCH: 2870 CFS AT 03:45 ON May. 29, 2004 GH 4.14 FT. SHIFT 0.05 FT.  
MAX GH: 4.14 FT. AT 03:45 ON May. 29, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08218500 GOOSE CREEK AT WAGONWHEEL GAP, CO

**LOCATION.**--Lat 37°45'07", long 106°49'46", in SW¼SE¼ sec. 35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on left bank 0.2 mi downstream from Pierce Creek, 1.0 mi upstream from mouth, 1.0 mi south of Wagonwheel Gap, and 8.8 mi southeast of Creede.

**DRAINAGE AREA.**--90 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in 36 inch corrugated pipe shelter and smooth steel pipe well. Supplemental outside cantilever chain gage. A Sutron shaft encoder and data logger with satellite transmitter, which now is the primary record, was installed September 26, 2003. Elevation of gage is 8,460 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for the following periods: November 28, 2003 through March 17, 2004 when station was closed for the winter, and November 24-27, 2003 when the well was frozen. Stage-discharge relation was affected by ice November 16-20, 22, 23, 2003. Record is good except for periods of no gage height and ice effect, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--GOOWAGCO09 USED FROM 01-OCT-2003 TO 30-SEP-2004

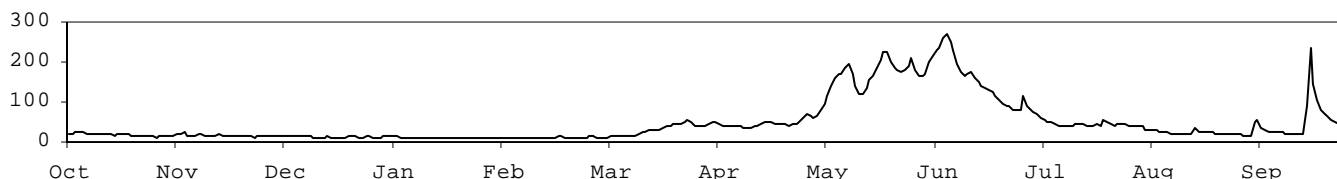
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	16	14	11	12	46	59	164	90	41	17
2	21	21	16	14	10	12	50	66	172	81	39	17
3	26	27	14	13	10	12	49	79	198	74	39	17
4	26	15	14	11	11	14	43	95	213	68	30	48
5	23	15	14	9	11	14	41	113	232	61	28	53
6	22	17	15	10	10	14	42	139	233	56	30	33
7	21	18	16	11	10	14	42	161	258	51	31	28
8	20	19	15	11	11	16	42	172	269	48	26	26
9	20	17	13	10	10	17	41	171	251	45	23	26
10	19	17	12	10	10	17	38	183	230	41	24	24
11	19	17	12	10	10	17	37	194	194	41	22	24
12	18	16	12	10	9.6	20	35	172	175	39	20	23
13	19	18	11	9.6	9.2	24	35	139	163	39	19	21
14	17	17	13	9.6	10	25	38	121	170	39	18	21
15	18	14	12	9.8	11	28	40	122	175	43	18	20
16	18	14	11	11	11	28	45	136	161	44	19	19
17	18	15	12	11	12	29	51	154	150	44	20	19
18	18	15	12	9.8	13	30	52	163	142	41	36	19
19	17	14	12	9.2	13	36	49	186	137	41	25	92
20	16	15	13	9.6	12	39	47	204	131	41	23	234
21	15	15	14	9.6	12	42	47	227	125	44	25	144
22	15	14	13	9.6	12	47	46	223	113	41	25	106
23	15	12	12	9.8	11	45	47	202	104	53	24	81
24	15	13	12	10	12	44	42	186	95	51	21	72
25	15	15	13	10	12	49	44	179	92	43	20	64
26	12	14	13	9.8	12	54	43	175	90	42	19	57
27	15	14	12	9.6	14	50	50	180	81	45	18	50
28	16	14	11	11	13	41	59	192	80	43	18	47
29	16	15	11	12	12	39	68	209	82	46	18	52
30	14	16	13	12	---	41	66	181	114	42	18	51
31	14	---	13	12	---	42	---	166	---	41	18	---
TOTAL	558	481	402	328	324.8	912	1375	4949	4794	1518	755	1505
MEAN	18	16	13	10.6	11.2	29	46	160	160	49	24	50
AC-FT	1110	954	797	651	644	1810	2730	9820	9510	3010	1500	2990
MAX	26	27	16	14	14	54	68	227	269	90	41	234
MIN	12	12	11	9	9.2	12	35	59	80	39	18	17

CAL YR	2003	TOTAL	10942.2	MEAN	30.0	MAX	193	MIN	8.4	AC-FT	21700
WTR YR	2004	TOTAL	17901.8	MEAN	48.9	MAX	269	MIN	9	AC-FT	35510

MAX DISCH: 300 CFS AT 01:30 ON Jun. 8, 2004 GH 3.49 FT. SHIFT 0.01 FT.  
MAX GH: 3.49 FT. AT 01:30 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

08219500 SOUTH FORK RIO GRANDE AT SOUTH FORK, CO

**LOCATION.**--Lat 37°39'25", long 106°38'55", in SW¼SE¼ sec. 3, T.39 N., R.3 E., Rio Grande County, Hydrologic Unit 13010001, on left bank near U.S. Highway 160, 0.1 mile downstream from Church Creek, 0.9 mi southwest of village of South Fork, and 1.5 mi upstream from mouth.

**DRAINAGE AREA AND PERIOD OF RECORD.**--216 mi<sup>2</sup>. Station established May 17, 1909 at different site with minimal records. Non-recording to 1910 when water-stage recorder installed. Moved to current site in May 1936.

**GAGE.**--Graphic water-stage recorder and Sutron satellite monitoring system with an air temperature sensor and a tipping bucket rain gage in a timber shelter and corrugated metal pipe well. Datum of gage is 8,221.79 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except November 28, 2003 through March 17, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice Nov. 14 through Nov. 27, 2003. Record is good except for periods of no gage-height record and ice effect, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

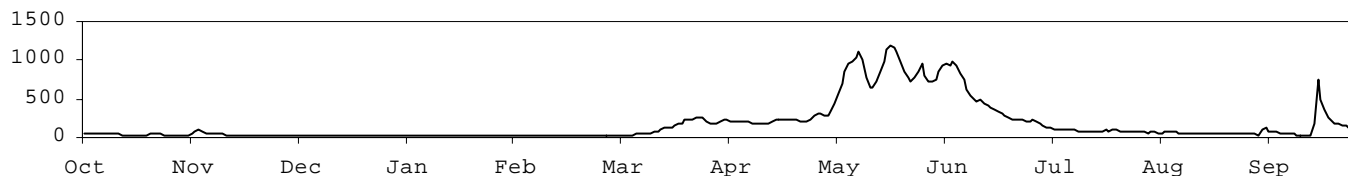
**RATING TABLE.**--RIOSFKCO10 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	40	31	26	26	28	219	292	735	204	66	44
2	43	69	31	28	26	30	232	297	760	174	63	42
3	56	102	29	27	28	29	236	334	862	145	71	38
4	62	73	28	24	29	33	217	434	923	127	66	92
5	53	51	30	20	27	32	204	558	956	120	59	136
6	49	49	31	22	25	30	202	709	926	113	64	84
7	47	48	33	26	25	35	204	860	974	103	85	79
8	45	46	32	25	26	40	200	947	941	99	77	66
9	42	48	29	24	25	45	198	986	834	98	66	58
10	40	44	24	24	25	50	190	1030	754	96	69	47
11	40	33	26	23	26	50	188	1100	622	98	63	46
12	38	31	26	23	24	60	179	996	537	91	61	42
13	36	32	24	23	20	80	173	763	479	87	53	39
14	32	31	26	23	22	90	181	643	474	79	46	35
15	29	29	25	26	23	110	189	638	488	71	45	33
16	29	29	23	27	23	120	214	737	450	72	45	32
17	29	32	25	26	24	120	238	863	417	78	44	31
18	35	30	26	23	25	127	238	982	387	76	53	29
19	34	30	27	23	26	151	235	1130	365	74	58	191
20	45	31	27	27	25	173	234	1190	341	79	59	762
21	44	33	27	25	26	193	233	1160	313	93	62	486
22	43	31	26	24	24	220	226	1100	289	89	62	362
23	41	29	26	24	23	233	222	971	265	98	59	255
24	37	30	27	25	25	243	203	855	242	107	50	209
25	30	32	27	27	24	248	206	788	228	90	47	186
26	25	30	28	25	24	264	211	730	226	81	43	187
27	29	29	24	22	28	252	233	776	221	85	41	165
28	31	29	23	24	27	208	278	857	207	77	41	144
29	30	30	21	26	26	180	320	956	208	79	39	135
30	31	31	24	27	---	177	317	797	240	72	40	129
31	29	---	24	28	---	192	---	730	---	73	45	---
TOTAL	1196	1182	830	767	727	3843	6620	25209	15664	3028	1742	4184
MEAN	39	39	27	25	25	124	221	813	522	98	56	139
AC-FT	2370	2340	1650	1520	1440	7620	13130	50000	31070	6010	3460	8300
MAX	62	102	33	28	29	264	320	1190	974	204	85	762
MIN	25	29	21	20	20	28	173	292	207	71	39	29
CAL YR 2003	TOTAL	37782	MEAN	104	MAX	826	MIN	13	AC-FT	74940		
WTR YR 2004	TOTAL	64992	MEAN	178	MAX	1190	MIN	20	AC-FT	128900		

MAX DISCH: 1290 CFS AT 23:00 ON May. 19, 2004 GH 4.67 FT. SHIFT 0.01 FT.  
MAX GH: 4.67 FT. AT 23:00 ON May. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08220000 RIO GRANDE RIVER NEAR DEL NORTE, CO

**LOCATION.**--Lat 37°41'22", long 106°27'38", in NW¼ sec. 29, T.40 N., R.5 E., Rio Grande County, Hydrologic Unit 13010001, on right bank 20 ft downstream from county highway bridge, 6.0 mi west of Del Norte, and 5 mi upstream from Pinos Creek.

**DRAINAGE AREA AND PERIOD OF RECORD.**--1,320 mi<sup>2</sup>. Measurements and staff gages with frequent readings begun in June of 1889. Various sites used until present site established in Nov. 1910, with a recorder installed in 1934. All missing periods have been estimated and discharge records are complete from July 1, 1889.

**GAGE.**--Graphic water-stage recorder and a Sutron satellite monitoring system in a 6 ft. by 6 ft. exposed aggregate concrete shelter and 4 ft. diameter concrete well. The satellite monitoring system collects gage height, air temperature, and water temperature data, and also has a modem system to provide gage heights via a dial-in option. The new gage and well were installed November 8, 2002. A tipping-bucket rain gage was installed at this site on September 30, 2004. Datum of gage is 7,980.25 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable. Stage-discharge relation affected by ice Nov. 23, and Nov. 25, 2003 through Mar. 6, 2004. Record is good except for periods of ice affected record, which should be considered fair to poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--RIODELCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

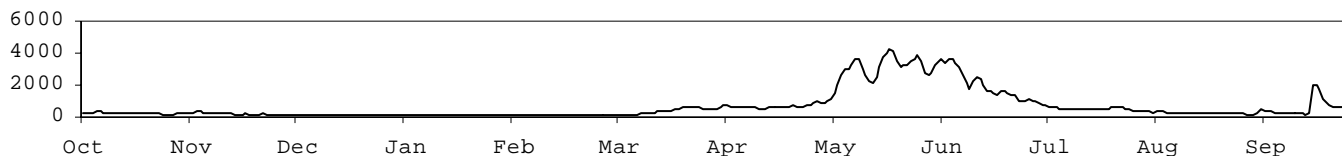
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	205	170	140	130	160	542	911	2680	1040	375	187
2	227	281	170	150	120	140	659	920	2720	940	357	182
3	252	362	160	140	130	150	739	947	3240	860	370	178
4	303	327	160	120	140	170	695	1180	3510	776	348	231
5	320	244	160	100	140	140	665	1490	3570	719	311	489
6	318	232	160	110	130	150	657	2030	3380	650	318	391
7	288	234	180	120	120	153	638	2590	3640	608	347	392
8	256	243	170	120	130	163	625	2950	3660	582	341	323
9	235	242	150	130	130	184	639	3010	3410	553	304	260
10	228	240	140	130	130	205	633	3300	3110	539	302	236
11	227	232	140	130	130	230	623	3620	2650	541	282	245
12	218	193	150	130	110	277	586	3570	2170	520	263	232
13	215	190	130	130	110	299	528	2970	1810	494	246	225
14	226	187	150	120	130	305	524	2630	2210	461	232	215
15	234	173	150	130	130	341	534	2280	2540	440	244	210
16	231	166	130	140	130	323	594	2110	2410	441	235	202
17	209	188	140	130	140	326	657	2560	1960	480	236	200
18	199	182	150	130	150	356	682	3130	1640	495	259	187
19	198	163	150	130	170	412	667	3710	1580	480	280	236
20	201	171	150	130	160	494	669	4030	1480	495	279	2010
21	204	180	160	120	160	534	668	4270	1420	531	282	1940
22	210	191	150	110	160	590	672	4100	1620	512	299	1720
23	197	120	140	110	160	620	705	3470	1590	510	284	1150
24	186	130	140	120	160	598	648	3160	1460	675	241	829
25	181	160	140	130	160	613	676	3300	1380	607	225	709
26	179	150	150	120	160	681	677	3260	1360	633	223	663
27	178	140	130	110	180	657	702	3480	1060	570	218	608
28	191	140	130	120	160	545	759	3610	979	484	218	579
29	191	150	110	130	150	470	866	3930	994	468	206	565
30	192	180	120	130	---	470	941	3460	1140	428	197	598
31	192	---	130	140	---	471	---	2770	---	401	195	---
TOTAL	6915	5996	4560	3900	4110	11227	19870	88748	66373	17933	8517	16192
MEAN	223	200	147	126	142	362	662	2863	2212	578	275	540
AC-FT	13720	11890	9040	7740	8150	22270	39410	176000	131700	35570	16890	32120
MAX	320	362	180	150	180	681	941	4270	3660	1040	375	2010
MIN	178	120	110	100	110	140	524	911	979	401	195	178

CAL YR 2003 TOTAL 160931 MEAN 441 MAX 3480 MIN 90 AC-FT 319200  
 WTR YR 2004 TOTAL 254341 MEAN 695 MAX 4270 MIN 100 AC-FT 504500

MAX DISCH: 4450 CFS AT 04:15 ON May. 21, 2004 GH 4.13 FT. SHIFT -0.03 FT.  
 MAX GH: 4.13 FT. AT 04:15 ON May. 21, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08220500 PINOS CREEK NEAR DEL NORTE, CO

**LOCATION.**--Lat 37°35'30", long 106°27'05", in SW¼SE¼ sec. 29, T.39 N., R.5 E., Rio Grande County, Hydrologic Unit 13010002, on left bank 90 ft. downstream from Bennett Creek and 8.0 mi. southwest of Del Norte, Co.

**DRAINAGE AREA.**--53 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 3 ft. by 3 ft. timber shelter and concrete well at a 12 ft. rectangular concrete box control. Sutron satellite monitoring system. Altitude of gage is 8,480 ft. from topographic map.

**REMARKS.**--Record is complete and reliable except for November 23-27, 2003 when the stilling well was frozen; and November 28, 2003 through March 23, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice November 4-7, 14-22, 2003, and March 28, 29, 2004. Record is good except for periods of no gage-height and ice affected record, which is poor. Station maintained and record developed by Div. III Personnel.

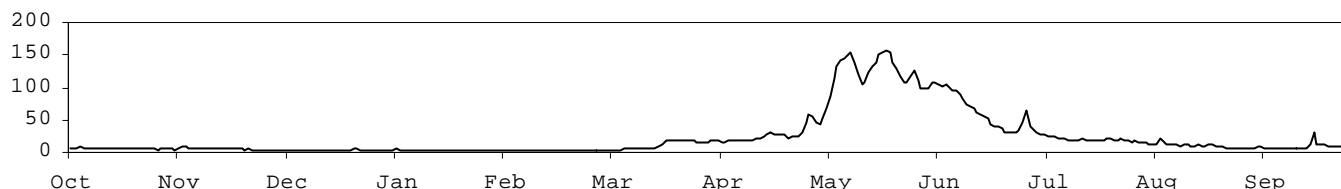
**RATING TABLE.**--PINDELCO14 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	6.1	4.2	4.4	4	3.8	17	45	99	40	14	6.3
2	5.6	7.8	4.3	4.7	3.8	3.8	18	43	100	34	15	6.4
3	7.6	9.3	4.1	4.2	4	3.8	18	53	107	30	16	6.2
4	8.4	5.3	4.1	3.8	4.2	4.1	16	67	109	29	13	10
5	6.8	5.4	4.1	3.6	4.1	4	16	85	106	27	12	10
6	6.2	5.8	4.1	3.6	3.9	4.4	17	115	101	26	13	7.6
7	6.1	6.6	4.3	3.9	3.6	5	18	132	105	25	21	6.6
8	5.9	6.8	4.5	4.2	3.8	5.8	19	141	101	25	17	6.4
9	5.6	6.2	4.3	4.2	3.7	6.4	20	146	95	23	13	6.2
10	5.4	5.9	4.3	4.2	3.7	6.8	19	151	95	22	12	6.2
11	5.4	5.9	4.4	4.3	3.8	6.8	19	154	90	21	11	6.3
12	5.2	5.7	4.5	4.3	3.3	7	18	139	82	20	11	5.9
13	5.2	5.9	4.3	4.3	3.3	7	19	120	73	19	10	5.9
14	5	5.6	4.4	4.1	3.6	7	21	105	70	18	11	5.7
15	5.3	5.2	4.6	4.4	3.6	7.6	23	108	68	19	11	5.5
16	5.2	5.4	4.2	4.4	3.6	7.6	26	122	61	21	10	5.5
17	5.2	5.6	4.4	4.6	3.8	9	29	131	57	20	10	5.5
18	5.2	5.2	4.6	4.3	4	13	30	139	54	19	11	6.1
19	5	4.8	4.6	4.1	4.1	19	28	151	51	19	10	12
20	5	4.6	4.6	4.4	3.9	20	28	155	44	18	10	31
21	4.9	4.8	5	4.1	4	19	28	158	40	19	11	13
22	4.9	4.5	4.9	3.9	3.9	18	27	154	40	17	11	11
23	5	4	4.6	3.8	3.8	18	23	139	36	23	9.7	11
24	4.9	4.1	4.5	4	4.1	18	26	128	32	22	9	10
25	4.8	4.4	4.5	4.2	4	18	24	117	31	18	8.4	10
26	4.2	4.2	4.6	3.8	3.9	20	25	109	32	18	7.3	10
27	4.9	4.1	4.2	3.7	4.1	20	32	109	30	23	6.9	9.9
28	5.2	4	4	4	3.9	16	47	118	33	18	6.9	9.7
29	5.1	4.1	3.8	4.1	3.8	15	58	127	46	20	6.7	9.1
30	5	4.3	3.9	4.2	---	14	55	110	65	16	6.6	9
31	4.6	---	4.2	4.3	---	15	---	99	---	17	6.4	---
TOTAL	167.9	161.6	135.1	128.1	111.3	342.9	764	3670	2053	686	340.9	264
MEAN	5.4	5.4	4.4	4.1	3.8	11.1	26	118	68	22	11	8.8
AC-FT	333	321	268	254	221	680	1520	7280	4070	1360	676	524
MAX	8.4	9.3	5	4.7	4.2	20	58	158	109	40	21	31
MIN	4.2	4	3.8	3.6	3.3	3.8	16	43	30	16	6.4	5.5
CAL YR 2003	TOTAL	3252.0	MEAN	8.9	MAX	53	MIN	1.5	AC-FT	6450		
WTR YR 2004	TOTAL	8824.8	MEAN	24.1	MAX	158	MIN	3.3	AC-FT	17500		

MAX DISCH: 179 CFS AT 21:30 ON May. 8, 2004 GH 1.85 FT. SHIFT 0.11 FT.  
MAX GH: 1.85 FT. AT 21:30 ON May. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08221500 RIO GRANDE NEAR MONTE VISTA, CO

**LOCATION.**--Lat 37°36'34", long 106°08'52", in NW¼SW¼ sec. 19, T.39 N., R.8 E., Rio Grande County, Hydrographic Unit 13010002, on left bank 50 ft. downstream from bridge on U.S. Highway 285, 2.0 mi. north of Monte Vista, and 12 mi. downstream from San Francisco Creek.

**DRAINAGE AREA.**--1,590 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in 48 inch corrugated metal shelter and well. The primary record is a Sutron satellite monitoring system. A tipping bucket rain gauge provided by the National Weather Service was installed and interfaced to satellite monitoring system on Sep. 30, 2004. Datum of gage is 7,654.16 ft., Colorado State Highway Datum.

**REMARKS.**--Record is complete and reliable except for Feb. 4 - Mar. 11, 2004 when ice in well was affecting floats. Stage-discharge relation affected by ice Nov. 23, 2003 - Feb. 3, 2004, and Mar. 12-16, 2004. Record is good except for periods of no gage height and ice affected record, which should be considered poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--RIOMONCO18 USED FROM 01-OCT-2003 TO 30-SEP-2004

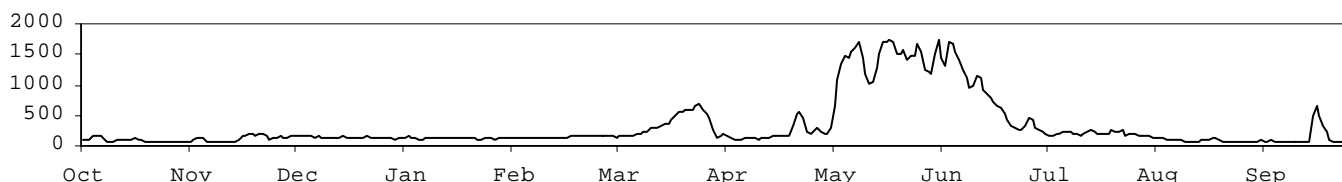
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	77	175	130	140	155	135	238	1200	416	176	58
2	93	114	170	140	130	160	148	204	1190	284	173	52
3	103	130	170	150	125	145	195	204	1510	253	173	51
4	150	137	165	140	130	155	154	309	1740	231	153	57
5	174	118	165	120	140	175	121	640	1450	204	124	111
6	180	74	160	100	140	150	95	1080	1310	177	137	73
7	142	72	140	110	130	165	97	1360	1690	170	144	64
8	76	76	160	120	125	170	107	1490	1670	201	138	82
9	58	79	140	120	125	185	136	1440	1530	196	109	65
10	73	73	145	130	130	200	141	1530	1400	223	86	64
11	101	65	140	130	135	215	135	1610	1240	228	93	68
12	95	67	130	130	130	240	140	1690	1110	219	88	68
13	89	77	145	130	115	285	103	1450	960	200	92	66
14	92	74	135	130	115	305	115	1190	973	181	75	68
15	112	106	150	120	130	310	126	1030	1150	177	72	64
16	119	177	145	130	135	340	147	1060	1100	191	72	66
17	111	180	130	140	135	349	170	1290	922	227	69	67
18	85	199	140	115	140	362	164	1520	851	247	70	64
19	81	187	140	130	150	414	152	1710	791	220	90	64
20	75	176	140	130	165	477	148	1690	724	187	99	481
21	71	188	145	125	160	541	161	1750	659	193	100	652
22	79	203	155	120	160	564	175	1710	630	189	121	492
23	80	165	140	110	160	604	323	1510	531	208	124	328
24	73	110	115	110	160	606	515	1500	420	275	88	224
25	69	115	130	120	160	602	554	1570	321	217	71	82
26	71	140	130	130	155	662	443	1420	309	214	68	71
27	73	150	135	120	155	676	218	1470	258	268	69	58
28	79	145	120	110	175	598	196	1470	275	175	68	56
29	77	145	120	120	160	511	226	1670	326	211	66	76
30	70	155	110	130	---	469	283	1550	458	205	64	96
31	74	---	120	130	---	262	---	1230	---	185	60	---
TOTAL	2930	3774	4405	3870	4110	11052	5823	39585	28698	6772	3132	3888
MEAN	95	126	142	125	142	357	194	1277	957	218	101	130
AC-FT	5810	7490	8740	7680	8150	21920	11550	78520	56920	13430	6210	7710
MAX	180	203	175	150	175	676	554	1750	1740	416	176	652
MIN	58	65	110	100	115	145	95	204	258	170	60	51

CAL YR	2003	TOTAL	59282	MEAN	162	MAX	1150	MIN	17	AC-FT	117600
WTR YR	2004	TOTAL	118039	MEAN	323	MAX	1750	MIN	51	AC-FT	234100

MAX DISCH: 2060 CFS AT 10:45 ON May. 19, 2004 GH 5.66 FT. SHIFT 0.07 FT.  
MAX GH: 5.66 FT. AT 10:45 ON May. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

RIO GRANDE AT RIO GRANDE-ALAMOSA COUNTY LINE, CO

**LOCATION.**--Lat 37°34'13", Long 106°02'43", SW¼NW¼ sec.6, T. 38 N., R. 9 E., Alamosa County, on left bank 125 feet downstream from the county line bridge, 5.0 miles East of Monte Vista and 2.4 miles North of U.S. Highway 160 and 285, on the County Line Road.

**DRAINAGE AREA.**--1,640 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder with satellite telemetry in a timber shelter and corrugated metal well. Datum of gage is 7,595 feet, from topographic map.

**REMARKS.**--Record is complete and reliable except for Nov. 23, 24, 2003 when the well was frozen and Jan. 10 - Mar. 11, 2004 when well and oil cylinder were frozen. The shaft encoder float was installed in oil cylinder on Nov. 24, 2003. Stage-discharge relation was affected by ice Nov. 25, 2003 through January 9, 2004, and Mar. 12-15, 2004. Record is fair except for periods of no gage-height and ice affected record, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--RIOLINCO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

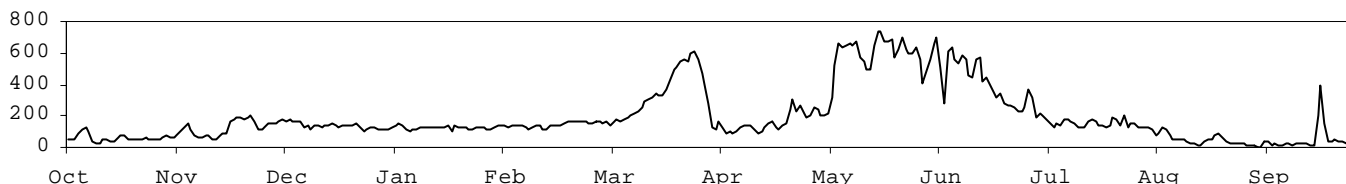
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	79	175	130	140	155	131	244	486	314	131	11
2	47	100	165	135	135	160	119	206	554	185	124	6.8
3	51	123	175	150	125	145	168	209	660	220	126	4.6
4	83	151	170	135	135	160	124	218	701	205	109	2.3
5	115	111	170	120	140	180	95	314	514	177	71	41
6	125	82	160	105	140	160	96	515	285	151	92	39
7	101	62	130	110	135	175	90	661	615	127	128	7.5
8	44	65	145	120	130	185	99	638	632	155	118	29
9	22	78	120	125	120	205	124	643	559	144	82	15
10	29	74	140	130	130	215	139	657	529	172	47	18
11	48	57	145	130	135	225	136	642	580	178	52	22
12	48	54	125	130	135	250	136	668	556	165	51	25
13	43	71	145	130	120	295	109	576	452	148	54	19
14	42	84	140	125	120	310	92	550	439	127	41	24
15	59	93	150	125	135	315	104	489	554	121	31	23
16	73	165	145	130	135	339	127	497	571	129	28	23
17	73	175	125	140	135	327	156	645	415	162	19	20
18	57	192	140	105	145	333	159	739	446	176	19	17
19	53	194	135	135	155	370	126	738	398	163	41	15
20	45	181	135	130	160	426	116	668	348	136	50	209
21	47	187	145	125	160	493	138	677	321	134	53	393
22	57	197	155	125	160	508	157	680	344	129	71	158
23	66	160	130	110	160	552	238	570	283	145	88	34
24	54	120	100	115	165	562	302	623	270	191	64	36
25	45	120	120	125	160	547	233	704	262	179	39	56
26	46	125	125	130	155	595	265	617	256	145	26	42
27	55	155	125	125	155	612	213	602	230	209	24	34
28	67	155	115	115	170	554	196	601	226	124	24	28
29	75	150	115	120	160	468	199	635	259	151	24	44
30	61	160	110	130	---	412	260	560	363	153	20	49
31	67	---	120	135	---	281	---	405	---	131	16	---
TOTAL	1853	3720	4295	3895	4150	10514	4647	17191	13108	5046	1863	1445.2
MEAN	60	124	139	126	143	339	155	555	437	163	60	48.2
AC-FT	3680	7380	8520	7730	8230	20850	9220	34100	26000	10010	3700	2870
MAX	125	197	175	150	170	612	302	739	701	314	131	393
MIN	22	54	100	105	120	145	90	206	226	121	16	2.3

CAL YR	2003	TOTAL	37255.2	MEAN	102	MAX	421	MIN	6.0	AC-FT	73900
WTR YR	2004	TOTAL	71727.2	MEAN	196	MAX	739	MIN	2.3	AC-FT	142300

MAX DISCH: 890 CFS AT 12:30 ON May. 18, 2004 GH 4.89 FT. SHIFT -0.20 FT.  
MAX GH: 4.89 FT. AT 12:30 ON May. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08223000 RIO GRANDE AT ALAMOSA, CO

**LOCATION.**--Lat 37°28'53", long 105°52'46", in SE¼NE¼ sec. 4, T. 37 N., R. 10 E., Alamosa County, on left bank 0.2 mile northwest of Adams State College and 9 miles upstream from Alamosa Creek.

**DRAINAGE AREA.**--1,710 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and a Sutron satellite monitoring system with temperature probe in a 4 ft. by 6 ft. exposed aggregate building with a 4 ft. diameter concrete well. Datum of gage is 7,532.66 ft.

**REMARKS.**--Record is complete and reliable except for Dec. 29-31, 2003, Jan. 1, 27-31, Feb. 1 - Mar. 4, 2004 when well was frozen. Stage-discharge relation was affected by ice Nov. 23-30, Dec. 1-4, 7-28, 2003, Jan. 2-26, Mar. 5-9, 2004. Record is good except for periods of no gage-height record and ice affected record, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--RIOALACO22 USED FROM 01-OCT-2003 TO 30-SEP-2004

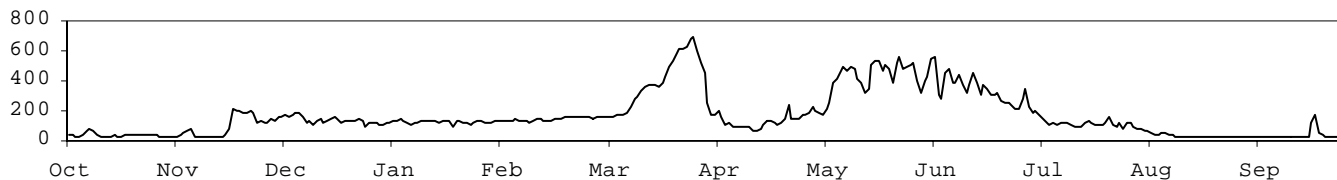
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	31	165	120	140	165	257	232	318	352	91	22
2	34	38	170	130	140	165	170	202	403	233	85	21
3	32	49	165	135	140	165	170	184	426	185	77	21
4	32	67	175	145	135	160	204	180	542	194	70	22
5	41	81	185	135	140	165	161	219	556	174	62	22
6	65	33	186	115	145	175	106	260	303	144	52	23
7	78	32	160	105	140	175	116	381	275	117	44	25
8	66	29	120	115	135	180	95	418	453	109	42	24
9	41	27	140	125	135	185	95	466	475	115	54	23
10	32	29	110	130	115	231	96	491	389	111	48	23
11	31	30	135	130	135	274	98	468	393	125	39	25
12	30	26	150	135	145	300	90	499	441	125	35	26
13	32	27	125	135	145	338	88	477	379	118	33	25
14	38	31	140	130	130	365	69	407	322	108	31	24
15	29	35	150	125	130	374	70	386	371	98	30	23
16	30	74	155	130	140	379	85	315	450	93	28	22
17	41	209	145	135	145	368	106	350	384	99	32	22
18	45	204	125	135	145	362	127	506	301	119	28	22
19	43	197	140	100	150	381	130	535	370	132	27	24
20	39	193	135	140	155	426	115	529	347	125	25	27
21	38	193	130	130	155	493	111	472	310	107	26	116
22	34	199	140	120	160	540	125	510	301	104	27	167
23	36	190	150	125	165	584	151	483	319	104	27	52
24	39	125	130	110	165	617	244	393	266	119	32	36
25	38	135	95	120	165	619	145	518	258	154	31	30
26	34	125	120	130	165	624	141	562	249	104	26	32
27	32	125	125	130	155	686	142	478	242	91	24	30
28	26	150	120	125	150	689	176	487	214	120	21	30
29	29	140	110	120	165	597	167	502	215	85	22	33
30	33	160	110	120	---	518	193	525	276	117	21	32
31	32	---	115	135	---	459	---	402	---	123	21	---
TOTAL	1191	2984	4321	3915	4230	11759	4043	12837	10548	4104	1211	1024
MEAN	38	100	139	126	146	379	135	414	352	132	39	34
AC-FT	2360	5920	8570	7770	8390	23320	8020	25460	20920	8140	2400	2030
MAX	78	209	186	145	165	689	257	562	556	352	91	167
MIN	26	26	95	100	115	160	69	180	214	85	21	21

CAL YR	2003	TOTAL	29453	MEAN	80.7	MAX	344	MIN	6.4	AC-FT	58420
WTR YR	2004	TOTAL	62167	MEAN	170	MAX	689	MIN	21	AC-FT	123300

MAX DISCH: 707 CFS AT 12:30 ON Mar. 27, 2004 GH 4.49 FT. SHIFT 0.12 FT.  
MAX GH: 4.51 FT. AT 02:15 ON May. 26, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN PROJECT CANAL NEAR ALAMOSA, CO

RIO GRANDE COMPACT STATION

**LOCATION.**--Lat 37°28'33", long 105°45'58", SW¼SW¼, sec. 3, T.37 N., R.11 E., Alamosa County, Hydrologic Unit 13010002, 400 ft north of State Highway 160, 5.5 mi east of Alamosa, Co. on right bank of Closed Basin Project Canal.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorders on Ha and Hb in 8 ft. x 10 ft. steel plated building with concrete stilling wells. Sutron satellite monitoring system operating in conjunction with the graphic recorders. The Bureau of Reclamation owns and operates an independent Sutron system using pressure transducers, a water quality monitor, and temperature sensor which are all collected using a Remote Terminal Unit (R.T.U.).

**REMARKS.**--Record is complete and reliable except for January 14, 2004 when the well was frozen and the Bureau of Reclamation's pressure transducer was missing data. Stage-discharge relation affected by ice February 11-13, 2004. Record is good except for periods of no gage height and ice affected record, which should be considered fair. Station maintained and record developed by Div. III personnel.

**RATING TABLE.**--CBPALACO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

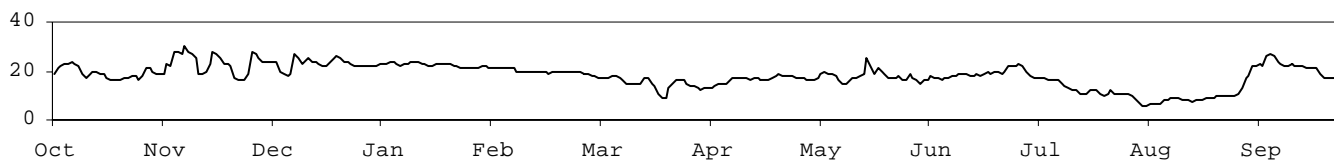
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	24	23	21	18	12	16	16	22	10	13
2	21	23	24	23	21	18	13	16	15	20	8.3	17
3	22	22	24	23	21	17	13	16	16	18	6.6	18
4	23	28	20	24	21	17	13	17	16	17	5.9	22
5	23	28	19	24	21	17	14	19	18	17	5.9	22
6	24	27	18	23	21	17	15	20	17	17	6.5	23
7	23	30	19	22	21	18	15	19	17	17	6.7	22
8	22	28	27	23	21	18	15	19	16	16	6.4	26
9	19	27	25	23	20	17	16	18	17	16	6.2	27
10	17	25	23	24	20	16	17	16	17	16	8.3	26
11	19	19	24	24	20	15	17	15	18	16	8.3	24
12	20	19	25	24	20	15	17	15	18	15	9	23
13	20	20	24	23	20	15	17	16	19	14	9	22
14	19	23	24	23	20	15	17	17	19	13	8.7	22
15	19	28	23	22	20	15	16	17	19	12	8.5	23
16	17	27	22	22	20	17	17	18	18	12	8.2	22
17	16	25	22	23	20	17	17	19	18	11	7.8	22
18	16	23	24	23	19	15	16	25	19	11	7.7	22
19	16	23	25	23	20	14	16	22	18	11	7.9	21
20	16	22	26	23	20	11	16	19	19	12	8.1	21
21	17	17	25	23	20	8.7	17	21	20	12	8.4	21
22	17	16	24	22	20	8.8	18	20	19	12	8.8	21
23	18	16	24	22	20	13	19	19	20	11	9	19
24	18	16	23	21	20	15	18	17	20	10	8.9	17
25	16	19	22	21	20	16	18	17	19	11	9.7	17
26	18	28	22	21	20	16	18	17	20	12	9.9	17
27	21	27	22	21	20	16	18	18	22	11	10	17
28	21	25	22	21	19	15	17	16	22	11	9.9	17
29	20	24	22	21	19	14	17	16	22	11	10	18
30	19	24	22	22	---	14	17	19	23	11	9.9	17
31	19	---	22	22	---	13	---	17	---	11	11	---
TOTAL	595	698	712	699	585	471.5	486	556	557	426	259.5	619
MEAN	19	23	23	23	20	15.2	16	18	19	14	8.4	21
AC-FT	1180	1380	1410	1390	1160	935	964	1100	1100	845	515	1230
MAX	24	30	27	24	21	18	19	25	23	22	11	27
MIN	16	16	18	21	19	8.7	12	15	15	10	5.9	13

CAL YR 2003 TOTAL 8818.5 MEAN 24.2 MAX 36 MIN 5 AC-FT 17490  
WTR YR 2004 TOTAL 6664 MEAN 18.2 MAX 30 MIN 5.9 AC-FT 13220

MAX DISCH: 30.8 CFS AT 22:45 ON Nov. 6, 2003 GH 0.77 FT. SHIFT 0 FT.  
MAX GH: 0.77 FT. AT 22:45 ON Nov. 6, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

08224500 KERBER CREEK NEAR VILLA GROVE, CO

**LOCATION.**--Lat 38°13'12", long 105°58'33", in SW¼SW¼, sec. 21, T. 46 N., R. 8 E., Saguache County, on left bank 7 miles west of Villa Grove and 5 ½ miles downstream from the town of Bonanza.

**DRAINAGE AREA AND PERIOD OF RECORD.**--45.4 mi<sup>2</sup> (revised). (approx.) Originally established with staff gage only in 1911. Station at various locations from that time.

**GAGE.**--Graphic water-stage recorder and Sutron satellite system in a 6' by 6' exposed aggregate gage and 4' diameter concrete well at a concrete ramp flume. Full station name: Kerber Creek above Little Kerber Creek near Villa Grove, CO. Altitude of gage is 8,840 ft. from topographic map.

**REMARKS.**--Record is complete and reliable except for January 2-7, 2004 when the well was frozen, and January 8 through March 24, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice November 23, 2003- January 1, 2004. The record should be considered good except for periods of no gage height and ice-affected record, which should be considered poor. Station maintained and record developed by Div. III Hydrographic Staff.

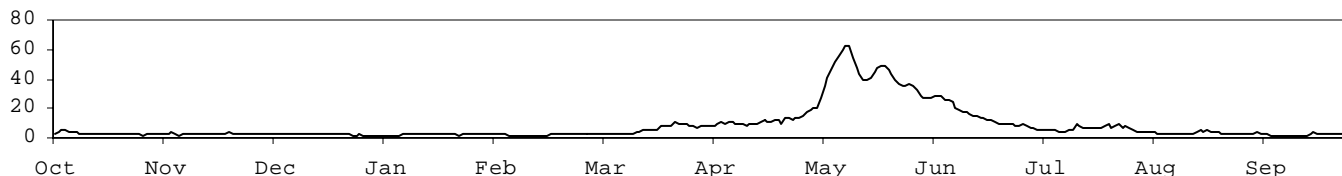
**RATING TABLE.**--KERVILCO18 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.7	2.8	1.8	2.2	2.6	8.1	19	28	7.6	4.7	2.3
2	3.8	3.1	2.9	2	2.3	2.8	8.6	20	27	6.8	4.4	2.3
3	5.1	3.9	2.6	1.8	2.3	2.7	8.7	21	27	6.3	4.4	2.1
4	6.1	2.8	2.5	1.6	2.3	3	8.2	27	27	5.9	3.9	3.4
5	4.6	1.9	2.6	1.5	2.1	2.9	8.9	35	28	5.7	4	3.2
6	4.3	2.7	2.7	1.7	1.9	2.9	11	41	28	5.5	3.7	2.6
7	3.7	3.2	2.7	2.2	1.8	3.2	9.3	46	28	5.2	3.3	2.2
8	3.2	2.9	2.6	2.5	2	3	11	51	26	5.1	3	2
9	3.1	2.8	2.4	2.3	1.9	3.2	11	55	26	4.8	2.7	2
10	3	2.8	2.2	2.4	1.9	3.2	9.1	59	24	4.7	2.8	2
11	3	2.7	2.3	2.3	2	3.1	9.1	63	21	4.6	2.6	1.9
12	2.8	2.7	2.2	2.2	1.8	3.1	8.9	63	19	4.4	2.6	1.9
13	2.8	3.2	2.3	2.2	1.6	3.5	8.8	54	18	5.4	2.6	1.8
14	2.5	2.9	2.3	2.3	1.8	3.5	9.3	48	17	5.3	2.6	1.7
15	2.7	2.4	2.4	2.4	1.9	5	9.3	43	16	9.3	2.7	1.6
16	2.7	2.1	2.3	2.5	1.8	5	10	40	15	8.5	2.8	1.6
17	2.7	2.7	2.3	2.4	2	5	11	40	15	7.4	3.2	1.6
18	2.7	2.5	2.4	2.2	2.2	5.4	12	41	14	6.3	3.6	1.6
19	2.7	3.5	2.5	2.2	2.3	6	11	45	13	6.3	4.9	3.2
20	2.9	3	2.3	2.4	2.2	8	11	47	12	6.8	4.3	3.9
21	2.9	3	2.4	2.2	2.4	7.8	12	49	12	6.4	4.8	2.7
22	2.6	2.7	2.5	2.1	2.4	7.8	12	49	11	6.3	4.7	2.6
23	2.5	2.5	2.2	2	2.3	7.8	10	46	9.6	7.5	4.3	2.3
24	2.4	2.4	1.9	2.1	2.6	11	14	44	9	8.9	3.4	2.4
25	2.4	2.5	2	2.2	2.4	10	13	40	9.1	6.9	2.9	2.4
26	1.9	2.6	2.1	2.1	2.3	9.9	12	37	9.1	8.7	2.6	2.6
27	2.6	2.5	1.8	2.1	2.4	9.2	13	35	9.7	9.7	2.5	2.5
28	2.6	2.4	1.9	2.2	2.5	8	14	35	8.6	7.4	2.9	2.5
29	2.7	2.5	1.8	2.3	2.5	7.5	15	36	8.2	8.3	2.5	2.6
30	2.6	2.7	1.8	2.3	---	7.4	18	35	9.4	6.2	2.2	2.8
31	2.4	---	1.9	2.4	---	7.6	---	32	---	5.5	2.3	---
TOTAL	94.8	82.3	71.6	66.9	62.1	171.1	327.3	1296	524.7	203.7	103.9	70.3
MEAN	3.1	2.7	2.3	2.2	2.1	5.5	10.9	42	17.5	6.6	3.4	2.3
AC-FT	188	163	142	133	123	339	649	2570	1040	404	206	139
MAX	6.1	3.9	2.9	2.5	2.6	11	18	63	28	9.7	4.9	3.9
MIN	1.9	1.9	1.8	1.5	1.6	2.6	8.1	19	8.2	4.4	2.2	1.6
CAL YR 2003	TOTAL	2582.72	MEAN	7.08	MAX	53	MIN	0	AC-FT	5120		
WTR YR 2004	TOTAL	3074.7	MEAN	8.4	MAX	63	MIN	1.5	AC-FT	6100		

MAX DISCH: 65.1 CFS AT 00:15 ON May. 11, 2004 GH 1.32 FT. SHIFT 0.12 FT.  
MAX GH: 1.32 FT. AT 00:15 ON May. 11, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

GARNER CREEK near VILLA GROVE, CO

**LOCATION.**--Lat 38°10'27", long 105°48'29", in SE ¼ SE ¼ Sec. 1, T.45 N., R.10 E., NMPM, Saguache Co., on right bank, 12 miles SE of Villa Grove.

**DRAINAGE AREA.**--6.4 mi<sup>2</sup>.

**GAGE.**--Stilling well of 2-foot diameter steel culvert pipe installed in 1999 water year. Instrument shelter is small steel box-type shelter atop well. Contact to stream is a 1-inch intake pipe attached to both stilling well and 2-foot Parshall flume. Flume and staff gage have been at this site many years. Shelter is equipped with a Sutron data logger/transmitter and digital shaft encoder that is set by an outside staff gage. Flume and staff gage there for several years previous. Elevation 8680 ft.

**REMARKS.**--Record is complete and reliable for the water year, except for Nov. 24, 2003 through Mar. 23, 2004 when the well was frozen and Mar. 30 through Apr. 1, 2004 when ice in well affected float operation. Stage-discharge relation was affected by ice Nov. 22, 23, 2003. Record good, except for periods of no gage-height and ice affected record, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--GARVILCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

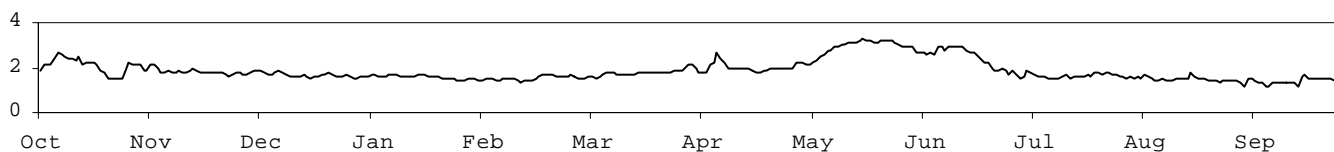
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.1	1.9	1.6	1.4	1.5	2.1	2.2	2.9	1.7	1.5	1.4
2	2.1	2.1	1.9	1.7	1.4	1.5	2	2.2	2.9	1.5	1.6	1.3
3	2.1	2	1.8	1.7	1.5	1.6	1.8	2.1	2.7	1.6	1.5	1.2
4	2.1	1.8	1.7	1.6	1.5	1.6	1.8	2.1	2.7	1.9	1.6	1.5
5	2.4	1.8	1.7	1.6	1.5	1.5	1.8	2.2	2.7	1.8	1.5	1.5
6	2.7	1.9	1.8	1.6	1.4	1.6	2.1	2.3	2.6	1.7	1.7	1.4
7	2.6	1.8	1.9	1.7	1.4	1.7	2.2	2.5	2.7	1.6	1.6	1.3
8	2.5	1.8	1.8	1.7	1.5	1.8	2.7	2.6	2.6	1.6	1.5	1.3
9	2.4	1.9	1.7	1.7	1.5	1.8	2.4	2.8	2.9	1.6	1.4	1.2
10	2.4	1.8	1.6	1.6	1.5	1.8	2.2	2.8	2.9	1.5	1.4	1.2
11	2.3	1.8	1.6	1.6	1.5	1.7	2	2.9	2.8	1.5	1.5	1.3
12	2.5	1.9	1.6	1.6	1.4	1.7	2	2.9	2.9	1.5	1.4	1.3
13	2.1	2	1.6	1.6	1.3	1.7	2	3	2.9	1.5	1.4	1.3
14	2.2	1.9	1.7	1.6	1.4	1.7	2	3	2.9	1.6	1.4	1.3
15	2.2	1.8	1.6	1.7	1.4	1.7	2	3.1	2.9	1.7	1.5	1.3
16	2.2	1.8	1.5	1.7	1.4	1.7	2	3.1	2.9	1.5	1.5	1.3
17	2.1	1.8	1.6	1.7	1.5	1.8	2	3.1	2.8	1.6	1.5	1.3
18	1.9	1.8	1.6	1.6	1.6	1.8	1.9	3.2	2.7	1.6	1.5	1.2
19	1.8	1.8	1.7	1.6	1.7	1.8	1.8	3.3	2.7	1.6	1.8	1.6
20	1.5	1.8	1.7	1.6	1.7	1.8	1.8	3.2	2.6	1.6	1.6	1.7
21	1.5	1.8	1.8	1.6	1.7	1.8	1.9	3.2	2.4	1.7	1.5	1.5
22	1.5	1.7	1.7	1.5	1.7	1.8	1.9	3.1	2.2	1.6	1.5	1.5
23	1.5	1.6	1.6	1.5	1.6	1.8	2	3.1	2.2	1.8	1.5	1.5
24	1.5	1.7	1.6	1.5	1.6	1.8	2	3.2	2	1.8	1.4	1.5
25	2	1.8	1.6	1.5	1.6	1.8	2	3.2	1.9	1.7	1.4	1.5
26	2.2	1.8	1.7	1.4	1.6	1.8	2	3.2	1.9	1.8	1.4	1.5
27	2.1	1.7	1.6	1.4	1.7	1.9	2	3.2	2	1.8	1.3	1.5
28	2.1	1.7	1.5	1.4	1.6	1.9	2	3.1	1.9	1.7	1.4	1.4
29	2.1	1.8	1.5	1.5	1.5	1.9	2	3	1.7	1.7	1.4	1.5
30	1.9	1.9	1.6	1.5	---	2	2.2	2.9	1.9	1.6	1.4	1.5
31	1.9	---	1.6	1.5	---	2.1	---	2.9	---	1.6	1.4	---
TOTAL	64.3	54.9	51.8	49.1	44.1	54.4	60.6	88.7	75.8	51	46	41.8
MEAN	2.1	1.8	1.7	1.6	1.5	1.8	2	2.9	2.5	1.7	1.5	1.4
AC-FT	128	109	103	97	87	108	120	176	150	101	91	83
MAX	2.7	2.1	1.9	1.7	1.7	2.1	2.7	3.3	2.9	1.9	1.8	1.7
MIN	1.5	1.6	1.5	1.4	1.3	1.5	1.8	2.1	1.7	1.5	1.3	1.2

CAL YR 2003 TOTAL 730.55 MEAN 2.00 MAX 6.3 MIN 0.90 AC-FT 1450  
WTR YR 2004 TOTAL 682.5 MEAN 1.86 MAX 3.3 MIN 1.2 AC-FT 1350

MAX DISCH: 4.01 CFS AT 14:00 ON Oct. 5, 2003 GH 0.63 FT. SHIFT 0.01 FT.  
MAX GH: 0.70 FT. AT 09:30 ON Nov. 23, 2003 (Ice affected)

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## RIO GRANDE BASIN

## CLOSED BASIN IN SAN LUIS VALLEY

## MAJOR CREEK near VILLA GROVE, CO

**LOCATION.**--Lat 38°09'26", long 105°48'32", in NE ¼ NE ¼ Sec. 13, T.45 N., R.10 E., NMPM, Saguache Co., on right bank, 11 miles SE of Villa Grove.

**DRAINAGE AREA.**--5.0 mi<sup>2</sup>.

**GAGE.**--Station established in water year 1999 with installation of 2' diameter CMP as stilling well with a steel equipment box mounted on top at a 2' Parshall flume. Flume already at the site. Satellite monitoring equipment installed Dec. 1998 but gage not operational till Mar. 21, 1999. Elevation of gage is 8410 ft.

**REMARKS.**--Record is complete and reliable except for December 4, 2003 through March 25, 2004 when the station was closed for the winter, and November 28 through December 3, 2003 when the well was frozen. Stage-discharge relation affected by ice November 22-24, 27, 2003. Record good, except for periods of no gage-heights and ice affected record, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--MAJVILCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

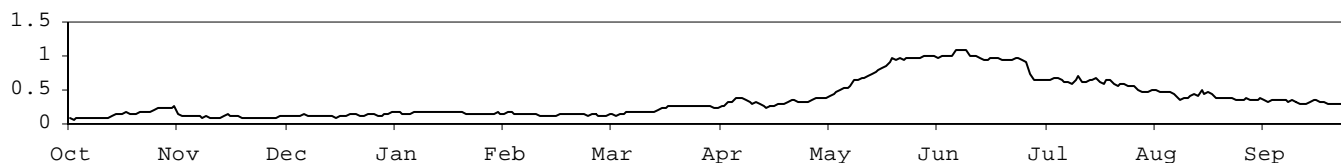
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.16	.13	.17	.16	.13	.26	.38	.99	.73	.5	.37
2	.06	.13	.13	.19	.16	.13	.25	.38	.99	.66	.47	.35
3	.08	.13	.12	.18	.17	.14	.25	.38	1	.66	.46	.34
4	.08	.12	.12	.15	.17	.14	.26	.38	1	.66	.46	.36
5	.08	.11	.12	.14	.16	.13	.26	.41	.96	.66	.49	.38
6	.09	.12	.13	.15	.14	.14	.32	.44	1	.66	.5	.36
7	.09	.12	.14	.18	.14	.15	.33	.47	1	.66	.48	.33
8	.1	.1	.13	.18	.15	.17	.39	.5	1	.68	.47	.34
9	.09	.12	.11	.17	.15	.18	.38	.52	1	.69	.47	.34
10	.08	.1	.11	.17	.14	.19	.37	.53	1.1	.65	.46	.34
11	.08	.1	.11	.17	.14	.19	.34	.57	1.1	.63	.43	.34
12	.09	.1	.11	.17	.12	.19	.33	.64	1.1	.62	.4	.34
13	.11	.1	.11	.17	.11	.19	.3	.66	1.1	.6	.36	.33
14	.14	.12	.12	.17	.12	.19	.33	.68	1	.66	.38	.34
15	.15	.14	.11	.18	.12	.19	.29	.69	1	.7	.39	.32
16	.16	.13	.1	.19	.12	.19	.27	.7	1	.61	.42	.3
17	.17	.13	.11	.19	.13	.21	.25	.73	.96	.63	.45	.3
18	.16	.12	.12	.17	.14	.23	.26	.76	.94	.66	.41	.3
19	.16	.1	.13	.17	.14	.25	.27	.78	.94	.66	.49	.31
20	.16	.1	.14	.17	.14	.27	.29	.83	.96	.68	.45	.34
21	.18	.1	.16	.17	.14	.27	.29	.86	.96	.63	.47	.34
22	.17	.1	.15	.15	.14	.27	.3	.92	.96	.59	.44	.33
23	.17	.09	.13	.15	.14	.26	.33	.97	.95	.66	.39	.31
24	.17	.08	.13	.16	.14	.26	.34	.94	.95	.65	.39	.29
25	.21	.09	.14	.16	.14	.27	.35	.96	.95	.59	.39	.29
26	.24	.08	.15	.14	.13	.26	.33	.95	.94	.57	.37	.28
27	.23	.08	.14	.14	.15	.26	.32	.96	.96	.6	.38	.3
28	.23	.08	.13	.15	.14	.26	.32	.96	.97	.58	.37	.29
29	.23	.1	.13	.16	.13	.26	.31	.97	.94	.56	.36	.3
30	.23	.12	.16	.16	---	.26	.36	.98	.91	.56	.34	.27
31	.26	---	.16	.17	---	.26	---	.97	---	.55	.34	---
TOTAL	4.53	3.27	3.98	5.14	4.07	6.49	9.25	21.87	29.63	19.7	13.18	9.73
MEAN	.15	.11	.13	.17	.14	.21	.31	.71	.99	.64	.43	.32
AC-FT	9	6.5	7.9	10	8.1	13	18	43	59	39	26	19
MAX	.26	.16	.16	.19	.17	.27	.39	.98	1.1	.73	.5	.38
MIN	.06	.08	.1	.14	.11	.13	.25	.38	.91	.55	.34	.27
CAL YR 2003	TOTAL	98.99	MEAN	0.27	MAX	1.0	MIN	0.05	AC-FT	196		
WTR YR 2004	TOTAL	130.84	MEAN	0.36	MAX	1.1	MIN	0.06	AC-FT	260		

MAX DISCH: 1.3 CFS AT 13:00 ON May. 28, 2004 GH 0.28 FT. SHIFT 0.03 FT.

MAX GH: 0.28 FT. AT 13:00 ON May. 28, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## RIO GRANDE BASIN

## CLOSED BASIN IN SAN LUIS VALLEY

## COTTON CREEK near MINERAL HOT SPRINGS, CO

**LOCATION.**--Lat 38°07'55", long 105°47'15", in SW ¼ SW ¼ Sec. 20, T.45 N., R.11 E., NMPM, Saguache Co., on left bank, 9 miles SE of Mineral Hot Springs.

**DRAINAGE AREA.**--12.8 mi<sup>2</sup>.

**GAGE.**--A Sutron shaft encoder and data collection platform (DCP) is the primary record. A strip chart recorder is used as a back-up. Both are set by tape and weight from a reference point set in the shelf. Gage consists of a 4-foot diameter culvert pipe well and shelter. Elevation of gage is 8600 ft.

**REMARKS.**--Record is complete and reliable for the water year except December 4, 2003 through Mar. 25, 2004 when the station was closed for the winter, and November 23 through December 3, 2003 when the well was frozen. Record is good, except for periods of no record, which is poor. Station maintained and record developed by Div. III Personnel.

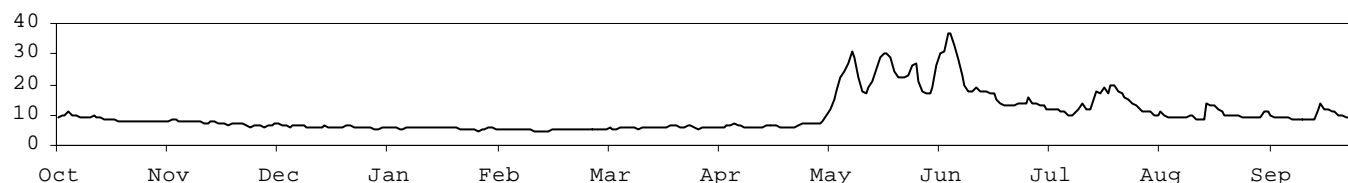
**RATING TABLE.**--COCRMICO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9	7.9	7	6	5.4	5	5.7	7.1	17	14	11	9.1
2	10	8.2	7	6.2	5	5.2	6	7.1	17	14	11	9.2
3	10	8.4	6.6	6.2	5.2	5.4	6	8	19	13	11	8.9
4	11	7.9	6.4	5.8	5.4	5.6	5.9	9.7	26	13	10	11
5	10	7.6	6.2	5.4	5.4	5.4	5.8	12	30	12	10	11
6	9.6	7.6	6.4	5.4	5.2	5.4	6.6	15	31	12	11	9.7
7	9.4	7.9	6.6	5.8	5	5.6	6.4	18	37	12	9.8	9.3
8	9.3	8.1	6.8	6.2	5.2	5.8	7	22	37	12	9.2	9.2
9	9	7.8	6.4	5.8	5.4	5.8	6.7	24	33	11	9.3	9.1
10	9	7.7	6	5.6	5	6	6.3	27	28	11	9.2	8.9
11	9.6	7.5	6	5.6	5	5.6	5.8	31	23	10	9	8.9
12	9.2	7.4	6.2	5.6	4.7	5.4	5.6	29	20	10	9	8.8
13	9	7.7	6	5.6	4.5	5.6	5.6	22	18	11	9.1	8.8
14	8.8	7.7	6.2	5.6	4.7	5.6	5.9	18	18	12	9.9	8.6
15	8.7	7.3	6.4	5.8	4.8	5.6	5.9	17	19	14	9.7	8.6
16	8.5	7.1	6	6	4.8	5.6	6.2	19	18	12	8.8	8.4
17	8.2	7.2	5.6	6	5	5.8	6.5	21	18	12	8.2	8.4
18	8.1	6.6	5.8	5.8	5.2	6	6.5	25	18	14	8.6	8.5
19	8.1	7.4	6	5.6	5.4	6.2	6.3	29	17	18	14	12
20	8.1	7.1	6.2	5.6	5.4	6.2	6.3	30	17	17	13	14
21	8.1	7.1	6.4	5.6	5.2	6.4	6.2	30	15	19	13	12
22	8.1	6.9	6.4	5.4	5.2	6.4	6	29	14	17	12	12
23	8.1	6.4	6	5	5	6.4	5.9	24	13	20	11	11
24	8.1	6.2	5.6	5.2	5	6.2	6.2	22	13	20	10	11
25	8.1	6.6	6	5.4	5	6.2	6.2	22	13	18	10	10
26	7.8	6.8	6.2	5.2	5	6.3	6.5	22	13	17	9.9	9.8
27	8.1	6.4	6	4.9	5.2	6.5	6.9	23	14	16	9.7	9.5
28	8.1	6	5.6	5.2	5.4	5.8	7.2	26	14	15	9.8	9.3
29	8	6.4	5.4	5.4	5.2	5.3	7.2	27	14	14	9.4	9.4
30	7.7	6.4	5.2	5.6	---	5.8	7.4	21	16	13	9	9.8
31	7.7	---	5.6	5.6	---	5.8	---	18	---	12	9	---
TOTAL	270.5	217.3	190.2	174.1	147.9	179.9	188.7	654.9	600	435	313.6	294.2
MEAN	8.7	7.2	6.1	5.6	5.1	5.8	6.3	21.1	20	14	10.1	9.8
AC-FT	537	431	377	345	293	357	374	1300	1190	863	622	584
MAX	11	8.4	7	6.2	5.4	6.5	7.4	31	37	20	14	14
MIN	7.7	6	5.2	4.9	4.5	5	5.6	7.1	13	10	8.2	8.4
CAL YR 2003	TOTAL	3476.5	MEAN	9.5	MAX	51	MIN	2.9	AC-FT	6900		
WTR YR 2004	TOTAL	3666.3	MEAN	10	MAX	37	MIN	4.5	AC-FT	7270		

MAX DISCH: 45 CFS AT 23:45 ON Jun. 7, 2004 GH 2.78 FT. SHIFT -0.05 FT.  
MAX GH: 2.78 FT. AT 23:45 ON Jun. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

WILD CHERRY CREEK near CRESTONE, CO

**LOCATION.**--Lat 38°06'01", long 105°46'04", SW ¼ SW ¼ Sec. 33, T.45 N., R.11 E., NMPM, Saguache Co., on right bank, 12 miles SE of Mineral Hot Springs, 8 Miles NW of Crestone.

**DRAINAGE AREA.**--4.5 mi<sup>2</sup>.

**GAGE.**--Station established in water year 1999 with the installation of 4' diameter CMP stilling well and shelter. Satellite monitoring system installed Mar. 25, 1999 with chart recorder added on Apr. 28, 1999 as a backup. Elevation of gage is 8560 ft.

**REMARKS.**--Record complete and reliable for the water year, except December 4, 2003 through March 25, 2004, when station was closed for the winter; November 23-30, December 1-3, 2003 when the well was frozen; and May 19-26, 2004 when the inlets were plugged and the well was isolated from the stream. Record good except that for periods of no gage height record, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--CHECRECO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

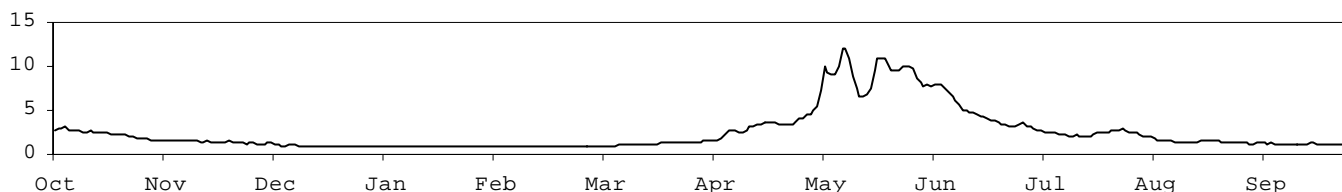
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.6	1.3	.94	.9	.94	1.5	4.6	8.2	3.2	2.4	1.3
2	3	1.5	1.2	1	.86	.94	1.6	5	7.8	3.1	2.2	1.2
3	3	1.5	1.1	1	.88	.98	1.6	5.4	8	2.9	2.1	1.2
4	3.1	1.5	1	.92	.9	1	1.7	7.2	7.7	2.8	2	1.4
5	2.8	1.5	1	.88	.9	.98	1.7	9.9	7.9	2.8	2	1.4
6	2.7	1.5	1.1	.88	.86	.98	1.9	9.4	8	2.6	1.9	1.3
7	2.7	1.5	1.2	.9	.82	1	2.2	9.1	8	2.5	1.7	1.2
8	2.7	1.5	1.1	.96	.84	1.1	2.7	9	7.5	2.4	1.6	1.3
9	2.6	1.5	1	.94	.88	1.1	2.8	10	7	2.4	1.6	1.2
10	2.6	1.5	.96	.94	.88	1.1	2.7	12	6.6	2.3	1.5	1.2
11	2.7	1.4	1	.9	.86	1.1	2.6	12	6.2	2.2	1.5	1.2
12	2.6	1.4	1	.9	.84	1.1	2.6	11	5.6	2.2	1.4	1.2
13	2.6	1.5	.94	.9	.8	1.1	2.7	8.9	5.1	2.1	1.3	1.2
14	2.5	1.4	1	.9	.82	1.1	3.1	7.5	4.9	2.1	1.3	1.2
15	2.4	1.4	.94	.92	.88	1.1	3.2	6.7	4.8	2.3	1.4	1.2
16	2.4	1.4	.88	.98	.9	1.1	3.4	6.7	4.7	2.1	1.3	1.2
17	2.3	1.4	.86	.98	.92	1.2	3.5	6.8	4.6	2.1	1.3	1.1
18	2.3	1.4	.9	.92	.94	1.2	3.6	7.4	4.4	2.1	1.4	1.1
19	2.2	1.5	.9	.88	.98	1.2	3.7	9.5	4.3	2.1	1.7	1.3
20	2.2	1.4	.94	.9	.98	1.3	3.6	11	4	2.2	1.6	1.3
21	2.2	1.4	1	.9	.98	1.3	3.6	11	3.9	2.5	1.5	1.2
22	2.1	1.4	1	.86	.98	1.3	3.5	11	3.8	2.4	1.5	1.2
23	2	1.3	.96	.84	.96	1.3	3.5	10	3.6	2.5	1.5	1.2
24	1.9	1.2	.92	.86	.96	1.3	3.4	9.5	3.5	2.6	1.5	1.2
25	1.8	1.4	.94	.88	.96	1.4	3.4	9.5	3.4	2.7	1.4	1.2
26	1.8	1.3	.96	.84	.96	1.4	3.5	9.5	3.2	2.8	1.4	1.2
27	1.8	1.1	.92	.8	1	1.4	3.7	10	3.1	2.8	1.4	1.2
28	1.7	1.1	.86	.82	.98	1.3	4	10	3.1	2.9	1.4	1.2
29	1.7	1.2	.82	.86	.96	1.3	4.2	10	3.3	2.8	1.3	1.3
30	1.7	1.3	.86	.88	---	1.3	4.5	9.8	3.7	2.6	1.3	1.3
31	1.6	---	.9	.9	---	1.3	---	8.6	---	2.5	1.3	---
TOTAL	72.4	42	30.46	27.98	26.38	36.22	89.7	278	159.9	77.6	48.7	36.9
MEAN	2.3	1.4	.98	.9	.91	1.17	3	9	5.3	2.5	1.6	1.2
AC-FT	144	83	60	55	52	72	178	551	317	154	97	73
MAX	3.1	1.6	1.3	1	1	1.4	4.5	12	8.2	3.2	2.4	1.4
MIN	1.6	1.1	.82	.8	.8	.94	1.5	4.6	3.1	2.1	1.3	1.1

CAL YR	2003	TOTAL	943.94	MEAN	2.59	MAX	15	MIN	.18	AC-FT	1870
WTR YR	2004	TOTAL	926.24	MEAN	2.53	MAX	12	MIN	.8	AC-FT	1840

MAX DISCH: 12.8 CFS AT 21:45 ON May. 9, 2004 GH 1.91 FT. SHIFT 0 FT.  
MAX GH: 2.01 FT. AT 08:30 ON Nov. 23, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

RITO ALTO CREEK near CRESTONE, CO

**LOCATION.**--Lat 38°04'39", long 105°45'43", in SW1/4NE1/4 Sec. 9, T.44 N., R.11 E., NMPM, Saguache Co., on right bank 12 miles SE of Mineral Hot Springs, 7 miles NW of Crestone.

**DRAINAGE AREA.**--10.3 mi<sup>2</sup>.

**GAGE.**--Station established in 1999 with the installation of 4' diameter CMP stilling well and shelter. Satellite monitoring system installed April 1, 1999. Strip chart recorder installed on April 27, 1999 as a backup. Elevation of gage is 8380 ft.

**REMARKS.**--Water-year record is complete and reliable except for December 4, 2003 to March 25, 2004, when station was closed for the winter, and November 25 to December 3, 2003 when the well was frozen. Stage-discharge relation affected by ice November 18, 19, 23, 24, 2003. Record is good, except for periods of no gage-height data, or ice affected data, which is poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--RITCRECO3 USED FROM 01-OCT-2003 TO 30-SEP-2004

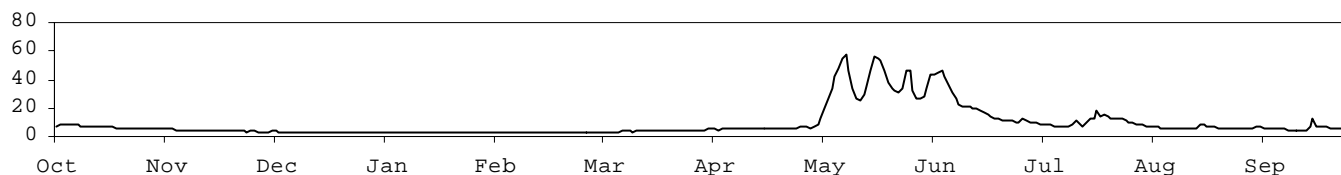
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	5.3	3.6	3.1	2.8	3	4.7	6.1	27	11	8.5	5.4
2	7.9	5.5	3.6	3.2	2.6	3.1	5.2	6.4	28	10	8.2	5.5
3	8.2	5.5	3.4	3.3	2.8	3.2	5	8.1	33	10	8.1	5.3
4	8.5	4.6	3.2	3	2.9	3.3	5	12	43	9.6	7.5	6.4
5	8.4	4.8	3.2	2.7	2.8	3.2	4.8	19	43	9	7.2	6.7
6	8.3	4.7	3.3	2.6	2.7	3.2	5.3	27	45	8.8	7.1	5.7
7	7.8	4.7	3.4	2.9	2.5	3.3	5.3	34	47	8.2	6.5	5.4
8	7.6	4.8	3.5	3.1	2.7	3.5	6.1	42	42	7.9	6.2	5.3
9	7.4	4.7	3.3	2.9	2.8	3.6	5.7	48	36	7.5	5.9	5.2
10	7.2	4.8	2.9	2.8	2.7	3.7	5.5	55	31	7.1	5.6	5.1
11	6.9	4.6	2.9	2.7	2.6	3.6	5.2	58	26	6.9	5.5	5.2
12	6.7	4.3	3.1	2.8	2.5	3.5	5	47	23	6.8	5.4	5
13	6.7	4.6	3	2.8	2.3	3.6	5	34	21	6.5	5.3	4.9
14	6.6	4.6	3.1	2.8	2.5	3.6	5.3	27	21	7.8	5.3	4.5
15	6.5	4.3	3.1	2.9	2.7	3.7	5.3	25	21	11	5.4	4.4
16	6.4	4	2.8	3.1	2.7	3.8	5.7	29	20	8	5.3	4.4
17	6.4	4.3	2.6	3.1	2.9	4	6.1	35	19	7.5	5.2	4.4
18	6.1	4.2	2.8	2.9	3.1	4.1	6.1	46	18	10	6.1	4.3
19	6.1	4.1	2.9	2.8	3.2	4.2	5.9	56	17	12	8.6	6.7
20	5.9	4.1	3	2.9	3.2	4.2	5.9	55	15	12	8.6	12
21	5.8	4.1	3.2	2.9	3.2	4.2	5.8	54	14	18	7.5	7.7
22	5.8	4.1	3.2	2.8	3.2	4.2	5.7	46	13	14	6.9	7.4
23	5.7	3.7	3	2.6	3.1	4.2	5.2	38	12	15	6.5	6.8
24	5.5	3.4	2.9	2.8	3.1	4.3	5.6	34	11	14	6.2	6.7
25	5.5	3.6	3	2.8	3.1	4.5	5.3	32	11	13	6.1	6.2
26	5.1	3.6	3	2.6	3.1	4.8	5.3	31	11	13	5.9	6.2
27	5.6	3.4	3	2.5	3.3	4.8	5.8	34	11	12	5.8	6.2
28	5.5	3.1	2.7	2.6	3.4	4.4	6.6	46	10	12	5.9	6.1
29	5.3	3.2	2.5	2.7	3.2	4.3	6.5	46	10	11	5.8	6.1
30	5.3	3.4	2.8	2.8	---	4.1	6.4	32	13	9.8	5.6	6.6
31	5.3	---	3	2.9	---	4.2	---	27	---	9.2	5.5	---
TOTAL	203.3	128.1	95	88.4	83.7	119.4	166.3	1089.6	692	318.6	199.2	177.8
MEAN	6.6	4.3	3.1	2.9	2.9	3.9	5.5	35.1	23	10.3	6.4	5.9
AC-FT	403	254	188	175	166	237	330	2160	1370	632	395	353
MAX	8.5	5.5	3.6	3.3	3.4	4.8	6.6	58	47	18	8.6	12
MIN	5.1	3.1	2.5	2.5	2.3	3	4.7	6.1	10	6.5	5.2	4.3

CAL YR	2003	TOTAL	3644	MEAN	9.98	MAX	93	MIN	1.3	AC-FT	7230
WTR YR	2004	TOTAL	3361.4	MEAN	9.18	MAX	58	MIN	2.3	AC-FT	6670

MAX DISCH: 72.1 CFS AT 22:00 ON May. 28, 2004 GH 2.66 FT. SHIFT 0.07 FT.  
MAX GH: 2.66 FT. AT 22:00 ON May. 28, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

SAN ISABEL CREEK near CRESTONE, CO

**LOCATION.**--Lat 38°02'04", long 105°43'03", in NW1/4,NW1/4, T.44 N., R.11 E., NMPM, Saguache Co., on left bank 3 miles NW of Crestone.

**DRAINAGE AREA.**--5.7 mi<sup>2</sup>.

**GAGE.**--Station established in 1999 with the installation of 4' diameter CMP stilling well and shelter. Satellite monitoring system installed on Apr. 01, 1999 with a chart recorder backup installed on Apr. 27, 1999. Elevation of gage is 8200 ft.

**REMARKS.**--Record is complete and reliable except for the following periods: November 24 through December 2, 2003 when the well was frozen. December 3, 2003 through March 26, 2004, when station was closed for winter. Gage-height was affected by ice on November 18, 22, 23, 2003. Record good, except during periods of no stage data and ice effect, which is poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--SANCRECO2 USED FROM 01-OCT-2003 TO 30-SEP-2004

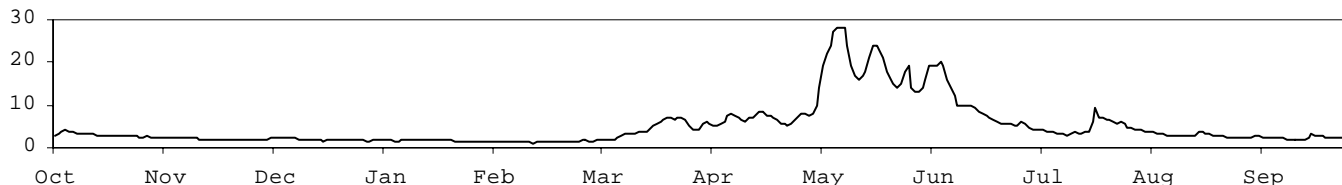
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3	2.4	2.3	1.9	1.5	1.6	5.5	7.6	13	5.4	4.2	2.3
2	3.4	2.5	2.3	2	1.5	1.7	6.3	8	14	4.9	4	2.4
3	3.6	2.5	2.2	2	1.6	1.8	5.7	10	16	4.4	4	2.3
4	4	2.4	2.2	1.8	1.6	1.8	5.3	14	19	4.3	3.7	3
5	3.7	2.4	2.2	1.6	1.5	1.7	5	19	19	4.1	3.6	2.9
6	3.6	2.3	2.3	1.6	1.3	1.8	5.8	22	19	4.1	3.6	2.5
7	3.5	2.2	2.4	1.8	1.3	2	6	24	20	3.9	3.4	2.4
8	3.4	2.2	2.3	1.8	1.4	2.5	7.6	27	19	3.7	3.2	2.3
9	3.3	2.2	2	1.7	1.4	3	7.8	28	16	3.6	3.1	2.3
10	3.3	2.2	1.9	1.7	1.3	3.2	7.3	28	14	3.5	2.9	2.3
11	3.2	2.1	1.9	1.7	1.3	3.2	6.8	28	12	3.4	2.9	2.2
12	3.1	2.1	1.9	1.7	1.2	3.2	6.4	24	10	3.1	2.8	2.2
13	3	2.1	1.9	1.7	1.1	3.4	6.3	19	9.7	2.8	2.8	2
14	3	2.1	2	1.7	1.2	3.6	6.9	17	10	3.4	2.8	2
15	3	2.1	1.9	1.8	1.2	3.8	7.2	16	10	3.8	3	2
16	2.9	2.1	1.6	1.9	1.2	3.8	7.6	17	9.8	3.3	2.8	1.9
17	2.9	2.1	1.7	1.9	1.3	4.4	8.4	18	9.3	3.1	2.7	1.8
18	2.9	2.1	1.8	1.7	1.5	5.2	8.5	21	8.6	3.6	2.8	1.8
19	2.8	2.1	1.8	1.7	1.6	5.6	7.6	24	8.2	3.8	3.9	2.5
20	2.7	2	1.8	1.7	1.6	6.2	7.3	24	7.7	6.2	3.9	3.3
21	2.7	2	2	1.7	1.6	6.6	7	23	7.1	9.5	3.5	2.7
22	2.7	1.9	1.9	1.5	1.6	7	6.5	21	6.7	7.1	3.3	2.8
23	2.6	1.7	1.7	1.5	1.5	7	5.8	18	6.1	7.1	3	2.6
24	2.6	1.8	1.7	1.6	1.5	6.6	5.6	16	5.7	6.7	2.8	2.5
25	2.5	2	1.7	1.6	1.5	7	5.2	15	5.6	6.4	2.7	2.4
26	2.5	1.9	1.8	1.4	1.5	7	5.4	14	5.6	5.9	2.6	2.4
27	2.6	1.8	1.7	1.4	1.7	6.6	6.4	15	5.4	5.8	2.5	2.4
28	2.5	1.8	1.5	1.5	1.7	5.1	7.7	18	5.1	6	2.5	2.4
29	2.5	1.9	1.6	1.6	1.6	4.4	8.1	19	5.1	5.5	2.3	2.4
30	2.4	2.1	1.8	1.6	1.6	4.1	7.8	14	6.2	4.9	2.2	2.5
31	2.4	---	1.8	1.6	---	4.4	---	13	---	4.5	2.2	---
TOTAL	92.3	63.1	59.6	52.4	41.8	129.3	200.8	581.6	322.9	147.8	95.7	71.5
MEAN	3	2.1	1.9	1.7	1.4	4.2	6.7	18.8	10.8	4.8	3.1	2.4
AC-FT	183	125	118	104	83	256	398	1150	640	293	190	142
MAX	4	2.5	2.4	2	1.7	7	8.5	28	20	9.5	4.2	3.3
MIN	2.4	1.7	1.5	1.4	1.1	1.6	5	7.6	5.1	2.8	2.2	1.8

CAL YR 2003 TOTAL 2337.72 MEAN 6.40 MAX 58 MIN 0.94 AC-FT 4640  
WTR YR 2004 TOTAL 1858.8 MEAN 5.08 MAX 28 MIN 1.1 AC-FT 3690

MAX DISCH: 33 CFS AT 20:45 ON May. 7, 2004 GH 4.36 FT. SHIFT 0.05 FT.  
MAX GH: 4.36 FT. AT 20:45 ON May. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08227000 SAGUACHE CREEK NEAR SAGUACHE, CO

**LOCATION.**--Lat 38°09'48", long 106°17'24", in SE¼SE¼ sec. 10, T. 45 N., R 6 E., Saguache County, Hydrologic Unit 13010004, on left bank 0.2 Mi downstream from Middle Creek and 10 mi northwest of Saguache.

**PERIOD OF RECORD AND DRAINAGE AREA.**--595 mi<sup>2</sup>. Aug. 1910-Sept. 1912, Jun. 1914 to current year. Monthly discharge only for some periods. Water-quality data available, Apr. 1993-Sep. 1995.

**GAGE.**--Graphic water-stage recorder and Sutron satellite monitoring equipment including an air temperature sensor and a tipping bucket rain gage in a metal pipe shelter and well. The existing manned cableway was removed and a new Tacoma bank-operated cableway system was installed at this site in August 2003. Datum of gage is approximately 8,030 ft. (from topographic map).

**REMARKS.**--Record is complete and reliable. The stage-discharge relation was affected by ice Nov. 20, 2003 through Mar. 13, 2004. Record is good except for periods of ice affected record which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--SAGSAGC016 USED FROM 01-OCT-2003 TO 30-SEP-2004

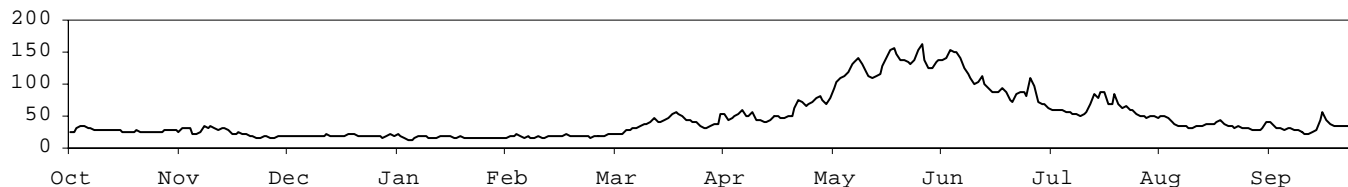
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	26	20	20	16	18	36	81	125	97	49	28
2	26	30	20	22	17	21	39	76	124	73	48	27
3	30	32	18	19	19	22	53	70	135	69	50	27
4	35	30	18	16	20	21	52	77	137	68	49	30
5	34	22	18	13	21	22	45	93	139	63	47	41
6	32	21	19	14	18	22	48	104	141	60	49	40
7	31	24	20	16	17	27	49	108	153	60	49	34
8	29	34	19	20	18	27	52	114	149	60	46	31
9	28	30	18	18	17	32	58	120	149	58	40	30
10	29	34	18	18	17	32	51	131	142	56	37	29
11	28	32	19	17	18	33	50	133	126	55	35	30
12	27	28	19	17	16	36	55	141	115	53	34	30
13	27	32	21	17	16	38	45	132	108	53	33	28
14	27	32	20	19	18	41	43	119	100	49	32	27
15	27	28	20	20	18	46	41	113	104	52	31	24
16	26	23	18	20	18	41	42	110	111	57	33	23
17	26	22	19	19	19	42	45	114	100	70	34	23
18	26	24	20	17	20	44	50	117	95	83	35	24
19	26	21	21	17	22	46	50	128	89	78	39	27
20	27	21	21	18	20	52	46	142	88	88	39	44
21	25	19	21	17	19	55	46	152	89	89	37	55
22	25	18	20	16	19	53	49	155	94	70	42	45
23	24	16	19	16	19	49	51	146	88	69	43	38
24	25	16	18	17	20	45	62	139	74	85	38	35
25	25	18	18	17	18	43	76	136	73	69	35	35
26	24	18	19	16	16	42	72	133	83	63	33	35
27	25	16	18	16	18	41	66	130	89	65	32	35
28	27	16	18	17	18	35	70	137	86	59	33	34
29	27	18	16	17	18	30	71	152	82	60	32	35
30	27	20	20	17	---	32	77	161	109	54	30	37
31	27	---	21	17	---	34	---	137	---	51	30	---
TOTAL	846	721	594	540	530	1122	1590	3801	3297	2036	1194	981
MEAN	27	24	19	17	18	36	53	123	110	66	39	33
AC-FT	1680	1430	1180	1070	1050	2230	3150	7540	6540	4040	2370	1950
MAX	35	34	21	22	22	55	77	161	153	97	50	55
MIN	24	16	16	13	16	18	36	70	73	49	30	23

CAL YR	2003	TOTAL	12151	MEAN	33.3	MAX	143	MIN	13	AC-FT	24100
WTR YR	2004	TOTAL	17252	MEAN	47.1	MAX	161	MIN	13	AC-FT	34220

MAX DISCH: 169 CFS AT 06:00 ON May. 30, 2004 GH 2.41 FT. SHIFT 0.02 FT.  
MAX GH: 2.41 FT. AT 06:00 ON May. 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY, CO

08227500 NORTH CRESTONE CREEK NEAR CRESTONE, CO

**LOCATION.**--Lat 38°00'49", long 105°41'32", Saguache County, Hydrologic Unit 13010003, on right bank in canyon, 1.5 mi. northeast of Crestone, and 3.2 mi. upstream from South Crestone Creek.

**DRAINAGE AREA.**--10.7 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a timber shelter and well. Data collection platform and shaft encoder installed June 05, 2003. Altitude of gage is 8,360 ft from topographic map.

**REMARKS.**--Record is complete and reliable except for December 29, 2003 when the well was frozen, and December 30, 2003 through March 26, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice November 23-30 and December 9-28, 2003. Record is good except for periods of no gage-height and ice affected record, which are poor. Station maintained and record developed by Div. III Personnel.

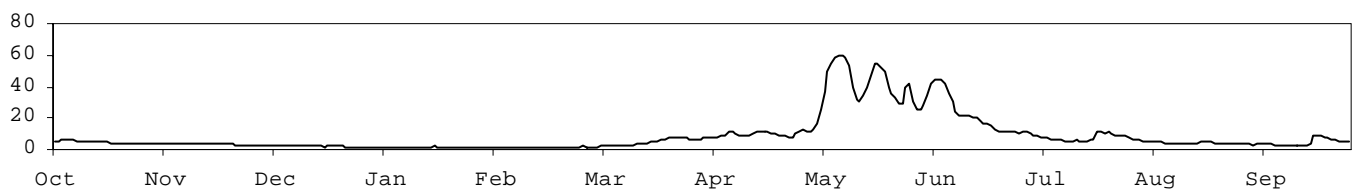
**RATING TABLE.**--NOCRESCO10 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	3.6	2.6	1.8	1.6	1.7	7.3	12	26	11	6.1	3.4
2	5.6	3.7	2.6	1.9	1.6	1.9	8.2	13	28	10	5.8	3.2
3	5.8	3.9	2.5	1.8	1.7	2.2	7.8	17	34	9.1	5.6	3.1
4	6.3	3.7	2.5	1.7	1.8	2.3	7.4	25	42	8.4	5.1	4
5	6.2	3.6	2.5	1.7	1.7	2.2	7.4	37	45	7.7	5	4.1
6	5.9	3.6	2.5	1.6	1.6	2.1	8.5	49	44	7.5	5	3.6
7	5.7	3.5	2.3	1.8	1.5	2.4	8.8	54	45	7	4.8	3.4
8	5.5	3.4	2.3	1.8	1.6	2.3	11	59	42	6.6	4.5	3.2
9	5.3	3.4	2.2	1.7	1.6	2.9	11	60	36	6.3	4.3	3.1
10	5.1	3.3	2.2	1.7	1.5	3	10	60	30	6	4.2	3.1
11	5	3.2	2.2	1.7	1.6	3	9.3	59	24	5.8	4	3
12	4.8	3.2	2.2	1.8	1.6	3	8.7	53	22	5.6	3.9	2.9
13	4.7	3.2	2.1	1.7	1.4	4	8.6	39	21	5.2	3.9	2.8
14	4.6	3.2	2.2	1.8	1.5	4	9.4	32	21	5.4	3.8	2.7
15	4.5	3.3	2.1	1.9	1.6	4	9.8	30	21	6.2	4	2.7
16	4.5	3.2	1.9	2	1.5	4	11	34	20	5.5	3.8	2.6
17	4.4	3.2	2	1.8	1.6	5	12	40	20	5.4	3.8	2.6
18	4.3	3.6	2	1.7	1.7	5	12	47	18	5.5	4	2.5
19	4.2	3.6	2	1.7	1.8	5.6	11	55	17	5.9	5	3.6
20	4.1	3.2	2	1.8	1.8	6	10	55	16	6.9	5	9.4
21	4	2.9	2	1.7	1.8	6	9.8	52	15	12	4.6	9.2
22	4	2.9	1.9	1.6	1.7	7	9.3	49	13	11	4.5	8.7
23	4	2.8	1.9	1.6	1.7	7.6	8.7	40	12	10	4.2	7.7
24	3.9	2.8	1.8	1.7	1.9	8	8.3	36	11	11	4	7
25	3.8	2.9	1.9	1.7	1.8	8	7.8	33	11	9.8	3.9	6.4
26	3.6	2.6	1.9	1.5	1.7	8	8	29	11	9.3	3.7	6
27	3.8	2.3	1.8	1.5	2	8	9.8	29	11	9	3.6	5.6
28	3.8	2.3	1.7	1.6	1.9	6.7	12	40	11	8.9	3.6	5.3
29	3.7	2.4	1.7	1.6	1.8	6.2	13	42	9.8	8.3	3.4	5.2
30	3.6	2.5	1.8	1.7	---	5.8	12	30	12	7.4	3.3	5.2
31	3.4	---	1.7	1.7	---	6.2	---	25	---	6.7	3.3	---
TOTAL	143.4	95	65	53.3	48.6	144.1	287.9	1235	688.8	240.4	133.7	135.3
MEAN	4.6	3.2	2.1	1.7	1.7	4.7	9.6	40	23	7.8	4.3	4.5
AC-FT	284	188	129	106	96	286	571	2450	1370	477	265	268
MAX	6.3	3.9	2.6	2	2	8	13	60	45	12	6.1	9.4
MIN	3.4	2.3	1.7	1.5	1.4	1.7	7.3	12	9.8	5.2	3.3	2.5
CAL YR 2003	TOTAL	4058.32	MEAN	11.1	MAX	138	MIN	0.8	AC-FT	8050		
WTR YR 2004	TOTAL	3270.5	MEAN	8.94	MAX	60	MIN	1.4	AC-FT	6490		

MAX DISCH: 65.8 CFS AT 21:00 ON May. 7, 2004 GH 2.37 FT. SHIFT -0.06 FT.  
MAX GH: 2.37 FT. AT 21:00 ON May. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

SOUTH CRESTONE CREEK near CRESTONE, CO

**LOCATION.**--Lat 37°58'55", long 105°42'41", in NE1/4SW1/4 Sec. 12, T.43 N., R.11 E., NMPM, Saguache Co., on right bank, 1 mile SE of Crestone.

**DRAINAGE AREA.**--4.6 mi<sup>2</sup>.

**GAGE.**--2' diameter CMP installed as stilling well with small shelter on top for equipment at an existing 2.5' Parshall flume. Satellite monitoring system installed and put into operation Apr. 6, 1999. Elevation of gage is 7740 ft.

**REMARKS.**--Gage-height data complete and reliable except for the following periods: December 3, 2003 through Mar. 26, 2004 when the station was closed for the winter. October 26, November 4-6, 11, 12, 16, 18, 19, 22-24, 30, December 1, 2, 2003; August 8-19, 23, 25, and September 4-6, 19, 2004, when the station was isolated for all or partial days. Stage-discharge relation affected by ice November 25-29, 2003, and March 29, 2004. There was no flow for 108 days this water year. Record good, except for periods of missing or unreliable gage-height data, which is poor. Station maintained and record developed by Div. III Personnel.

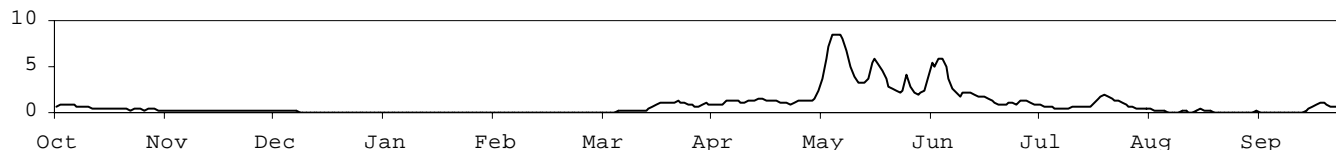
**RATING TABLE.**--SOUCRECO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.7	.28	.28	0	0	0	.8	1.4	2	1.3	.62	0
2	.8	.29	.25	0	0	0	.98	1.4	2.1	1.2	.54	0
3	.91	.31	.2	0	0	0	.96	1.6	2.5	.99	.5	0
4	.97	.24	.2	0	0	0	.96	2.3	3.9	.92	.41	.05
5	.88	.22	.2	0	0	0	.86	3.8	5.5	.86	.38	.18
6	.78	.26	.22	0	0	.05	.89	5.8	5	.8	.38	.05
7	.74	.29	.24	0	0	.1	.88	7.2	5.9	.67	.32	0
8	.71	.28	.2	0	0	.2	1.3	8.4	5.9	.61	.25	0
9	.65	.25	.1	0	0	.3	1.4	8.4	4.9	.56	.21	0
10	.61	.24	.05	0	0	.3	1.4	8.5	3.7	.53	.15	0
11	.54	.21	0	0	0	.3	1.2	8.1	2.6	.54	.1	0
12	.51	.16	0	0	0	.3	1.1	6.8	2.1	.53	.1	0
13	.48	.26	0	0	0	.3	1.1	5.1	1.7	.48	.1	0
14	.45	.25	0	0	0	.3	1.3	3.9	2.1	.51	.1	0
15	.45	.25	0	0	0	.3	1.3	3.3	2.2	.66	.19	0
16	.4	.24	0	0	0	.3	1.4	3.2	2.1	.59	.17	0
17	.38	.24	0	0	0	.4	1.5	3.3	1.9	.59	.1	0
18	.36	.28	0	0	0	.6	1.5	3.8	1.8	.65	.1	0
19	.35	.28	0	0	0	.8	1.3	5.5	1.7	.69	.18	.11
20	.34	.27	0	0	0	1	1.3	5.8	1.8	.75	.37	.52
21	.33	.24	0	0	0	1	1.2	5.2	1.6	1.1	.3	.62
22	.32	.23	0	0	0	1	1.2	4.6	1.4	1.6	.28	.97
23	.35	.21	0	0	0	1	1.1	3.6	1.1	1.8	.19	1.1
24	.35	.2	0	0	0	1	1	2.9	.94	2	0	1
25	.35	.25	0	0	0	1.2	.98	2.6	.89	1.8	.05	.83
26	.3	.2	0	0	0	1.1	.87	2.4	.96	1.6	0	.73
27	.38	.2	0	0	0	1.1	1.1	2.1	1	1.3	0	.65
28	.37	.2	0	0	0	.93	1.3	2.5	1.1	1.2	0	.57
29	.35	.25	0	0	0	.8	1.4	4.1	.97	1.1	0	.55
30	.31	.28	0	0	---	.74	1.4	2.9	1.4	.91	0	.55
31	.28	---	0	0	---	.72	---	2.2	---	.76	0	---
TOTAL	15.7	7.36	1.94	0	0	16.14	34.98	132.7	72.76	29.6	6.09	8.48
MEAN	.51	.25	.06	0	0	.52	1.17	4.3	2.43	.95	.2	.28
AC-FT	31	15	3.8	0	0	32	69	263	144	59	12	17
MAX	.97	.31	.28	0	0	1.2	1.5	8.5	5.9	2	.62	1.1
MIN	.28	.16	0	0	0	0	.8	1.4	.89	.48	0	0
CAL YR 2003	TOTAL	606.34	MEAN	1.66	MAX	17	MIN	0	AC-FT	1200		
WTR YR 2004	TOTAL	325.75	MEAN	.89	MAX	8.5	MIN	0	AC-FT	646		

MAX DISCH: 9.38 CFS AT 02:45 ON May. 10, 2004 GH 0.99 FT. SHIFT -0.03 FT.  
MAX GH: 0.99 FT. AT 02:45 ON May. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

WILLOW CREEK near CRESTONE, CO

**LOCATION.**--Lat 37°57'29", long 105°41'59", in SE1/4NW1/4 Sec. 20, T.43 N., R.12 E., NMPM, Saguache Co. on right bank, 2 miles SE of Crestone.

**DRAINAGE AREA.**--8.0 mi<sup>2</sup>.

**GAGE.**--Station installed in 1999 with a 2' diameter CMP stilling well with a small steel box structure on top for equipment. Satellite monitoring system installed and put into operation April 1, 1999. Elevation of gage is 7740 ft.

**REMARKS.**--Gage-height record complete and reliable for the year except November 28 - December 2, 2003 when the well was frozen; and December 3, 2003 to March 26, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice November 23-27, 2003. Record good, except for periods of unreliable and missing stage data, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

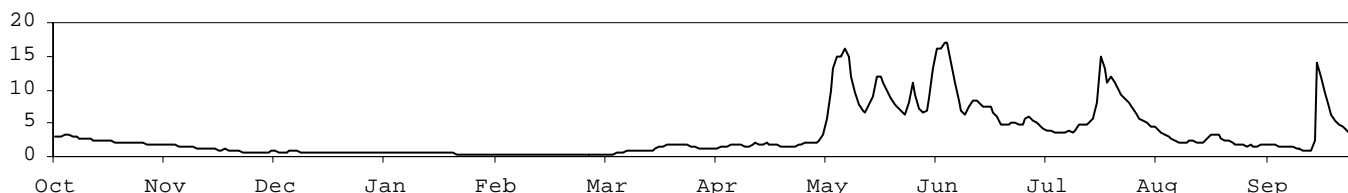
**RATING TABLE.**--WILCRECO2 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3	1.7	.76	.62	.38	.33	1.1	2.2	6.6	5.9	5.7	1.7
2	3	1.7	.76	.64	.36	.37	1.2	2.2	7	5.5	5.3	1.5
3	3	1.7	.74	.64	.37	.4	1.3	2.3	8.8	5	5	1.4
4	3.3	1.7	.72	.6	.38	.43	1.2	3.2	13	4.6	4.5	1.7
5	3.2	1.6	.74	.56	.37	.43	1.4	5.7	16	4.2	4.4	1.9
6	3.1	1.5	.76	.56	.35	.43	1.6	9.9	16	4	4.1	1.9
7	3	1.5	.78	.6	.33	.5	1.5	13	17	3.9	3.6	1.8
8	2.8	1.5	.78	.64	.34	.6	1.7	15	17	3.7	3.4	1.7
9	2.6	1.4	.72	.62	.35	.7	1.9	15	14	3.6	3	1.6
10	2.6	1.2	.64	.6	.34	.9	1.8	16	11	3.5	2.6	1.5
11	2.6	1.1	.64	.58	.33	.88	1.7	15	8.5	3.6	2.4	1.4
12	2.5	1.1	.66	.6	.32	.84	1.6	12	7	3.9	2.2	1.4
13	2.4	1.1	.62	.6	.3	.88	1.6	9.5	6.2	3.7	2.1	1.4
14	2.3	1.1	.64	.6	.31	.9	1.8	7.8	7.4	4	2.2	1.2
15	2.3	1.1	.66	.62	.32	.9	2	6.9	8.3	4.8	2.3	1.1
16	2.3	1	.6	.64	.32	.9	1.9	6.7	8.4	4.9	2.3	1
17	2.3	1	.56	.64	.33	1	1.9	7.7	8.2	4.7	2	.95
18	2.2	1.1	.58	.56	.34	1.2	2	9	7.5	5.1	2	.85
19	2.2	.92	.6	.5	.35	1.5	1.9	12	7.4	5.6	2.2	2.3
20	2.2	.87	.62	.5	.35	1.6	1.7	12	7.4	8.2	2.8	14
21	2	.84	.64	.5	.35	1.7	1.7	11	6.7	15	3.4	12
22	2	.84	.64	.44	.35	1.8	1.6	10	5.9	13	3.4	9.5
23	2.2	.62	.6	.4	.34	1.8	1.5	8.7	4.8	11	3.2	7.5
24	2	.62	.58	.42	.34	1.8	1.4	7.7	4.7	12	2.8	6.2
25	2	.66	.6	.43	.33	1.9	1.6	7.4	4.8	11	2.5	5.3
26	2	.7	.62	.4	.33	1.9	1.6	7	5.1	10	2.3	4.8
27	1.9	.66	.6	.36	.34	1.8	1.7	6.4	5.1	9.3	2	4.4
28	1.9	.62	.58	.37	.35	1.6	1.9	8	4.7	8.7	1.9	4
29	1.8	.66	.54	.38	.34	1.4	2.1	11	4.7	8.1	1.9	3.7
30	1.7	.72	.56	.39	---	1.3	2.1	9.2	5.8	7.2	1.7	3.5
31	1.7	---	.6	.4	---	1.2	---	7.2	---	6.4	1.6	---
TOTAL	74.1	32.83	20.14	16.41	9.91	33.89	50	276.7	255	204.1	90.8	103.2
MEAN	2.4	1.09	.65	.53	.34	1.09	1.7	8.9	8.5	6.6	2.9	3.44
AC-FT	147	65	40	33	20	67	99	549	506	405	180	205
MAX	3.3	1.7	.78	.64	.38	1.9	2.1	16	17	15	5.7	14
MIN	1.7	.62	.54	.36	.3	.33	1.1	2.2	4.7	3.5	1.6	.85
CAL YR 2003	TOTAL	1670.39	MEAN	4.58	MAX	42	MIN	.12	AC-FT	3310		
WTR YR 2004	TOTAL	1167.08	MEAN	3.19	MAX	17	MIN	.3	AC-FT	2310		

MAX DISCH: 21.3 CFS AT 01:15 ON Jun. 8, 2004 GH 3.08 FT. SHIFT -0.19 FT.  
MAX GH: 3.08 FT. AT 01:15 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

SPANISH CREEK near CRESTONE, CO

**LOCATION.**--Lat 37°57'10", long 105°39'42", in NE1/4SW1/4 Sec. 21, T.43 N., R.12 E., NMPM, Saguache Co., on left bank, 3 1/2 miles SE of Crestone.

**DRAINAGE AREA.**--2.4 mi<sup>2</sup>.

**GAGE.**--Station installed in 1999 on a 2' diameter CMP stilling well with a small steel box on top for equipment. Satellite monitoring system was installed and in operation on April 1, 1999. Elevation of gage is 8240 ft.

**REMARKS.**-- Record is complete and reliable except for November 23-December 2, 2003, when the stilling well was frozen; and December 3, 2003 through March 26, 2004 when the station was closed for winter. Record is good except for periods of missing stage data, which is poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--SPACRECO3 USED FROM 01-OCT-2003 TO 30-SEP-2004

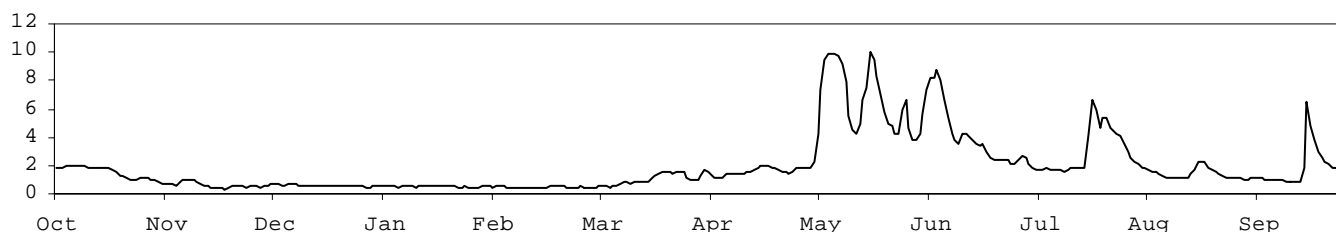
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	.67	.68	.56	.5	.45	1.3	1.8	3.8	2.7	2.5	1.1
2	1.9	.66	.68	.58	.48	.47	1.7	1.8	4.2	2.5	2.2	1
3	1.9	.64	.64	.6	.5	.5	1.5	2.2	5.7	2.1	2.1	.98
4	2	.6	.6	.56	.52	.52	1.3	4.2	7.4	1.8	1.9	1.1
5	2	.8	.62	.5	.5	.5	1.2	7.3	8.2	1.7	1.8	1.2
6	2	1	.64	.48	.47	.49	1.2	9.5	8.2	1.7	1.7	1.1
7	2	1	.66	.52	.45	.52	1.2	9.9	8.7	1.7	1.6	1.1
8	2	1	.66	.54	.47	.56	1.4	9.9	8.1	1.8	1.5	1
9	2	.95	.62	.52	.49	.7	1.4	9.9	6.7	1.7	1.4	.99
10	1.9	.8	.5	.5	.48	.8	1.4	9.8	5.4	1.7	1.3	.99
11	1.9	.66	.5	.48	.47	.78	1.4	9.2	4.3	1.7	1.2	.97
12	1.9	.57	.54	.5	.45	.76	1.4	7.9	3.8	1.7	1.2	.94
13	1.9	.52	.52	.5	.42	.8	1.4	5.5	3.6	1.6	1.2	.92
14	1.8	.47	.54	.5	.44	.8	1.5	4.5	4.3	1.7	1.1	.89
15	1.8	.49	.56	.54	.45	.8	1.6	4.2	4.2	1.9	1.2	.88
16	1.8	.43	.52	.56	.45	.8	1.7	5	4.1	1.8	1.1	.86
17	1.7	.39	.5	.56	.47	.9	1.9	6.6	3.8	1.8	1.1	.85
18	1.5	.35	.52	.54	.5	1.2	2	7.5	3.5	1.8	1.4	.85
19	1.3	.4	.54	.52	.52	1.3	2	10	3.4	1.9	1.7	1.8
20	1.3	.55	.54	.54	.5	1.4	2	9.5	3.5	4.1	2.2	6.5
21	1.1	.55	.56	.54	.5	1.5	1.9	8.3	3	6.6	2.3	4.8
22	1	.55	.58	.5	.5	1.5	1.8	7.1	2.6	6	2.2	3.8
23	1	.5	.54	.45	.48	1.5	1.7	5.8	2.4	4.7	1.9	3
24	1	.45	.5	.48	.48	1.4	1.6	5	2.4	5.3	1.7	2.6
25	1.1	.5	.52	.5	.48	1.5	1.5	4.8	2.4	5.3	1.6	2.3
26	1.1	.52	.54	.47	.48	1.5	1.4	4.3	2.4	4.7	1.4	2.1
27	1.1	.5	.52	.44	.5	1.5	1.5	4.2	2.4	4.4	1.3	1.9
28	.97	.45	.48	.45	.49	1.2	1.8	5.9	2.1	4.2	1.2	1.8
29	.92	.5	.44	.48	.48	1	1.8	6.7	2.1	4.1	1.2	1.6
30	.78	.6	.5	.5	---	.96	1.9	4.6	2.4	3.5	1.1	1.6
31	.71	---	.54	.52	---	.99	---	3.8	---	3	1.1	---
TOTAL	47.28	18.07	17.3	15.93	13.92	29.6	47.4	196.7	129.1	91.2	48.4	51.52
MEAN	1.53	.6	.56	.51	.48	.95	1.6	6.4	4.3	2.9	1.6	1.72
AC-FT	94	36	34	32	28	59	94	390	256	181	96	102
MAX	2	1	.68	.6	.52	1.5	2	10	8.7	6.6	2.5	6.5
MIN	.71	.35	.44	.44	.42	.45	1.2	1.8	2.1	1.6	1.1	.85

CAL YR 2003 TOTAL 943.53 MEAN 2.59 MAX 18 MIN .26 AC-FT 1870  
WTR YR 2004 TOTAL 706.42 MEAN 1.93 MAX 10 MIN .35 AC-FT 1400

MAX DISCH: 11.9 CFS AT 21:45 ON Jun. 7, 2004 GH 3.56 FT. SHIFT -0.12 FT.  
MAX GH: 3.56 FT. AT 21:45 ON Jun. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

08229500 COTTONWOOD CREEK near CRESTONE, CO

LOCATION.--Lat 37°56'51", long 105°39'05", in SE1/4NE1/4 Sec. 22, T.43 N., R.12 E., NMPM, Saguache Co., on left bank, 5 miles SE of Crestone.

DRAINAGE AREA.--5.0 mi<sup>2</sup>.

GAGE.--Electronic shaft encoder and Data Collection Platform (DCP) with satellite transmitter in a 3 ft. by 3 ft. timber shelter and well. This gage is the original gage put in by the USGS in 1936.

REMARKS.--Gage-height record is complete and reliable except for Nov. 18, 23-30, Dec. 1, 2, 2003 when well was frozen, and Dec. 3, 2003 through Mar. 26, 2004 when station was closed for the winter. Record is good except for periods of no gage-height data, which is poor. Station maintained and record developed by Div. III Personnel.

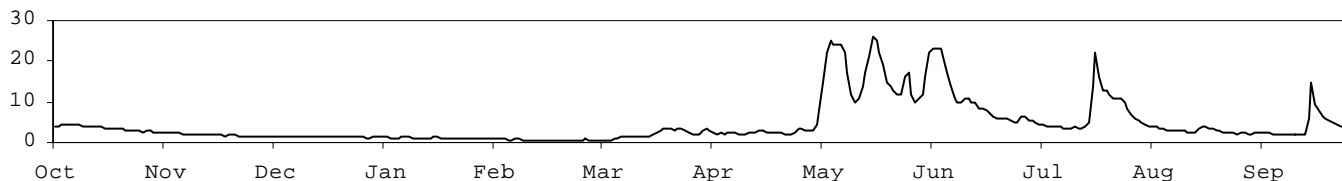
RATING TABLE.--COCRESCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	2.6	1.7	1.4	.9	.6	2.8	3	11	6.2	6	2.4
2	4	2.6	1.7	1.5	.9	.6	3.4	3.1	12	5.6	5.4	2.2
3	4.2	2.7	1.5	1.4	1	.7	2.8	4.3	16	5.2	4.9	2.1
4	4.6	2.4	1.5	1.1	1	.7	2.5	8.1	22	4.9	4.4	2.7
5	4.5	2.3	1.5	1.1	.9	.7	2.2	15	23	4.4	4.1	2.7
6	4.3	2.2	1.6	1.1	.7	.7	2.4	22	23	4.3	4	2.6
7	4.3	2.2	1.7	1.3	.7	.9	2.2	25	23	4.1	3.8	2.4
8	4.2	2.2	1.7	1.3	.8	1	2.6	24	21	3.9	3.5	2.4
9	4	2.2	1.4	1.3	.8	1.3	2.5	24	17	3.8	3.3	2.1
10	3.9	2.2	1.4	1.2	.7	1.3	2.4	24	14	3.8	3.1	2
11	3.9	2.2	1.4	1.2	.7	1.3	2.2	22	11	3.7	2.9	2
12	3.8	2.1	1.4	1.2	.6	1.3	2	17	9.8	3.6	2.8	1.9
13	3.8	2.1	1.4	1.2	.5	1.3	2.1	12	9.6	3.4	2.9	1.8
14	3.7	2	1.6	1.2	.6	1.3	2.4	10	11	3.6	2.8	1.8
15	3.6	2	1.5	1.2	.6	1.3	2.4	11	11	4	2.9	1.8
16	3.6	1.9	1.3	1.3	.6	1.3	2.7	14	10	3.6	2.7	1.8
17	3.5	1.9	1.4	1.3	.6	1.6	2.9	17	9.6	3.6	2.6	1.8
18	3.4	1.5	1.4	1.1	.7	2	3	21	8.5	3.9	2.7	1.8
19	3.2	1.9	1.5	1.1	.7	2.5	2.7	26	8.3	4.7	3.5	6.1
20	3.2	1.9	1.5	1.1	.7	3	2.7	25	8.1	14	3.9	15
21	3.1	1.8	1.6	1.1	.7	3.2	2.7	22	7.3	22	3.7	9.3
22	3.1	1.7	1.5	.9	.7	3.4	2.5	19	6.3	16	3.5	7.8
23	2.9	1.4	1.3	.9	.7	3.2	2.4	15	5.7	13	3.3	6.5
24	2.9	1.4	1.3	1	.7	3	2.2	14	5.8	13	3	5.7
25	2.8	1.6	1.3	1	.7	3.2	2.1	13	5.9	12	2.9	5.2
26	2.6	1.5	1.4	.8	.7	3.2	2.1	12	5.7	11	2.7	4.7
27	2.9	1.4	1.3	.8	.7	3	2.7	12	5.4	11	2.6	4.4
28	2.8	1.4	1.1	.9	.8	2.4	3.3	16	5	11	2.5	4.1
29	2.7	1.5	1.1	1	.7	2	3.3	17	5	10	2.3	4
30	2.6	1.7	1.3	1	---	1.9	3.1	12	6.3	8.3	2.2	4
31	2.5	---	1.3	1	---	2.2	---	10	---	6.9	2.4	---
TOTAL	108.5	58.5	44.6	35	21.1	56.1	77.3	489.5	337.3	228.5	103.3	115.1
MEAN	3.5	2	1.4	1.13	.73	1.81	2.6	15.8	11.2	7.4	3.3	3.8
AC-FT	215	116	88	69	42	111	153	971	669	453	205	228
MAX	4.6	2.7	1.7	1.5	1	3.4	3.4	26	23	22	6	15
MIN	2.5	1.4	1.1	.8	.5	.6	2	3	5	3.4	2.2	1.8
CAL YR 2003	TOTAL	2320.69	MEAN	6.36	MAX	58	MIN	0.42	AC-FT	4600		
WTR YR 2004	TOTAL	1674.8	MEAN	4.58	MAX	26	MIN	0.50	AC-FT	3320		

MAX DISCH: 43 CFS AT 21:30 ON Jul. 20, 2004 GH 2.61 FT. SHIFT 0 FT.  
MAX GH: 2.61 FT. AT 21:30 ON Jul. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

DEADMAN CREEK near CRESTONE, CO

**LOCATION.**--Lat 37°53'05", long 105°38'47", in NE1/4, SE1/4, Sec. 3, T.42 N., R.12 E., NMPM, Saguache Co., on right bank 8 miles SE of Crestone.

**DRAINAGE AREA.**--8.4 mi<sup>2</sup>.

**GAGE.**--Stilling well of 2 foot diameter culvert pipe installed in October 1998. Shelter fastened to top of well is a small, steel, box-like structure. Data Collection Platform (DCP) put inside shelter to collect and transmit gage-heights. Pipe intake between stilling well and 6 foot Parshall Flume. Flume had already existed at the site, and consultant's recording device was there also. Elevation of gage is 7800 ft.

**REMARKS.**--Record is complete and reliable except for November 23, 2003 through March 21, 2004 when the well was frozen. Records are fair because of the low number of measurements, except for periods of no gage height record, which are poor. Station maintained and record developed by Div. III Personnel.

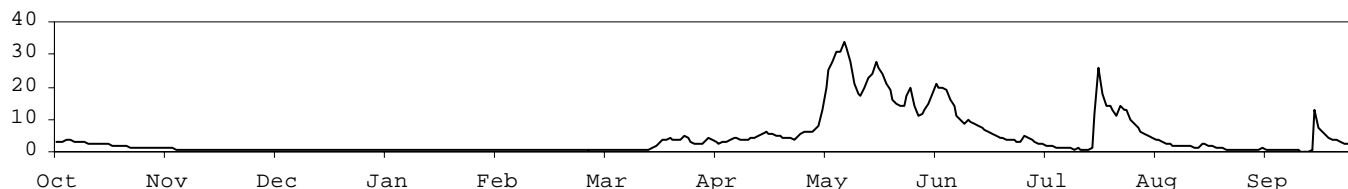
**RATING TABLE.**--DEDCRECO1 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	.93	.54	.48	.42	.48	3.1	6.1	12	4.4	7.2	.61
2	3	.93	.5	.5	.4	.5	4.2	6.5	13	3.6	6.3	.53
3	3.2	.98	.49	.5	.42	.52	3.5	8.2	15	2.9	5.7	.52
4	3.7	.92	.48	.44	.44	.56	3	13	18	2.6	4.8	.68
5	3.5	.82	.5	.4	.42	.56	2.7	20	21	2.3	4.2	1.2
6	3.2	.84	.5	.4	.4	.56	3.2	25	20	2.1	3.8	.88
7	3.1	.84	.54	.44	.38	.6	3.1	28	20	1.8	3.4	.65
8	2.9	.82	.54	.48	.4	.64	4	31	19	1.6	2.9	.59
9	2.8	.77	.5	.46	.42	.68	4.1	31	16	1.4	2.5	.52
10	2.7	.71	.4	.44	.4	.72	4.1	34	14	1.3	2.2	.51
11	2.7	.7	.4	.44	.4	.72	3.7	32	11	1.2	2	.43
12	2.6	.61	.42	.44	.4	.72	3.5	28	9.6	1.1	1.8	.43
13	2.5	.61	.42	.44	.38	.74	3.5	21	8.6	.93	1.8	.41
14	2.3	.61	.44	.44	.4	.78	4.1	18	9.7	.81	1.8	.35
15	2.3	.61	.46	.46	.42	.8	4.3	17	9.2	1.2	1.8	.35
16	2.2	.61	.4	.5	.42	.9	4.9	20	8.8	.88	1.6	.3
17	2.1	.61	.38	.5	.44	1.4	5.3	23	8.1	.87	1.3	.27
18	1.9	.61	.4	.47	.46	1.6	5.9	24	7.1	.83	1.3	.27
19	1.8	.61	.44	.43	.48	2.5	5.5	28	6.5	1.4	2.2	.65
20	1.8	.61	.46	.43	.48	3.7	5.3	26	6	12	2.4	13
21	1.6	.61	.5	.43	.48	4	5.2	24	5.7	26	2.1	7.1
22	1.5	.56	.5	.4	.48	4.3	5	21	5.1	18	1.8	6.4
23	1.4	.5	.46	.38	.48	3.6	4.6	19	4.4	14	1.5	5.2
24	1.4	.5	.43	.4	.48	3.5	4.5	16	4.2	14	1.2	4.4
25	1.3	.54	.45	.42	.48	4	4.1	15	3.9	13	1	3.8
26	1.2	.52	.48	.38	.48	4.8	3.8	14	3.8	11	.83	3.5
27	1.3	.48	.46	.36	.5	4.4	4.5	14	3.5	14	.68	3
28	1.2	.48	.4	.38	.52	3	5.4	17	3.1	13	.7	2.7
29	1.1	.52	.38	.4	.5	2.3	5.9	20	3.1	13	.61	2.7
30	.99	.54	.42	.42	---	2.2	6.4	14	4.9	10	.54	2.7
31	.93	---	.47	.44	---	2.4	---	11	---	8.7	.54	---
TOTAL	67.12	20	14.16	13.5	12.78	58.18	130.4	624.8	294.3	199.92	72.5	64.65
MEAN	2.17	.67	.46	.44	.44	1.88	4.4	20.2	9.8	6.45	2.34	2.15
AC-FT	133	40	28	27	25	115	259	1240	584	397	144	128
MAX	3.7	.98	.54	.5	.52	4.8	6.4	34	21	26	7.2	13
MIN	.93	.48	.38	.36	.38	.48	2.7	6.1	3.1	.81	.54	.27
CAL YR 2003	TOTAL	2237.6	MEAN	6.1	MAX	76	MIN	0	AC-FT	4440		
WTR YR 2004	TOTAL	1572.31	MEAN	4.3	MAX	34	MIN	.27	AC-FT	3120		

MAX DISCH: 38.8 CFS AT 00:30 ON Jul. 21, 2004 GH 1.34 FT. SHIFT +0.01 FT  
MAX GH: 1.34 FT. AT 00:30 ON Jul. 21, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

LITTLE SPRING CREEK at MEDANO RANCH NEAR MOSCA, CO

**LOCATION.**--Lat 37°42'49", long 105°38'55", in Alamosa county, in the NE¼SW¼, sec. 15, T.40 N., R.12 E., New Mexico Principal Meridian.

**DRAINAGE AREA AND PERIOD OF RECORD.**--0.2 mi<sup>2</sup>. Flow primarily due to groundwater accretions. First record produced for water year 2000.

**GAGE.**--Shelter and stilling well made of 30-inch smooth steel pipe, connected to 2-foot Parshall flume by small intake pipe. Flume is in fair to good condition. Recorder is Stevens data logger. Outside staff gage attached to flume.

**REMARKS.**--Record was complete and reliable except for October 17, 2003 to April 5, 2004 when there was missing datalogger record. Record good for periods of gage-height record, poor for the other periods. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--LITSPGCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

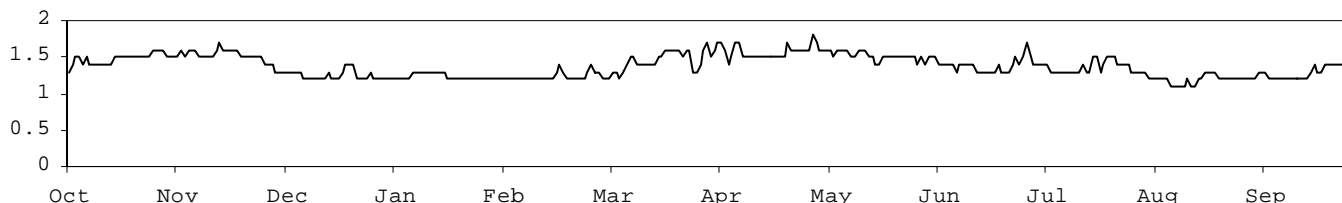
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	1.3	1.2	1.2	1.2	1.5	1.7	1.4	1.5	1.3	1.2
2	1.4	1.6	1.3	1.2	1.2	1.2	1.6	1.6	1.5	1.4	1.3	1.2
3	1.5	1.5	1.3	1.2	1.2	1.2	1.7	1.6	1.5	1.4	1.3	1.2
4	1.5	1.6	1.3	1.2	1.2	1.3	1.7	1.6	1.5	1.4	1.2	1.3
5	1.4	1.6	1.3	1.2	1.2	1.3	1.6	1.6	1.4	1.4	1.2	1.3
6	1.5	1.6	1.3	1.2	1.2	1.2	1.4	1.5	1.4	1.4	1.2	1.3
7	1.4	1.5	1.2	1.3	1.2	1.3	1.5	1.6	1.4	1.3	1.2	1.2
8	1.4	1.5	1.2	1.3	1.2	1.4	1.7	1.6	1.4	1.3	1.2	1.2
9	1.4	1.5	1.2	1.3	1.2	1.5	1.7	1.6	1.4	1.3	1.2	1.2
10	1.4	1.5	1.2	1.3	1.2	1.5	1.5	1.6	1.3	1.3	1.1	1.2
11	1.4	1.5	1.2	1.3	1.2	1.4	1.5	1.5	1.4	1.3	1.1	1.2
12	1.4	1.6	1.2	1.3	1.2	1.4	1.5	1.5	1.4	1.3	1.1	1.2
13	1.4	1.7	1.2	1.3	1.2	1.4	1.5	1.6	1.4	1.3	1.1	1.2
14	1.5	1.6	1.3	1.3	1.2	1.4	1.5	1.6	1.4	1.3	1.1	1.2
15	1.5	1.6	1.2	1.3	1.2	1.4	1.5	1.6	1.4	1.3	1.2	1.2
16	1.5	1.6	1.2	1.3	1.2	1.4	1.5	1.5	1.3	1.4	1.1	1.2
17	1.5	1.6	1.2	1.2	1.3	1.5	1.5	1.5	1.3	1.3	1.1	1.2
18	1.5	1.6	1.3	1.2	1.4	1.5	1.5	1.4	1.3	1.3	1.2	1.2
19	1.5	1.5	1.4	1.2	1.3	1.6	1.5	1.4	1.3	1.5	1.2	1.3
20	1.5	1.5	1.4	1.2	1.2	1.6	1.5	1.5	1.3	1.5	1.3	1.4
21	1.5	1.5	1.4	1.2	1.2	1.6	1.5	1.5	1.3	1.3	1.3	1.3
22	1.5	1.5	1.2	1.2	1.2	1.6	1.5	1.5	1.4	1.4	1.3	1.3
23	1.5	1.5	1.2	1.2	1.2	1.6	1.7	1.5	1.3	1.5	1.3	1.4
24	1.5	1.5	1.2	1.2	1.2	1.5	1.6	1.5	1.3	1.5	1.2	1.4
25	1.6	1.5	1.2	1.2	1.2	1.6	1.6	1.5	1.3	1.5	1.2	1.4
26	1.6	1.4	1.3	1.2	1.3	1.6	1.6	1.5	1.4	1.4	1.2	1.4
27	1.6	1.4	1.2	1.2	1.4	1.3	1.6	1.5	1.5	1.4	1.2	1.4
28	1.6	1.4	1.2	1.2	1.3	1.3	1.6	1.5	1.4	1.4	1.2	1.4
29	1.5	1.3	1.2	1.2	1.3	1.4	1.6	1.5	1.5	1.4	1.2	1.5
30	1.5	1.3	1.2	1.2	---	1.6	1.8	1.4	1.7	1.3	1.2	1.4
31	1.5	---	1.2	1.2	---	1.7	---	1.5	---	1.3	1.2	---
TOTAL	45.8	45.5	38.7	38.2	35.7	44.5	47	47.5	41.8	42.6	37.2	38.5
MEAN	1.5	1.5	1.3	1.2	1.2	1.4	1.6	1.5	1.4	1.4	1.2	1.3
AC-FT	91	90	77	76	71	88	93	94	83	84	74	76
MAX	1.6	1.7	1.4	1.3	1.4	1.7	1.8	1.7	1.7	1.5	1.3	1.5
MIN	1.3	1.3	1.2	1.2	1.2	1.2	1.4	1.4	1.3	1.3	1.1	1.2

CAL YR	2003	TOTAL	524.85	MEAN	1.44	MAX	1.9	MIN	.82	AC-FT	1040
WTR YR	2004	TOTAL	503	MEAN	1.37	MAX	1.8	MIN	1.1	AC-FT	998

MAX DISCH: 2.16 CFS AT 01:00 ON Apr. 30, 2004 GH 0.47 FT. SHIFT -0.04 FT.  
MAX GH: 0.47 FT. AT 01:00 ON Apr. 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY

BIG SPRING CREEK at MEDANO RANCH near GREAT SAND DUNES NATIONAL MONUMENT

**LOCATION.**--Lat 37°44'03", long 105°39'50", in NE ¼ NW ¼ Sec. 9, T.40 N., R.12 E., NMPM, Alamosa Co., on left bank approximately ¼ mile above Los Ojos Diversion.

**DRAINAGE AREA AND PERIOD OF RECORD.**--0.3 mi<sup>2</sup>. First record produced in 1999. Flow primarily due to groundwater acretions.

**GAGE.**--Two and one-half foot diameter smooth pipe serves as stilling well and instrument shelter. Top of shelter a couple inches above ground level. Recorder is Stevens data logger. Intake pipe attached to stilling well and to 4-foot Parshall Flume. Staff gage attached to flume. Elevation of gage is 7580 ft.

**REMARKS.**--Record is complete and reliable for the water year, except for the following periods: December 13, 2003 through March 31, 2004 when the well was frozen and/or the datalogger was not working correctly; and April 5 through June 25, July 4 through August 4, 2004 when there was missing data. Stage-discharge relation affected by ice November 23, 24, 27-29, and December 4, 5, 10, 11, 2003. Flume was submerged during all other periods. Record good, except for periods described above, which are poor. Station maintained and record developed by Div. III Personnel.

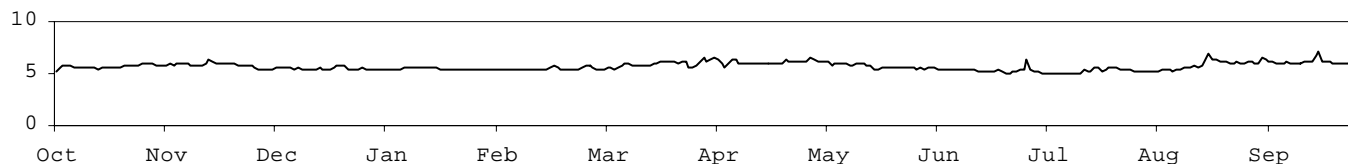
**RATING TABLE.**--BIGSPGCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.8	5.4	5.4	5.4	5.4	6.1	6.4	5.4	5.4	5.2	6.2
2	5.5	5.9	5.5	5.4	5.4	5.4	6.4	6.2	5.6	5.1	5.2	5.9
3	5.8	5.8	5.5	5.4	5.4	5.4	6.5	6.2	5.6	5.1	5.2	5.9
4	5.8	5.9	5.5	5.4	5.4	5.6	6.4	6.2	5.6	5	5.2	6.6
5	5.7	6	5.5	5.4	5.4	5.6	6	6.2	5.4	5	5.1	6.4
6	5.6	6	5.5	5.4	5.4	5.4	5.6	5.8	5.4	5	5.2	6.2
7	5.5	5.9	5.4	5.6	5.4	5.6	6	6	5.4	5	5.3	6.1
8	5.5	5.8	5.5	5.6	5.4	5.8	6.4	6	5.4	5	5.3	5.9
9	5.5	5.8	5.4	5.6	5.4	6	6.4	6	5.4	5	5.3	5.9
10	5.5	5.7	5.4	5.6	5.4	6	6	6	5.4	5	5.2	6
11	5.5	5.8	5.4	5.6	5.4	5.8	6	5.8	5.4	5	5.3	6.1
12	5.5	5.9	5.4	5.6	5.4	5.8	6	5.8	5.4	5	5.4	6
13	5.4	6.3	5.4	5.6	5.4	5.8	6	6	5.4	5	5.5	6
14	5.6	6.1	5.6	5.6	5.4	5.8	6	6	5.4	5	5.5	6
15	5.6	5.9	5.4	5.6	5.4	5.8	6	6	5.4	5	5.6	6
16	5.5	5.9	5.4	5.6	5.4	5.8	6	5.8	5.2	5.4	5.7	6.1
17	5.6	6	5.4	5.4	5.6	6	6	5.8	5.2	5.2	5.6	6.1
18	5.6	6	5.6	5.4	5.8	6	6	5.4	5.2	5.2	5.8	6.1
19	5.6	5.9	5.8	5.4	5.6	6.2	6	5.4	5.2	5.6	6.1	6.7
20	5.7	5.9	5.8	5.4	5.4	6.2	6	5.6	5.2	5.6	6.9	7.1
21	5.7	5.8	5.8	5.4	5.4	6.2	6	5.6	5.2	5.2	6.3	6.2
22	5.7	5.8	5.4	5.4	5.4	6.2	6	5.6	5.4	5.4	6.3	6.2
23	5.7	5.8	5.4	5.4	5.4	6.2	6.4	5.6	5.2	5.6	6.2	6.2
24	5.7	5.8	5.4	5.4	5.4	6	6.2	5.6	5	5.6	6.1	6
25	5.9	5.8	5.4	5.4	5.4	6.2	6.2	5.6	5	5.6	6.1	6
26	6	5.6	5.6	5.4	5.6	6.2	6.2	5.6	5.1	5.4	5.9	6
27	6	5.4	5.4	5.4	5.8	5.6	6.2	5.6	5.2	5.4	5.9	6
28	5.9	5.4	5.4	5.4	5.8	5.6	6.2	5.6	5.3	5.4	6.1	6
29	5.8	5.4	5.4	5.4	5.6	5.8	6.2	5.6	5.3	5.4	6	6.1
30	5.7	5.4	5.4	5.4	---	6.2	6.6	5.4	6.4	5.2	6	6.1
31	5.8	---	5.4	5.4	---	6.6	---	5.6	---	5.2	6.1	---
TOTAL	175.1	174.5	169.8	169.4	158.6	182.2	184	180	160.7	162	176.6	184.1
MEAN	5.7	5.8	5.5	5.5	5.5	5.9	6.1	5.8	5.4	5.2	5.7	6.1
AC-FT	347	346	337	336	315	361	365	357	319	321	350	365
MAX	6	6.3	5.8	5.6	5.8	6.6	6.6	6.4	6.4	5.6	6.9	7.1
MIN	5.2	5.4	5.4	5.4	5.4	5.4	5.6	5.4	5	5	5.1	5.9
CAL YR 2003	TOTAL	2072.8	MEAN	5.68	MAX	7.4	MIN	4.4	AC-FT	4110		
WTR YR 2004	TOTAL	2077	MEAN	5.67	MAX	7.1	MIN	5	AC-FT	4120		

MAX DISCH: 8.91 CFS AT 21:45 ON Sep. 19, 2004 GH 0.90 FT. SHIFT -0.21 FT. (c)  
MAX GH: 1.30 FT. AT 12:00 ON Nov. 24, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY, CO

08230500 CARNERO CREEK NEAR LA GARITA, CO

**LOCATION.**--Lat 37°51'35", long 106°19'08", in SW¼NE¼ sec 28, T.42 N., R.6 E., (projected) Saguache County, Hydrologic Unit 13010004, on left bank 4.5 mi. northwest of La Garita and 6.6 mi. downstream from North Fork.

**DRAINAGE AREA.**--117 mi<sup>2</sup>.

**GAGE.**--Water-stage recorder and Sutron Satellite system in a 42" diameter well and shelter. Datum of gage is 8,150 ft. from topographic map.

**REMARKS.**--Record is complete and reliable except for the following periods: November 17, 20, 23-30, and Dec. 1-9, 2003, when ice in the well was affecting the floats. December 10, 2003 to March 26, 2004, when the station was closed for the winter. Gage-height was affected by ice November 6, 7, 16, 18, 19, 21, 22, 2003, and April 24, 2004. Record is good, except for periods of missing and ice-affected record, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--CARLAGCO15 USED FROM 01-OCT-2003 TO 30-SEP-2004

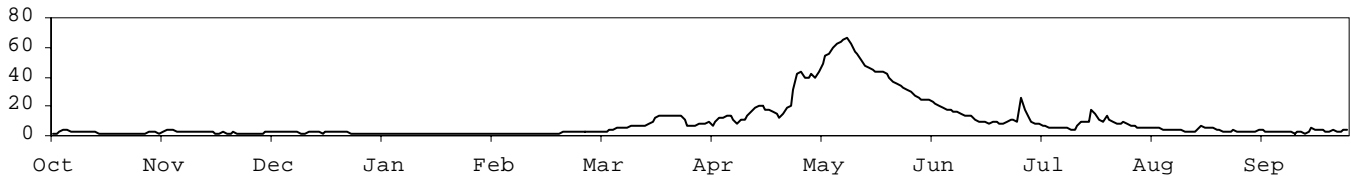
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.3	2.5	1.6	1.3	2.5	8.5	40	26	18	6.2	2.9
2	1.7	3.4	2.7	1.8	1.2	2.5	8.7	42	24	12	6	2.8
3	2.2	4.4	2.5	1.6	1.3	2.6	9	40	25	9.2	6	2.8
4	3.6	3.4	2.5	1	1.4	2.8	7.3	44	24	8.3	5.6	3.2
5	3.5	2.2	2.6	.8	1.3	2.7	9.5	49	23	7.8	5.4	4.4
6	3	2.1	2.7	.9	1.2	3.5	12	54	22	7	5.7	3.7
7	3	2.5	2.8	1.1	1.1	4.4	12	56	21	6.3	5.6	3.1
8	2.7	3	2.6	1.3	1.2	5	14	60	19	6.1	5.1	2.9
9	2.5	2.4	2.4	1.2	1.1	6	13	63	18	5.9	4.6	2.7
10	2.3	2.8	2	1.2	1.1	6	11	64	17	5.6	4.2	2.4
11	2.3	2.7	2	1.2	1.2	6	8.8	65	16	5.5	3.8	2.8
12	2.2	2.2	2.1	1.2	1	6.4	11	67	16	5.2	3.5	2.7
13	2.2	3.1	2.2	1.2	1	6.4	11	63	15	5	3.5	2.3
14	1.9	2.2	2.2	1.3	1.2	6.4	13	57	14	4.5	3.4	2.5
15	1.9	2.3	2.1	1.4	1.3	6.4	16	55	14	4.6	3.2	2
16	2	1.9	2	1.6	1.3	6.8	19	51	13	6.2	3.2	2.1
17	2	1.9	2.1	1.5	1.4	8.2	20	48	11	9.9	3	2.1
18	2	2.1	2.2	1.3	1.6	10	21	46	10	10	3.3	1.9
19	2	2	2.3	1.3	1.9	12	17	45	9.5	9.2	5.2	2.6
20	2	2	2.2	1.4	1.9	14	17	44	8.9	18	6.6	5.8
21	1.9	2.1	2.4	1.2	2	14	16	43	8.7	15	5.1	4.7
22	1.9	1.9	2.4	1.1	2.1	14	15	44	10	11	6	4
23	2	1.4	2.1	1.1	2.2	13	12	42	9.6	9.9	5.3	3.7
24	1.9	1.5	1.9	1.2	2.3	13	15	39	8.4	14	4.2	3.3
25	1.9	1.8	1.9	1.2	2.4	14	19	37	8	11	3.7	3.3
26	1.6	1.8	2	1.1	2.3	14	21	35	9.6	9.2	3.3	3.4
27	1.9	1.6	1.4	1.1	2.6	11	31	34	11	8.7	3	3.3
28	2.1	1.6	1.4	1.3	2.5	7.4	42	32	11	8.6	3.3	3.2
29	2.1	1.9	1.3	1.5	2.4	6.6	44	31	9.9	9.1	3.5	3.7
30	2.1	2.3	1.5	1.5	---	6.5	40	30	26	7.9	3	3.8
31	2	---	1.6	1.5	---	7.5	---	27	---	6.9	2.9	---
TOTAL	68.1	68.8	66.6	39.7	46.8	241.6	513.8	1447	458.6	275.6	136.4	94.1
MEAN	2.2	2.3	2.2	1.28	1.6	7.8	17.1	47	15.3	8.9	4.4	3.1
AC-FT	135	136	132	79	93	479	1020	2870	910	547	271	187
MAX	3.6	4.4	2.8	1.8	2.6	14	44	67	26	18	6.6	5.8
MIN	1.6	1.4	1.3	.8	1	2.5	7.3	27	8	4.5	2.9	1.9

CAL YR	2003	TOTAL	1195.39	MEAN	3.28	MAX	17	MIN	0	AC-FT	2370
WTR YR	2004	TOTAL	3457.1	MEAN	9.45	MAX	67	MIN	.8	AC-FT	6860

MAX DISCH: 89.3 CFS AT 14:15 ON May. 9, 2004 GH 2.90 FT. SHIFT 0.04 FT.  
MAX GH: 2.90 FT. AT 14:15 ON May. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

CLOSED BASIN IN SAN LUIS VALLEY,

08231000 LA GARITA CREEK NEAR LA GARITA, CO

**LOCATION.**--Lat 37°48'48", long 106°19'05", in NW¼SE¼ sec. 9, T.41 N., R.6 E., Saguache County, Hydrologic Unit 13010004, on right bank 4.5 mi. downstream from Little La Garita Creek and 4.5 mi. southwest of La Garita, Co.

**DRAINAGE AREA AND PERIOD OF RECORD.**--61 mi<sup>2</sup>. Non-recording station Apr. 01, 1919-June 23, 1927. Recording station from June 1927-Oct. 1998, at which time a Data Logger was installed. April 1999 satellite telemetry system installed. Station at various sites all within ¼ mile of present site.

**GAGE.**--Graphic water-stage recorder and satellite-monitored data collection platform in 4-foot diameter CMP shelter and well. Altitude of gage is 8,030 ft from topographic map.

**REMARKS.**--Record is complete and reliable except for the following periods; Nov. 23-Dec. 9, 2003 when the well was frozen, and Dec. 10, 2003 to March 19, 2004 when the station was closed for the winter. The gage-height was not representative of the flow May 5-12, 14-24, 2004. Stage-discharge relation was affected by ice Nov. 16-22, 2003. Record is good, except for periods of missing gage heights, ice-affected record, and periods when the gage-height was not representative of the flow, which should be considered poor. Station maintained and record developed by Div. III Hydrographic Staff.

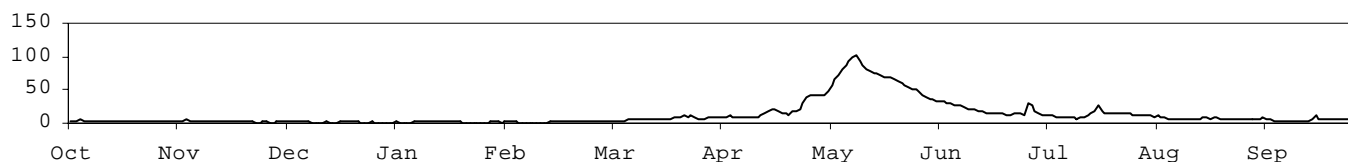
**RATING TABLE.**--LAGLAGCO12 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	3.2	2.1	1.5	1.5	2.5	8.2	41	39	27	12	4.9
2	2.7	3.7	2.3	1.8	1.8	2.6	9	41	37	17	11	4.7
3	3.5	4.6	1.9	1.5	1.8	3	8	42	35	14	12	5
4	5.1	2.9	1.9	1.2	1.8	3	7.9	47	34	13	11	6.5
5	4.1	1.7	1.7	1	1.6	2.9	10	58	32	12	10	7.8
6	3.9	2.3	1.9	1.4	1.3	3.5	11	66	32	11	11	5.8
7	3.4	3.1	2.1	1.9	1.3	4	9.2	72	31	11	10	4.9
8	3.1	3.6	1.8	1.8	1.5	5	10	82	29	10	8.9	4.4
9	2.7	3.2	1.5	1.7	1.4	5.4	9.2	88	28	9.7	7.5	4.3
10	2.7	3.2	1.4	1.7	1.4	5.4	8.3	94	28	9.3	7	4.4
11	2.7	3.2	1.4	1.7	1.5	5.4	8	98	26	8.9	6.4	4.3
12	2.7	2.5	1.5	1.7	1.3	6	8.2	102	24	8.4	6	4
13	2.6	3.7	1.6	1.7	1.3	6	8.3	92	22	8.2	5.9	4
14	2.6	2.9	1.5	1.8	1.5	6	9.9	86	21	7.4	5.9	4
15	2.5	2.7	1.4	2	1.6	6.8	11	82	20	8	5.9	3.9
16	2.7	2.3	1.4	2.1	1.6	6.8	14	78	19	10	6	4
17	2.7	2.4	1.6	1.9	1.8	7	17	76	17	13	5.7	4
18	2.7	2.5	1.7	1.6	2	7.2	21	74	16	14	6.2	4
19	2.7	2.3	1.7	1.6	2.2	7.2	21	72	15	17	8.5	5.3
20	2.7	2	1.7	1.7	2	7.5	19	70	14	27	8.2	11
21	2.7	2.1	1.8	1.5	2.1	7.9	16	68	14	17	6.5	6.4
22	2.6	1.8	1.6	1.3	2.1	8.5	15	70	16	15	8.8	5.3
23	2.7	1.5	1.4	1.3	2.1	9.6	12	66	14	14	8.1	5.4
24	2.7	1.3	1.3	1.5	2.3	11	19	64	13	16	6.2	5.2
25	2.6	1.7	1.4	1.5	2.3	9	17	60	13	15	5.9	5.1
26	2.1	1.8	1.6	1.4	2.1	11	20	57	14	14	5.5	5.2
27	2.5	1.5	1.3	1.3	2.3	10	29	54	15	14	5.3	5
28	2.9	1.5	1.3	1.5	2.3	7.1	38	50	14	14	5.9	4.7
29	2.7	1.9	1.2	1.7	2.2	6.8	43	51	13	14	5.5	5.3
30	2.7	2.1	1.3	1.7	---	7.1	41	47	31	13	4.8	5.3
31	2.5	---	1.5	1.7	---	7.6	---	42	---	12	4.7	---
TOTAL	89	75.2	49.8	49.7	52	198.8	478.2	2090	676	413.9	232.3	154.1
MEAN	2.9	2.5	1.6	1.6	1.8	6.4	15.9	67	23	13.4	7.5	5.1
AC-FT	177	149	99	99	103	394	949	4150	1340	821	461	306
MAX	5.1	4.6	2.3	2.1	2.3	11	43	102	39	27	12	11
MIN	2.1	1.3	1.2	1	1.3	2.5	7.9	41	13	7.4	4.7	3.9
CAL YR 2003	TOTAL	1408.48	MEAN	3.86	MAX	23	MIN	.98	AC-FT	2790		
WTR YR 2004	TOTAL	4559	MEAN	12.5	MAX	102	MIN	1	AC-FT	9040		

MAX DISCH: 114 CFS AT 01:00 ON May. 12, 2004 GH 2.92 FT. SHIFT 0.13 FT.  
MAX GH: 2.92 FT. AT 01:00 ON May. 12, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08235250 ALAMOSA RIVER ABOVE WIGHTMAN FORK NEAR JASPER, CO

**LOCATION.**--Lat 37°24'09", long 106°31'17", in SE¼SW¼ sec.35, T.37 N., R.4 E., Rio Grande Co. Hydrologic Unit 13010002, Rio Grande National Forest, on left bank 150' upstream from Wightman Fork, 1.9 mi downstream from Bitter Creek, 4.1 mi west of Jasper, and 4.2 mi southeast of Summitville.

**DRAINAGE AREA AND PERIOD OF RECORD.**--37.8 mi<sup>2</sup>.

**GAGE.**--Shelter is a steel building 4 by 4 by 8 ft. Shelter houses DCP (data collection platform) connected to Sutron Accubar and Hydrolab for stage and water-quality data collection. DCP stores data and is monitored by satellite.

**REMARKS.**--Record complete for period of operation, June 2 to September 30, 2004, except for June 2-10, 2004, when the Accubar data was not reliable due to a log jam that had damaged the orifice line. June 1 was estimated so that the record would show a full month for June. Record fair, except that for periods of missing gage-height record, which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--ALAWIGCO04 USED FROM 01-JUN-2004 TO 30-SEP-2004

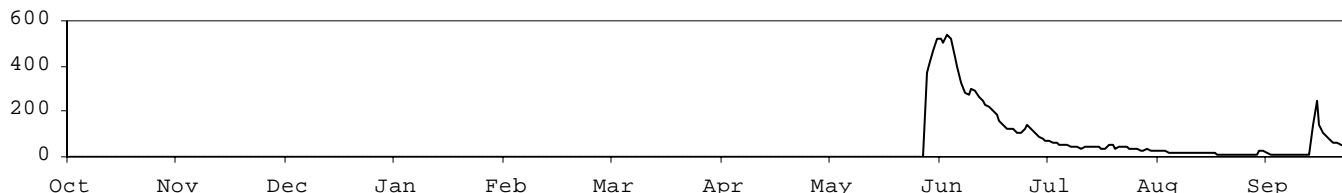
DISCHARGE, IN CFS, WATER YEAR JUNE 2004 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	370	121	29	8.5
2	-	-	-	-	-	-	-	-	410	103	30	8.2
3	-	-	-	-	-	-	-	-	470	90	33	7.8
4	-	-	-	-	-	-	-	-	520	80	28	28
5	-	-	-	-	-	-	-	-	520	73	25	26
6	-	-	-	-	-	-	-	-	500	72	27	16
7	-	-	-	-	-	-	-	-	540	65	29	13
8	-	-	-	-	-	-	-	-	520	60	24	11
9	-	-	-	-	-	-	-	-	440	57	22	10
10	-	-	-	-	-	-	-	-	400	54	21	10
11	-	-	-	-	-	-	-	-	324	52	19	9.9
12	-	-	-	-	-	-	-	-	280	48	17	9.3
13	-	-	-	-	-	-	-	-	273	47	16	9
14	-	-	-	-	-	-	-	-	301	43	16	8.6
15	-	-	-	-	-	-	-	-	291	38	16	8.2
16	-	-	-	-	-	-	-	-	262	40	14	8
17	-	-	-	-	-	-	-	-	246	45	14	7.8
18	-	-	-	-	-	-	-	-	228	43	15	7.9
19	-	-	-	-	-	-	-	-	220	44	14	140
20	-	-	-	-	-	-	-	-	203	40	14	244
21	-	-	-	-	-	-	-	-	181	39	15	145
22	-	-	-	-	-	-	-	-	157	37	15	107
23	-	-	-	-	-	-	-	-	138	57	13	87
24	-	-	-	-	-	-	-	-	126	49	11	75
25	-	-	-	-	-	-	-	-	124	38	10	66
26	-	-	-	-	-	-	-	-	126	43	9.7	58
27	-	-	-	-	-	-	-	-	110	46	9.2	52
28	-	-	-	-	-	-	-	-	108	44	9	47
29	-	-	-	-	-	-	-	-	122	39	8.7	50
30	-	-	-	-	---	-	-	-	145	35	8.6	48
31	-	---	-	-	---	-	---	-	---	32	8.6	---
TOTAL	-	-	-	-	-	-	-	-	8655	1674	540.8	1326.2
MEAN	-	-	-	-	-	-	-	-	289	54	17.4	44.2
AC-FT	-	-	-	-	-	-	-	-	17170	3320	1070	2630
MAX	-	-	-	-	-	-	-	-	540	121	33	244
MIN	-	-	-	-	-	-	-	-	108	32	8.6	7.8

JUN - SEP 2004 TOTAL 12196 MEAN 100 MAX 540 MIN 7.8 AC-FT 24190

MAX DISCH: 600 CFS ON Jun. 7, 2004 (estimated)  
MAX GH: 4.61 FT. AT 18:30 ON Sep. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08235270 WIGHTMAN FORK BELOW CROPSY CREEK, NEAR SUMMITVILLE, CO

**LOCATION.**--Lat. 37°25'45", long 106°35'03", in NW¼NW¼ sec. 29, T.37N., R.4 E., Rio Grande Co., Hydrologic Unit 13010002, on left bank about 200 ft. downstream from Cropsy Creek, and 0.25 mi east of Summitville.

**DRAINAGE AREA AND PERIOD OF RECORD.**--4.44 mi<sup>2</sup>. July 1995 to current year (seasonal records only).

**GAGE.**--Shelter is 4x4x8 foot steel building. Sutron Accubar is used to register stream water levels. Satellite-monitored data collection platform (DCP) is used to store and transmit data. New solar panels installed during year. Elevation of gage is 11,120 ft. above sea level.

**REMARKS.**--Record is complete for period of operation, May 18 to September 30, 2004, except for the following; May 18, 2004, when only a partial day of record was available. Record fair. Station maintained and record developed by Division III Staff.

**RATING TABLE.**--WFKCROCO04 USED FROM 18-MAY-2004 TO 30-SEP-2004

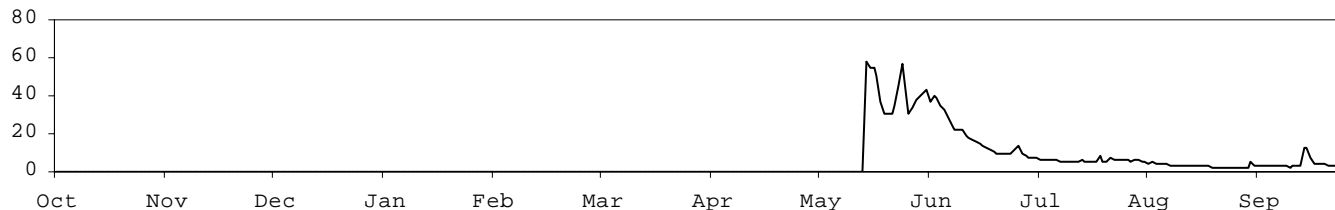
DISCHARGE, IN CFS, WATER YEAR MAY 18, 2004 TO SEPTEMBER 30, 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	38	9.4	5.2	2.4
2	-	-	-	-	-	-	-	-	40	8.4	6	2.5
3	-	-	-	-	-	-	-	-	41	7.7	6.3	2.6
4	-	-	-	-	-	-	-	-	43	7.1	5.2	5.1
5	-	-	-	-	-	-	-	-	37	7.1	4.8	3.6
6	-	-	-	-	-	-	-	-	40	6.8	4.5	3
7	-	-	-	-	-	-	-	-	39	6.4	5.3	2.8
8	-	-	-	-	-	-	-	-	35	6.1	4.3	2.7
9	-	-	-	-	-	-	-	-	33	6.1	4	2.8
10	-	-	-	-	-	-	-	-	28	6.2	3.9	2.8
11	-	-	-	-	-	-	-	-	24	6	3.7	2.9
12	-	-	-	-	-	-	-	-	22	5.7	3.5	2.7
13	-	-	-	-	-	-	-	-	22	5.5	3.4	2.8
14	-	-	-	-	-	-	-	-	22	5.4	3.4	2.8
15	-	-	-	-	-	-	-	-	19	4.8	3.4	2.6
16	-	-	-	-	-	-	-	-	18	4.9	3.3	2.8
17	-	-	-	-	-	-	-	-	17	5.3	3.2	2.7
18	-	-	-	-	-	-	-	58	16	6.1	3.2	2.9
19	-	-	-	-	-	-	-	55	15	5.4	3.1	13
20	-	-	-	-	-	-	-	55	14	5.2	3	13
21	-	-	-	-	-	-	-	51	13	5	3.1	6.9
22	-	-	-	-	-	-	-	37	12	4.8	2.8	4.6
23	-	-	-	-	-	-	-	31	11	8.2	2.7	4.1
24	-	-	-	-	-	-	-	31	10	5.6	2.5	3.8
25	-	-	-	-	-	-	-	31	9.9	5	2.5	3.7
26	-	-	-	-	-	-	-	35	9.9	7.1	2.5	3.6
27	-	-	-	-	-	-	-	45	9.1	6	2.4	3.3
28	-	-	-	-	-	-	-	57	9.4	6.4	2.4	3.4
29	-	-	-	-	-	-	-	39	12	6.2	2.4	3.6
30	-	-	-	-	-	-	-	31	14	6.8	2.5	3.7
31	-	---	-	-	---	-	---	34	---	5.8	2.5	---
TOTAL	-	-	-	-	-	-	-	590	673.3	192.5	111	119.2
MEAN	-	-	-	-	-	-	-	19	22.4	6.2	3.6	4
AC-FT	-	-	-	-	-	-	-	1170	1340	382	220	236
MAX	-	-	-	-	-	-	-	58	43	9.4	6.3	13
MIN	-	-	-	-	-	-	-	-	9.1	4.8	2.4	2.4

May 18-Sep 30 2004 TOTAL 1686 MEAN 12.4 MAX 58 MIN 2.4 AC-FT 3340

MAX DISCH: 118 CFS AT 17:00 ON May. 28, 2004 GH 5.74 FT. SHIFT 0 FT.  
MAX GH: 5.74 FT. AT 17:00 ON May. 28, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08235290 WIGHTMAN FORK AT MOUTH near Jasper, CO

**LOCATION.**--Lat. 37°24'14", long 106°31'16", in SE¼SW¼ sec. 35, T.37 N., R.4 E., Rio Grande County, Hydrologic Unit 13010002, on right bank 25' downstream from bridge on Forest Development Road No. 250, about 300' upstream from confluence with Alamosa River, and 4.3 mi southwest of Jasper.

**DRAINAGE AREA AND PERIOD OF RECORD.**--16.1 mi<sup>2</sup>. July 1995 to current year (seasonal record only).

**GAGE.**--Shelter is a 4 by 4 by 8 ft. steel building for this station and includes equipment for the station "Alamosa River above Wightman Fork". Equipment for this station includes a DCP (data collection platform) which collects gage-height data from a Sutron Accubar and water quality data from a Hydrolab. The DCP is satellite monitored.

**REMARKS.**--Record is complete for the period of operation, May 4 to September 30 in 2004 water year, except for May 4 when there was missing data. Record fair to good. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--WFKMOUCO04 USED FROM 04-MAY-2004 TO 30-SEP-2004

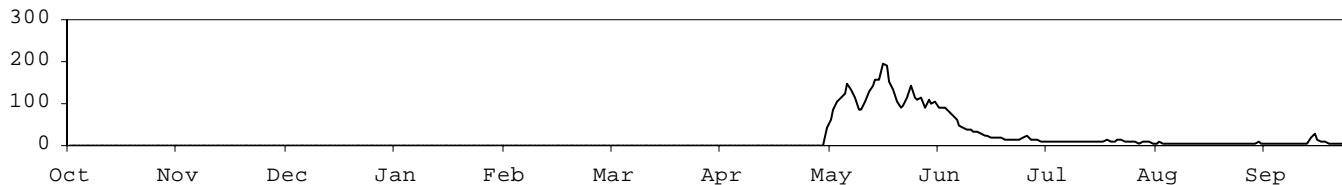
DISCHARGE, IN CFS, WATER YEAR MAY 4, 2004 TO SEPTEMBER 30, 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	91	16	7.1	3.7
2	-	-	-	-	-	-	-	-	111	13	8.2	3.6
3	-	-	-	-	-	-	-	-	100	12	9.6	3.6
4	-	-	-	-	-	-	-	45	103	11	7.5	7.3
5	-	-	-	-	-	-	-	62	92	11	6.4	6.1
6	-	-	-	-	-	-	-	84	91	10	6.1	4.6
7	-	-	-	-	-	-	-	105	92	9.6	8.9	4.4
8	-	-	-	-	-	-	-	115	81	9.1	7.1	4.2
9	-	-	-	-	-	-	-	126	72	8.3	5.7	4.3
10	-	-	-	-	-	-	-	146	61	8.2	5.1	4.4
11	-	-	-	-	-	-	-	135	48	8.3	4.7	4.5
12	-	-	-	-	-	-	-	115	43	7.8	4.4	4.2
13	-	-	-	-	-	-	-	88	40	7.4	3.9	4.2
14	-	-	-	-	-	-	-	84	39	7.4	3.8	4.3
15	-	-	-	-	-	-	-	106	35	7.5	4.3	4.1
16	-	-	-	-	-	-	-	129	31	7.5	5	4.1
17	-	-	-	-	-	-	-	143	28	8.5	6.4	4.1
18	-	-	-	-	-	-	-	155	25	10	6.4	4.2
19	-	-	-	-	-	-	-	158	23	9.1	5.9	18
20	-	-	-	-	-	-	-	195	21	8.3	5.9	27
21	-	-	-	-	-	-	-	189	19	8.2	5.6	13
22	-	-	-	-	-	-	-	152	19	7.5	5.2	9.2
23	-	-	-	-	-	-	-	134	17	13	4.7	7.3
24	-	-	-	-	-	-	-	106	15	11	4.3	6.6
25	-	-	-	-	-	-	-	91	15	8.2	4.2	6
26	-	-	-	-	-	-	-	93	15	12	3.9	6
27	-	-	-	-	-	-	-	115	14	12	3.8	5.7
28	-	-	-	-	-	-	-	141	14	10	3.8	5.6
29	-	-	-	-	-	-	-	113	19	9.8	3.8	5.8
30	-	-	-	-	-	-	-	109	25	10	3.7	6
31	-	---	-	-	---	-	---	112	---	9	3.7	---
TOTAL	-	-	-	-	-	-	-	3346	1399	300.7	169.1	196.1
MEAN	-	-	-	-	-	-	-	108	47	9.7	5.5	6.5
AC-FT	-	-	-	-	-	-	-	6640	2770	596	335	389
MAX	-	-	-	-	-	-	-	195	111	16	9.6	27
MIN	-	-	-	-	-	-	-	-	14	7.4	3.7	3.6

MAY 4-SEP 30, 2004 TOTAL 5410.9 MEAN 36.1 MAX 195 MIN 3.6 AC-FT 10730

MAX DISCH: 298 CFS AT 19:45 ON Jun. 2, 2004 GH 5.08 FT. SHIFT 0 FT.  
MAX GH: 5.08 FT. AT 19:45 ON Jun. 2, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

ALAMOSA RIVER BELOW RANGER CREEK, CO

**LOCATION.**--Lat. 37°23'23", long. 106°22'41", Conejos County, on right bank, 30' above Silver Lakes Road Bridge, 0.4 miles below Ranger Creek and 4 miles above Terrace Reservoir.

**DRAINAGE AREA AND PERIOD OF RECORD.**--

**GAGE.**--Station established in water year 2003. Shelter is 4x4x8 foot steel building equipped with Sutron Accubar to collect stream level data, and a Hydrolab to obtain water quality information. Data collection platform (DCP) used to store collected data and transmit to satellite. Outside staff gage installed as base gage.

**REMARKS.**--Record is complete and reliable for the period of operation, May 11 to September 30, 2004, except for May 11, when there was missing data. Record fair. Station maintained and record developed by Div. III personnel.

**RATING TABLE.**--ALARANCO03 USED FROM 11-MAY-2004 TO 30-SEP-2004

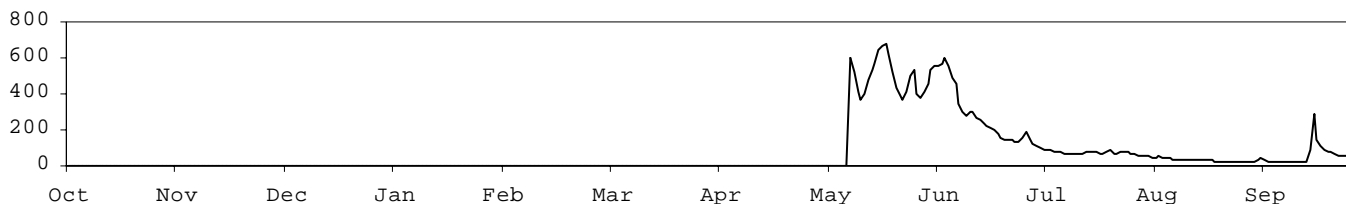
DISCHARGE, IN CFS, WATER YEAR MAY 11, 2004 TO SEPTEMBER 30, 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	408	144	53	20
2	-	-	-	-	-	-	-	-	453	125	53	19
3	-	-	-	-	-	-	-	-	529	113	60	19
4	-	-	-	-	-	-	-	-	561	104	51	32
5	-	-	-	-	-	-	-	-	553	94	44	49
6	-	-	-	-	-	-	-	-	562	92	48	33
7	-	-	-	-	-	-	-	-	595	87	61	27
8	-	-	-	-	-	-	-	-	555	81	49	25
9	-	-	-	-	-	-	-	-	490	75	41	23
10	-	-	-	-	-	-	-	-	451	74	40	22
11	-	-	-	-	-	-	-	595	350	70	37	22
12	-	-	-	-	-	-	-	524	302	68	34	21
13	-	-	-	-	-	-	-	413	276	65	33	20
14	-	-	-	-	-	-	-	368	297	64	31	19
15	-	-	-	-	-	-	-	399	299	62	32	18
16	-	-	-	-	-	-	-	481	262	67	29	18
17	-	-	-	-	-	-	-	535	251	74	28	18
18	-	-	-	-	-	-	-	571	234	80	30	18
19	-	-	-	-	-	-	-	641	226	76	28	85
20	-	-	-	-	-	-	-	663	212	74	28	289
21	-	-	-	-	-	-	-	673	195	72	29	148
22	-	-	-	-	-	-	-	618	180	68	29	115
23	-	-	-	-	-	-	-	520	159	82	27	93
24	-	-	-	-	-	-	-	436	147	91	25	82
25	-	-	-	-	-	-	-	388	142	67	24	73
26	-	-	-	-	-	-	-	363	150	68	23	66
27	-	-	-	-	-	-	-	414	134	83	22	60
28	-	-	-	-	-	-	-	504	132	78	22	56
29	-	-	-	-	-	-	-	538	158	78	21	58
30	-	-	-	-	---	-	-	399	185	66	21	59
31	-	---	-	-	---	-	---	373	---	62	20	---
TOTAL	-	-	-	-	-	-	-	10416	9448	2504	1073	1607
MEAN	-	-	-	-	-	-	-	336	315	81	35	54
AC-FT	-	-	-	-	-	-	-	20660	18740	4970	2130	3190
MAX	-	-	-	-	-	-	-	673	595	144	61	289
MIN	-	-	-	-	-	-	-	-	132	62	20	18

May 11-Sep 30, 2004 TOTAL 25048 MEAN 175 MAX 673 MIN 18 AC-FT 49680

MAX DISCH: 817 CFS AT 22:30 ON May. 20, 2004 GH 4.36 FT. SHIFT 0.02 FT.  
MAX GH: 4.36 FT. AT 22:30 ON May. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08236000 ALAMOSA CREEK ABOVE TERRACE RESERVOIR, CO

**LOCATION.**--Lat 37°22'29", long 106°20'03", in NW¼NE¼ sec. 17, T.36 N., R.6 E., Conejos County, Hydrologic Unit 13100002, on left bank 0.8 mi upstream from high-water line of Terrace Reservoir at elevation 8,568 ft., 3.0 mi. downstream from French Creek, and 15 mi. northwest of Capulin.

**DRAINAGE AREA.**--107 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 4-ft. diameter metal shelter and well. Gage is also equipped with a Sutron river satellite monitoring system with thermistor. The gage was reset on Jul. 25, 2002 to deal with the problems of isolation during very low flows. Datum of gage is 8,600 ft., from topographic map.

**REMARKS.**--Record is complete and reliable except for December 16, 2003 when the well was frozen, and December 18, 2003 through March 23, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice November 6, 15-30, and December 1-15, 17, 2003. Record is good except for the periods of ice-affected record and no gage height record, which are poor. Station maintained and record developed by Div. III Personnel.

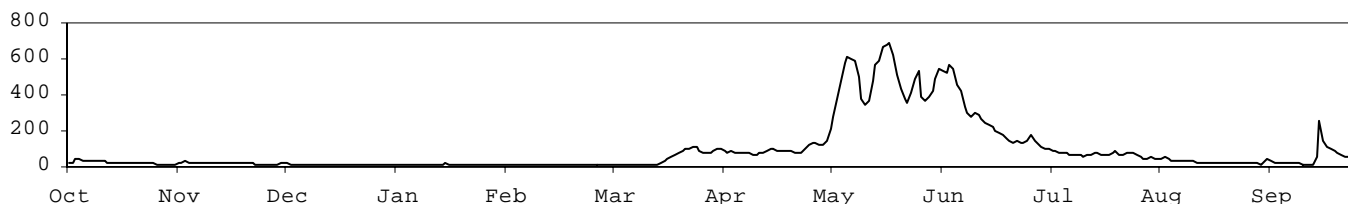
**RATING TABLE.**--ALATERCO16 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	17	17	14	14	12	88	122	387	144	50	17
2	26	22	17	16	12	13	95	124	425	126	49	17
3	39	30	15	15	13	13	97	147	494	113	58	16
4	43	20	15	11	14	14	87	216	543	105	49	25
5	37	19	15	10	13	11	82	280	537	95	43	45
6	33	20	16	11	12	12	84	374	519	91	45	29
7	37	21	16	14	12	13	82	482	570	87	56	24
8	32	21	16	14	13	14	79	582	539	82	47	22
9	30	19	12	15	13	14	79	606	454	75	38	21
10	28	20	12	15	13	14	78	603	421	74	35	20
11	28	20	12	16	13	14	75	593	337	70	33	20
12	25	19	12	16	12	15	69	503	302	67	31	19
13	24	21	11	15	12	15	68	376	279	64	30	18
14	21	20	14	15	14	15	76	340	295	62	28	17
15	21	18	13	16	14	15	82	365	294	60	29	16
16	20	18	11	17	14	15	89	479	264	64	27	15
17	20	19	13	16	15	20	99	568	250	71	25	15
18	19	18	14	14	16	32	98	588	229	74	27	15
19	19	19	14	14	16	44	92	663	218	73	26	52
20	19	20	14	15	14	56	91	675	203	70	26	258
21	18	21	15	13	14	66	91	685	188	68	27	141
22	18	19	14	12	14	80	90	620	173	65	27	116
23	17	12	13	13	14	90	85	513	153	76	25	95
24	17	14	13	15	14	102	79	429	143	91	22	84
25	17	16	13	14	14	105	80	379	138	66	21	73
26	12	15	14	12	14	114	83	359	144	63	20	66
27	13	13	12	11	16	110	98	407	132	80	19	60
28	14	13	10	13	14	89	123	489	129	75	18	55
29	14	15	10	13	12	76	136	528	149	77	18	55
30	14	17	12	14	---	74	135	389	179	63	17	58
31	14	---	14	15	---	78	---	362	---	60	17	---
TOTAL	713	556	419	434	395	1355	2690	13846	9088	2451	983	1484
MEAN	23	19	14	14	14	44	90	447	303	79	32	50
AC-FT	1410	1100	831	861	783	2690	5340	27460	18030	4860	1950	2940
MAX	43	30	17	17	16	114	136	685	570	144	58	258
MIN	12	12	10	10	12	11	68	122	129	60	17	15
CAL YR 2003	TOTAL	18675.2	MEAN	51	MAX	421	MIN	4.0	AC-FT	37040		
WTR YR 2004	TOTAL	34414	MEAN	94	MAX	685	MIN	10	AC-FT	68260		

MAX DISCH: 830 CFS AT 00:30 ON May. 21, 2004 GH 2.86 FT. SHIFT -0.06 FT.  
MAX GH: 2.86 FT. AT 00:30 ON May. 21, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08236500 ALAMOSA CREEK BELOW TERRACE RESERVOIR, CO

**LOCATION.**--Lat 37°21'15", long 106°16'45", NE¼SE¼ sec. 23, T.36 N., R.6 E., Conejos County, Hydrologic Unit 13010002, on left bank 0.5 mi downstream from Terrace Reservoir, 12.0 mi northwest of Capulin, Co.

**DRAINAGE AREA.**--116 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and Sutron satellite system in an approximately 3-ft square timber shelter and corrugated metal well. Altitude of gage is 8,375 ft, from topographic map.

**REMARKS.**--Record is complete and reliable except for November 19,2003 - April 19,2004 when the gage was closed for the winter, and October 22 to November 18, 2003 when the inlets were plugged by mud and silt from Terrace Reservoir. Terrace Reservoir directly upstream of this station was drained in the fall of 2003 for emergency repair operations. This action caused silt and mud to travel down to the gaging station and fill up the channel at the gage. Therefore, the period from October 22, 2003 to April 19, 2004 had to be estimated. Record is fair except for the period of no gage height record which is poor. Station maintained and record developed by Div. III Personnel.

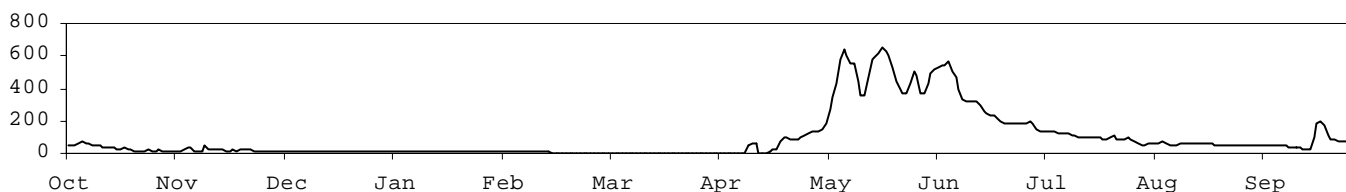
**RATING TABLE.**--ALABELCO12 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	18	17	14	14	1.6	1.6	138	372	201	63	45
2	49	17	17	16	12	1.6	1.6	139	433	182	55	44
3	55	20	15	15	13	1.6	1.6	144	494	150	52	44
4	64	32	15	11	14	1.6	1.6	183	519	141	61	44
5	69	42	15	10	13	1.6	1.6	266	532	137	62	44
6	67	10	16	11	12	1.6	1.6	345	540	136	59	44
7	60	11	16	14	12	1.6	1.6	432	537	139	59	45
8	55	7	16	14	13	1.6	1.6	580	561	139	69	45
9	55	54	12	15	13	1.6	1.6	646	507	128	64	45
10	48	20	12	15	13	1.6	1.6	599	469	119	55	44
11	36	20	12	16	13	1.6	1.6	560	400	118	53	44
12	32	19	12	16	12	1.6	55	558	332	117	55	44
13	31	21	11	15	12	1.6	60	441	314	116	56	39
14	32	20	14	15	14	1.6	59	359	316	113	56	34
15	22	18	13	16	11	1.6	6	356	316	102	56	32
16	23	18	11	17	1.6	1.6	1.6	463	316	95	57	32
17	32	19	13	16	1.6	1.6	1.6	577	292	101	58	29
18	26	18	14	14	1.6	1.6	15	593	257	103	58	27
19	23	19	14	14	1.6	1.6	30	613	243	102	58	27
20	17	20	14	15	1.6	1.6	29	651	239	102	58	102
21	15	21	15	13	1.6	1.6	69	629	239	102	58	179
22	8	19	14	12	1.6	1.6	96	599	211	92	58	203
23	14	12	13	13	1.6	1.6	94	528	195	85	55	173
24	22	14	13	15	1.6	1.6	86	445	188	98	50	115
25	17	16	13	14	1.6	1.6	82	398	184	105	48	88
26	11	15	14	12	1.6	1.6	84	368	184	86	47	83
27	19	13	12	11	1.6	1.6	95	368	182	82	45	77
28	18	13	10	13	1.6	1.6	111	427	180	91	45	72
29	17	15	10	13	1.6	1.6	128	499	179	97	45	71
30	17	17	12	14	---	1.6	134	474	187	89	45	71
31	16	---	14	15	---	1.6	---	370	---	74	45	---
TOTAL	1020	578	419	434	213.4	49.6	1253.8	13748	9918	3542	1705	1986
MEAN	32.9	19.3	14	14	7.4	1.6	41.8	443	331	114	55	66
AC-FT	2020	1150	831	861	423	98	2490	27270	19670	7030	3380	3940
MAX	69	54	17	17	14	1.6	134	651	561	201	69	203
MIN	8	7	10	10	1.6	1.6	1.6	138	179	74	45	27
CAL YR 2003	TOTAL	19880.4	MEAN	54.5	MAX	409	MIN	1.6	AC-FT	39430		
WTR YR 2004	TOTAL	34866.8	MEAN	95.3	MAX	651	MIN	1.6	AC-FT	69160		

MAX DISCH: 806 CFS AT 16:30 ON May. 8, 2004 GH 4.82 FT. SHIFT 0.04 FT.  
MAX GH: 4.82 FT. AT 16:30 ON May. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08238000 LA JARA CREEK AT GALLEGOS RANCH, NEAR CAPULIN, CO

**LOCATION.**--Lat 37°12'32", long 106°11'16", in NE¼ sec. 10, T.34 N., R.7 E., Conejos County, Hydrologic Unit 13010002, on left bank 2.7 mi. downstream from Canyon Del Rancho, 7 mi. southwest of Capulin, and 16.5 mi. downstream from La Jara Reservoir.

**DRAINAGE AREA.**--98 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder with satellite telemetry in 42" diameter CMP shelter and well. Altitude of gage is 8,130 ft from topographic map.

**REMARKS.**--Record is complete and reliable except for Nov. 19, 2003 through Mar. 23, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice Nov. 7, 13-18, 2003. Record is good except for periods of no gage-height and ice affected record which are poor. Station maintained and record developed by Div. III Personnel.

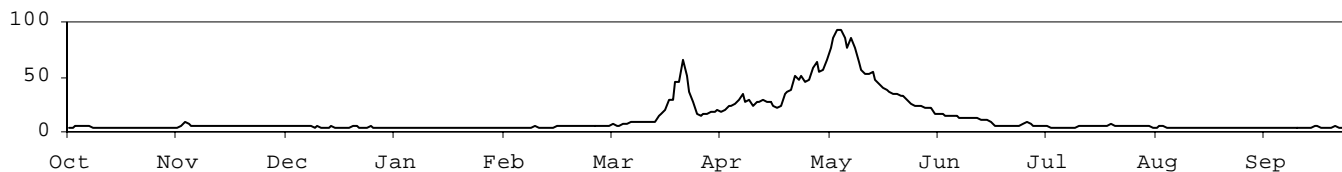
**RATING TABLE.**--LAJCAPCO18 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4	5.2	4.1	4.2	5.2	18	64	22	7.4	4.7	3.4
2	3.9	6.2	5	4.4	4	5.6	19	55	22	5.7	4.6	3.3
3	4.7	8.6	4.7	4.2	4.2	5.4	20	56	22	4.8	5.1	3.5
4	5.9	7	4.6	3.9	4.5	6.4	18	65	17	4.7	4.7	4.2
5	4.9	4.9	4.7	3.5	4.3	6	20	77	16	4.7	4.1	4.5
6	4.7	4.8	4.8	3.6	4.1	5.8	23	86	16	4.6	4.2	4
7	4.6	5.4	4.8	3.9	4	6.8	24	92	15	4.4	5	3.8
8	4.5	5.6	5	4.1	4.5	7.6	26	92	15	4.3	4.8	3.7
9	4.3	5.3	4.6	4.2	4.2	8.6	30	85	14	4.3	4.1	3.7
10	4.2	5	4.4	4.1	4.2	8.6	34	77	14	4.2	4.1	3.7
11	4.3	5.1	4.6	4.2	4.6	8.4	27	86	13	4.2	4.2	3.6
12	4.2	5	4.4	4.3	4.2	10	29	77	13	4.2	4.1	3.6
13	4.1	5.8	4.2	4.1	4	10	24	64	12	4.1	4.3	3.5
14	4	5.6	4.5	3.9	4.4	10	27	57	12	3.9	4.2	3.5
15	3.7	5.2	4.7	4.1	4.3	10	28	53	12	5.1	4.5	3.5
16	3.6	5.2	4	4.1	4.2	10	29	52	12	5.5	4.1	3.5
17	3.6	6	4.2	4.1	4.6	14	27	54	11	4.9	3.9	3.5
18	3.6	5.8	4.4	3.9	5	17	27	48	11	4.8	4	3.5
19	3.5	6	4.4	3.8	5.4	20	23	43	11	5	4.3	3.7
20	3.6	6	4.5	4	5.2	30	22	40	8.6	5.1	4	5.8
21	3.6	6.2	4.6	3.9	5.6	30	23	38	5.7	5.2	4.5	5
22	3.6	5.6	4.7	3.7	5.2	45	34	36	5.9	4.8	4.4	4.5
23	3.7	5	4.5	3.8	4.8	45	36	35	6.1	6	4.1	4.4
24	3.8	5.2	4.2	4.1	5.4	66	38	34	5.5	7.1	3.8	4.3
25	3.7	5.4	4.4	4.1	5.2	50	50	33	5.2	5.9	3.7	4.3
26	3.7	5.2	4.6	3.9	5	37	47	32	5.4	5.4	3.5	4.7
27	3.9	4.8	4.2	3.8	5.8	27	51	30	6.1	5.3	3.4	4.5
28	3.9	4.6	3.9	4	5.4	16	45	25	5.8	6.2	3.4	4.4
29	3.9	4.8	3.7	4.2	5.2	15	47	24	6.7	6	3.5	5.8
30	4	5	3.9	4.4	---	16	58	24	8.4	5.9	3.4	5.3
31	3.7	---	4.1	4.5	---	17	---	23	---	5.3	3.6	---
TOTAL	125	164.3	138.5	124.9	135.7	569.4	924	1657	349.4	159	128.3	122.7
MEAN	4	5.5	4.5	4	4.7	18.4	31	54	11.6	5.1	4.1	4.1
AC-FT	248	326	275	248	269	1130	1830	3290	693	315	254	243
MAX	5.9	8.6	5.2	4.5	5.8	66	58	92	22	7.4	5.1	5.8
MIN	3.5	4	3.7	3.5	4	5.2	18	23	5.2	3.9	3.4	3.3
CAL YR 2003	TOTAL	1922.4	MEAN	5.27	MAX	22	MIN	1.7	AC-FT	3810		
WTR YR 2004	TOTAL	4598.2	MEAN	12.6	MAX	92	MIN	3.3	AC-FT	9120		

MAX DISCH: 151 CFS AT 00:45 ON Mar. 24, 2004 GH 1.99 FT. SHIFT -0.01 FT.  
MAX GH: 1.99 FT. AT 00:45 ON Mar. 24, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

SOUTH CHANNEL NORTON DRAIN DITCH NEAR LA SAUSES, CO

LOCATION.--Lat 37°17'54", long 105°51'00, SW¼SW¼ sec. 2, T.35 N., R.10 E., Conejos County, Hydrologic Unit 13100002, on right bank of ditch.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder with satellite telemetry in a steel shelter and a 24" diameter CMP well at a 3' Parshall Flume.

REMARKS.--Record is complete and reliable except for November 24, 28-30, and December 4, 2003 when the well was frozen; December 9, 2003 through March 23, 2004 when station was closed for the winter; and September 1-19, 2004 when the station was isolated. Stage-discharge relation affected by ice November 18, 19, 22, 23, 25-27, December 1-3, 5-8, 2003. Stage-discharge relation affected by backwater from moss and weeds below the flume June 6 through August 31, 2004. Record is good except for periods of no gage-height, ice affected record, and backwater affected record, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

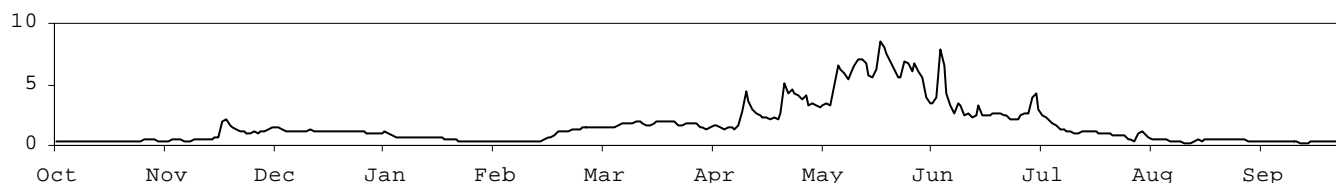
RATING TABLE.--NORDSCCO1 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.37	1.4	1	.37	1.4	1.5	3.3	6	2.6	.4	.44
2	.28	.38	1.5	1.1	.35	1.4	1.3	3.4	5.6	2.7	.94	.38
3	.31	.43	1.4	1	.35	1.5	1.4	3.3	4	4	1.2	.38
4	.33	.43	1.3	.8	.37	1.5	1.6	3.1	3.5	4.3	.93	.38
5	.32	.41	1.2	.66	.36	1.5	1.6	3.3	3.5	2.9	.62	.38
6	.28	.38	1.2	.68	.34	1.5	1.5	3.5	4	2.5	.53	.29
7	.32	.38	1.2	.7	.34	1.5	1.3	3.3	7.8	2.3	.54	.28
8	.33	.38	1.2	.7	.36	1.7	1.4	4.9	6.5	1.9	.53	.3
9	.33	.43	1.2	.7	.36	1.8	1.4	6.6	4.3	1.8	.52	.31
10	.31	.43	1.2	.7	.35	1.8	1.3	6.2	3.2	1.6	.47	.3
11	.31	.45	1.2	.7	.35	1.8	1.6	5.9	2.7	1.3	.32	.28
12	.32	.43	1.3	.7	.35	1.8	2.8	5.4	3.4	1.3	.39	.28
13	.3	.43	1.2	.7	.33	1.9	4.5	6.2	3.2	1.2	.39	.28
14	.28	.49	1.2	.64	.34	1.9	3.6	6.5	2.5	1.1	.26	.29
15	.28	.67	1.2	.64	.4	1.8	2.9	7.1	2.6	1	.19	.3
16	.28	.62	1.1	.68	.42	1.7	2.6	7	2.3	1	.18	.28
17	.28	1.9	1.1	.64	.6	1.7	2.5	6.7	2.4	1.2	.11	.24
18	.28	2.1	1.1	.58	.7	1.8	2.3	5.7	3.2	1.2	.36	.24
19	.28	1.6	1.2	.5	.9	1.9	2.3	5.6	2.5	1.2	.43	.23
20	.28	1.5	1.2	.5	1.1	2	2.1	6.2	2.5	1.1	.38	.27
21	.31	1.3	1.2	.5	1.1	2	2.3	8.6	2.5	1.1	.45	.28
22	.31	1.1	1.2	.45	1.1	2	2.2	8.1	2.6	1	.49	.32
23	.28	1.1	1.1	.4	1.1	1.9	2.7	7.5	2.7	.99	.44	.3
24	.32	1	1.1	.4	1.3	1.9	5.1	6.9	2.7	1	.47	.28
25	.36	1	1.1	.4	1.3	1.7	4.2	6.3	2.5	.99	.51	.31
26	.46	1.1	1.2	.4	1.3	1.7	4.6	5.5	2.4	.87	.54	.33
27	.48	1	1.1	.35	1.5	1.8	4.3	5.5	2.2	.75	.49	.28
28	.47	1.1	1	.35	1.4	1.8	4.1	6.9	2.1	.8	.5	.28
29	.41	1.2	1	.36	1.4	1.8	3.8	6.8	2.2	.74	.54	.28
30	.38	1.3	1	.38	---	1.8	4.1	6	2.4	.57	.49	.28
31	.33	---	1	.39	---	1.5	---	6.7	---	.49	.49	---
TOTAL	10.09	25.41	36.6	18.7	20.54	53.8	78.9	178	100	47.5	15.1	9.07
MEAN	.33	.85	1.2	.6	.71	1.7	2.6	5.7	3.3	1.53	.49	.3
AC-FT	20	50	73	37	41	107	156	353	198	94	30	18
MAX	.48	2.1	1.5	1.1	1.5	2	5.1	8.6	7.8	4.3	1.2	.44
MIN	.28	.37	1	.35	.33	1.4	1.3	3.1	2.1	.49	.11	.23
CAL YR 2003	TOTAL	415.31	MEAN	1.14	MAX	7.9	MIN	.08	AC-FT	824		
WTR YR 2004	TOTAL	593.71	MEAN	1.62	MAX	8.6	MIN	.11	AC-FT	1180		

MAX DISCH: 13.9 CFS AT 17:45 ON May. 20, 2004 GH 1.05 FT. SHIFT 0.05 FT.  
MAX GH: 1.05 FT. AT 17:45 ON May. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

NORTON DRAIN NEAR LA SAUSES, CO

LOCATION.--Lat 37°20'10", long 105°46'13", NE¼SW¼ sec. 28, T.36 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on left bank 2.5 mi east by northeast along canal from State Route 158.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder and a Sutron satellite monitoring system in a 36 inch diameter CMP shelter and well at a six-foot Parshall Flume. Note: October 1, 2003 - May 11, 2004, and July 15 - September 30, 2004, Parshall flume width modified to two foot in width with a 1 inch wood block in throat of flume in an attempt to keep the well from isolating and to get a more accurate measurement of low flows.

REMARKS.--Record is complete and reliable except for Oct. 1 - 26, Nov. 1-13, 2003, Aug. 29-31, and Sept. 1-4, 8-13, 2004 when the well was isolated, and Dec. 9, 2003 - March 30, 2004 when the station was closed for the winter. Stage-discharge relation was affected by ice Dec. 5-8, 2003. There was no flow Oct. 1-3, 8, 9, 11, 12, 14, 15, 17-25, 2003, Sept. 14-30, 2004. Gage-height was not necessarily representative of flow May 9-11, 2004 when the 2 ft. Parshall Flume modification was overflowing. Record is good except for periods of no gage-height and ice affected record, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

RATING TABLE.--STD02FTPF USED FROM 01-OCT-2003 TO 11-MAY-2004  
 NORDLSCO03 USED FROM 11-MAY-2004 TO 15-JUL-2004  
 STD02FTPF USED FROM 15-JUL-2004 TO 30-SEP-2004

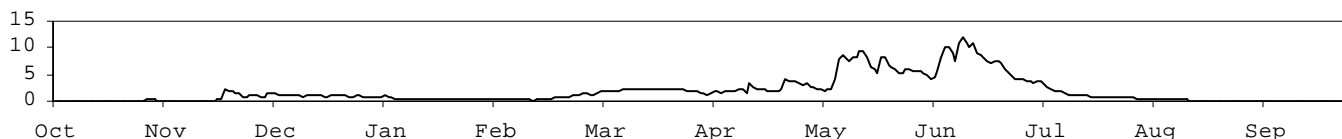
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.05	1.6	.9	.22	1.3	1.6	2.8	5.6	3.8	.53	.01
2	0	.05	1.6	.94	.2	1.6	1.3	2.5	5.1	3.7	.5	.01
3	0	.05	1.2	.8	.2	1.7	1.4	2.3	4.7	3.4	.48	.01
4	.01	.05	.99	.7	.22	1.8	1.8	2.1	4.1	3.7	.56	.02
5	.01	.05	.98	.5	.21	1.8	1.9	2	4.6	3.7	.47	.02
6	.01	.05	1	.54	.19	1.8	1.6	2.3	5.5	2.9	.44	.02
7	.01	.05	1	.56	.19	1.8	1.8	2.3	8.3	2.5	.44	.02
8	0	.05	1	.56	.21	1.9	1.7	4	10	2.2	.52	.01
9	0	.05	.98	.56	.21	2.1	2	7.7	10	2	.54	.02
10	.01	.05	.92	.56	.2	2.1	2	8.6	8.9	1.9	.48	.01
11	0	.05	.94	.56	.2	2.1	2.3	8.3	7.5	1.7	.4	.01
12	0	.04	1	.56	.2	2.1	2.2	7.4	11	1.4	.34	.01
13	.01	.14	.96	.56	.18	2.3	1.5	8.3	12	1.3	.25	.01
14	0	.1	1	.5	.19	2.3	3.3	8.1	11	1.2	.23	0
15	0	.05	.98	.5	.25	2.2	2.6	9.4	10	1.1	.2	0
16	.01	.26	.9	.54	.27	2.1	2.3	9.5	11	1	.14	0
17	0	.35	.92	.49	.4	2.1	2.2	8.2	8.9	1	.13	0
18	0	2.1	.96	.4	.5	2.2	2.1	6.4	8.5	.98	.13	0
19	0	1.8	.98	.33	.7	2.3	1.9	6.1	8.2	.9	.12	0
20	0	1.7	.98	.33	.9	2.4	1.8	5.4	7.6	.9	.13	0
21	0	1.6	1	.33	.9	2.4	1.9	8.1	7.1	.86	.08	0
22	0	1.5	.96	.28	.9	2.4	1.9	8.1	7.4	.78	.05	0
23	0	.6	.92	.25	.92	2.3	2.2	6.9	7.6	.8	.03	0
24	0	.72	.9	.25	1.2	2.3	4	6.3	7	.68	.03	0
25	0	.97	.94	.25	1.2	2.2	3.7	6	6	.7	.03	0
26	.07	.94	1	.25	1.2	2.1	3.7	5.4	5.2	.6	.02	0
27	.2	.98	.92	.2	1.5	2	3.7	5.3	4.6	.59	.02	0
28	.25	.7	.86	.2	1.4	2	3.2	6	4.3	.61	.02	0
29	.21	.87	.82	.21	1.3	1.9	3.1	6	4	.61	.01	0
30	.15	1.5	.84	.23	---	1.9	3.3	5.7	4	.57	.01	0
31	.1	---	.86	.24	---	1.6	---	5.8	---	.58	.02	---
TOTAL	1.05	17.47	30.91	14.08	16.36	63.1	70	183.3	219.7	48.66	7.35	.18
MEAN	.03	.58	1	.45	.56	2	2.3	5.9	7.3	1.57	.24	.01
AC-FT	2.1	35	61	28	32	125	139	364	436	97	15	.4
MAX	.25	2.1	1.6	.94	1.5	2.4	4	9.5	12	3.8	.56	.02
MIN	0	.04	.82	.2	.18	1.3	1.3	2	4	.57	.01	0

CAL YR	2003	TOTAL	399.72	MEAN	1.1	MAX	8.9	MIN	0	AC-FT	793
WTR YR	2004	TOTAL	672.16	MEAN	1.84	MAX	12	MIN	0	AC-FT	1330

MAX DISCH: 13.0 CFS AT 05:00 ON Jun. 13, 2004 GH 0.66 FT. SHIFT 0.02 FT.  
 MAX GH: 1.2 FT. AT 13:15 ON Dec. 5, 2003

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08240000 RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES, CO

**LOCATION.**--Lat 37°18'58", long 105°44'32", in sec. 35, T.36 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank 0.2 mi upstream from the historical channel of Trinchera Creek, 3.2 mi north of Lasauses, and 13 mi southeast of Alamosa.

**DRAINAGE AREA AND PERIOD OF RECORD.**--5,740 mi<sup>2.</sup>, approximately, includes 2,940 mi<sup>2.</sup> in closed basin in northern part of San Luis Valley, Co. May 1936 to current year. Water quality data from 1993 to 1996.

**GAGE.**--Graphic water-stage recorder and Sutron satellite monitoring equipment in a 4 ft. by 4 ft. timber shelter and well until Oct. 21, 2003, when stage recorder and satellite system was moved to new gage station. The new shelter is 7 ft. by 7 ft. exposed aggregate building with 4 ft. diameter concrete well. Elevation of gage is 7,500 ft, estimated from nearby level lines. Although the name of the station is Rio Grande above Mouth of Trinchera Creek, over a period of years Trinchera Creek has shifted allowing the majority of Trinchera Creek water to enter the Rio Grande River above the station.

**REMARKS.**--Record is complete and reliable except for Jul. 30 - Aug. 5, 2004 when inlets were covered with sand. Stage-discharge relation affected by ice Nov. 27, 2003 - Mar. 12, 2004. Record is good except for periods of no gage height and ice affected record which are poor. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--RIOTRICO11 USED FROM 01-OCT-2003 TO 30-SEP-2004

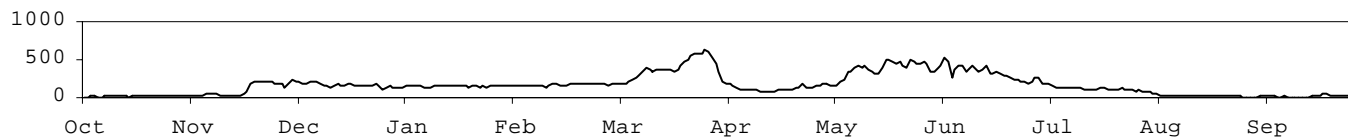
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	30	205	140	160	185	342	173	338	268	92	6.6
2	12	31	205	145	165	185	212	186	334	270	78	4.6
3	14	34	195	150	165	195	181	165	384	184	70	13
4	14	38	190	160	165	190	186	162	433	176	55	17
5	13	42	200	170	165	195	152	160	522	175	41	18
6	12	50	220	160	170	210	132	199	476	163	34	16
7	16	43	220	140	165	225	111	232	261	140	29	16
8	23	40	180	135	165	255	115	344	358	128	28	15
9	21	39	145	140	165	300	105	355	432	122	27	12
10	17	39	160	150	170	340	102	394	418	122	28	12
11	18	38	125	160	135	385	100	416	354	121	22	14
12	16	32	160	155	160	365	97	385	378	128	20	13
13	15	34	180	160	180	332	86	417	409	127	20	12
14	13	37	145	160	175	357	82	381	360	124	20	11
15	14	39	165	155	165	371	74	354	338	118	26	11
16	15	44	185	145	165	374	78	328	377	105	28	13
17	15	73	180	160	170	374	88	306	410	98	28	13
18	16	172	165	160	175	365	99	384	317	102	21	13
19	18	221	150	160	175	355	110	501	319	116	16	14
20	19	218	165	120	180	374	113	508	336	123	15	16
21	19	215	155	165	180	408	105	471	309	119	15	15
22	19	213	155	150	175	466	105	448	282	108	16	44
23	19	212	165	140	180	497	120	471	283	107	15	59
24	18	208	175	150	185	549	136	412	264	105	16	29
25	18	191	150	135	185	574	181	394	228	113	16	22
26	23	190	110	150	190	569	122	499	225	128	15	20
27	18	175	135	155	190	588	132	481	221	101	15	18
28	17	140	145	150	175	628	132	441	216	96	15	19
29	16	190	140	150	170	601	151	440	197	101	14	17
30	16	230	130	155	---	518	146	465	214	83	13	16
31	28	---	130	145	---	444	---	456	---	95	13	---
TOTAL	523	3258	5130	4670	4965	11774	3895	11328	9993	4066	861	519.2
MEAN	17	109	165	151	171	380	130	365	333	131	28	17.3
AC-FT	1040	6460	10180	9260	9850	23350	7730	22470	19820	8060	1710	1030
MAX	28	230	220	170	190	628	342	508	522	270	92	59
MIN	11	30	110	120	135	185	74	160	197	83	13	4.6

CAL YR 2003 TOTAL 32927.8 MEAN 90.2 MAX 244 MIN 2.5 AC-FT 65310  
WTR YR 2004 TOTAL 60982.2 MEAN 167 MAX 628 MIN 4.6 AC-FT 121000

MAX DISCH: 632 CFS AT 06:00 ON Mar. 28, 2004 GH 3.87 FT. SHIFT -0.19 FT.  
MAX GH: 3.90 FT. AT 08:30 ON Mar. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08240500 TRINCHERA CREEK ABOVE TURNERS RANCH, NEAR FORT GARLAND, CO

**LOCATION.**--Lat 37°22'29", long 105°17'40", Costilla County, Hydrologic Unit 13010002, in Sangre de Cristo Grant, on right bank 0.9 mi downstream from North Fork, 1.0 mi upstream from Turners Ranch, and 8.3 mi southeast of Fort Garland.

**DRAINAGE AREA.**--45 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and a Sutron satellite monitoring system in a 3 ft. by 3 ft. timber shelter and well. Altitude of gage is 8,520 ft, from topographic map.

**REMARKS.**--Record is complete and reliable except for Dec. 29-31, 2003, and Feb. 7-18, 2004 when float operation was affected by ice in well. Stage-discharge relation was affected by ice Nov. 23-30, Dec. 1, 3-6, 9-28, 2003, Jan. 1-14, 17-19, 21-31, Feb. 1-6, 23, 26, 29, Mar. 1, 6, 7, 2004. Record is good except for periods of ice affected or no gage height record, which is poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--TRITURCO13 USED FROM 01-OCT-2003 TO 30-SEP-2004

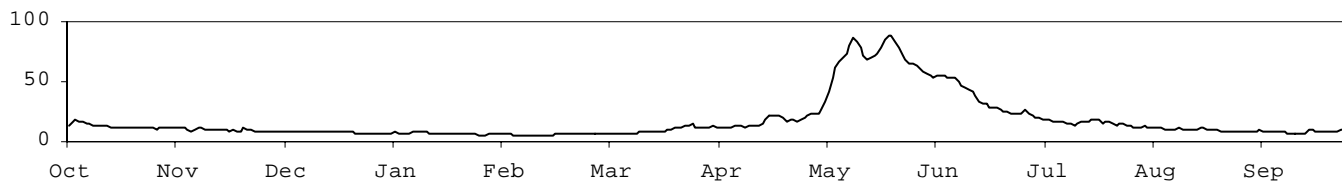
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	11	8.8	7.4	6	6.4	12	24	59	23	12	8.5
2	16	11	8.9	7.6	6.2	6.4	13	24	57	21	12	8
3	18	11	8.2	7.4	6.4	6.4	12	26	55	20	13	7.7
4	17	9.7	8.2	7.2	6	6.4	12	33	54	20	12	8.7
5	16	8.5	8.2	7.2	5.8	6.3	12	42	55	19	12	10
6	15	9.8	8.4	7.2	5.3	6.4	12	53	55	18	12	8.7
7	15	11	8.6	7.6	5.3	6.4	12	62	55	18	11	8.2
8	14	11	8.6	8	5.7	6.6	13	67	54	17	11	8
9	13	10	8.2	8	5	7	14	70	53	17	10	7.9
10	13	10	8.2	7.8	4.7	7.2	13	74	53	16	10	7.7
11	13	10	8.2	7.6	5	7.3	12	80	50	16	10	7.6
12	13	9.7	8.2	7.4	4.5	7.7	13	87	47	15	10	7.6
13	12	10	8.2	7.4	4.2	7.7	13	84	45	15	11	7.5
14	12	10	8.4	7.2	4.6	7.8	14	78	43	14	10	7.1
15	12	9.7	8	7.2	5	7.8	14	71	41	15	10	7
16	12	9.1	7.6	7	5.5	7.7	15	68	39	16	9.7	7
17	12	9.9	7.6	7	5.9	7.7	18	70	34	17	10	7
18	12	7.9	7.8	7	6.4	7.8	22	71	32	16	9.9	6.9
19	12	9	8	7	6.8	8.4	22	74	31	18	12	9.5
20	12	11	8	7.1	6.8	9.4	22	79	29	18	12	10
21	11	10	8	6.8	6.6	10	21	85	28	18	10	8.4
22	11	9.7	7	6.6	6.8	11	20	89	28	15	10	8.3
23	11	8.6	6.6	6	6.8	11	17	88	26	16	9.9	8.4
24	11	8.6	6.6	6	6.7	12	18	83	25	16	9.3	8.3
25	11	9	6.8	6	6.5	13	18	78	25	15	9	8.2
26	9.7	8.8	7	5.6	6.2	14	17	71	24	14	8.4	8.8
27	11	8.2	7	5.6	6.7	15	19	68	24	15	8.4	8.5
28	11	8.2	6.6	5.8	6.3	12	20	65	23	15	8.5	9.8
29	11	8.4	6.6	6	6.4	12	22	65	23	14	8.4	9.2
30	11	8.8	6.8	6	---	12	24	63	26	13	8.3	8.8
31	11	---	7	6	---	12	---	61	---	12	8.6	---
TOTAL	392.7	287.6	240.3	213.7	170.1	278.8	486	2053	1193	512	318.4	247.3
MEAN	12.7	9.6	7.8	6.9	5.9	9	16	66	40	17	10.3	8.2
AC-FT	779	570	477	424	337	553	964	4070	2370	1020	632	491
MAX	18	11	8.9	8	6.8	15	24	89	59	23	13	10
MIN	9.7	7.9	6.6	5.6	4.2	6.3	12	24	23	12	8.3	6.9

CAL YR 2003 TOTAL 5950.5 MEAN 16.3 MAX 95 MIN 3.7 AC-FT 11800  
WTR YR 2004 TOTAL 6392.9 MEAN 17.5 MAX 89 MIN 4.2 AC-FT 12680

MAX DISCH: 90.8 CFS AT 00:15 ON May. 12, 2004 GH 2.15 FT. SHIFT -0.02 FT.  
MAX GH: 2.26 FT. AT 07:15 ON Jan. 28, 2004 (Ice affected)

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## RIO GRANDE BASIN

08241000 TRINCHERA CREEK ABOVE MOUNTAIN HOME RESERVOIR, CO

**LOCATION.**--Lat 37°23'40", long 105°22'10", NE¼SW¼ sec. 31, T.31 S., R.71 W., (unsurveyed) Costilla County, Hydrologic Unit 13010002, on right bank 150 ft downstream from bridge, 1000 ft upstream from Mountain Home Reservoir, and 5 mi southeast of Ft. Garland, Co.

**DRAINAGE AREA.**--57 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and a Sutron Satellite system in a 4-ft. diameter corrugated metal shelter and well.

**REMARKS.**-- Record is complete and reliable. Stage-discharge relation was affected by ice Jan. 22 - 31, Feb. 1 - 20, 27, 2004. Record is good except for periods of ice-affected record, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**-- TRIMTNC007 USED FROM 01-OCT-2003 TO 30-SEP-2004

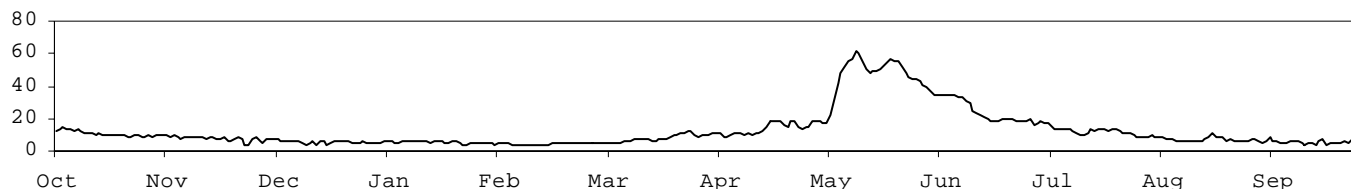
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.3	7.3	5.8	4.2	4.8	10	19	39	16	8.5	6.8
2	14	9.2	6.9	5.9	4.4	5.2	11	18	37	17	8.7	6
3	15	9.6	6.2	6	5	5	11	17	35	18	9.5	5.2
4	14	8.9	5.8	5	5	5	11	17	34	17	8.3	6.1
5	13	7.7	6	4.6	4.4	5.1	9.2	22	34	17	8.6	8.6
6	12	8.2	6.4	5.7	3.6	4.7	8.8	32	34	15	9	6.6
7	13	8.9	6.6	6	3.6	5.3	9.7	42	35	14	7.8	5.9
8	12	8.8	6.6	6.1	4	5.6	11	48	34	14	7.2	5.5
9	11	8.7	5.4	5.9	3.8	6.4	11	52	34	13	6.9	5.2
10	11	8.7	3.8	5.8	3.8	6.7	11	55	33	13	6.7	5.1
11	11	8.5	4.9	5.7	3.8	6.8	10	57	33	13	6.7	5.6
12	10	8	5.8	5.7	3.4	6.9	11	62	31	12	6.6	5.9
13	11	8.5	3.9	5.7	3.2	7	9.8	60	29	11	6.5	5.6
14	10	8.2	6.1	5.5	3.6	7.1	11	55	25	10	6	4.4
15	10	7.7	5.6	5.9	3.8	6.8	11	50	24	10	6.2	4.3
16	9.8	7.1	3.8	6.3	4.1	6.4	12	48	22	11	6	4.4
17	10	8.2	4.8	6	4.4	6.7	15	49	21	14	5.7	4.5
18	10	6.3	5.8	5.3	4.7	6.9	19	49	20	12	7.1	4.2
19	10	5.7	5.7	5.2	5	7.2	18	51	18	14	9	6
20	9.7	7.6	5.8	6.3	5	7.8	18	53	18	14	11	7.2
21	9	8.3	6	5.7	5	9	18	55	18	14	8.3	3.7
22	8.6	7.8	5.7	4.4	5	10	16	57	20	12	8.5	5.1
23	9.4	4.1	4.7	4	4.8	10	15	56	20	13	8.1	5.3
24	9.3	3.7	5	4	5	11	19	55	20	13	6.3	5.2
25	9.1	6.9	5.3	4.8	4.9	11	19	52	20	12	6.8	5.4
26	8.7	8.2	6.2	4.4	4.7	12	15	48	19	11	6	5.8
27	9.7	6.2	5	4.4	4.7	12	13	46	19	11	6.2	5.4
28	9	4.6	4.7	4.4	5	10	15	44	19	11	6.5	7.4
29	9.5	6.8	5.4	4.8	4.6	9.2	15	44	18	10	6.2	6.7
30	9.3	7.5	5.2	5	---	10	18	43	20	9.1	6.1	6.1
31	9.5	---	5.5	5.2	---	9.7	---	41	---	8.6	7.1	---
TOTAL	329.6	227.9	171.9	165.5	126.5	237.3	401.5	1397	783	399.7	228.1	169.2
MEAN	10.6	7.6	5.6	5.3	4.4	7.7	13.4	45	26	12.9	7.4	5.6
AC-FT	654	452	341	328	251	471	796	2770	1550	793	452	336
MAX	15	9.6	7.3	6.3	5	12	19	62	39	18	11	8.6
MIN	8.6	3.7	3.8	4	3.2	4.7	8.8	17	18	8.6	5.7	3.7

CAL YR 2003 TOTAL 4317 MEAN 11.8 MAX 79 MIN 1.7 AC-FT 8560  
WTR YR 2004 TOTAL 4637.2 MEAN 12.7 MAX 62 MIN 3.2 AC-FT 9200

MAX DISCH: 63.9 CFS AT 12:45 ON May. 12, 2004 GH 1.14 FT. SHIFT 0.06 FT.  
MAX GH: 1.14 FT. AT 12:45 ON May. 12, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08241500 SANGRE DE CRISTO CREEK NEAR FORT GARLAND, CO

**LOCATION.**--Lat 37°25'30", long 105°24'52", Costilla County, Hydrologic Unit 13010002, in Sangre de Cristo Grant, on left bank at ice house road bridge, 2,200 ft upstream from Garland Canal, 1.0 mi east of Fort Garland, and 6.3 mi upstream from Ute Creek.

**DRAINAGE AREA.**--190 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder with satellite monitoring system in a 4' diameter CMP shelter and well. Altitude of gage is 7,900 ft, from topographic map.

**REMARKS.**--Record is complete and reliable except for January 6, through March 5, 2004 when ice was affecting the oil cylinder. Stage-discharge relation was affected by ice December 9, 2003 and January 3-5, 2004; and by backwater from beaver dams October 1-3, 5, 6, 10-13, 19-31, November 1-30, December 1-8, 2003, and September 19-25, 2004. Record is good except for periods of no gage-height and backwater affected record, which are poor. Station maintained and record developed by Div. III Personnel.

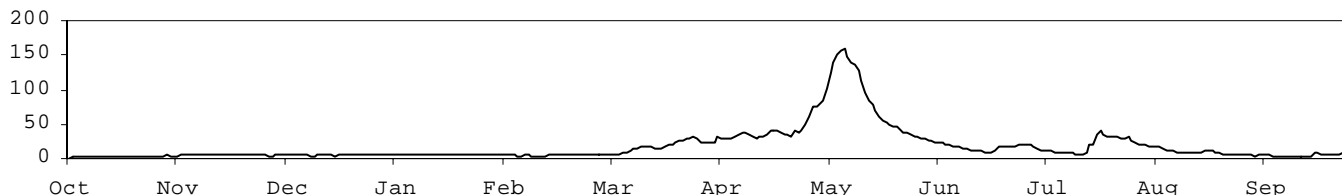
**RATING TABLE.**--SANFTGCO18 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	4.3	5.5	4.8	4.7	6.2	23	74	28	20	21	5.4
2	1.7	4.6	5.2	5.4	4.8	6	24	78	27	17	20	5
3	2.3	4.5	5	5.2	5	6.6	31	83	26	15	19	4.2
4	3.1	4.4	5	4.9	5	6.4	29	102	24	13	17	4.6
5	4.1	4.6	5.1	4.7	4.4	6.2	28	124	23	13	17	6.9
6	4.1	4.8	5.2	4.5	4.2	6.2	30	138	22	12	17	6.4
7	3.5	4.8	5.3	5.4	4.3	7.4	29	151	21	11	16	5.1
8	3.3	4.7	4.8	6	4.6	8.6	32	157	19	10	15	4.1
9	3.2	4.9	4.2	5.6	4.4	12	36	158	18	9.4	13	3.7
10	3.2	5.2	3.8	5.2	4.3	15	38	147	17	8.7	12	3.3
11	3.2	5.2	4.7	5.2	4.3	15	37	140	16	8.1	11	3.1
12	3.1	5	5.6	5	4	16	36	135	15	8.2	10	3
13	3.1	4.8	4.4	4.8	3.9	18	33	127	14	7.6	10	2.6
14	2.9	5	5.5	4.7	4.1	17	29	113	13	6.6	10	2.5
15	2.8	5.2	5.4	5.2	4.5	17	31	97	12	5.9	10	2.1
16	2.9	5.3	4.3	5.8	4.5	15	33	85	11	6.4	10	2.1
17	3.1	5.2	4.5	5.6	4.8	15	36	77	11	10	9.2	2.4
18	3.1	5.1	4.9	5.2	5.2	15	40	71	9.6	20	8.4	2.3
19	3.1	5.4	5	5.4	6	17	41	62	8.7	21	8.8	2.5
20	3.2	5.6	5.3	5.6	5.8	19	40	56	7.8	35	11	8.7
21	3.2	5.5	5.6	5.4	6.2	21	38	53	12	40	12	9.7
22	3.3	5.2	5.8	5	5.6	24	36	50	17	35	13	7
23	3.4	4.6	4.5	4.7	5.6	26	35	47	18	33	10	6.2
24	3.5	4.6	5.4	4.7	6.4	27	33	45	16	33	8.2	5.9
25	3.6	4.8	5.6	5.4	6	28	42	42	16	33	7.2	5.3
26	3.6	4.6	6	5	5.8	29	38	39	17	31	6.3	5.5
27	3.7	4.2	5.5	4.9	6.6	31	42	37	17	30	5.5	5.9
28	3.8	4.3	5.1	4.8	6.2	28	50	35	19	30	5.5	7.4
29	4.6	5	4.6	5.2	6	24	62	33	19	31	5.5	8.5
30	4.3	5.6	4.4	5.2	---	24	74	32	21	26	4.9	8.2
31	4.1	---	4.5	5.4	---	23	---	30	---	23	5.1	---
TOTAL	101.2	147	155.7	159.9	147.2	529.6	1106	2618	515.1	602.9	348.6	149.6
MEAN	3.3	4.9	5	5.2	5.1	17.1	37	85	17.2	19.4	11.2	5
AC-FT	201	292	309	317	292	1050	2190	5190	1020	1200	691	297
MAX	4.6	5.6	6	6	6.6	31	74	158	28	40	21	9.7
MIN	1.1	4.2	3.8	4.5	3.9	6	23	30	7.8	5.9	4.9	2.1
CAL YR 2003	TOTAL	3170.17	MEAN	8.7	MAX	49	MIN	.23	AC-FT	6290		
WTR YR 2004	TOTAL	6580.8	MEAN	18	MAX	158	MIN	1.1	AC-FT	13050		

MAX DISCH: 163 CFS AT 15:30 ON May. 9, 2004 GH 3.35 FT. SHIFT -0.16 FT.  
MAX GH: 3.35 FT. AT 15:30 ON May. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08242500 UTE CREEK NEAR FORT GARLAND, CO

**LOCATION.**--Lat 37°26'50", long 105°25'33", Costilla County, Hydrologic Unit 13010002, in Sangre de Cristo Grant, on left bank 2,300 ft upstream from Newton ditch, 1.4 mi north of Fort Garland, and 5.7 mi upstream from mouth.

**DRAINAGE AREA AND PERIOD OF RECORD.**--32 mi<sup>2</sup>. Staff gage established on weir Mar. 1915 and operated to Oct. 1916. Continuous record from May 1923 to present at various locations close to present site.

**GAGE.**--Graphic water-stage recorder and a Sutron satellite monitoring system in a 4-ft. diameter CMP shelter and well. Altitude of gage is 8,045 ft, from topographic map.

**REMARKS.**--Record is complete and reliable except for Dec. 23, 2003 through Mar. 18, 2004 when the station was closed for the winter, and December 10-22, 2003 when the well was frozen. Stage-discharge relation was affected by ice Nov. 27-Dec. 9, 2003. Record is good except for periods of no gage-height and ice affected record which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--UTEFTGCO17 USED FROM 01-OCT-2003 TO 30-SEP-2004

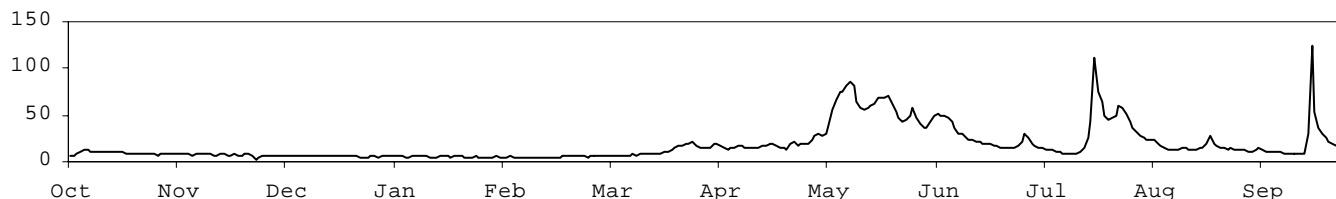
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	7.8	6	6.2	4.3	5.6	16	28	37	25	32	12
2	6.8	8.3	6.4	6.4	4.7	5.6	19	29	37	20	28	10
3	7.9	8.5	6	6	5.2	6.6	20	27	43	17	26	10
4	11	7.7	5.8	5.6	5.4	6.4	18	30	50	16	23	12
5	13	6.9	6	5.2	4.6	6.2	16	39	52	14	24	15
6	12	7.6	6.2	4.9	3.9	6.2	12	55	50	13	23	13
7	11	8	6.4	5.4	4	6.4	14	66	50	13	20	11
8	11	7.8	6	6	4.4	6	16	74	47	12	17	10
9	11	7.6	5.6	5.6	4.2	6.2	17	75	43	11	15	10
10	10	7.6	5.4	5.4	4	7.6	17	81	37	11	13	10
11	11	7.5	5.6	5.4	4.2	7.2	16	86	31	8.8	12	9.7
12	10	7.4	6.2	5.2	3.8	7.6	15	82	29	8	13	9.4
13	10	8.2	5.8	5.2	3.6	8.4	15	65	26	8.5	13	9
14	9.9	8.1	6.2	5.2	3.9	8.4	16	58	24	7.9	14	8
15	9.9	7.5	5.8	5.6	4.2	9	16	55	23	9.2	16	7.9
16	9.9	7.4	5.6	6	4.2	9	17	57	22	10	13	8.1
17	9.6	7.7	5.4	5.8	4.6	9.6	18	60	21	15	12	8
18	9.3	6.4	5.6	5.2	5	9.6	20	62	20	26	13	7.7
19	9.3	7.1	5.8	5.6	5.6	9.8	19	69	19	42	15	30
20	9	7.7	6	6	5.4	11	17	68	20	112	15	124
21	9	7.6	6.4	5.6	5.8	13	16	68	18	76	20	54
22	8.8	7.1	6	5.2	5.4	16	14	70	18	65	28	37
23	8.5	2.8	5.2	5	5.4	17	12	62	16	50	20	30
24	8.4	3.6	4.4	4.7	6	18	19	54	15	45	17	26
25	8.4	7	5.2	5.4	5.6	19	21	47	14	47	16	22
26	7.3	7.4	6	5.2	5.2	20	18	43	14	50	14	20
27	8.5	6	5.6	5	6.2	22	19	44	16	60	13	18
28	8.5	5.4	5.2	4.8	5.8	18	20	50	17	57	14	17
29	8.2	6	5.4	5.2	5.4	16	20	57	22	51	13	15
30	8.1	6.2	5.4	5.2	---	15	23	48	31	43	12	16
31	7.8	---	5.8	5.4	---	15	---	40	---	37	12	---
TOTAL	289.7	211.9	178.4	168.6	140	341.4	516	1749	862	980.4	536	589.8
MEAN	9.4	7.1	5.8	5.4	4.8	11	17	56	29	31.6	17	19.7
AC-FT	575	420	354	334	278	677	1020	3470	1710	1940	1060	1170
MAX	13	8.5	6.4	6.4	6.2	22	23	86	52	112	32	124
MIN	6.6	2.8	4.4	4.7	3.6	5.6	12	27	14	7.9	12	7.7

CAL YR 2003 TOTAL 6758.2 MEAN 18.5 MAX 179 MIN 1.5 AC-FT 13400  
WTR YR 2004 TOTAL 6563.2 MEAN 17.9 MAX 124 MIN 2.8 AC-FT 13020

MAX DISCH: 187 CFS AT 04:45 ON Sep. 20, 2004 GH 3.05 FT. SHIFT 0 FT.  
MAX GH: 3.05 FT. AT 04:45 ON Sep. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08243500 TRINCHERA CREEK BELOW SMITH RESERVOIR, NEAR BLANCA, CO

**LOCATION.**--Lat 37°23'10", long 105°33'02", in sec. 4, T.31 S., R.73 W., (unsurveyed), Costilla County, Hydrologic Unit 13010002, on right bank 150 ft downstream from bridge, 0.6 mi downstream from Smith Reservoir, and 4.0 mi southwest of Blanca, Co.

**DRAINAGE AREA.**--396 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder with satellite telemetry in a 4' CMP shelter and well. Altitude of gage is 7,700 ft, estimated from nearby U.S. Coast and Geodetic Survey level lines.

**REMARKS.**--Record is complete and reliable except for Feb. 7, 10, 12, 14, 15, 2004 when chart recorder not operating and there was missing satellite data. The shaft encoder float was in oil cylinder and therefore was the only record used from Dec. 23, 2003 through Mar. 17, 2004 when remainder of well was frozen. Stage-discharge relation was affected by ice Nov. 23, 24, 27, 28, Dec. 13, 16, 17, 24, 27-30, 2003, Jan. 4-6, 23-30, Feb. 1-3, 6, 8, 9, 11, 13, and Mar. 1, 6, 7, 2004. Record is good except for periods of no gage-height and ice affected record, which are fair. Station maintained and record developed by Div. III Personnel.

**RATING TABLE.**--TRISMIC011 USED FROM 01-OCT-2003 TO 30-SEP-2004

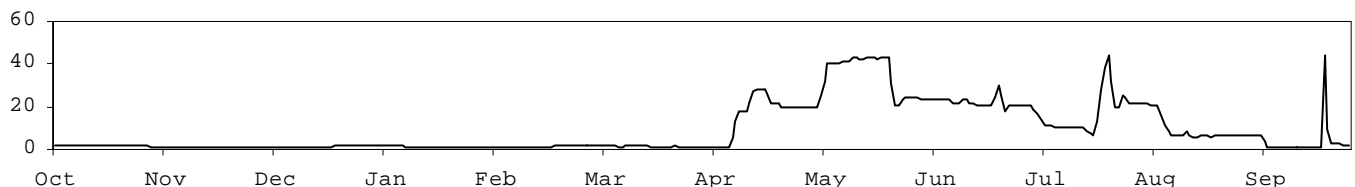
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.4	1.3	1.5	1.4	1.5	1.4	20	23	21	22	6.5
2	1.7	1.4	1.3	1.5	1.4	1.5	1.4	20	23	21	22	6.6
3	1.7	1.4	1.3	1.5	1.4	1.5	1.3	20	23	19	22	6.6
4	1.7	1.4	1.3	1.5	1.4	1.5	1.3	25	23	17	22	6.6
5	1.7	1.4	1.3	1.5	1.4	1.5	1.3	32	23	14	21	6.6
6	1.7	1.3	1.3	1.5	1.4	1.5	1.3	40	23	11	21	4
7	1.8	1.3	1.3	1.5	1.4	1.5	1.3	40	23	11	21	1.1
8	1.8	1.3	1.3	1.4	1.4	1.4	1.3	40	23	11	16	1
9	1.7	1.3	1.3	1.4	1.4	1.4	5.9	40	23	10	11	1
10	1.7	1.3	1.4	1.4	1.4	1.5	13	41	22	10	8.5	.91
11	1.8	1.3	1.4	1.4	1.4	1.6	18	41	22	10	6.6	.92
12	1.7	1.3	1.4	1.4	1.4	1.6	18	41	22	10	6.6	.91
13	1.7	1.4	1.4	1.4	1.4	1.6	18	43	23	10	6.3	.88
14	1.7	1.3	1.4	1.4	1.4	1.5	22	43	23	10	6.9	.9
15	1.7	1.4	1.4	1.4	1.4	1.5	27	42	22	10	8.9	.89
16	1.7	1.4	1.4	1.4	1.4	1.5	28	42	22	9.9	6.9	.88
17	1.7	1.4	1.4	1.4	1.4	1.4	28	43	21	10	5.4	.89
18	1.6	1.4	1.4	1.4	1.4	1.4	28	43	21	8.8	5.6	.88
19	1.5	1.4	1.5	1.4	1.5	1.4	26	43	21	7.4	6.1	1
20	1.6	1.4	1.5	1.4	1.5	1.4	22	42	21	6.9	6.1	.93
21	1.6	1.4	1.5	1.4	1.5	1.4	22	43	21	13	6.1	.94
22	1.6	1.4	1.5	1.4	1.5	1.4	22	43	24	28	5.8	.89
23	1.7	1.4	1.5	1.4	1.5	1.4	20	43	30	38	6.2	44
24	1.6	1.4	1.5	1.4	1.5	1.5	20	31	25	44	6.1	9.2
25	1.5	1.4	1.5	1.4	1.5	1.4	20	21	18	32	6.2	2.5
26	1.5	1.3	1.5	1.4	1.5	1.4	20	21	21	20	6.4	2.5
27	1.5	1.3	1.5	1.4	1.5	1.4	20	23	21	20	6.4	2.4
28	1.4	1.3	1.5	1.4	1.5	1.4	20	24	21	25	6.4	1.9
29	1.4	1.3	1.5	1.4	1.5	1.4	20	24	21	24	6.3	1.9
30	1.4	1.3	1.5	1.4	---	1.4	20	24	21	22	6.4	2
31	1.4	---	1.5	1.4	---	1.4	---	24	---	22	6.6	---
TOTAL	50.4	40.7	43.8	44.1	41.7	45.2	468.5	1062	670	526	320.8	118.22
MEAN	1.6	1.4	1.4	1.4	1.4	1.5	15.6	34	22	17	10.3	3.94
AC-FT	100	81	87	87	83	90	929	2110	1330	1040	636	234
MAX	1.8	1.4	1.5	1.5	1.5	1.6	28	43	30	44	22	44
MIN	1.4	1.3	1.3	1.4	1.4	1.4	1.3	20	18	6.9	5.4	.88

CAL YR	2003	TOTAL	2416.84	MEAN	6.62	MAX	47	MIN	0.13	AC-FT	4790
WTR YR	2004	TOTAL	3431.42	MEAN	9.38	MAX	44	MIN	0.88	AC-FT	6810

MAX DISCH: 84 CFS AT 17:30 ON Sep. 23, 2004 GH 3.91 FT. SHIFT 0.07 FT.  
MAX GH: 3.91 FT. AT 17:30 ON Sep. 23, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

08245000 CONEJOS RIVER BELOW PLATORO RESERVOIR, CO

**LOCATION.**--Lat 37°21'18", long 106°32'37", Conejos County, Hydrologic Unit 13010005, on left bank 1,100 ft downstream from valve house for Platoro Reservoir and 0.7 mi northwest of Platoro.

**DRAINAGE AREA AND PERIOD OF RECORD.**--40 mi<sup>2</sup>. 1937 - 1953 at site one mile downstream. May 1952 to current year at present site.

**GAGE.**--Graphic water-stage recorder and Sutron satellite monitoring system in a timber shelter and concrete well. The control is a concrete weir with sloping sides. Datum of gage is 9,866.60 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for November 6, 2003 through March 24, 2004 when the station was closed for the winter. The gage height was not representative of the flow on March 25-31, and April 1-4, 13-15, 2004 because there was significant surface runoff into the well and the inlets could not drain the well sufficiently to allow accurate gage-heights. On August 19-20, 2004, work was done at the station to correct this problem. Record is good except for periods of no gage-height record and 'e' record which are fair. Station maintained and record developed by Div. III Hydrographic Staff.

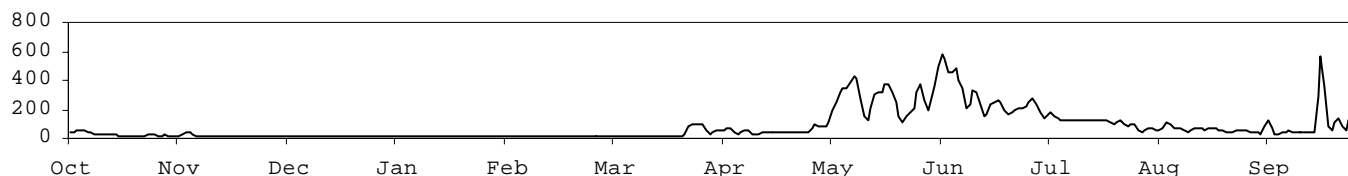
**RATING TABLE.**--CONPLACO13 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	13	8.5	8.7	8.5	8.3	45	89	192	279	45	46
2	42	24	8.5	8.7	8.5	8.2	58	83	248	235	56	45
3	49	42	8.5	8.7	8.4	8.2	58	81	362	175	69	38
4	62	48	8.5	8.7	8.4	8.2	58	107	491	132	67	34
5	60	24	8.5	8.7	8.4	8.2	66	191	576	158	50	88
6	46	7.9	8.6	8.6	8.4	8.2	68	251	553	180	56	120
7	42	7	8.6	8.6	8.4	8.2	41	314	462	152	75	72
8	32	7	8.6	8.6	8.4	8.2	29	344	461	133	104	32
9	31	7	8.6	8.6	8.4	8.2	35	342	487	123	98	34
10	27	7	8.6	8.6	8.4	8.2	49	384	400	126	67	41
11	24	7	8.6	8.6	8.4	8.2	51	425	349	128	63	48
12	30	7	8.6	8.6	8.4	8.2	33	415	201	128	73	52
13	28	7	8.6	8.6	8.4	8.2	23	282	238	128	62	41
14	26	7	8.6	8.6	8.4	8.2	23	155	328	128	46	36
15	19	7	8.6	8.6	8.4	8.2	37	127	322	127	50	39
16	13	7	8.6	8.6	8.4	8.1	43	203	231	127	66	40
17	15	7	8.6	8.6	8.3	8.1	40	307	147	121	74	41
18	15	7.7	8.6	8.6	8.3	8.1	38	322	171	122	65	36
19	15	8.5	8.6	8.6	8.3	8.1	38	323	233	128	59	44
20	19	8.5	8.7	8.5	8.3	8.1	38	368	248	128	65	290
21	20	8.5	8.7	8.5	8.3	8.1	38	378	261	127	73	567
22	16	8.5	8.7	8.5	8.3	8.1	37	317	243	120	70	353
23	25	8.5	8.7	8.5	8.3	8.1	37	247	187	104	59	79
24	34	8.5	8.7	8.5	8.3	33	37	153	171	94	50	60
25	25	8.5	8.7	8.5	8.3	84	38	105	179	112	42	108
26	16	8.5	8.7	8.5	8.3	94	41	151	198	121	45	132
27	19	8.5	8.7	8.5	8	94	41	184	204	96	46	81
28	22	8.5	8.7	8.5	8.3	94	47	213	204	80	50	62
29	13	8.5	8.7	8.5	8.3	94	68	321	225	99	50	120
30	12	8.5	8.7	8.5	---	59	94	366	255	95	50	124
31	18	---	8.7	8.5	---	30	---	268	---	59	53	---
TOTAL	854	345.6	267.3	265.9	242.2	769.9	1349	7816	8827	4065	1898	2903
MEAN	28	11.5	8.6	8.6	8.4	24.8	45	252	294	131	61	97
AC-FT	1690	685	530	527	480	1530	2680	15500	17510	8060	3760	5760
MAX	62	48	8.7	8.7	8.5	94	94	425	576	279	104	567
MIN	12	7	8.5	8.5	8	8.1	23	81	147	59	42	32
CAL YR 2003	TOTAL	24821.9	MEAN	68.0	MAX	593	MIN	6.0	AC-FT	49230		
WTR YR 2004	TOTAL	29602.9	MEAN	80.9	MAX	576	MIN	7.0	AC-FT	58720		

MAX DISCH: 621 CFS AT 03:15 ON Jun. 6, 2004 GH 3.22 FT. SHIFT -0.15 FT.  
MAX GH: 3.22 FT. AT 03:15 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08246500 CONEJOS RIVER NEAR MOGOTE, CO

**LOCATION.**--Lat 37°03'14", long 106°11'13", in SE¼SE¼ sec. 34, T.33 N., R.7 E., Conejos County, Hydrologic Unit 13010005, on left bank 75 ft downstream from bridge on State Highway 174, 0.4 mi downstream from Fox Creek, 5.3 mi west of Mogote, and 10 mi west of Antonito.

**DRAINAGE AREA AND PERIOD OF RECORD.**--282 mi<sup>2</sup>. Intermittent, non-recording data from 1903-1915 at various sites. Water stage recorder from 1915-Oct. 1988 at different site. Oct. 1988-present, water stage recorder at current site.

**GAGE.**--Graphic water-stage recorder in a 5 ft. diameter metal shelter and well. Gage is also equipped with a Sutron river satellite monitoring system with thermistor. Datum of gage is 8,271.54 ft, Colorado State Highway datum.

**REMARKS.**--Record is complete and reliable. Stage-discharge relation was affected by ice Nov. 24, 2003 through March 10, 2004. Record is good except for the periods of ice-affected record, which are fair to poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--CONMOGCO12 USED FROM 01-OCT-2003 TO 30-SEP-2004

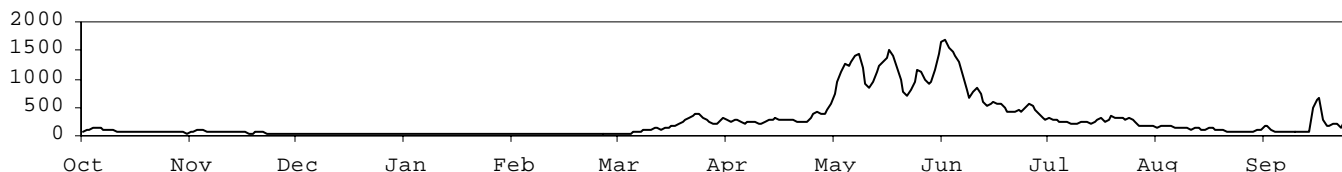
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	59	48	41	45	43	223	403	897	513	180	83
2	88	86	45	43	44	45	279	385	930	467	168	78
3	112	121	40	40	45	47	305	441	1170	394	190	76
4	128	111	40	37	46	50	274	573	1440	315	183	94
5	131	107	42	31	44	47	262	727	1640	286	162	122
6	125	84	45	29	42	46	279	955	1670	317	148	159
7	114	72	46	33	42	50	270	1110	1560	295	169	164
8	106	67	44	40	44	56	233	1260	1460	264	172	102
9	91	62	36	40	42	62	228	1240	1410	243	190	76
10	88	62	36	40	42	74	245	1290	1290	231	162	74
11	86	61	36	40	42	88	256	1420	1050	231	129	76
12	79	59	37	43	38	105	241	1440	801	225	128	80
13	81	63	34	40	37	118	211	1210	657	221	133	82
14	77	67	38	40	40	125	222	920	788	215	123	72
15	74	59	34	43	41	125	236	829	838	236	131	66
16	68	55	31	45	41	121	279	947	736	237	118	67
17	61	63	37	42	43	124	296	1140	603	233	124	68
18	60	50	43	40	45	141	303	1220	524	221	127	68
19	60	50	45	39	46	164	283	1310	578	251	114	75
20	59	55	48	42	44	192	275	1370	592	289	111	483
21	59	59	46	37	44	218	277	1500	571	323	125	641
22	61	62	42	34	42	263	265	1420	564	256	129	669
23	59	31	38	36	42	285	264	1210	496	268	116	295
24	62	35	37	37	43	299	238	996	431	347	100	192
25	72	44	38	38	42	368	242	758	413	324	91	178
26	62	40	43	29	44	403	231	703	437	317	83	224
27	58	38	32	33	47	378	252	805	447	303	80	219
28	59	38	29	37	44	306	309	941	426	284	81	155
29	61	41	30	39	43	269	377	1150	484	302	82	200
30	56	46	32	44	---	261	415	1130	557	279	81	248
31	50	---	37	47	---	215	---	995	---	231	81	---
TOTAL	2432	1847	1209	1199	1244	5088	8070	31798	25460	8918	4011	5186
MEAN	79	62	39	39	43	164	269	1026	849	288	129	173
AC-FT	4820	3660	2400	2380	2470	10090	16010	63070	50500	17690	7960	10290
MAX	131	121	48	47	47	403	415	1500	1670	513	190	669
MIN	50	31	29	29	37	43	211	385	413	215	80	66

CAL YR	2003	TOTAL	66160	MEAN	181	MAX	1500	MIN	24	AC-FT	131200
WTR YR	2004	TOTAL	96462	MEAN	264	MAX	1670	MIN	29	AC-FT	191300

MAX DISCH: 1790 CFS AT 05:45 ON Jun. 6, 2004 GH 4.93 FT. SHIFT 0.04 FT.  
MAX GH: 4.93 FT. AT 05:45 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08247500 SAN ANTONIO RIVER AT ORTIZ, CO

**LOCATION.**--Lat 36°59'35", long 106°02'17", in NE¼SE¼ sec. 24, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 800 ft south of Colorado-New Mexico State line, 0.4 mi southeast of Ortiz, and 0.4 mi upstream from Los Pinos River.

**DRAINAGE AREA AND PERIOD OF RECORD.**--110 mi². April 1919 to Oct. 1920, Oct. 1924 to current year(no winter record prior to 1941). Monthly data only for some periods.

**GAGE.**--Graphic water-stage recorder in metal pipe shelter and well. Sutron satellite monitoring system. Elevation of gage is 7,970 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for the periods December 16, 2003 - March 15, 2004 when the station was closed for the winter, and Dec. 11-15, 2003 when floats were affected by ice in well. The stage-discharge relation was affected by ice November 15 - December 10, 2003 and March 16, 17, 2004. There was no flow July 9-25, August 7-17, and August 25 - September 30, 2004. Record is good except for periods of no gage height and ice affected record, which are fair to poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--SANORTCO13 USED FROM 01-OCT-2003 TO 31-DEC-2003  
 SANORTCO14 USED FROM 01-JAN-2004 TO 30-SEP-2004

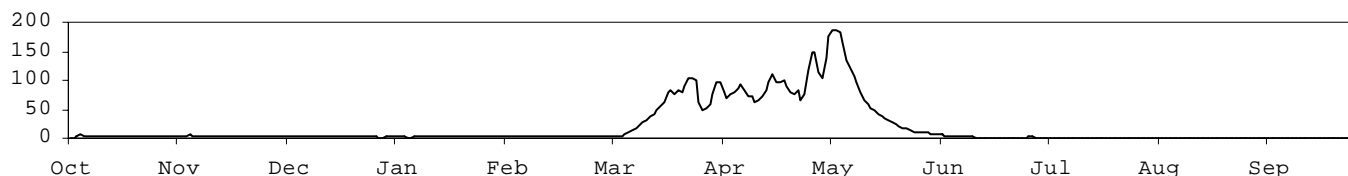
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.9	2.7	2	2.6	3.3	75	113	8.7	3	.66	0
2	1.1	2.1	2.7	2.1	2.5	3.5	98	104	7.9	1.7	.39	0
3	2.3	3.2	2.4	2	2.6	3.7	95	137	7.3	.9	.2	0
4	8.3	6.5	2.4	1.8	2.7	4	79	177	6.7	.48	.13	0
5	4.7	3.5	2.5	1.6	2.6	3.7	69	187	5.8	.18	.07	0
6	3.1	2.7	2.6	1.6	2.5	4	77	187	4.7	.1	.01	0
7	2.6	2.5	2.7	1.9	2.6	6	79	182	3.8	.06	0	0
8	2.5	2.8	2.6	2.1	2.7	9	86	164	3.4	.01	0	0
9	2.4	3	2.1	2.1	2.6	13	92	135	2.9	0	0	0
10	2.2	2.5	2.2	2.1	2.6	18	84	121	2.7	0	0	0
11	2.1	2.5	2.2	2.1	2.6	22	74	107	2.6	0	0	0
12	2.2	2.8	2.3	2.1	2.4	27	73	95	2.5	0	0	0
13	2.1	3.7	2	2.1	2.4	32	63	79	2.2	0	0	0
14	1.9	3.2	2.2	2.1	2.6	37	64	66	2	0	0	0
15	1.9	3.4	2	2.3	2.7	42	71	57	1.7	0	0	0
16	1.9	3.4	1.8	2.5	2.7	47	82	52	1.5	0	0	0
17	2	4.2	2	2.4	2.9	54	95	47	1.3	0	0	0
18	2.1	3.2	2.2	2.2	3	62	110	42	1.2	0	.57	0
19	2.1	2.4	2.2	2.1	3.1	79	98	38	1	0	.32	0
20	2.1	3.2	2.3	2.3	3	84	97	35	.8	0	.22	0
21	2	3.2	2.2	2.1	3	76	99	31	.57	0	.16	0
22	2	2.9	2	2.1	2.9	84	90	27	.36	0	.13	0
23	2	2.4	1.9	2.2	3.1	81	81	24	.26	0	.05	0
24	2	2.4	1.9	2.5	3.1	88	75	22	.18	0	0	0
25	2	2.9	2	2.5	3.1	104	84	18	.12	0	0	0
26	2.1	2.6	2.1	1.9	3.3	102	67	16	.09	.81	0	0
27	1.9	2.3	1.8	2	3.7	99	76	14	.09	1.2	0	0
28	2.2	2.4	1.6	2.3	3.4	63	117	12	.12	.82	0	0
29	2.5	2.6	1.7	2.4	3.2	50	148	10	.49	.56	0	0
30	2.2	2.7	1.8	2.5	---	51	150	9.9	2.3	.77	0	0
31	2	---	1.9	2.7	---	59	---	9.9	---	.83	0	---
TOTAL	73.7	89.1	67	66.7	82.2	1411.2	2648	2318.8	75.28	11.42	2.91	0
MEAN	2.4	3	2.2	2.2	2.8	45.5	88	74.8	2.51	.37	.09	0
AC-FT	146	177	133	132	163	2800	5250	4600	149	23	5.8	0
MAX	8.3	6.5	2.7	2.7	3.7	104	150	187	8.7	3	.66	0
MIN	1.1	1.9	1.6	1.6	2.4	3.3	63	9.9	.09	0	0	0

CAL YR 2003 TOTAL 5514.72 MEAN 15.1 MAX 223 MIN 0 AC-FT 10940  
 WTR YR 2004 TOTAL 6846.31 MEAN 18.7 MAX 187 MIN 0 AC-FT 13580

MAX DISCH: 239 CFS AT 05:00 ON May. 6, 2004 GH 3.17 FT. SHIFT -0.02 FT.  
 MAX GH: 3.17 FT. AT 05:00 ON May. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08248000 LOS PINOS RIVER NEAR ORTIZ, CO

**Location.**--Lat 36°58'56", long 106°04'23", on line between secs. 26 and 27, T.32 N., R.8 E., Rio Arriba County, New Mexico, Hydrologic Unit 13010005, on left bank 0.9 mi south of Colorado-New Mexico State line, 2.1 mi southwest of Ortiz, and 2.9 mi upstream from mouth.

**DRAINAGE AREA AND PERIOD OF RECORD.**--167 mi<sup>2</sup>. Jan. 1, 1915 to Apr. 14, 1955, water stage recorder at location 350' upstream. Apr. 15, 1955 relocated to present site.

**GAGE.**--Water-stage recorder with satellite telemetry in a metal pipe shelter and well with supplemental outside chain gage. Elevation of gage is 8,040 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable except for December 16, 2003 through March 15, 2004 when the station was closed for the winter, and June 10-14, 2004 when the inlet valves were left closed. Stage-discharge relation affected by ice November 19 - December 15, 2003. Record is good except for periods of no gage height and ice affected record, which are poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--LOSORTCO13 USED FROM 01-OCT-2003 TO 30-SEP-2004

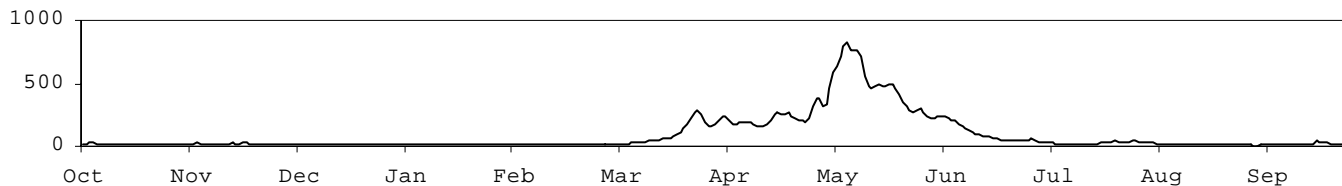
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	20	16	15	18	209	316	230	46	27	9.3
2	17	18	19	17	14	19	235	340	226	36	26	7.6
3	27	29	17	15	15	20	238	453	231	31	25	7.3
4	26	22	17	13	16	22	200	581	236	27	25	10
5	22	17	18	11	15	19	176	637	239	25	22	21
6	20	17	19	11	14	21	178	707	226	24	22	16
7	20	19	20	13	15	24	187	795	214	23	22	13
8	19	21	19	15	16	28	198	819	199	22	21	12
9	19	18	16	14	15	32	194	761	178	22	19	12
10	18	18	17	14	15	36	186	765	162	20	18	11
11	19	18	17	14	15	39	175	766	147	20	17	11
12	19	17	17	14	13	42	162	709	131	20	18	10
13	17	25	16	14	13	45	151	560	115	19	17	10
14	16	20	18	14	15	48	164	483	101	18	18	10
15	16	20	17	15	16	51	181	466	90	18	17	9.6
16	16	25	15	16	16	56	213	476	86	18	16	9.2
17	16	24	16	15	18	60	249	489	78	21	15	9.2
18	16	15	17	14	19	69	277	472	72	21	15	8.6
19	16	19	17	13	20	77	254	481	66	23	15	10
20	16	19	18	14	19	89	256	485	60	29	15	52
21	15	20	18	13	19	111	269	485	53	33	17	30
22	15	16	17	12	18	146	244	459	51	24	17	30
23	15	13	16	12	19	175	225	409	51	24	15	25
24	14	13	16	13	19	225	204	356	48	42	13	22
25	14	19	17	13	19	272	199	316	45	34	12	21
26	12	17	18	11	20	282	187	285	45	36	11	23
27	14	15	15	11	22	258	229	274	47	39	11	21
28	15	15	13	14	19	195	325	280	42	39	10	20
29	14	17	14	15	17	165	384	301	47	53	9.8	25
30	14	19	15	16	---	160	380	270	58	42	9.6	27
31	13	---	15	16	---	174	---	238	---	32	9.5	---
TOTAL	526	558	524	428	486	2978	6729	15234	3574	881	524.9	502.8
MEAN	17	19	17	14	17	96	224	491	119	28	16.9	16.8
AC-FT	1040	1110	1040	849	964	5910	13350	30220	7090	1750	1040	997
MAX	27	29	20	17	22	282	384	819	239	53	27	52
MIN	12	13	13	11	13	18	151	238	42	18	9.5	7.3

CAL YR	2003	TOTAL	24854	MEAN	68.1	MAX	531	MIN	6.7	AC-FT	49300
WTR YR	2004	TOTAL	32945.7	MEAN	90	MAX	819	MIN	7.3	AC-FT	65350

MAX DISCH: 1040 CFS AT 23:15 ON May. 7, 2004 GH 5.26 FT. SHIFT -0.02 FT.  
MAX GH: 5.26 FT. AT 23:15 ON May. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08248500 SAN ANTONIO RIVER AT MOUTH, NEAR MANASSA, CO

**LOCATION.**--Lat 37°10'38", long 105°52'35", in SE¼NE¼ sec. 21, T.34 N., R.10 E., Conejos County, Hydrologic Unit 13010005, on right bank 0.3 mi. downstream from bridge on State Highway 142, 2.2 mi. upstream from mouth, and 3.3 mi. east of Manassa, Co.

**DRAINAGE AREA.**--348 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder with satellite telemetry in metal pipe shelter and well. Altitude of gage is 7,650 ft. from topographic map.

**REMARKS.**--Record is complete and reliable except for January 9 through February 4, 2004 when the well was frozen, February 5 through March 23, 2004 when the station was closed for the winter, and April 5, 6, 2004 when the chart recorder float sank and the satellite data was incomplete. There was no flow October 1, 2003 through January 8, 2004, and July 20 through September 30, 2004. There was no flow for 173 days. Record is good except for periods of no gage height, which are fair to poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--SANMANCO18 USED FROM 01-OCT-2003 TO 30-SEP-2004

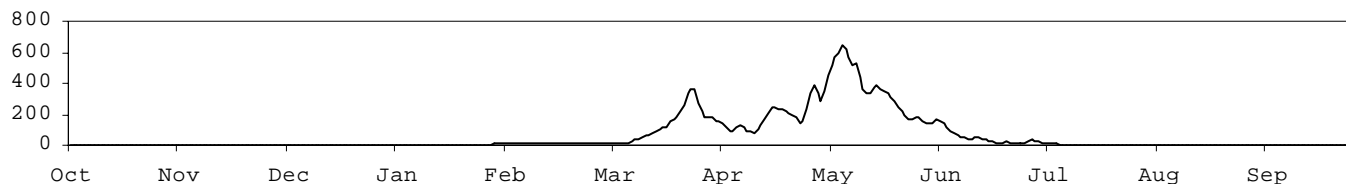
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	7	10	180	333	143	40	0	0
2	0	0	0	0	6.8	10	160	281	136	30	0	0
3	0	0	0	0	6.6	11	161	345	140	22	0	0
4	0	0	0	0	7	12	141	456	164	16	0	0
5	0	0	0	0	7.2	13	110	517	152	12	0	0
6	0	0	0	0	7.2	12	96	564	144	9.7	0	0
7	0	0	0	0	7	14	90	596	114	8.2	0	0
8	0	0	0	0	7.4	18	111	644	92	7	0	0
9	0	0	0	.84	7.8	26	126	623	73	5.5	0	0
10	0	0	0	3.7	7.8	34	115	574	60	4.3	0	0
11	0	0	0	4	7.8	45	93	520	55	3.3	0	0
12	0	0	0	4.6	7.8	54	88	527	47	2.3	0	0
13	0	0	0	5	7.4	62	72	444	40	1.5	0	0
14	0	0	0	5	7.4	70	104	363	42	1.4	0	0
15	0	0	0	5	8	80	132	340	54	1.6	0	0
16	0	0	0	5.4	8.4	88	162	340	53	.61	0	0
17	0	0	0	6	8.4	98	202	379	42	.59	0	0
18	0	0	0	6	9	110	251	386	34	.31	0	0
19	0	0	0	5.8	9.4	120	241	367	28	.09	0	0
20	0	0	0	5.6	9.8	150	229	347	20	0	0	0
21	0	0	0	6	9.6	170	235	337	16	0	0	0
22	0	0	0	5.8	9.6	180	218	313	15	0	0	0
23	0	0	0	5.6	9.4	220	207	279	18	0	0	0
24	0	0	0	5.6	9.8	256	194	250	20	0	0	0
25	0	0	0	6	9.8	331	177	219	19	0	0	0
26	0	0	0	6	9.8	360	147	192	18	0	0	0
27	0	0	0	5.8	10	362	158	174	17	0	0	0
28	0	0	0	5.8	11	266	234	174	16	0	0	0
29	0	0	0	6.4	11	214	332	185	17	0	0	0
30	0	0	0	6.8	---	180	385	181	30	0	0	0
31	0	---	0	7	---	179	---	158	---	0	0	---
TOTAL	0	0	0	123.74	245.2	3755	5151	11408	1819	166.4	0	0
MEAN	0	0	0	3.99	8.5	121	172	368	61	5.37	0	0
AC-FT	0	0	0	245	486	7450	10220	22630	3610	330	0	0
MAX	0	0	0	7	11	362	385	644	164	40	0	0
MIN	0	0	0	0	6.6	10	72	158	15	0	0	0

CAL YR 2003 TOTAL 10006.86 MEAN 27.4 MAX 321 MIN 0 AC-FT 19850  
WTR YR 2004 TOTAL 22668.34 MEAN 61.9 MAX 644 MIN 0 AC-FT 44960

MAX DISCH: 737 CFS AT 18:00 ON May. 8, 2004 GH 5.38 FT. SHIFT -0.26 FT.  
MAX GH: 5.38 FT. AT 18:00 ON May. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08249000 CONEJOS RIVER NEAR LASAUSES, MAIN (NORTH) CHANNEL, CO

**LOCATION.**--Lat 37°18'01", long 105°44'47", in SW¼SW¼ sec. 2, T. 35 N., R. 11 E., Conejos County, on left bank of main channel 125 ft downstream from bridge on State Route 158, 1.0 mi upstream from mouth, 2.1 mi north of LaSauses, and 13 mi southeast of Alamosa.

**DRAINAGE AREA AND PERIOD OF RECORD.**--887 mi<sup>2</sup>. Water stage recorder since March 29, 1921 at five sites close to present location.

**GAGE.**--Water-stage recorder with satellite telemetry in timber shelter and well with outside chain gage. Datum of gage is 7,495.02 ft above mean sea level (levels by Bureau of Reclamation). At present site and datum since Oct. 1, 1937.

**REMARKS.**--Record is complete and reliable except for February 2, 6, 12-17, 2004, when the well was frozen. Stage-discharge relation affected by ice December 22-31, 2003; January 1-8, 23-30, February 1, 3-5, 7-11, 18, 2004. There was no flow October 1 - December 17, 2003; August 26 - September 30, 2004 (114 days). Record good except for periods of no gage height and ice affected record, which are fair. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--NORLASCO14 USED FROM 01-OCT-2003 TO 30-SEP-2004

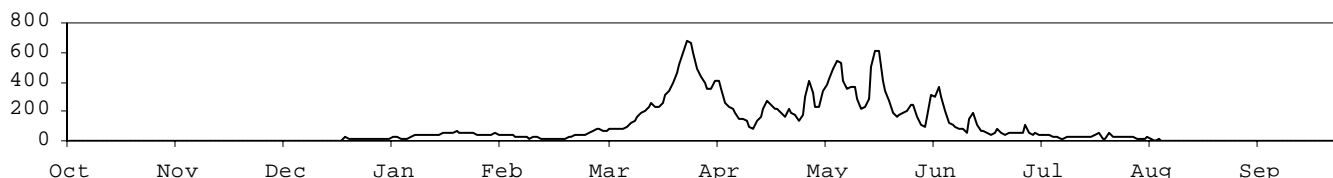
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	18	42	76	351	332	113	110	23	0
2	0	0	0	21	35	74	347	234	100	54	14	0
3	0	0	0	21	37	72	405	225	159	45	12	0
4	0	0	0	20	39	87	408	345	314	51	17	0
5	0	0	0	19	34	82	348	382	302	42	24	0
6	0	0	0	20	26	75	255	414	362	42	17	0
7	0	0	0	30	24	80	232	484	300	38	3.3	0
8	0	0	0	40	27	85	223	542	205	34	6.8	0
9	0	0	0	45	22	97	188	530	123	26	5.2	0
10	0	0	0	44	20	118	152	410	111	24	4.5	0
11	0	0	0	42	21	139	146	359	94	19	3.8	0
12	0	0	0	43	21	160	136	369	76	15	3.8	0
13	0	0	0	41	17	188	96	369	78	22	3.6	0
14	0	0	0	38	17	204	85	280	49	24	3.5	0
15	0	0	0	45	18	231	140	222	145	25	3.6	0
16	0	0	0	58	18	254	157	235	186	25	3.3	0
17	0	0	0	51	18	231	213	291	111	28	.65	0
18	0	0	6.5	53	18	232	268	495	67	24	.42	0
19	0	0	26	55	18	256	250	611	62	23	.59	0
20	0	0	17	63	19	307	213	611	58	22	.65	0
21	0	0	17	58	24	344	217	410	42	36	.47	0
22	0	0	16	53	29	387	192	342	60	52	.52	0
23	0	0	15	48	34	458	165	272	87	20	.59	0
24	0	0	14	48	39	510	221	189	56	18	.2	0
25	0	0	15	50	43	596	188	156	43	58	.05	0
26	0	0	17	37	45	681	170	179	57	29	0	0
27	0	0	15	39	57	666	139	185	56	22	0	0
28	0	0	14	43	72	595	183	200	60	24	0	0
29	0	0	14	44	75	492	299	245	60	28	0	0
30	0	0	15	47	---	432	407	248	61	24	0	0
31	0	---	16	49	---	398	---	161	---	28	0	---
TOTAL	0	0	217.5	1283	909	8607	6794	10327	3597	1032	152.54	0
MEAN	0	0	7.02	41	31	278	226	333	120	33	4.92	0
AC-FT	0	0	431	2540	1800	17070	13480	20480	7130	2050	303	0
MAX	0	0	26	63	75	681	408	611	362	110	24	0
MIN	0	0	0	18	17	72	85	156	42	15	0	0

CAL YR	2003	TOTAL	2025.05	MEAN	5.55	MAX	33	MIN	0	AC-FT	4020
WTR YR	2004	TOTAL	32919.04	MEAN	89.9	MAX	681	MIN	0	AC-FT	65290

MAX DISCH: 731 CFS AT 20:15 ON Mar. 26, 2004 GH 4.78 FT. SHIFT -0.04 FT.  
MAX GH: 4.78 FT. AT 20:15 ON Mar. 26, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08249000 CONEJOS RIVER NEAR LASAUSES, SECONDARY (SOUTH) CHANNEL, CO

**LOCATION.**--Lat 37°18'01", long 105°44'47", in SE¼NE¼ sec. 10, T. 35 N., R. 11 E., Conejos County, on left bank of secondary channel 230 ft upstream from bridge on State Route 158, 1.0 mi upstream from mouth, 2.0 mi north of LaSauses, and 13 mi southeast of Alamosa.

**DRAINAGE AREA AND PERIOD OF RECORD.**--887 mi<sup>2</sup>. Water stage recorder since March 29, 1921 at various sites close to present location.

**GAGE.**--Graphic water-stage recorder and Sutron satellite monitoring equipment in metal pipe shelter and well. Datum of gage is 7,496.89 ft above mean sea level (levels by Bureau of Reclamation). At present site and datum since Oct. 14, 1965.

**REMARKS.**--Record is complete and reliable except for December 22, 2003 through January 1, 2004 when the well was frozen, and January 2 through March 16, 2004 when the station was closed for the winter. There was no flow October 1 through December 19, 2003, and July 14 through September 30, 2004 (159 days). Record is good except for periods of no gage height record, which should be considered fair to poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--SOULASCO07 USED FROM 01-OCT-2003 TO 30-SEP-2004

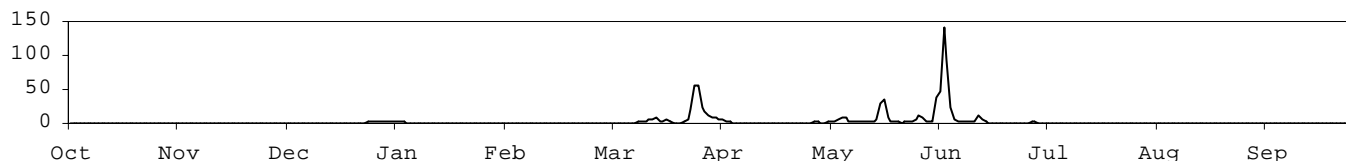
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	3.5	.05	.35	7.8	2	3.9	2	0	0
2	0	0	0	4	.05	.35	8.2	1.3	2.7	2.3	0	0
3	0	0	0	3.2	.05	.35	7.3	.81	2.6	.64	0	0
4	0	0	0	1.5	.05	.4	5.7	2	38	.51	0	0
5	0	0	0	.2	.05	.38	2.6	3.4	48	.44	0	0
6	0	0	0	.05	.05	.37	1.5	4.1	142	.35	0	0
7	0	0	0	.05	.05	.4	1	4.5	95	.31	0	0
8	0	0	0	.05	.05	.5	1	8.7	24	.26	0	0
9	0	0	0	.05	.05	.7	.92	9.9	6.2	.19	0	0
10	0	0	0	.05	.05	1	.75	4.2	3.6	.13	0	0
11	0	0	0	.08	.05	2	.65	2.8	2.7	.09	0	0
12	0	0	0	.08	.05	3	.54	2.7	2.3	.05	0	0
13	0	0	0	.05	.05	4	.4	3.8	2.3	.01	0	0
14	0	0	0	.05	.05	5	.33	2.9	2.6	0	0	0
15	0	0	0	.05	.07	7	.3	2.7	3.2	0	0	0
16	0	0	0	.05	.1	8	.32	3	12	0	0	0
17	0	0	0	.05	.15	3.7	.35	3	5.9	0	0	0
18	0	0	0	.05	.23	3.5	.51	6.6	2.2	0	0	0
19	0	0	0	.05	.33	4.9	.57	30	1.3	0	0	0
20	0	0	.14	.05	.33	4.1	.49	34	1.3	0	0	0
21	0	0	1.1	.05	.34	.89	.44	7.6	.95	0	0	0
22	0	0	1.1	.05	.33	.94	.42	2.8	.67	0	0	0
23	0	0	1	.05	.35	1.2	.55	2.2	1.2	0	0	0
24	0	0	1	.05	.37	2.1	.52	1.6	1.4	0	0	0
25	0	0	2	.05	.36	4.6	.45	1.3	.7	0	0	0
26	0	0	3	.05	.36	21	.36	2.1	.67	0	0	0
27	0	0	2.5	.03	.4	57	.3	3	.61	0	0	0
28	0	0	2	.05	.37	56	.27	3.1	.59	0	0	0
29	0	0	2	.05	.35	24	.4	6.3	.56	0	0	0
30	0	0	2.5	.05	---	17	2.7	13	.65	0	0	0
31	0	---	3	.05	---	13	---	7.6	---	0	0	---
TOTAL	0	0	21.34	13.74	5.14	247.73	47.64	183.01	409.8	7.28	0	0
MEAN	0	0	.69	.44	.18	7.99	1.59	5.9	13.7	.23	0	0
AC-FT	0	0	42	27	10	491	94	363	813	14	0	0
MAX	0	0	3	4	.4	57	8.2	34	142	2.3	0	0
MIN	0	0	0	.03	.05	.35	.27	.81	.56	0	0	0

CAL YR 2003 TOTAL 598.6 MEAN 1.64 MAX 77 MIN 0 AC-FT 1190  
WTR YR 2004 TOTAL 935.68 MEAN 2.56 MAX 142 MIN 0 AC-FT 1860

MAX DISCH: 170 CFS AT 07:15 ON Jun. 6, 2004 GH 3.46 FT. SHIFT -0.45 FT.  
MAX GH: 3.46 FT. AT 07:15 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## RIO GRANDE BASIN

08249000 CONEJOS RIVER NEAR LASAUSES, CO (COMBINED)

**LOCATION.**--Lat 37°18'01", long 105°44'47", in SW¼SW¼ sec. 2, and SE¼NE¼ sec. 10 (two channels), T.35 N., R.11 E., Conejos County, Hydrologic Unit 13010005, on left bank of main channel 125 ft downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft upstream from bridge on State Route 158, 1.0 mi upstream from mouth, 2.1 mi north of Lasauses, and 13 mi southeast of Alamosa.

**DRAINAGE AREA AND PERIOD OF RECORD.**--887 mi<sup>2</sup>. Mar. 1921, water stage recorders, at several locations close to present sites.

**GAGE.**--Two water-stage recorders with satellite telemetry. Datum of gage on main (north) channel is 7,495.02 ft above National Geodetic Vertical Datum of 1929, and on secondary (south) channel is 7,496.89 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

**REMARKS.**--Record should be good except for periods of no record and ice affected record, which are poor. Diversions above station for irrigation of about 75,000 acres. Practically entire flow is diverted and record represents mainly return flow. Record developed by Div. III Hydrographic Staff.

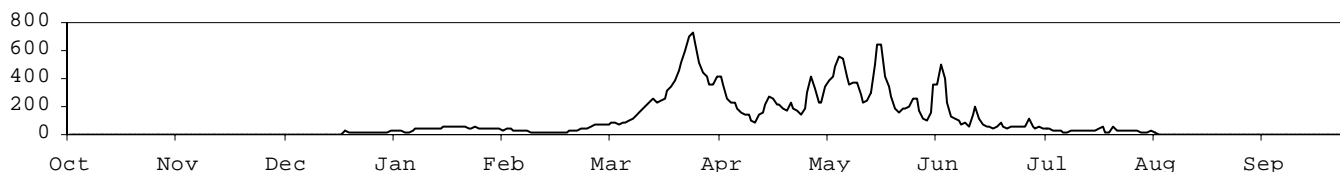
## COMBINED CONEJOS RIVER (NORLASCO, SOULASCO)

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	22	42	76	359	334	117	112	23	0
2	0	0	0	25	35	74	355	235	103	56	14	0
3	0	0	0	24	37	72	412	226	162	46	12	0
4	0	0	0	22	39	87	414	347	352	52	17	0
5	0	0	0	19	34	82	351	385	350	42	24	0
6	0	0	0	20	26	75	257	418	504	42	17	0
7	0	0	0	30	24	80	233	489	395	38	3.3	0
8	0	0	0	40	27	86	224	551	229	34	6.8	0
9	0	0	0	45	22	98	189	540	129	26	5.2	0
10	0	0	0	44	20	119	153	414	115	24	4.5	0
11	0	0	0	42	21	141	147	362	97	19	3.8	0
12	0	0	0	43	21	163	137	372	78	15	3.8	0
13	0	0	0	41	17	192	96	373	80	22	3.6	0
14	0	0	0	38	17	209	85	283	52	24	3.5	0
15	0	0	0	45	18	238	140	225	148	25	3.6	0
16	0	0	0	58	18	262	157	238	198	25	3.3	0
17	0	0	0	51	18	235	213	294	117	28	.65	0
18	0	0	6.5	53	18	236	269	502	69	24	.42	0
19	0	0	26	55	18	261	251	641	63	23	.59	0
20	0	0	17	63	19	311	213	645	59	22	.65	0
21	0	0	18	58	24	345	217	418	43	36	.47	0
22	0	0	17	53	29	388	192	345	61	52	.52	0
23	0	0	16	48	34	459	166	274	88	20	.59	0
24	0	0	15	48	39	512	222	191	57	18	.2	0
25	0	0	17	50	43	601	188	157	44	58	.05	0
26	0	0	20	37	45	702	170	181	58	29	0	0
27	0	0	18	39	57	723	139	188	57	22	0	0
28	0	0	16	43	72	651	183	203	61	24	0	0
29	0	0	16	44	75	516	299	251	61	28	0	0
30	0	0	18	47	---	449	410	261	62	24	0	0
31	0	---	19	49	---	411	---	169	---	28	0	---
TOTAL	0	0	239.5	1296	909	8854	6841	10512	4009	1038	152.54	0
MEAN	0	0	7.73	42	31	286	228	339	134	34	4.92	0
AC-FT	0	0	475	2570	1800	17560	13570	20850	7950	2060	303	0
MAX	0	0	26	63	75	723	414	645	504	112	24	0
MIN	0	0	0	19	17	72	85	157	43	15	0	0

CAL YR 2003 TOTAL 2629.22 MEAN 7.2 MAX 83 MIN 0 AC-FT 5220  
WTR YR 2004 TOTAL 33851.04 MEAN 92.5 MAX 723 MIN 0 AC-FT 67140

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





RIO GRANDE BASIN

08250000 CULEBRA CREEK AT SAN LUIS, CO

**LOCATION.**--Lat 37°11'01", long 105°25'31", Costilla County, Hydrologic Unit 13010002, in Beaubien Grant, on left bank at bridge 1.0 mi. south of San Luis and 1.0 mi. upstream from Rito Seco.

**DRAINAGE AREA AND PERIOD OF RECORD.**--220 mi<sup>2</sup>. Station established April 1, 1927 by Colo. State Engineer's Office at present site, different datum. May 1931 new flume installed and datum established at the same site.

**GAGE.**--Graphic water-stage recorder and a Stevens Data logger in a metal shelter and rock well. A Sutron Data Collection Platform and Shaft Encoder were installed on June 9, 2004. Altitude of gage is 8,000 ft from topographic map.

**REMARKS.**--Record is complete and reliable for the entire water year, except for January 26-30, and February 7, 9-18, 2004 when the well was frozen. Record is good for the entire water year except for those periods of missing gage height record, which should be considered fair to poor. During the winter the record may show a pattern of jagged peaks in the late morning hours. While this pattern does appear to be ice affected record, it has been verified by the hydrographic staff of Division 3 that this is caused by freezing and releasing of water above the gage, and that this is good record. Station maintained and record developed by Div. III Hydrographic Staff.

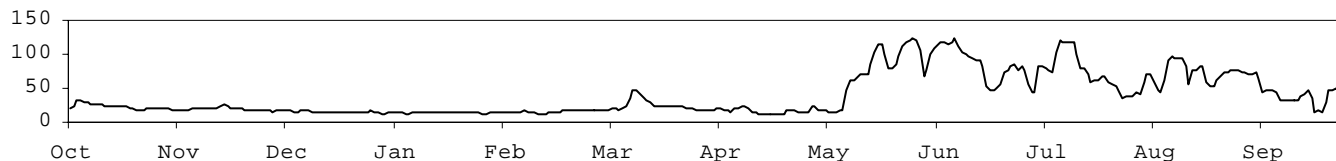
**RATING TABLE.**--CULSANCO05 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	17	19	14	15	18	17	23	68	57	43	73
2	25	17	19	15	14	19	18	19	76	45	42	72
3	33	18	17	16	16	19	21	17	99	44	58	71
4	32	19	16	14	16	20	20	17	109	82	71	73
5	29	20	16	13	16	20	19	16	116	82	72	66
6	28	20	17	13	14	19	17	16	119	79	59	45
7	27	22	17	14	14	20	16	15	117	76	46	47
8	27	22	18	14	17	24	20	17	114	74	45	46
9	26	21	16	14	15	36	21	17	119	104	63	47
10	26	21	15	14	14	46	23	46	123	121	90	43
11	25	20	15	14	14	48	23	62	111	119	97	31
12	25	20	15	15	13	42	20	61	104	119	95	32
13	25	24	14	15	12	36	16	66	100	118	94	32
14	24	26	16	15	13	33	15	72	97	118	95	31
15	23	24	15	14	14	29	13	70	93	101	83	31
16	23	21	14	15	14	25	13	71	92	79	57	31
17	23	20	15	15	15	25	13	86	90	78	76	37
18	21	20	15	15	16	25	13	104	81	72	77	42
19	20	20	15	15	17	25	13	116	54	59	82	46
20	19	19	16	15	17	25	13	116	47	63	81	36
21	19	19	16	15	17	24	13	100	47	63	58	16
22	19	19	16	16	17	23	13	79	49	68	53	17
23	20	17	14	14	17	23	19	78	56	67	52	16
24	21	18	15	16	18	23	18	85	73	60	62	29
25	22	19	16	15	18	22	17	96	75	56	67	47
26	21	19	17	14	18	21	16	111	82	53	74	48
27	22	17	14	13	18	21	15	117	84	48	74	49
28	21	16	14	13	18	19	15	121	77	35	75	37
29	21	17	11	15	18	19	15	124	83	37	75	19
30	19	18	12	15	---	19	24	121	75	39	75	19
31	18	---	14	16	---	18	---	107	---	39	74	---
TOTAL	724	590	479	451	455	786	509	2166	2630	2255	2165	1229
MEAN	23	20	16	15	16	25	17	70	88	73	70	41
AC-FT	1440	1170	950	895	902	1560	1010	4300	5220	4470	4290	2440
MAX	33	26	19	16	18	48	24	124	123	121	97	73
MIN	18	16	11	13	12	18	13	15	47	35	42	16
CAL YR 2003	TOTAL	11605.8	MEAN	31.8	MAX	116	MIN	8.9	AC-FT	23020		
WTR YR 2004	TOTAL	14439	MEAN	39.5	MAX	124	MIN	11	AC-FT	28640		

MAX DISCH: 133 CFS AT 09:00 ON Jun. 10, 2004 GH 1.61 FT. SHIFT 0.15 FT.  
MAX GH: 1.61 FT. AT 09:00 ON Jun. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO

**LOCATION.**--Lat 37°04'43", long 105°45'23", in NE¼NW¼ sec. 27, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 5.7 mi north of Colorado-New Mexico State line, 8 mi downstream from Culebra Creek, 11 mi east of Lobatos, and 14 mi east of Antonito.

**DRAINAGE AREA AND PERIOD OF RECORD.**--7,700 mi<sup>2</sup>. approximately, includes 2,940 mi<sup>2</sup>. in closed basin in northern part of San Luis Valley, Colo. June 28, 1899-Nov. 7, 1910, non-recording gage; Nov. 8, 1910, water stage recorder, at present site and datum.

**GAGE.**--Graphic water-stage recorder in a four foot square timber shelter and cobblestone well. Station contains a Stevens chart recorder, Sutron satellite monitoring equipment, and a water temperature sensor. Auxiliary outside slope gage. Datum of gage is 7,427.63 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record is complete and reliable. The stage-discharge relation was affected by ice November 22, 2003 through March 13, 2004. Record is good except for periods of ice-affected record which are fair to poor. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--RIOLOBCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

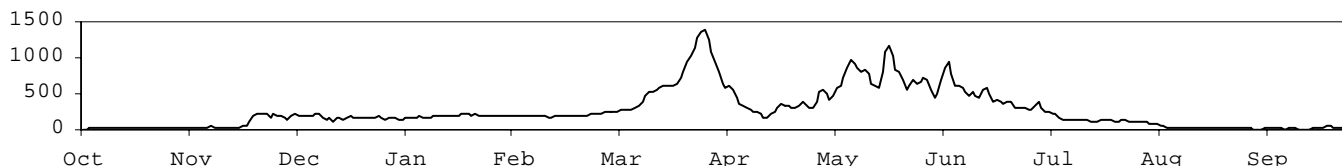
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	26	230	150	195	245	807	567	561	339	117	14
2	12	30	205	160	200	260	640	504	452	401	105	13
3	14	34	205	170	200	260	586	420	499	302	85	8.4
4	17	33	195	175	200	265	617	468	688	243	80	7.9
5	18	36	190	180	205	275	568	570	862	241	71	17
6	16	41	200	190	200	275	447	601	945	229	69	17
7	15	47	220	180	195	285	356	712	784	209	55	16
8	30	41	220	170	190	305	334	870	606	174	36	16
9	28	39	180	175	190	340	312	975	614	152	36	16
10	25	39	145	185	185	400	274	918	593	142	32	15
11	20	39	160	195	190	460	249	849	525	137	34	13
12	20	38	125	200	155	525	241	810	482	130	27	15
13	19	40	160	200	180	526	211	847	519	137	25	15
14	16	39	180	200	195	551	168	764	468	139	24	14
15	16	41	145	200	190	590	179	638	437	140	24	12
16	15	42	165	200	185	617	210	612	557	127	28	11
17	15	51	185	205	185	618	244	586	581	115	31	12
18	16	116	180	210	190	598	316	797	490	110	29	13
19	16	204	170	215	195	604	362	1090	384	114	29	15
20	17	218	175	215	195	647	333	1180	425	126	22	18
21	18	219	180	185	200	726	324	1030	401	134	19	17
22	19	220	175	225	205	804	317	838	366	143	18	18
23	19	220	170	205	205	932	303	810	384	132	19	46
24	18	160	180	190	215	1030	342	694	384	115	17	50
25	17	230	190	200	225	1150	398	568	315	117	16	26
26	17	200	165	185	230	1290	357	622	303	152	16	20
27	19	200	130	185	235	1360	295	699	304	136	15	18
28	19	175	155	195	245	1380	298	646	299	105	15	17
29	18	140	160	195	245	1240	396	670	291	117	15	19
30	18	190	155	195	---	1080	531	721	287	111	15	20
31	17	---	150	200	---	956	---	704	---	99	14	---
TOTAL	555	3148	5445	5935	5825	20594	11015	22780	14806	5068	1138	529.3
MEAN	18	105	176	191	201	664	367	735	494	163	37	17.6
AC-FT	1100	6240	10800	11770	11550	40850	21850	45180	29370	10050	2260	1050
MAX	30	230	230	225	245	1380	807	1180	945	401	117	50
MIN	11	26	125	150	155	245	168	420	287	99	14	7.9

CAL YR 2003 TOTAL 37215.7 MEAN 102 MAX 279 MIN 5.8 AC-FT 73820  
WTR YR 2004 TOTAL 96838.3 MEAN 265 MAX 1380 MIN 7.9 AC-FT 192100

MAX DISCH: 1420 CFS AT 06:00 ON Mar. 28, 2004 GH 2.91 FT. SHIFT 0.15 FT.  
MAX GH: 3.01 FT. AT 18:15 ON Mar. 12, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

RIO GRANDE BASIN

09118200 TARBELL DITCH NEAR COCHETOPA PASS, CO

**LOCATION.**--Tarbell ditch diverts water from Lake Fork Cochetopa Creek (tributary to Cochetopa Creek), in NW¼ sec. 18, T.43 N., R.2 E., in Gunnison River basin, to Lake Fork Creek (tributary to Middle Fork Saguache Creek) in NE¼ sec. 18, T.43 N., R.2 E., in Rio Grande basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder with satellite monitoring system at a 2.5' Parshall Flume.

**REMARKS.**--Record is complete and reliable. Station maintained and record developed by Div. III Hydrographic Staff.

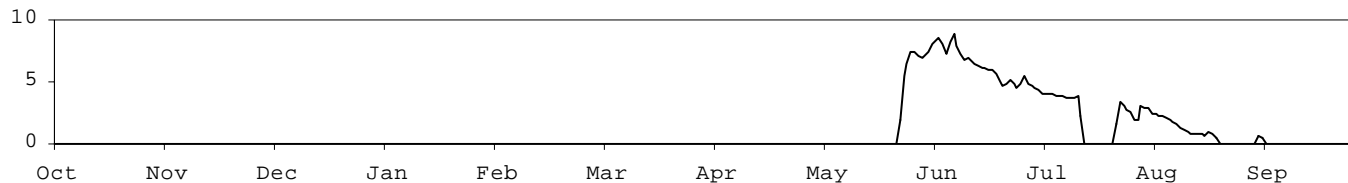
**RATING TABLE.**--TARBELCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	6.9	4.8	2	0
2	0	0	0	0	0	0	0	0	7.1	4.6	3	0
3	0	0	0	0	0	0	0	0	7.5	4.5	2.9	.04
4	0	0	0	0	0	0	0	0	8	4.3	2.9	.59
5	0	0	0	0	0	0	0	0	8.4	4.1	2.5	.45
6	0	0	0	0	0	0	0	0	8.6	4	2.5	0
7	0	0	0	0	0	0	0	0	8	4	2.3	0
8	0	0	0	0	0	0	0	0	7.3	4	2.2	0
9	0	0	0	0	0	0	0	0	8.2	3.8	2.1	0
10	0	0	0	0	0	0	0	0	8.8	3.9	2	0
11	0	0	0	0	0	0	0	0	7.9	3.8	1.8	0
12	0	0	0	0	0	0	0	0	7.3	3.7	1.6	0
13	0	0	0	0	0	0	0	0	6.8	3.7	1.3	0
14	0	0	0	0	0	0	0	0	7	3.7	1.2	0
15	0	0	0	0	0	0	0	0	6.7	3.8	1	0
16	0	0	0	0	0	0	0	0	6.5	2.3	.84	0
17	0	0	0	0	0	0	0	0	6.3	0	.85	0
18	0	0	0	0	0	0	0	0	6.2	0	.81	0
19	0	0	0	0	0	0	0	0	6.2	0	.76	.05
20	0	0	0	0	0	0	0	0	6	0	.72	0
21	0	0	0	0	0	0	0	0	5.9	0	.89	0
22	0	0	0	0	0	0	0	0	5.6	0	.74	0
23	0	0	0	0	0	0	0	0	5	0	.56	0
24	0	0	0	0	0	0	0	0	4.7	0	0	0
25	0	0	0	0	0	0	0	0	4.8	0	0	0
26	0	0	0	0	0	0	0	1.9	5.1	1.6	0	0
27	0	0	0	0	0	0	0	5.5	4.8	3.4	0	0
28	0	0	0	0	0	0	0	6.4	4.5	3.1	0	0
29	0	0	0	0	0	0	0	7.5	4.9	2.8	0	0
30	0	0	0	0	---	0	0	7.4	5.5	2.6	0	0
31	0	---	0	0	---	0	---	7.1	---	2	0	---
TOTAL	0	0	0	0	0	0	0	35.8	196.5	78.5	37.47	1.13
MEAN	0	0	0	0	0	0	0	1.15	6.6	2.53	1.21	.04
AC-FT	0	0	0	0	0	0	0	71	390	156	74	2.2
MAX	0	0	0	0	0	0	0	7.5	8.8	4.8	3	.59
MIN	0	0	0	0	0	0	0	0	4.5	0	0	0
CAL YR 2003	TOTAL	166.29	MEAN	.46	MAX	7.6	MIN	0	AC-FT	330		
WTR YR 2004	TOTAL	349.4	MEAN	.95	MAX	8.8	MIN	0	AC-FT	693		

MAX DISCH: 10.5 CFS AT 22:30 ON Jun. 9, 2004 GH 0.98 FT. SHIFT 0.05 FT.  
MAX GH: 0.98 FT. AT 22:30 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

RIO GRANDE BASIN

09121000 TABOR DITCH AT SPRING CREEK PASS, CO

LOCATION.--Lat 37°56'30", long 107°09'00"; Tabor ditch diverts water from tributaries of Cebolla Creek in secs, 29 and 36, T.43 N., R.3 W., in Gunnison River basin, to Big Spring Creek (tributary to North Clear Creek) in sec. 35, T.43 N., R.3 W., in Rio Grande basin.

DRAINAGE AREA.--N/A

GAGE.--Steven's Data Logger and satellite monitoring system at 3 ft Parshall flume.

REMARKS.--Record is complete and reliable. Station maintained and record developed by Div. III Hydrographic Staff.

RATING TABLE.--TABDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

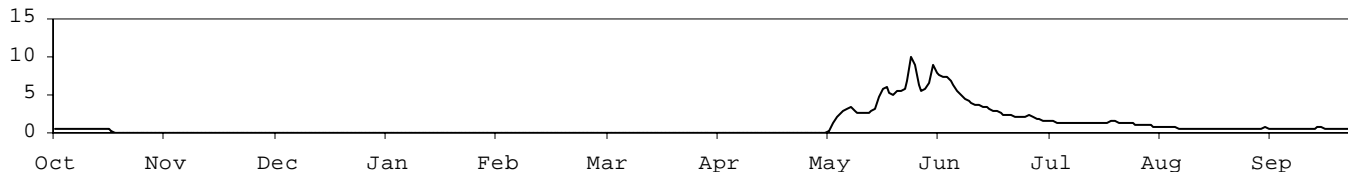
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	0	0	0	0	0	0	0	5.9	2	1	.43
2	.58	0	0	0	0	0	0	0	6.7	1.9	.97	.43
3	.61	0	0	0	0	0	0	0	8.9	1.9	.96	.43
4	.59	0	0	0	0	0	0	0	8	1.7	.89	.69
5	.55	0	0	0	0	0	0	.27	7.6	1.7	.89	.55
6	.53	0	0	0	0	0	0	1.3	7.4	1.6	.86	.51
7	.52	0	0	0	0	0	0	2	7.4	1.5	.8	.49
8	.5	0	0	0	0	0	0	2.5	6.9	1.4	.78	.49
9	.49	0	0	0	0	0	0	2.8	6.2	1.4	.74	.49
10	.49	0	0	0	0	0	0	3.1	5.6	1.4	.72	.49
11	.5	0	0	0	0	0	0	3.3	5.1	1.3	.61	.49
12	.51	0	0	0	0	0	0	3	4.6	1.2	.62	.49
13	.51	0	0	0	0	0	0	2.7	4.3	1.2	.6	.49
14	.54	0	0	0	0	0	0	2.7	4	1.2	.6	.49
15	.52	0	0	0	0	0	0	2.7	3.8	1.2	.59	.49
16	.51	0	0	0	0	0	0	2.7	3.7	1.2	.6	.49
17	.25	0	0	0	0	0	0	2.8	3.5	1.2	.58	.49
18	0	0	0	0	0	0	0	3.2	3.3	1.3	.6	.49
19	0	0	0	0	0	0	0	4.7	3.1	1.4	.52	.7
20	0	0	0	0	0	0	0	5.9	3	1.4	.5	.67
21	0	0	0	0	0	0	0	6.1	2.8	1.3	.49	.59
22	0	0	0	0	0	0	0	5.3	2.6	1.3	.54	.59
23	0	0	0	0	0	0	0	5	2.5	1.6	.5	.58
24	0	0	0	0	0	0	0	5.4	2.3	1.5	.49	.55
25	0	0	0	0	0	0	0	5.6	2.3	1.4	.47	.54
26	0	0	0	0	0	0	0	5.8	2.2	1.4	.43	.55
27	0	0	0	0	0	0	0	6.8	2.1	1.4	.43	.53
28	0	0	0	0	0	0	0	10	2	1.2	.45	.52
29	0	0	0	0	0	0	0	9	2.1	1.2	.43	.59
30	0	0	0	0	---	0	0	6.4	2.4	1.1	.43	.57
31	0	---	0	0	---	0	---	5.6	---	1.1	.43	---
TOTAL	8.75	0	0	0	0	0	0	116.67	132.3	43.6	19.52	15.9
MEAN	.28	0	0	0	0	0	0	3.76	4.4	1.4	.63	.53
AC-FT	.17	0	0	0	0	0	0	231	262	86	39	32
MAX	.61	0	0	0	0	0	0	10	8.9	2	1	.7
MIN	0	0	0	0	0	0	0	0	2	1.1	.43	.43

CAL YR	2003	TOTAL	162.64	MEAN	0.45	MAX	8.2	MIN	0	AC-FT	323
WTR YR	2004	TOTAL	336.74	MEAN	0.92	MAX	10	MIN	0	AC-FT	668

MAX DISCH: 15.4 CFS AT 20:30 ON Jun. 3, 2004 GH 1.11 FT. SHIFT 0.06 FT.  
MAX GH: 1.11 FT. AT 20:30 ON Jun. 3, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

RIO GRANDE BASIN

09341000 TREASURE PASS DITCH AT WOLF CREEK PASS, CO

LOCATION.--Treasure Pass diversion ditch diverts water from tributaries of Wolf Creek in San Juan River basin, to tributary of South Fork Rio Grande in sec. 5, T.37 N., R.2 E., in Rio Grande basin.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder at a 2' Parshall Flume.

REMARKS.--Record is complete and reliable. Station maintained and record developed by Div. III Hydrographic Staff.

RAGTING TABLE.--TREDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

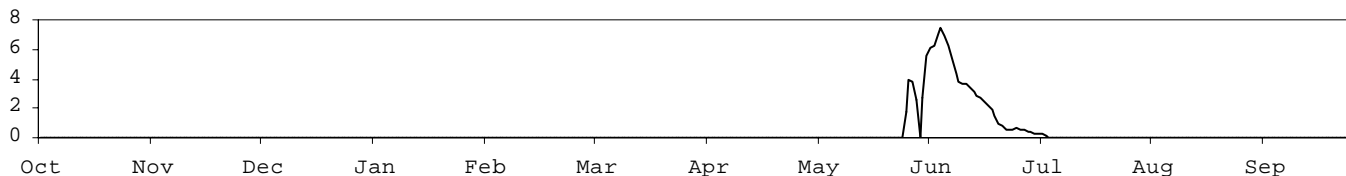
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	2.6	.51	0	0
2	0	0	0	0	0	0	0	0	0	.38	0	0
3	0	0	0	0	0	0	0	0	2.7	.34	0	0
4	0	0	0	0	0	0	0	0	5.5	.3	0	0
5	0	0	0	0	0	0	0	0	6.1	.26	0	0
6	0	0	0	0	0	0	0	0	6.3	.26	0	0
7	0	0	0	0	0	0	0	0	7	.1	0	0
8	0	0	0	0	0	0	0	0	7.4	0	0	0
9	0	0	0	0	0	0	0	0	6.9	0	0	0
10	0	0	0	0	0	0	0	0	6.3	0	0	0
11	0	0	0	0	0	0	0	0	5.3	0	0	0
12	0	0	0	0	0	0	0	0	4.4	0	0	0
13	0	0	0	0	0	0	0	0	3.8	0	0	0
14	0	0	0	0	0	0	0	0	3.6	0	0	0
15	0	0	0	0	0	0	0	0	3.6	0	0	0
16	0	0	0	0	0	0	0	0	3.4	0	0	0
17	0	0	0	0	0	0	0	0	3.1	0	0	0
18	0	0	0	0	0	0	0	0	2.8	0	0	0
19	0	0	0	0	0	0	0	0	2.7	0	0	0
20	0	0	0	0	0	0	0	0	2.5	0	0	0
21	0	0	0	0	0	0	0	0	2.2	0	0	0
22	0	0	0	0	0	0	0	0	1.9	0	0	0
23	0	0	0	0	0	0	0	0	1.5	0	0	0
24	0	0	0	0	0	0	0	0	.99	0	0	0
25	0	0	0	0	0	0	0	0	.77	0	0	0
26	0	0	0	0	0	0	0	0	.56	0	0	0
27	0	0	0	0	0	0	0	0	.51	0	0	0
28	0	0	0	0	0	0	0	0	.56	0	0	0
29	0	0	0	0	0	0	0	1.8	.66	0	0	0
30	0	0	0	0	---	0	0	3.9	.61	0	0	0
31	0	---	0	0	---	0	---	3.8	---	0	0	---
TOTAL	0	0	0	0	0	0	0	9.5	96.26	2.15	0	0
MEAN	0	0	0	0	0	0	0	.31	3.21	.07	0	0
AC-FT	0	0	0	0	0	0	0	19	191	4.3	0	0
MAX	0	0	0	0	0	0	0	3.9	7.4	.51	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 2003	TOTAL	93.18	MEAN	.26	MAX	6.1	MIN	0	AC-FT	185
WTR YR 2004	TOTAL	107.91	MEAN	.29	MAX	7.4	MIN	0	AC-FT	214

MAX DISCH: 7.63 CFS AT 16:30 ON Jun. 8, 2004 GH 0.93 FT. SHIFT 0.04 FT.  
MAX GH: 0.93 FT. AT 16:30 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



TRANSMOUNTAIN DIVERSION TO

RIO GRANDE BASIN

09347000 DON LA FONT DITCH NO.1 AT PIEDRA PASS, CO

LOCATION.--SW¼ sec. 33, T.39 N., R.1 W., at Piedra Pass, Co. Diversion is from tributaries of Piedra River Basin to Red Mountain Creek in Rio Grande River Basin.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder at 9 in. Parshall flume.

REMARKS.--No water run during water year 2004.

RATING TABLE.--DLFDT1CO DON LA FONT DITCH NO. 1 AT PIEDRA PASS

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR	2003	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YR	2004	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0

MAX DISCH: 0 CFS

MAX GH:

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.

## TRANSMOUNTAIN DIVERSION TO

## RIO GRANDE BASIN

09347000 DON LA FONT DITCH NO.2 AT PIEDRA PASS, CO

**LOCATION.**--SW¼ sec. 33, T.39 N., R.1 W., at Piedra Pass, Co. Diversion is from tributaries of Piedra River in San Juan River Basin to Red Mountain Creek in Rio Grande River Basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Stevens Data logger and satellite monitoring system at 1.5 ft Parshall flume.

**REMARKS.**--No water run during water year 2004.

**RATING TABLE.**--DLFDT2CO

DON LA FONT DITCH NO. 2 AT PIEDRA PASS

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR	2003	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YR	2004	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0

MAX DISCH: 0 CFS

MAX GH:

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.

## TRANSMOUNTAIN DIVERSION TO

## RIO GRANDE BASIN

09347000 DON LA FONT DITCH, COMBINED, AT PIEDRA PASS, CO

**LOCATION.**--Don La Font ditches 1 and 2 divert water from tributaries of Piedra River between headgates in NW¼ sec. 4, T.38 N., R.1 W., and SW¼ sec. 33, T.39 N., R.1 W., and Piedra pass, in San Juan River basin, to Red Mountain Creek in sec. 33, T.39 N., R.1 W., in Rio Grande basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorders.

**REMARKS.**--No water run in water year 2004.

**RATING TABLE.**--DON LA FONT COMBINED

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CAL YR 2003	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0		
WTR YR 2004	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0		

MAX DISCH: 0 CFS  
MAX GH:

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## RIO GRANDE BASIN

09348000 WILLIAM'S CREEK-SQUAW PASS DITCH AT SQUAW PASS, CO

**LOCATION.**--William's Creek-Squaw Pass ditch diverts water from William's Creek (tributary to Piedra River) in sec. 21, T.39 N., R.3 W., in San Juan River basin, to Squaw Creek in sec. 21, T.39 N., R.3 W., in Rio Grande basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Satellite monitored DCP at a 2' Parshall Flume.

**REMARKS.**--Record is complete and reliable. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--WCSGITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	2	2.2	1.2	.85
2	0	0	0	0	0	0	0	0	2.4	2	1.2	.85
3	0	0	0	0	0	0	0	0	3	1.9	1.2	.94
4	0	0	0	0	0	0	0	0	3.5	1.7	1.2	1.5
5	0	0	0	0	0	0	0	0	3.9	1.5	1.2	1
6	0	0	0	0	0	0	0	0	4.3	1.5	1.2	.5
7	0	0	0	0	0	0	0	0	4.8	1.5	1.1	0
8	0	0	0	0	0	0	0	0	4.7	1.4	1.1	0
9	0	0	0	0	0	0	0	0	4.2	1.3	1	0
10	0	0	0	0	0	0	0	0	3.7	1.3	.97	0
11	0	0	0	0	0	0	0	0	3.6	1.2	.96	0
12	0	0	0	0	0	0	0	0	3.1	1.1	.93	0
13	0	0	0	0	0	0	0	0	3.3	1.1	.93	0
14	0	0	0	0	0	0	0	0	4.3	.99	.93	0
15	0	0	0	0	0	0	0	0	5.1	.93	.93	0
16	0	0	0	0	0	0	0	0	5	.94	.93	0
17	0	0	0	0	0	0	0	0	4.5	1	.95	0
18	0	0	0	0	0	0	0	0	4.4	1.2	.99	0
19	0	0	0	0	0	0	0	0	4.4	1.9	1	0
20	0	0	0	0	0	0	0	0	4	1.9	1	0
21	0	0	0	0	0	0	0	0	3.4	1.8	1.1	0
22	0	0	0	0	0	0	0	0	2.8	1.7	1	0
23	0	0	0	0	0	0	0	0	2.4	2.3	.96	0
24	0	0	0	0	0	0	0	0	2.4	1.9	.96	0
25	0	0	0	0	0	0	0	.61	2.4	1.8	.93	0
26	0	0	0	0	0	0	0	1.8	2.3	1.6	.91	0
27	0	0	0	0	0	0	0	2	2.1	1.7	.9	0
28	0	0	0	0	0	0	0	2.5	2.1	1.5	.88	0
29	0	0	0	0	0	0	0	2.5	2.7	1.5	.88	0
30	0	0	0	0	---	0	0	1.9	2.5	1.4	.88	0
31	0	---	0	0	---	0	---	1.8	---	1.3	.87	---
TOTAL	0	0	0	0	0	0	0	13.11	103.3	47.06	31.19	5.64
MEAN	0	0	0	0	0	0	0	.42	3.4	1.52	1.01	.19
AC-FT	0	0	0	0	0	0	0	26	205	93	62	11
MAX	0	0	0	0	0	0	0	2.5	5.1	2.3	1.2	1.5
MIN	0	0	0	0	0	0	0	0	2	.93	.87	0

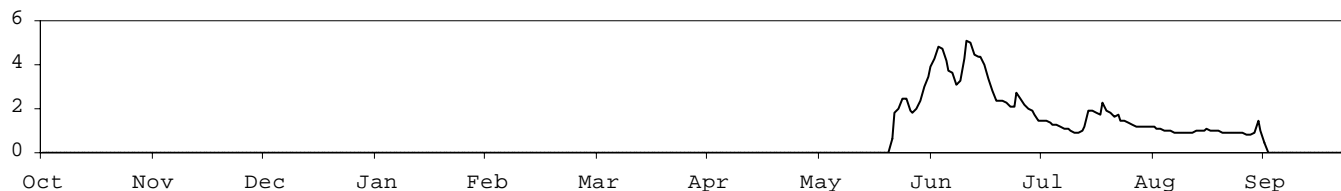
CAL YR 2003 TOTAL 113.89 MEAN .31 MAX 4.4 MIN 0 AC-FT 226

WTR YR 2004 TOTAL 200.30 MEAN .55 MAX 5.1 MIN 0 AC-FT 397

MAX DISCH: 8.6 CFS AT 14:45 ON Jul. 19, 2004 GH 1.02 FT. SHIFT 0.03 FT.

MAX GH: 1.02 FT. AT 14:45 ON Jul. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## RIO GRANDE BASIN

09351500 PINE RIVER WEMINUCHE PASS DITCH AT WEMINUCHE PASS, CO

**LOCATION.**--Pine River-Weminuche Pass ditch diverts water from right bank of north fork of Los Pinos River in sec. 4, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec. 33, T.40 N., R.4 W., in Rio Grande basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder and Sutron Satellite System at 3 ft Parshall flume.

**REMARKS.**--Record is complete and reliable. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--PRWDITCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

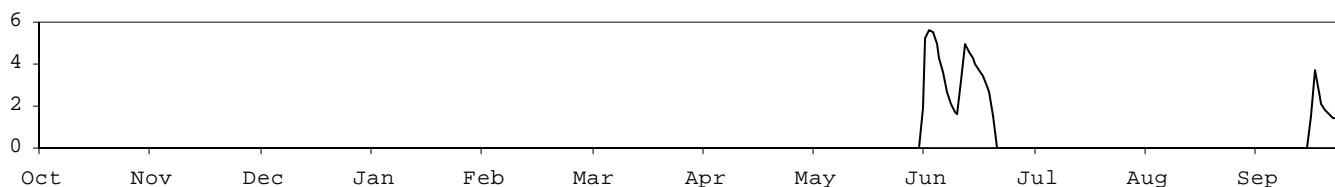
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	1.9	0	0	0
5	0	0	0	0	0	0	0	0	5.2	0	0	0
6	0	0	0	0	0	0	0	0	5.6	0	0	0
7	0	0	0	0	0	0	0	0	5.5	0	0	0
8	0	0	0	0	0	0	0	0	5	0	0	0
9	0	0	0	0	0	0	0	0	4.3	0	0	0
10	0	0	0	0	0	0	0	0	3.6	0	0	0
11	0	0	0	0	0	0	0	0	2.7	0	0	0
12	0	0	0	0	0	0	0	0	2.1	0	0	0
13	0	0	0	0	0	0	0	0	1.7	0	0	0
14	0	0	0	0	0	0	0	0	1.6	0	0	0
15	0	0	0	0	0	0	0	0	3.2	0	0	0
16	0	0	0	0	0	0	0	0	5	0	0	0
17	0	0	0	0	0	0	0	0	4.6	0	0	0
18	0	0	0	0	0	0	0	0	4.3	0	0	0
19	0	0	0	0	0	0	0	0	4	0	0	0
20	0	0	0	0	0	0	0	0	3.7	0	0	0
21	0	0	0	0	0	0	0	0	3.4	0	0	1.5
22	0	0	0	0	0	0	0	0	3	0	0	3.7
23	0	0	0	0	0	0	0	0	2.7	0	0	2.7
24	0	0	0	0	0	0	0	0	1.5	0	0	2.1
25	0	0	0	0	0	0	0	0	0	0	0	1.8
26	0	0	0	0	0	0	0	0	0	0	0	1.6
27	0	0	0	0	0	0	0	0	0	0	0	1.4
28	0	0	0	0	0	0	0	0	0	0	0	1.4
29	0	0	0	0	0	0	0	0	0	0	0	1.6
30	0	0	0	0	---	0	0	0	0	0	0	1.6
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	74.6	0	0	19.4
MEAN	0	0	0	0	0	0	0	0	2.49	0	0	.65
AC-FT	0	0	0	0	0	0	0	0	148	0	0	38
MAX	0	0	0	0	0	0	0	0	5.6	0	0	3.7
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CAL YR 2003	TOTAL	52.15	MEAN	0.14	MAX	6.6	MIN	0	AC-FT	103		
WTR YR 2004	TOTAL	94	MEAN	0.26	MAX	5.6	MIN	0	AC-FT	186		

MAX DISCH: 5.82 CFS AT 21:15 ON Jun. 5, 2004 GH 0.67 FT. SHIFT -0.04 FT.

MAX GH: 0.67 FT. AT 21:15 ON Jun. 5, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## TRANSMOUNTAIN DIVERSION TO

## RIO GRANDE BASIN

09351500 WEMINUCHE PASS DITCH AT WEMINUCHE PASS, CO

**LOCATION.**--Weminuche Pass ditch diverts water from left bank of Rincon la Vaca Creek (tributary to Los Pinos River) in sec. 5, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec. 33, T.40 N., R.4 W., in Rio Grande basin.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder at a 5' Parshall Flume.

**REMARKS.**--Record is complete and reliable. Station maintained and record developed by Div. III Hydrographic Staff.

**RATING TABLE.**--WEMDITCO05 USED FROM 04-JUN-2004 TO 24-JUN-2004

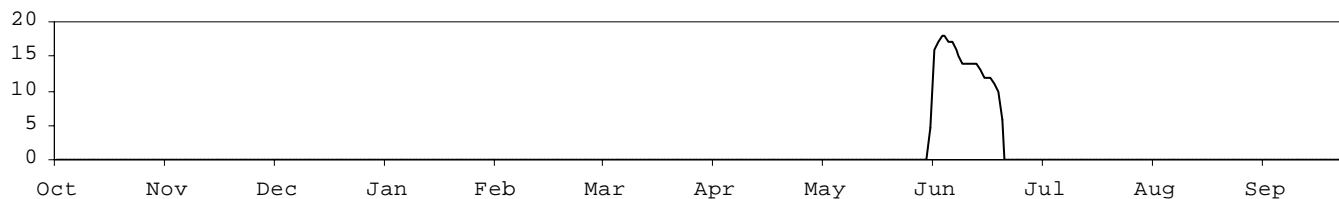
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	4.7	0	0	0
5	0	0	0	0	0	0	0	0	16	0	0	0
6	0	0	0	0	0	0	0	0	17	0	0	0
7	0	0	0	0	0	0	0	0	18	0	0	0
8	0	0	0	0	0	0	0	0	18	0	0	0
9	0	0	0	0	0	0	0	0	17	0	0	0
10	0	0	0	0	0	0	0	0	17	0	0	0
11	0	0	0	0	0	0	0	0	16	0	0	0
12	0	0	0	0	0	0	0	0	15	0	0	0
13	0	0	0	0	0	0	0	0	14	0	0	0
14	0	0	0	0	0	0	0	0	14	0	0	0
15	0	0	0	0	0	0	0	0	14	0	0	0
16	0	0	0	0	0	0	0	0	14	0	0	0
17	0	0	0	0	0	0	0	0	14	0	0	0
18	0	0	0	0	0	0	0	0	13	0	0	0
19	0	0	0	0	0	0	0	0	12	0	0	0
20	0	0	0	0	0	0	0	0	12	0	0	0
21	0	0	0	0	0	0	0	0	12	0	0	0
22	0	0	0	0	0	0	0	0	11	0	0	0
23	0	0	0	0	0	0	0	0	10	0	0	0
24	0	0	0	0	0	0	0	0	5.9	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	284.6	0	0	0
MEAN	0	0	0	0	0	0	0	0	9.49	0	0	0
AC-FT	0	0	0	0	0	0	0	0	565	0	0	0
MAX	0	0	0	0	0	0	0	0	18	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR	2003	TOTAL	32.3	MEAN	.088	MAX	8.9	MIN	0	AC-FT	64
WTR YR	2004	TOTAL	284.6	MEAN	.78	MAX	18	MIN	0	AC-FT	565

MAX DISCH: 21.3 CFS AT 14:30 ON Jun. 9, 2004 GH 1.06 FT. SHIFT -0.02 FT.  
MAX GH: 1.06 FT. AT 14:30 ON Jun. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



GUNNISON RIVER BASIN

09131490 MUDDY CREEK ABOVE PAONIA RESERVOIR

**LOCATION.**--Lat 38°59'15", long 107°20'53", in the NE¼SE¼NW¼ sec 28, T.12 S., R.89 W. in Gunnison County on the right bank 700 ft. downstream from county bridge and 1400 ft. upstream from high water line of Paonia Reservoir.

**GAGE.**--Satellite (Sutron 8200 DCP) and Strip Chart Recorder (Stevens A35) in a culvert type shelter. The recorder and shaft encoder operate from floats and are set to an inside drop tape. A Sutron Accububble has operated since Nov 4, 2002 with a new gravel pack installed at the bank. A common float is used with an oil cylinder during the winter.

**REMARKS.** --The record is complete, good and reliable except for the periods when the stage-discharge relationship was affected by ice, which are rated poor. The ice period was from Nov 23, 2003 through Mar. 7, 2004. This period was estimated comparing the strip chart, and using three measurements 308 - 310 during the ice period and correlating the content of Paonia Reservoir and the outflow. This period of record is considered poor. The temperature data was used for the lowest temperature days, and was obtained from the DCP. Station maintained by Stephen W. Tuck and record developed by Gerald M. Thrush.

**RATING TABLE.**--MUDAPRC07 USED FROM 01-OCT-2003 TO 30-SEP-2004

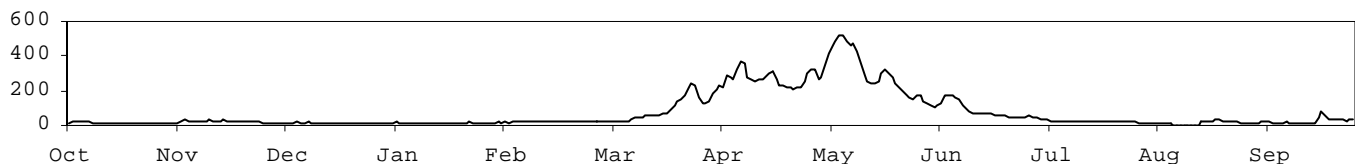
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	10	15	15	19	185	270	125	50	13	14
2	22	22	15	20	20	21	213	274	113	42	13	13
3	23	36	10	15	15	26	228	341	109	37	13	13
4	18	28	15	12	20	26	223	410	114	33	12	21
5	19	23	20	8	20	26	290	457	127	32	10	27
6	19	21	15	12	18	20	281	488	170	28	12	20
7	18	22	15	14	18	22	268	523	174	27	11	17
8	17	21	20	10	22	21	320	514	175	25	8.2	16
9	17	21	10	12	20	36	374	483	164	23	5.9	15
10	17	29	10	12	18	41	355	467	146	23	4.8	17
11	17	28	15	12	25	43	281	473	119	25	3.9	18
12	17	25	8	10	25	48	262	424	96	27	2.4	15
13	16	25	8	14	20	56	254	356	79	26	1.6	14
14	17	34	15	12	25	55	264	285	74	24	1.6	13
15	17	27	10	10	20	57	265	254	74	22	1.3	13
16	16	24	8	12	20	54	273	239	74	22	.56	12
17	16	26	10	12	20	55	299	242	70	23	4.9	12
18	15	23	10	10	20	65	315	257	69	24	20	11
19	15	21	12	12	25	75	262	304	64	24	24	16
20	16	24	10	12	24	94	232	327	59	24	24	43
21	15	24	12	15	22	114	230	303	62	23	24	76
22	16	22	14	10	24	139	225	276	58	19	29	52
23	15	20	12	20	24	155	219	240	52	19	32	39
24	14	18	12	15	24	177	204	217	47	24	23	36
25	14	16	8	15	26	216	214	193	43	24	20	35
26	15	14	15	15	18	241	224	168	47	18	19	32
27	16	12	10	15	28	231	252	157	45	21	18	31
28	16	14	15	15	28	167	300	152	44	24	19	28
29	16	14	10	15	28	131	323	169	42	22	17	29
30	16	14	15	15	---	128	323	170	55	19	16	30
31	16	---	12	20	---	143	---	144	---	15	15	---
TOTAL	515	665	381	416	632	2702	7958	9577	2690	789	419.16	728
MEAN	17	22	12.3	13.4	22	87	265	309	90	26	13.5	24
AC-FT	1020	1320	756	825	1250	5360	15780	19000	5340	1560	831	1440
MAX	23	36	20	20	28	241	374	523	175	50	32	76
MIN	14	12	8	8	15	19	185	144	42	15	.56	11

CAL YR	2003	TOTAL	32351.7	MEAN	88.6	MAX	876	MIN	6.0	AC-FT	64270
WTR YR	2004	TOTAL	27472.16	MEAN	75.1	MAX	523	MIN	.56	AC-FT	54490

MAX DISCH: 576 CFS AT 01:30 ON May. 7, 2004 GH 7.3 FT. SHIFT 0.06 FT.  
MAX GH: 7.3 FT. AT 01:30 ON May. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



GUNNISON RIVER BASIN

09131500 MUDDY CREEK BELOW PAONIA RESERVOIR

**LOCATION.**--Lat 38°56'26", long 107°21'24" in the SE¼NW¼NE¼ sec. 8, T.13 S., R. 89 W. (in Gunnison County on the right hand bank), and about 100 feet above county bridge and about 1100 feet below Paonia Reservoir outlet.

**GAGE.**--Satellite (Sutron 8200 DCP) and Strip Chart Recorder (Stevens A 35) in a culvert type shelter. The recorder and shaft encoder are on separate floats and set to an inside drop tape. The DCP is in an outside NEMA box. The DCP electronic data log is the primary record. Sutron SatLink Logger high data rate DCP installed March 2, 2004.

**REMARKS.**--The primary record is the electronic data from the Sutron 8200 and SatLink Logger; the strip chart was used for March 2-8, 2004 when the new SatLink logger was installed, but not operating. The log data are record complete, good and reliable, except a period when the ramp flume was under construction from Nov 17 to December 1, 2003. The inlets were isolated by a coffer dam. These days were estimated using good record before and after the period. This period, and the times when flows were greater than twice as high as the highest measured flow of 268 cfs, are rated poor. Station maintained and record developed by Stephen W. Tuck and Gerald M. Thrush.

**RATING TABLE.**--MUDBPRCO07 USED FROM 01-OCT-2003 TO 30-NOV-2003  
 MUDBPRCO08 USED FROM 01-DEC-2003 TO 30-SEP-2004

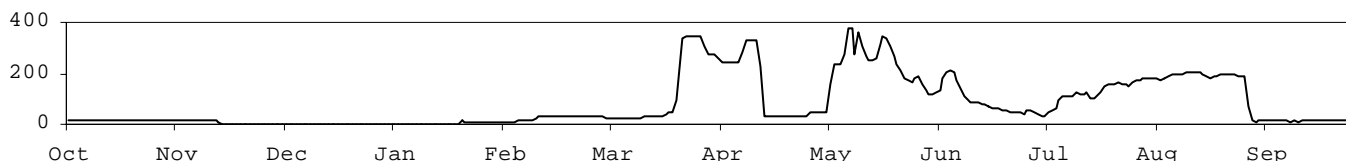
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	14	3.4	3.4	9.7	28	277	45	136	58	172	71
2	15	14	3.4	3.4	9.7	27	275	45	121	48	181	12
3	15	15	3.4	3.4	9.7	26	256	45	115	39	181	10
4	15	13	3.4	3.4	10	26	244	45	122	33	179	14
5	15	13	3.4	3.4	11	26	242	157	136	28	178	14
6	15	13	3.4	3.4	12	26	242	232	180	50	178	14
7	15	13	3.4	3.4	12	26	243	235	203	54	176	14
8	17	13	3.4	3.4	12	25	241	238	211	66	179	15
9	17	13	3.4	3.4	12	25	241	274	201	97	190	18
10	17	13	3.4	3.4	12	25	280	375	175	106	198	15
11	17	13	3.4	3.4	25	25	332	379	141	106	199	18
12	17	13	3.4	3.4	33	26	332	272	113	106	199	18
13	17	8.8	3.4	3.5	33	28	332	360	93	113	199	9.3
14	17	3.8	3.4	3.5	33	28	332	306	83	127	203	14
15	17	3.1	3.4	3.5	33	28	226	270	83	117	205	10
16	17	3.1	3.4	3.5	32	28	35	249	85	114	205	14
17	17	3.1	3.4	3.5	32	28	35	248	79	123	202	18
18	17	3.1	3.4	3.5	31	28	35	262	77	99	202	18
19	17	3.1	3.4	3.5	31	39	35	310	71	105	199	18
20	17	3.1	3.4	3.5	30	49	35	349	65	114	191	18
21	17	3.1	3.4	16	30	49	35	335	66	127	183	17
22	17	3.2	3.4	8.7	29	94	35	308	66	150	188	17
23	17	3.2	3.4	8.7	29	260	35	266	58	158	189	17
24	17	3.2	3.4	8.7	29	337	35	237	52	158	195	17
25	17	3.2	3.4	8.2	29	346	35	211	46	158	198	17
26	17	3.2	3.4	7.9	28	346	35	184	48	167	197	17
27	17	3.4	3.4	8.7	28	346	35	171	50	160	194	17
28	17	3.4	3.4	8.7	28	345	31	162	47	153	193	17
29	17	3.4	3.4	8.7	28	342	45	177	42	152	190	17
30	13	3.4	3.4	8.7	---	306	45	187	56	162	188	16
31	14	---	3.4	8.7	---	277	---	159	---	171	185	---
TOTAL	506	223.9	105.4	170.5	681.1	3615	4636	7093	3021	3419	5916	521.3
MEAN	16	7.5	3.4	5.5	23.5	117	155	229	101	110	191	17.4
AC-FT	1000	444	209	338	1350	7170	9200	14070	5990	6780	11730	1030
MAX	17	15	3.4	16	33	346	332	379	211	171	205	71
MIN	13	3.1	3.4	3.4	9.7	25	31	45	42	28	172	9.3

CAL YR 2003 TOTAL 34828.6 MEAN 95.4 MAX 747 MIN 2.0 AC-FT 0  
 WTR YR 2004 TOTAL 29908.2 MEAN 81.7 MAX 379 MIN 3.1 AC-FT 59320

MAX DISCH: 1400 CFS AT 08:45 ON May. 13, 2004 GH 7.21 FT. SHIFT 0.14 FT.  
 MAX GH: 7.21 FT. AT 08:45 ON May. 13, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



GUNNISON RIVER BASIN

ABC LATERAL NEAR MONTROSE, CO

**LOCATION.**--Lat 38°29'06", long 107°44'57", in SE¼NE¼NE¼ sec. 27, T.49 N., R.8 W., Montrose County, on left bank of canal 270 ft. below takeout from South Canal, such takeout being 1700 ft. below the west portal of the Gunnison Tunnel.

**GAGE.**--Satellite (Sutron 8200 DCP) and Strip Chart Recorder (Stevens A35) in a culvert type shelter. The recorder and shaft encoder operate from floats and are set to an inside drop tape.

**REMARKS.**--Record is complete, good and reliable except a period during the winter when the stilling well was affected by a thin layer of ice, which ran from about Jan. 5, 2004 to Jan. 28, 2004. The data were imported from the DCP EDL. The normal operating period of the canal was from Oct. 01, 2003 to Oct. 30, 2003 and from Mar. 23, 2004 through Sep. 30, 2004. The intervening period, from Oct.31, 2003 to Mar. 22, 2004 consisted of seepage from the Gunnison Tunnel. This winter shut down period is a normal operational occurrence. This year there was one occurrence of increased flow during this time. This was a period when the Gunnison Tunnel was turned on to fill Fairview Reservoir and the AB Lateral head gate was left open. There were no periods of zero flow during the winter period. The increased flow was Dec.29 and 30, 2003. The AB and C Drop aka the AB Lateral Canal is part of the Gunnison Tunnel complex. The South Canal is the other part. The two structures are combined to account for the total diversion through the Gunnison Tunnel. Station maintained and record developed by Gerald M. Thrush.

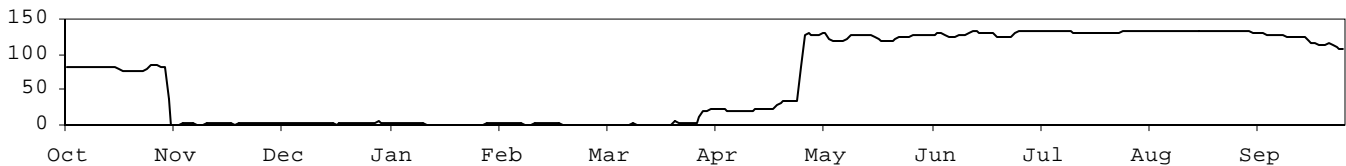
**RATING TABLE.**--ABCLATCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	.81	2.6	2.3	1.5	1.4	21	127	127	132	132	132
2	81	1	2.8	2.3	1.5	1.4	22	128	127	132	133	132
3	81	1.5	2	2.3	1.5	1.4	23	128	127	133	133	132
4	81	2.2	2.3	2.2	1.5	1.4	23	129	128	133	133	131
5	81	2.4	2.3	1.8	1.5	1.4	23	129	128	133	133	131
6	82	2.2	2.3	1.7	1.5	1.4	22	123	130	133	133	131
7	83	1.2	2.2	1.9	1.5	1.4	21	119	131	133	132	129
8	82	.56	2.2	1.8	1.5	1.1	21	120	127	133	132	128
9	83	.94	2.2	1.8	1.2	.68	21	120	124	133	132	128
10	83	2.1	2.2	1.8	.97	1.1	21	120	125	132	132	128
11	83	2.7	2.2	1.7	1.3	1.5	21	123	125	132	132	128
12	83	2.6	2.1	1.1	1.7	1.4	21	127	126	132	132	128
13	83	2.6	2	.54	1.7	1.4	21	126	126	132	132	126
14	83	2.6	1.9	1	1.7	1.3	21	127	126	132	132	124
15	83	2.6	2.1	1.4	1.7	1.3	22	127	129	131	132	124
16	80	2.7	1.7	1.4	1.7	1.3	23	127	132	131	132	124
17	77	1.6	.83	1.4	1.7	1.3	23	127	133	131	133	124
18	77	.94	1.6	1.3	1.6	1.3	23	126	131	130	133	124
19	77	1.9	2.3	1.3	1.5	1.3	23	124	130	130	133	124
20	77	2.6	2.3	1.3	1.4	1.3	22	123	130	130	133	120
21	77	2.6	2.3	1.4	1.4	1.3	27	120	130	130	133	117
22	77	2.6	2.3	1.2	1.4	1.3	32	119	129	130	133	115
23	76	2.5	2.4	1.2	.84	6.5	33	119	124	130	133	114
24	80	2.4	2.3	1.1	.37	3.4	33	120	124	131	133	114
25	84	2.4	2.2	1.1	1.1	3.6	33	121	124	131	133	114
26	84	2.4	2.2	1.2	1.4	3.8	33	124	124	131	133	115
27	84	2.4	2.3	1	1.4	3.8	33	125	124	131	133	114
28	83	2.4	2.4	1.2	1.4	3.7	82	125	129	131	132	111
29	83	2.4	6.9	1.6	1.4	3.7	127	125	133	132	132	108
30	38	2.1	3.5	1.5	---	11	129	126	132	132	132	108
31	.58	---	2	1.5	---	19	---	126	---	132	132	---
TOTAL	2387.58	61.95	72.93	46.34	40.88	87.18	1000	3850	3835	4079	4108	3678
MEAN	77	2.06	2.35	1.49	1.41	2.81	33	124	128	132	133	123
AC-FT	4740	123	145	92	81	173	1980	7640	7610	8090	8150	7300
MAX	84	2.7	6.9	2.3	1.7	19	129	129	133	133	133	132
MIN	.58	.56	.83	.54	.37	.68	21	119	124	130	132	108
CAL YR 2003	TOTAL	24471.67	MEAN	67.0	MAX	161	MIN	0	AC-FT	48540		
WTR YR 2004	TOTAL	23246.86	MEAN	63.5	MAX	133	MIN	.37	AC-FT	46110		

MAX DISCH: 137 CFS AT 11:45 ON Jun. 22, 2004 GH 3.23 FT. SHIFT -0.11 FT.  
MAX GH: 3.23 FT. AT 11:45 ON Jun. 22, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



GUNNISON RIVER BASIN

SOUTH CANAL NEAR MONTROSE, CO

**LOCATION.**--Lat 38°29'01", long 107°45'20", in NE¼SW¼NE¼ sec 27, T.49 N., R.8 W., Montrose County, on right bank of canal approximately 3600 ft. below the west portal of the Gunnison Tunnel.

**GAGE.**--Water-stage recorder with satellite telemetry. A shaft encoder (shaft 8500) connected via buried telephone cable to the DCP at the AB Lateral shelter house and a Strip Chart Recorder (Stevens A35). The recorder and shaft encoder operate from a common float and are set to an inside drop tape. Stops have been installed since Oct. 31, 2000.

**REMARKS.**--Data were imported from the DCP EDL as the primary record. The DCP record is complete, reliable, and good during the normal operating season. The normal operating period was from Oct. 1 to Oct.30, 2003 and from Mar. 23 to Sep 30, 2004. The early shut down, before the end of November, was because storage in Taylor Park Reservoir was low as well as exchange water in Ridgway Reservoir. The intervening period reflected use on 10 occasions to fill Fairview Reservoir. These periods were Nov 7, 17,18, Dec.1,2, 16-18, 29-31 2003, Jan. 12-14, 26 , 27, Feb. 9-13, 23-28 and Mar.8-14, 2004. There were six of the previous periods in which the flow was estimated, and, therefore, the record is rated poor. These periods are Dec. 18 and 31, 2003, Jan. 14, Feb. 11-13, 25-28, Mar. 10-14,2004. Station maintained and record developed by Gerald M. Thrush.

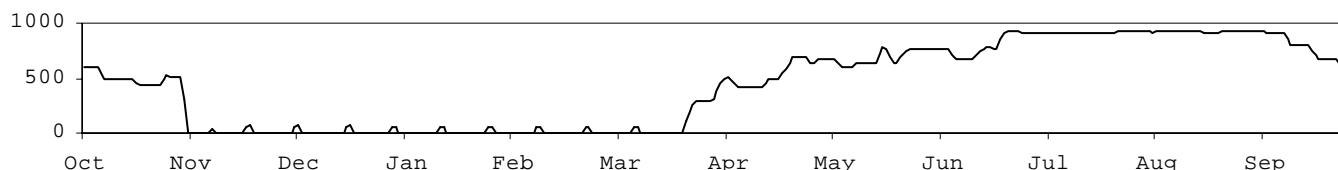
**RATING TABLE.**--SOUCANCO15 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	604	0	53	0	0	0	385	679	772	912	921	923
2	604	0	70	0	0	0	454	678	772	912	922	926
3	605	0	0	0	0	0	489	678	770	911	919	926
4	605	0	0	0	0	0	501	677	770	911	921	927
5	605	0	0	0	0	0	500	677	769	913	918	922
6	536	0	0	0	0	0	451	634	768	912	920	920
7	488	30	0	0	0	0	410	605	769	913	923	918
8	489	0	0	0	0	57	410	603	707	915	923	918
9	486	0	0	0	59	58	411	604	665	914	926	914
10	484	0	0	0	51	1.5	410	605	666	914	926	914
11	484	0	0	0	.84	1	410	629	665	913	926	913
12	484	0	0	55	.4	.7	410	643	667	914	926	914
13	484	0	0	59	.02	.43	410	642	667	912	926	852
14	484	0	0	.06	0	.07	410	642	668	911	928	797
15	484	0	0	0	0	0	451	642	701	910	926	797
16	457	0	54	0	0	0	487	643	749	911	925	797
17	439	54	68	0	0	0	487	642	772	909	925	797
18	439	71	.1	0	0	0	487	724	774	908	923	797
19	438	0	0	0	0	0	487	790	774	910	921	798
20	437	0	0	0	0	0	550	767	772	915	918	743
21	436	0	0	0	0	0	588	685	771	915	917	702
22	436	0	0	0	0	0	640	640	847	917	917	681
23	435	0	0	0	56	109	686	641	914	915	917	666
24	485	0	0	0	62	191	685	692	923	918	918	666
25	519	0	0	0	1.2	254	685	728	928	918	921	666
26	517	0	0	56	.82	300	686	753	926	920	921	666
27	516	0	0	58	.55	300	686	772	923	921	923	666
28	515	0	0	0	.28	297	637	769	914	920	923	624
29	513	0	50	0	0	297	641	772	911	923	925	580
30	309	0	57	0	---	288	679	772	912	921	926	585
31	0	---	.17	0	---	306	---	772	---	920	925	---
TOTAL	14817	155	352.27	228.06	232.11	2460.7	15623	21200	23606	28348	28596	23915
MEAN	478	5.17	11.4	7.36	8	79.4	521	684	787	914	922	797
AC-FT	29390	307	699	452	460	4880	30990	42050	46820	56230	56720	47440
MAX	605	71	70	59	62	306	686	790	928	923	928	927
MIN	0	0	0	0	0	0	385	603	665	908	917	580
CAL YR	2003	TOTAL	152311.52	MEAN	417	MAX	871	MIN	0	AC-FT	302100	
WTR YR	2004	TOTAL	159533.14	MEAN	436	MAX	928	MIN	0	AC-FT	316400	

MAX DISCH: 934 CFS AT 16:45 ON Sep. 4, 2004 GH 3.77 FT. SHIFT -0.70 FT.  
MAX GH: 3.77 FT. AT 16:45 ON Sep. 4, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



GUNNISON RIVER BASIN

UNCOMPAHGRE RIVER NEAR OLATHE, CO

**LOCATION.**--Lat 38°36'5", long 107°58'58", SW¼SW¼ of NW¼ sec. 15, T.50 N., R. 10W, NMPM, and about 3,100 ft. above the S. H. 348 bridge and about 5,100 ft below the East Canal headgate and diversion structure, both stream distance. The gage is on the right bank and in Montrose County.

**DRAINAGE AREA.**--N/A

**GAGE.**--Graphic water-stage recorder with satellite telemetry. The DCP is the primary record with Electronic Data Logger as backup. The shelter is a 48 inch culvert with a Stevens A35 recorder and a Sutron 8200 DCP. These, are both activated by separate floats in the stilling well. The recorder and SE are set to an inside drop tape.

**REMARKS.**--The primary record is the electronic data from the Sutron 8200. The DCP is set to measure every five minutes. This record proves to be complete, reliable and good except when the well was partially and or completely frozen from Jan. 5-22, 2004. The record is rated good except from Jan. 5, 2004 to Jan. 22, 2004 when the well was frozen. This period is rated poor. This record is rated poor. Station maintained by Gerald M. Thrush and Stephen W. Tuck and record developed by Gerald M. Thrush.

**RATING TABLE.**--UNCOLACO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

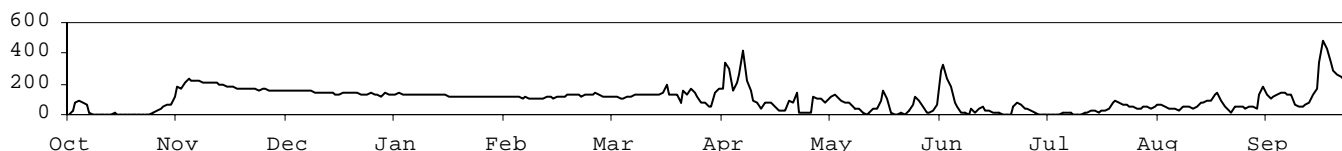
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	181	161	131	116	117	58	104	17	21	42	49
2	31	167	160	133	113	114	145	98	11	12	53	47
3	84	203	157	139	115	113	164	84	31	2.6	53	45
4	91	231	156	134	117	114	165	86	64	2.7	41	134
5	75	225	155	134	115	114	341	113	282	2.7	48	185
6	66	219	158	134	112	110	301	125	331	1.6	67	124
7	18	217	156	134	109	110	156	98	231	2	62	105
8	4.1	212	163	134	115	112	207	97	187	1.8	54	120
9	2	210	160	134	109	117	266	78	76	2.1	45	133
10	2	215	149	134	110	127	417	81	49	12	41	139
11	3.6	214	149	126	110	127	224	46	7.3	15	37	145
12	2.2	208	147	126	110	130	155	34	16	17	23	130
13	2.7	199	142	126	106	134	93	40	6.3	3.4	53	126
14	7.7	196	143	126	112	132	79	9.5	33	2.6	55	62
15	5.7	187	148	126	114	128	43	6.2	19	5.5	46	46
16	5.4	182	134	126	109	128	75	9.5	38	6.6	45	55
17	2.4	179	136	118	111	125	73	38	51	15	52	62
18	2.3	176	137	118	115	137	84	41	29	26	78	76
19	3	174	137	118	122	200	50	88	28	22	78	133
20	2.2	176	138	118	131	136	20	155	19	16	87	165
21	1.7	175	142	118	128	133	23	101	14	26	94	343
22	2.1	173	145	118	129	130	24	17	11	20	128	488
23	2	167	136	117	125	84	97	2.1	3.9	37	138	431
24	2.8	160	135	120	123	156	79	2	1.5	82	95	335
25	13	166	135	122	125	125	144	9.2	5.9	85	56	288
26	26	169	137	115	125	165	18	2.6	53	77	23	264
27	33	163	132	116	125	147	10	29	79	64	18	246
28	54	156	130	118	138	113	15	59	62	67	54	227
29	59	157	120	115	124	84	19	122	41	54	51	187
30	60	161	140	115	---	78	116	89	34	46	49	185
31	122	---	133	116	---	54	---	47	---	37	41	---
TOTAL	787.8	5618	4471	3859	3413	3794	3661	1911.1	1830.9	784.6	1807	5075
MEAN	25.4	187	144	124	118	122	122	61.6	61	25.3	58	169
AC-FT	1560	11140	8870	7650	6770	7530	7260	3790	3630	1560	3580	10070
MAX	122	231	163	139	138	200	417	155	331	85	138	488
MIN	1.7	156	120	115	106	54	10	2	1.5	1.6	18	45

CAL YR 2003 TOTAL 30024.69 MEAN 82.3 MAX 860 MIN 0 AC-FT 59550  
WTR YR 2004 TOTAL 37012.4 MEAN 101 MAX 488 MIN 1.5 AC-FT 73410

MAX DISCH: 589 CFS AT 04:30 ON Apr. 10, 2004 GH 4.14 FT. SHIFT -0.12 FT.  
MAX GH: 4.14 FT. AT 04:30 ON Apr. 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





GUNNISON RIVER BASIN

REDLANDS CANAL NEAR GRAND JUNCTION, CO

**LOCATION.**--Lat 39°01'49", long 108°33'51", in NW¼SW¼NW¼ sec 35, T.1 S., R.1 W., Mesa County, on the Right bank of canal 650 ft. below the Redlands diversion dam.

**GAGE.**--Satellite (Sutron 8200 DCP) and Strip chart (Stevens A35) recorder. Floats operate from a 4 foot diameter CMP well in an 8 ft. by 10 ft. steel shed on a concrete pad. The shaft encoder and recorder are set to an inside drop tape.

**REMARKS.**--Record is complete, good and reliable. The primary record is taken from the Electronic Data Logger (EDL). The secondary record is the strip chart. The canal was shut down during the following times for upgrading and periodic maintenance: Oct. 13, 2003-Dec. 16, 2003; Mar. 15, 2004; Mar. 22, 2004-Mar. 25, 2004. The record is complete reliable and good. The Colorado Water Conservation Board sponsored a test using an Acoustic Doppler Current Meter (ACDM still). The USGS ran the test. The equipment was placed on August 18, 2004. Station maintained and record developed by Gerald M. Thrush.

**RATING TABLE.**--RLCGRJCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

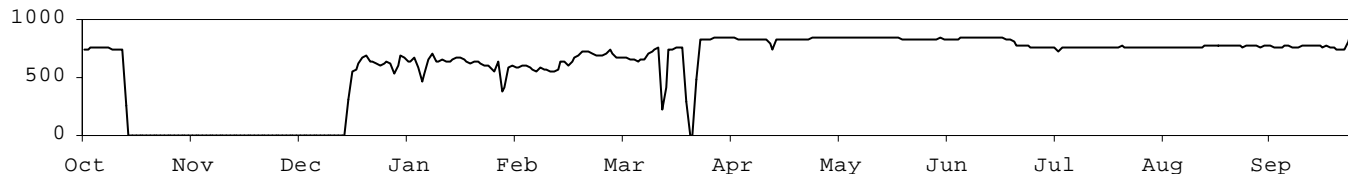
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	743	0	0	664	595	709	838	841	834	760	764	771
2	744	0	0	634	591	673	840	840	835	759	763	768
3	755	0	0	645	580	665	839	841	837	760	765	766
4	752	0	0	667	598	666	837	840	834	760	764	769
5	757	0	0	587	602	665	837	842	835	759	761	769
6	756	0	0	459	590	661	832	841	834	760	765	768
7	755	0	0	532	566	648	830	841	832	726	763	766
8	751	0	0	662	560	644	831	841	829	764	761	767
9	747	0	0	706	583	647	830	841	850	765	765	766
10	745	0	0	641	570	663	832	841	850	764	765	768
11	746	0	0	644	563	705	831	841	850	767	765	768
12	750	0	0	647	546	727	830	841	850	767	763	765
13	263	0	0	640	560	734	831	840	849	766	764	765
14	0	0	0	638	577	756	832	840	848	764	765	767
15	0	0	0	650	635	220	798	838	850	765	766	768
16	0	0	302	677	637	410	742	838	853	764	765	769
17	0	0	548	666	608	749	823	839	853	767	767	769
18	0	0	571	658	632	747	822	840	852	767	769	768
19	0	0	625	640	664	751	821	839	851	765	769	769
20	0	0	674	619	694	755	825	838	851	763	769	768
21	0	0	686	637	718	755	827	838	841	763	771	766
22	0	0	644	635	723	295	829	838	832	765	771	769
23	0	0	642	624	730	0	829	835	830	766	770	754
24	0	0	619	608	705	0	825	835	809	766	768	753
25	0	0	609	602	689	486	823	836	780	768	769	739
26	0	0	620	575	688	828	823	836	771	765	770	738
27	0	0	638	556	689	828	837	834	770	764	771	736
28	0	0	617	642	711	827	844	835	772	767	771	815
29	0	0	542	383	749	829	843	835	766	764	765	876
30	0	0	598	418	---	839	845	834	758	765	768	865
31	0	---	692	591	---	838	---	835	---	763	769	---
TOTAL	9264	0	9627	18947	18353	19720	24826	25994	24806	23648	23761	23165
MEAN	299	0	311	611	633	636	828	839	827	763	766	772
AC-FT	18380	0	19100	37580	36400	39110	49240	51560	49200	46910	47130	45950
MAX	757	0	692	706	749	839	845	842	853	768	771	876
MIN	0	0	0	383	546	0	742	834	758	726	761	736

CAL YR	2003	TOTAL	163171	MEAN	447	MAX	842	MIN	0	AC-FT	323600
WTR YR	2004	TOTAL	222111	MEAN	607	MAX	876	MIN	0	AC-FT	440600

MAX DISCH: 968 CFS AT 06:30 ON Apr. 16, 2004 GH 7.80 FT. SHIFT 0.19 FT.  
MAX GH: 7.80 FT. AT 06:30 ON Apr. 16, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



GUNNISON RIVER BASIN

GUNNISON RIVER BELOW REDLANDS DIVERSION DAM NEAR GRAND JUNCTION, CO

**LOCATION.**--Lat 39°02'17", long 108°34'13", in SW¼SW¼ sec 26, T.1 S., R.1 W., Mesa County, on the right bank of the Gunnison River just up stream of the Department of Energy Compound, about 1.6 miles above the mouth and the Colorado River, and about 0.78 miles below the Redlands Canal Diversion Dam.

**GAGE.**--Sutron 8200 DCP with satellite transmitter controlling a Sutron AccuBubble in a 48-inch diameter CMP shelter on a concrete pad. There is no back up strip chart. A Sutron SatLink Logger High Data Rate DCP was installed April 7, 2004.

**REMARKS.**--The primary record is the electronic data from the Sutron 8200 / SatLink Logger. This record proves to be complete, reliable and good except when the stage to discharge relation was affected by ice, and period when the SatLink Logger locked up, which are poor. The reduced flows in the river due to the Redlands canal diverting water compounded the ice effect. The ice periods were Dec. 19-21, 29-31, 2003; Jan. 1, 5-8, 11-15, 17-27, 29, 30, Feb. 13-16, 2004. This record is rated poor. The missing record was from Jun. 7-9, 2004. These values were estimated using a correlation between the USGS Gage at White Water, the Gunnison River near Grand Junction, which is about seven miles up stream and, with the gage at Redlands Canal. Station maintained and record developed by Gerald M. Thrush.

**RATING TABLE.**--GUNREDCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

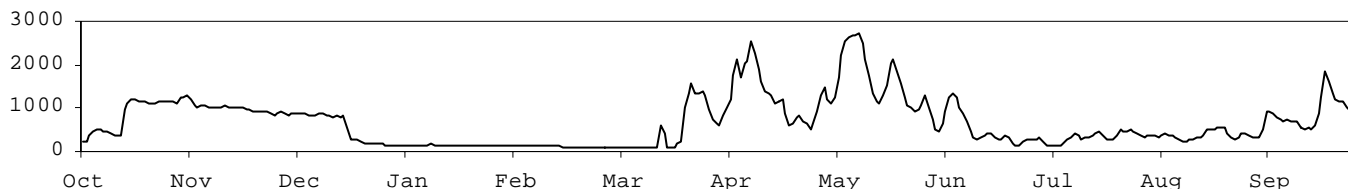
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	1190	878	155	136	83	604	1480	716	293	346	311
2	233	1050	878	153	134	79	811	1180	505	304	370	305
3	350	1030	875	154	131	79	1030	1110	456	216	374	328
4	467	1070	854	156	133	79	1180	1260	650	154	367	506
5	507	1060	844	155	130	79	1760	1700	938	145	326	912
6	493	1020	844	155	126	79	2110	2200	1250	151	350	936
7	478	1010	853	160	123	78	1690	2520	1320	133	408	855
8	442	1010	867	160	122	78	2020	2640	1260	158	381	801
9	414	999	881	163	122	80	2080	2670	1030	241	368	746
10	367	997	847	158	121	80	2560	2670	879	277	326	705
11	360	1040	814	160	121	81	2270	2730	689	334	256	736
12	381	1010	807	160	119	83	1900	2500	453	393	218	696
13	952	1010	809	160	120	84	1610	2130	339	365	222	690
14	1110	1020	783	160	120	87	1380	1770	278	300	272	674
15	1180	1030	825	160	120	595	1320	1350	313	313	288	553
16	1210	1010	543	160	115	436	1280	1140	362	343	316	521
17	1170	981	255	160	112	99	1100	1120	409	352	326	531
18	1140	973	299	160	91	94	1150	1300	407	423	392	512
19	1140	946	290	160	81	97	1180	1510	341	457	505	577
20	1130	926	240	160	82	176	878	2020	300	378	493	874
21	1130	932	180	160	83	248	615	2120	267	285	519	1230
22	1100	941	183	160	83	1010	645	1850	369	269	532	1840
23	1170	926	180	160	84	1340	798	1580	339	271	574	1600
24	1160	877	174	160	83	1570	837	1250	182	363	533	1320
25	1170	838	167	160	83	1340	683	1080	140	488	414	1200
26	1140	880	163	160	82	1330	641	1020	136	476	340	1170
27	1170	912	158	160	81	1380	524	927	245	461	291	1140
28	1130	871	153	160	83	1270	639	957	297	509	334	1010
29	1240	837	135	150	86	975	936	1040	281	479	398	980
30	1250	854	155	140	---	745	1300	1270	296	404	398	1140
31	1290	---	155	138	---	631	---	1020	---	377	352	---
TOTAL	26706	29250	16089	4877	3107	14465	37531	51114	15447	10112	11589	25399
MEAN	861	975	519	157	107	467	1251	1649	515	326	374	847
AC-FT	52970	58020	31910	9670	6160	28690	74440	101400	30640	20060	22990	50380
MAX	1290	1190	881	163	136	1570	2560	2730	1320	509	574	1840
MIN	232	837	135	138	81	78	524	927	136	133	218	305

CAL YR	2003	TOTAL	282749	MEAN	775	MAX	4800	MIN	13	AC-FT	560800
WTR YR	2004	TOTAL	245686	MEAN	671	MAX	2730	MIN	78	AC-FT	487300

MAX DISCH: 2980 CFS AT 23:30 ON May. 10, 2004 GH 4.50 FT. SHIFT -0.23 FT.  
MAX GH: 5.94 FT. AT 23:00 ON Jan. 17, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



BLUE RIVER BASIN

BLUE RIVER AT HIGHWAY 9 BRIDGE BELOW BRECKENRIDGE, CO

**LOCATION.**--Lat 39°32'29", long 106°02'40", in SE¼SW¼ sec. 7, T.6 S., R.77 W., Hydrologic Unit 14010004, Summit County, on right bank 25 ft. above Highway 9 Bridge, 3 1/2 miles north of Breckenridge and 2 1/4 miles south of Dillon Reservoir(Blue River Arm).

**DRAINAGE AREA.**--N/A.

**GAGE.**--Graphic water-stage recorder and satellite telemetry system (Sutron HDR 8210 DCP and shaft encoder) in exposed aggregate building. Well inside building has two intake pipes with flush risers outside. Recorder and shaft encoder are referenced to inside drop tape. Primary record is satellite data and chart record is used for backup. AC power was installed in station in early June 2004. Equipment shelf rebuilt June 24, 2004. Control is rock and cobble riffle(low flows) and 8' culverts(high flows).

**REMARKS.**--Record is complete and reliable except for the following period when ice was in the well: December 12 - March 4. Missing record was estimated using "ice corrections" (i.e., gage height changes noted when ice was chopped and removed from the well) and data from upstream station, Blue River at Blue River, from Goose Pasture Tarn reservoir releases, and from Breckenridge Ski Area snowmaking diversions. Record is good except for periods of well icing when record is fair. Transmountain diversions above the station occur through the Continental-Hoosier Tunnel and the Boreas Pass Ditch. Station maintained by Scott Hummer and George Wear. Record developed by George Wear.

**RATING TABLE.**--BLUNINCO07 USED FROM 01-OCT-2003 TO 30-SEP-2004

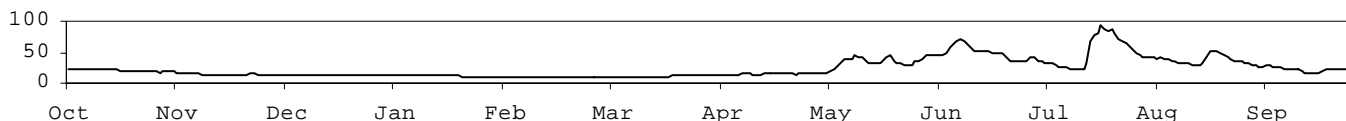
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	17	14	12	11	9	13	17	45	42	45	31
2	21	17	14	12	11	9	13	17	45	41	41	29
3	22	17	14	12	11	9	13	16	44	37	41	28
4	24	17	13	12	11	9	12	16	44	34	43	27
5	23	16	13	12	11	9.1	12	18	45	32	42	27
6	23	15	13	12	11	9	13	22	45	31	40	29
7	22	15	13	12	11	8.9	13	28	49	32	41	29
8	22	14	14	12	11	8.9	14	33	58	29	39	27
9	22	14	14	12	11	9	14	38	64	27	38	26
10	22	14	14	12	10	9.4	15	38	68	25	36	25
11	22	14	13	12	10	9.4	15	39	72	25	34	24
12	22	14	13	12	10	10	15	44	67	23	33	22
13	22	14	13	12	10	10	14	42	61	22	32	23
14	22	14	13	12	10	10	14	41	57	22	32	22
15	23	14	13	12	10	10	14	37	53	21	31	21
16	20	14	13	12	10	9.9	15	33	52	24	30	20
17	19	14	13	12	10	9.7	15	31	51	31	28	17
18	19	14	13	12	10	9.7	15	32	51	69	29	17
19	19	13	13	12	10	11	15	32	52	79	32	17
20	19	13	13	12	10	11	15	35	50	80	43	17
21	19	14	13	11	10	12	15	42	48	92	51	17
22	19	15	13	11	10	12	15	45	50	88	53	20
23	19	15	13	11	10	12	15	36	50	84	51	24
24	18	14	13	11	10	12	15	33	42	88	49	24
25	18	14	13	11	10	12	14	31	37	82	45	23
26	18	14	13	11	10	13	15	29	36	70	41	22
27	17	14	13	11	10	13	15	28	37	67	38	22
28	18	14	13	11	10	13	15	30	37	64	36	21
29	18	13	13	11	10	12	16	34	37	60	36	22
30	18	14	13	11	---	12	16	35	37	55	34	25
31	18	---	13	11	---	12	---	40	---	49	32	---
TOTAL	630	435	409	361	299	326	430	992	1484	1525	1196	698
MEAN	20	15	13	12	10	10.5	14	32	50	49	39	23
AC-FT	1250	863	811	716	593	647	853	1970	2940	3020	2370	1380
MAX	24	17	14	12	11	13	16	45	72	92	53	31
MIN	17	13	13	11	10	8.9	12	16	36	21	28	17

CAL YR 2003 TOTAL 19473 MEAN 53 MAX 354 MIN 5.7 AC-FT 38620  
WTR YR 2004 TOTAL 8785 MEAN 24 MAX 92 MIN 8.9 AC-FT 17430

MAX DISCH: 102 CFS AT 16:30 ON Jul. 21, 2004 GH 1.14 FT. SHIFT 0.09 FT.  
MAX GH: 1.14 FT. AT 16:30 ON Jul. 21, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

ROARING FORK RIVER BELOW MAROON CREEK NEAR ASPEN, CO

**LOCATION.**--Lat 39°13'30", long 106°51'20", NW¼SW¼ sec. 35, T.9 S., R.85 W., Pitkin County, on left bank at Aspen Consolidated Sanitation Plant 0.5 mi east of Aspen Airport and 0.8 mi downstream from confluence of Maroon Creek.

**DRAINAGE AREA.**--N/A.

**GAGE.**--Graphic water-stage recorder and Sutron 8004 satellite telemetry system in exposed aggregate building over stilling well. Recorder and shaft encoder are referenced to inside drop tape. Primary record is satellite data and chart record is used for backup. Control is a rock and cobble riffle (low flows) and boulders (high flows). Elevation of gage is 7560 ft from topographic map.

**REMARKS.**--Record is complete and reliable except for the following days when the stage-discharge relationship was affected by ice: December 17-20, 24-25, 28-31, 2003; January 5-15, 18-29, and February 2-3, 6-8, 10-17, 2004. Record is good except for periods of ice-affected record, which are fair. Upstream transmountain diversions occurred through Twin Lakes Tunnel and through Hunter Tunnel. Station maintained and record developed by George Wear.

**RATING TABLE.**--ROABMCCO3 USED FROM 01-OCT-2003 TO 30-SEP-2004

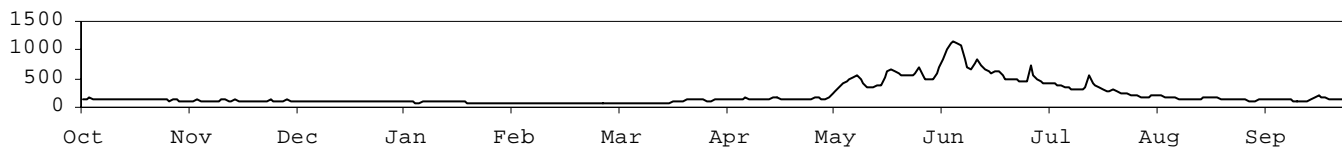
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	118	111	94	82	75	130	156	498	572	188	119
2	152	122	107	96	81	76	136	154	498	485	181	115
3	161	128	102	99	81	76	134	177	588	459	177	116
4	154	120	100	93	81	76	136	237	684	432	194	132
5	151	116	100	78	81	77	149	281	829	423	196	145
6	148	119	104	85	81	73	149	356	1010	421	195	141
7	146	121	105	92	78	76	150	411	1130	412	193	137
8	143	121	110	92	81	78	151	460	1150	393	184	131
9	143	119	99	91	82	81	169	497	1130	380	176	126
10	139	126	97	91	78	83	155	513	1070	363	170	127
11	144	123	105	90	80	82	140	544	852	348	163	129
12	142	116	101	90	80	82	143	492	690	331	156	123
13	142	121	99	90	79	85	136	417	650	324	152	124
14	138	126	105	89	79	84	141	366	755	320	149	120
15	140	119	107	89	78	87	143	335	832	318	143	119
16	141	113	98	89	78	83	148	346	740	336	140	120
17	137	120	98	89	77	84	158	388	662	573	144	120
18	130	113	100	89	78	87	160	396	613	408	151	116
19	128	112	100	88	78	93	153	507	604	371	173	125
20	129	116	100	87	77	101	150	644	632	339	177	184
21	129	116	102	84	76	110	147	659	624	309	164	198
22	128	112	99	82	75	118	141	641	546	276	165	189
23	128	93	94	82	75	123	138	584	492	276	164	160
24	127	128	97	83	75	131	133	560	500	297	151	150
25	124	122	97	83	75	139	134	563	490	263	143	144
26	118	111	97	80	74	138	127	558	494	246	140	139
27	124	105	96	78	76	142	135	574	465	257	138	135
28	124	114	95	78	79	127	154	603	440	232	137	132
29	122	131	94	80	76	116	161	693	469	215	132	131
30	119	114	94	82	---	119	166	573	740	205	128	146
31	117	---	94	82	---	123	---	484	---	195	123	---
TOTAL	4205	3535	3107	2695	2271	3025	4367	14169	20877	10779	4987	4093
MEAN	136	118	100	87	78	98	146	457	696	348	161	136
AC-FT	8340	7010	6160	5350	4500	6000	8660	28100	41410	21380	9890	8120
MAX	161	131	111	99	82	142	169	693	1150	573	196	198
MIN	117	93	94	78	74	73	127	154	440	195	123	115

CAL YR	2003	TOTAL	89946	MEAN	246	MAX	2480	MIN	69	AC-FT	178400
WTR YR	2004	TOTAL	78110	MEAN	213	MAX	1150	MIN	73	AC-FT	154900

MAX DISCH: 1400 CFS AT 00:15 ON Jun. 8, 2004 GH 4.7 FT. SHIFT 0.07 FT.  
MAX GH: 4.7 FT. AT 00:15 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09077200 FRYINGPAN RIVER NEAR IVANHOE LAKE, CO

**LOCATION.**--Lat 39°14'42", long 106°31'50", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank 100 ft downstream from diversion dam, 2 mi southwest of Ivanhoe Lake, and 9.1 mi southeast of Norrie, CO.

**DRAINAGE AREA.**--18.7 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 3 ft square doghouse style metal shelter on 24" diameter corrugated metal well. Recorder referenced to inside drop tape. Control is a 9.8-ft. wide sharp-crested concrete weir 20 ft. below gage. Elevation of gage is 9,945 ft from topographic map.

**REMARKS.**--Record is complete and reliable except for the following periods: Nov 04 to April 13 when well was frozen, and April 13-16 when chart recorder was not giving valid gage heights. Minor pen corrections were applied during the year to recorder chart. Record is good except for periods of no gage height record, which is poor. Transmountain diversions, upstream of gage, occurred through the Boustead Tunnel. Station maintained by George Wear. Record developed by George Wear and Ed Wilson.

**RATING TABLE.**--FRYIVLC008 USED FROM 01-OCT-2003 TO 30-SEP-2004

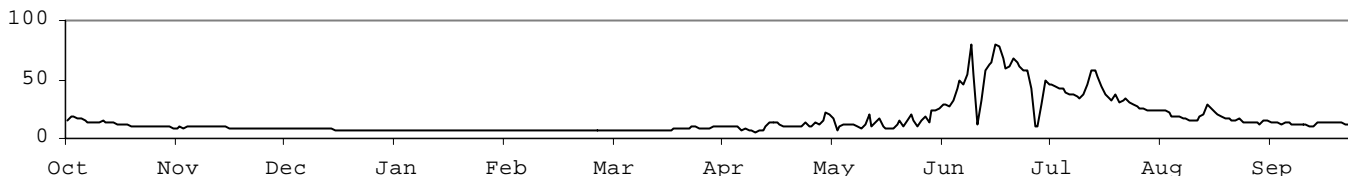
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	8.7	8.1	6.8	6	6	9.8	12	13	9.4	25	13
2	18	9.4	8.1	6.8	6	6	11	15	24	9.4	24	13
3	18	9	8.1	6.8	6	6	9.8	22	24	28	23	12
4	17	9.4	8.1	6.8	6	6	10	20	25	49	23	16
5	17	9.4	8.1	6.8	6	6	11	17	28	46	24	16
6	15	9.4	8.1	6.8	6	6	9.8	6.9	28	46	23	14
7	14	9.4	8.1	6.8	6	6	11	11	27	44	23	13
8	14	9.4	8.1	6.8	6	6	9.7	12	32	43	22	13
9	14	9.4	8.1	6.8	6	6	6.8	12	42	42	19	12
10	14	9.4	8.1	6.8	6	6.4	8.1	12	50	39	18	14
11	16	9.4	8.1	6.8	6	6.4	7	12	45	38	18	14
12	14	9.4	8.1	6.8	6	6.4	6.4	9.7	55	37	17	12
13	14	9.4	7.7	6.8	6	6.4	5.8	8.4	79	35	17	12
14	14	9.4	7.7	6.8	6	6.4	6.4	12	55	34	16	12
15	12	9.4	7.7	6.8	6	6.4	7.6	21	12	37	16	12
16	12	8.5	7.2	6.8	6	6.4	10	11	33	46	16	12
17	12	8.9	7.2	6.8	6	6.4	14	13	57	57	18	11
18	12	8.9	7.2	6.8	6	6	14	17	62	58	20	11
19	11	8.9	7.2	6.8	6	6.4	13	10	64	52	29	14
20	11	8.5	7.2	6.8	6	6.8	12	9	79	44	25	14
21	11	8.5	6.8	6.8	6	8.1	11	9	78	38	22	14
22	11	8.5	6.8	6.8	6	8.5	10	8.7	68	34	20	14
23	10	8.5	6.8	6.8	6	8.1	9.7	12	59	33	19	14
24	10	8.5	6.8	6.8	6	8.1	9.7	16	61	37	17	14
25	10	8.5	6.8	6.8	6	8.5	9.4	11	67	30	17	14
26	10	8.5	6.8	6.8	6	9.4	10	15	65	32	16	13
27	11	8.1	6.8	6.4	6	9.4	13	20	61	34	16	12
28	10	8.1	6.8	6.4	6	8.1	9.4	15	58	31	17	12
29	9.7	8.1	6.8	6.4	6	8.1	11	11	57	29	14	12
30	9.4	8.1	6.8	6.4	---	8.1	13	16	42	27	14	13
31	9	---	6.8	6	---	8.5	---	19	---	25	14	---
TOTAL	396.1	267	231.1	208.4	174	217.3	299.4	415.7	1450	1143.8	602	392
MEAN	12.8	8.9	7.5	6.7	6	7	10	13.4	48	36.9	19	13
AC-FT	786	530	458	413	345	431	594	825	2880	2270	1190	778
MAX	18	9.4	8.1	6.8	6	9.4	14	22	79	58	29	16
MIN	9	8.1	6.8	6	6	6	5.8	6.9	12	9.4	14	11

CAL YR 2003 TOTAL 5007.1 MEAN 13.7 MAX 57 MIN 3.7 AC-FT 9930  
WTR YR 2004 TOTAL 5796.8 MEAN 15.8 MAX 79 MIN 5.8 AC-FT 11500

MAX DISCH: 113 CFS AT 12:00 ON June 9, 2004 GH 2.33 FT. SHIFT 0.00 FT.  
MAX GH: 2.33 FT. AT 12:00 ON June 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09077610 IVANHOE CREEK NEAR NAST, CO

**LOCATION.**--Lat 39°17'13", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank 60 ft upstream from culvert under Nast Tunnel, 300 ft downstream from diversion dam, 2.3 mi east of Nast, and 5.8 mi southeast of Norrie, CO.

**DRAINAGE AREA.**--9.43 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 3 ft square doghouse style metal shelter on 24" diameter corrugated metal well. Recorder referenced to inside drop tape. Control is a 120° v-notch weir (low flows) 30 ft below the gage and 8 ft culvert (high flows) 35 feet below the gage. Elevation of gage is 9,980 ft from topographic map.

**REMARKS.**-- Record is complete and reliable except for the following days: November 3, 2003-April 14, 2004, when the well was frozen; June 22, 2004, when the recorder pen was not on the paper and there was no backup data; July 31-August 5, 2004, when the recorder float was sitting on silt; and May 12-June 21, 2004, when the recorder pen was not on the chart paper, and USBR control house chart data (daily mean gage heights) were used. Record is good except for periods of no gage height data, which is poor, and period when USBR chart data was used, which is fair. Transmountain diversions above station occurred through Boustead Tunnel and Busk-Ivanhoe Tunnel. Station maintained and record developed by George Wear.

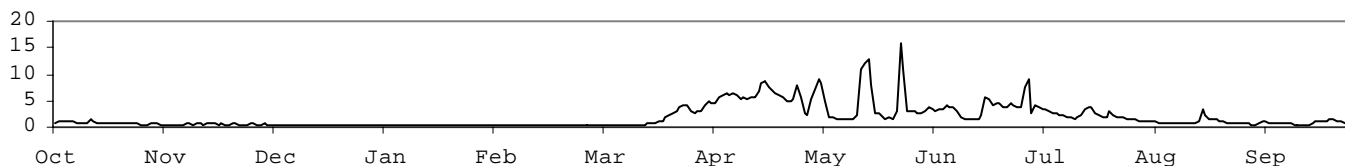
**RATING TABLE.**--IVCRNACO4 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	.53	.52	.4	.36	.32	4	5.2	2.7	9	1.3	.59
2	1.1	.53	.52	.4	.36	.34	4.8	7	3.1	2.7	1.2	.56
3	1.3	.56	.48	.42	.36	.34	4.5	9.2	3.6	4.1	1.2	.53
4	1	.56	.46	.4	.36	.34	4.4	8.3	3.4	3.8	1.1	.85
5	1.1	.5	.46	.4	.36	.34	5.8	4.8	3.1	3.5	1.1	1.2
6	1	.54	.46	.42	.34	.34	6.2	1.9	3.3	3.5	.97	.97
7	.93	.6	.48	.42	.34	.34	6.3	1.9	3.4	3.1	.84	.73
8	.89	.58	.48	.42	.34	.38	6.2	1.6	4.1	2.8	.77	.62
9	.8	.54	.48	.4	.34	.4	6.5	1.5	3.9	2.6	.66	.59
10	.8	.64	.46	.4	.34	.44	6	1.6	3.8	2.4	.59	.66
11	1.4	.6	.48	.4	.34	.46	5.3	1.6	3.1	2.1	.73	.89
12	1.1	.5	.46	.4	.34	.48	5.5	1.5	1.7	2	.84	.66
13	.89	.68	.44	.4	.42	.52	5.1	1.6	1.5	1.8	.8	.59
14	.73	.64	.46	.38	.38	.54	5.6	2.2	1.5	1.6	.73	.53
15	.69	.6	.46	.38	.36	.54	5.6	11	1.4	1.8	.69	.53
16	.66	.46	.44	.38	.36	.6	6.8	12	1.4	2.3	.69	.5
17	.66	.6	.44	.38	.34	.65	8.2	13	1.4	3.4	.69	.5
18	.66	.5	.44	.38	.36	.77	8.6	8	2.1	3.8	1	.47
19	.66	.52	.42	.38	.34	.98	7.6	2.6	5.8	3.8	3.3	.59
20	.66	.58	.42	.38	.34	1.3	6.8	2.5	5.4	2.8	2.4	1.1
21	.66	.62	.42	.36	.34	1.9	6.6	2	4.1	2.3	1.5	1.1
22	.62	.56	.44	.36	.34	2.4	6.2	1.5	4.5	1.8	1.5	1.3
23	.59	.42	.44	.36	.32	2.8	5.6	1.9	4.6	1.7	1.5	1.2
24	.59	.48	.42	.36	.32	3.1	5	1.4	3.8	3.1	1.1	1.4
25	.56	.6	.42	.36	.32	3.6	5	3.2	3.8	2.1	.97	1.4
26	.53	.58	.42	.34	.32	4.2	5.4	16	4.6	1.8	.84	1.2
27	.56	.54	.42	.34	.34	4	8	11	4	2	.8	.97
28	.62	.54	.4	.34	.32	3	5.7	3.1	3.7	1.8	.89	.89
29	.59	.58	.4	.36	.32	2.7	2.5	3.1	3.6	1.6	.77	.84
30	.59	.56	.4	.36	---	2.9	2.2	3	7.4	1.5	.66	1.4
31	.53	---	.4	.36	---	3.2	---	2.6	---	1.4	.62	---
TOTAL	24.2	16.74	13.84	11.84	10.02	44.22	172	147.8	103.8	84	32.75	25.36
MEAN	.78	.56	.45	.38	.35	1.43	5.7	4.8	3.5	2.7	1.06	.85
AC-FT	48	33	27	23	20	88	341	293	206	167	65	50
MAX	1.4	.68	.52	.42	.42	4.2	8.6	16	7.4	9	3.3	1.4
MIN	.53	.42	.4	.34	.32	.32	2.2	1.4	1.4	1.4	.59	.47
CAL YR 2003	TOTAL	524.22	MEAN	1.44	MAX	7.1	MIN	.40	AC-FT	1040		
WTR YR 2004	TOTAL	686.57	MEAN	1.88	MAX	16	MIN	.32	AC-FT	1360		

MAX DISCH: 17.9 CFS AT 02:00 ON Jul 1, 2004 GH 1.53 FT. SHIFT -0.02 FT.  
MAX GH: 1.53 FT. AT 02:00 ON Jul 1, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09077800 SOUTH FORK FRYINGPAN RIVER AT UPPER STATION NEAR NORRIE, CO

**LOCATION.**--Lat 39°14'20", long 106°35'24", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on right bank 300 ft downstream from diversion dam, 5.2 mi upstream from mouth, and 7.2 mi southeast of Norrie, CO.

**DRAINAGE AREA.**--11.5 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in metal box mounted on a 4-in diameter steel pipe well. Recorder referenced to drop tape from RP on downstream side of recorder box. Control is a 6.2-ft. wide concrete weir. Elevation of gage is 9,990 ft from topographic map.

**REMARKS.**--Gage height record is complete for the WY except Nov 1, 2003 to April 8, 2004 when well was frozen, April 8 to May 12, 2004 when float was on bottom of well, and May 14-June 4, 2004 when the recorder clock stopped. The pen had many skips during the period May 12 to Sept. 15, 2004, with many days having more than 4 hrs of missing pen trace (May 12, 17, July 10, 14-20, 22, 24-31, Aug 1-16, 18-23, 25-29, 31 and Sept 1-13). Gage heights for this period were reconstructed from partial pen traces except for July 16 and 21 when pen failed to mark and range in stage was in doubt. Record is fair except for periods of missing gage height record or reconstructed gage height record, which is poor. Transmountain diversions occur above station through Boustead Tunnel. Station operated by George Wear and record developed by George Wear and Ed Wilson.

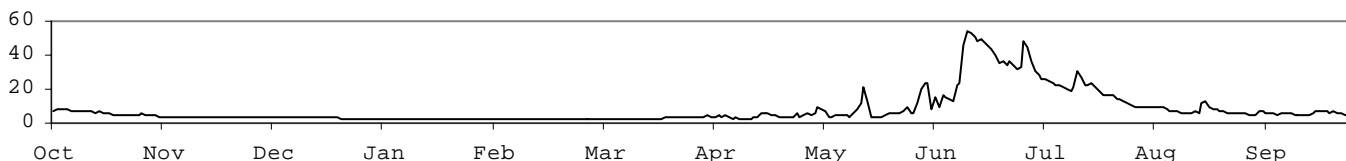
**RATING TABLE.**--FRYSFU008 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	3.6	3.3	2.8	2.5	2.5	4	4.9	20	45	10	5.2
2	8.6	3.9	3.3	2.8	2.5	2.5	4.5	6.2	24	37	10	5
3	8.6	3.7	3.3	2.8	2.5	2.5	4	9	24	31	10	5
4	8	3.4	3.3	2.8	2.5	2.5	4.1	8.2	8	28	9.4	6.9
5	7.8	3.8	3.3	2.8	2.5	2.5	4.5	7	15	26	9.4	7.5
6	7.5	3.8	3.3	2.8	2.5	2.5	4	4	9.9	26	9.1	6.4
7	7.1	3.8	3.3	2.8	2.5	2.5	4.5	4.1	16	25	10	5.6
8	6.9	3.8	3.3	2.8	2.5	2.5	4	4.5	15	24	9.4	5.4
9	6.7	3.8	3.3	2.8	2.5	2.5	2.8	4.9	14	22	7.8	5.2
10	6.9	3.8	3.3	2.8	2.5	2.6	3.3	4.9	13	22	7.1	5.8
11	7.5	3.8	3.3	2.8	2.5	2.6	2.9	4.9	22	21	6.9	5.8
12	6.7	3.8	3.3	2.8	2.5	2.6	2.6	4	23	20	6.7	5.4
13	6.2	3.8	3.2	2.8	2.5	2.6	2.6	5.6	46	19	6.4	5.4
14	6.7	3.8	3.2	2.8	2.5	2.6	2.6	8	54	21	6.2	5
15	5.8	3.8	3.2	2.8	2.5	2.6	3.1	12	53	31	6	4.8
16	5.6	3.5	3	2.8	2.5	2.6	3.6	21	51	27	5.8	4.6
17	5.4	3.6	3	2.8	2.5	2.6	5.7	13	48	22	6.7	4.4
18	5.2	3.6	3	2.8	2.5	2.5	5.7	4	50	22	5.6	4.4
19	5	3.6	3	2.8	2.5	2.6	5.3	4	47	23	12	5.4
20	5	3.5	3	2.8	2.5	2.8	4.9	4	45	21	13	6.9
21	4.8	3.5	2.8	2.8	2.5	3.3	4.5	4	44	19	9.1	6.9
22	4.8	3.5	2.8	2.8	2.5	3.5	4.1	5	40	17	8.4	7.1
23	4.8	3.5	2.8	2.8	2.5	3.3	4	6	35	16	7.8	6.7
24	4.6	3.5	2.8	2.8	2.5	3.3	4.1	6	36	17	7.1	6.4
25	4.4	3.5	2.8	2.8	2.5	3.5	3.9	6	34	16	6.7	6.7
26	5.8	3.5	2.8	2.8	2.5	3.9	4.1	6	36	14	6.4	6.4
27	5	3.3	2.8	2.6	2.5	3.9	5.3	7	34	14	6.4	6
28	4.6	3.3	2.8	2.6	2.5	3.3	3.9	9	32	13	6.4	5.2
29	4.4	3.3	2.8	2.6	2.5	3.3	4.5	6	33	12	5.8	5.2
30	4.2	3.3	2.8	2.6	---	3.3	5.3	6	48	11	5.6	6.4
31	3.9	---	2.8	2.5	---	3.5	---	12	---	10	5.4	---
TOTAL	185.4	108.4	95	85.7	72.5	89.3	122.4	211.2	969.9	672	242.6	173.1
MEAN	6	3.6	3.1	2.8	2.5	2.9	4.1	6.8	32.3	22	7.8	5.8
AC-FT	368	215	188	170	144	177	243	419	1920	1330	481	343
MAX	8.6	3.9	3.3	2.8	2.5	3.9	5.7	21	54	45	13	7.5
MIN	3.9	3.3	2.8	2.5	2.5	2.5	2.6	4	8	10	5.4	4.4
CAL YR 2003	TOTAL	3480.8	MEAN	9.54	MAX	77	MIN	2.2	AC-FT	6900		
WTR YR 2004	TOTAL	3027.5	MEAN	8.27	MAX	54	MIN	2.5	AC-FT	6010		

MAX DISCH: 71.1 CFS AT 21:30 ON June 14, 2004 GH 3.67 FT. SHIFT 0.00 FT.  
MAX GH: 3.67 FT. AT 21:30 ON June 14, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09077945 CHAPMAN GULCH NEAR NAST, CO

**LOCATION.**--Lat 39°15'51", long 106°37'54", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on right bank 700 ft downstream from Chapman diversion tunnel, 3.3 mi upstream from mouth, and 4.3 mi south of Norrie, CO.

**DRAINAGE AREA.**--5.99 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 3 ft square metal doghouse style shelter on a 5 ft deep, 24-in diameter corrugated metal well. Record referenced to inside drop tape. USBR has shaft encoder connected with belt to the recorder wheel, which is hard-wired to Chapman Control House; these data were not available for record development. Control is a 120° v-notch sharp-crested weir (low flows) and channel (high flows). Elevation of gage is 9,982.76 ft.

**REMARKS.**--Record is complete and reliable. Record is good. Transmountain diversions above station occur through Boustead Tunnel. Gaging station operated by George Wear. Discharge record computed by George Wear and Ed Wilson.

**RATING TABLE.**--CHAGULCO05 USED FROM 01-OCT-2003 TO 30-SEP-2004

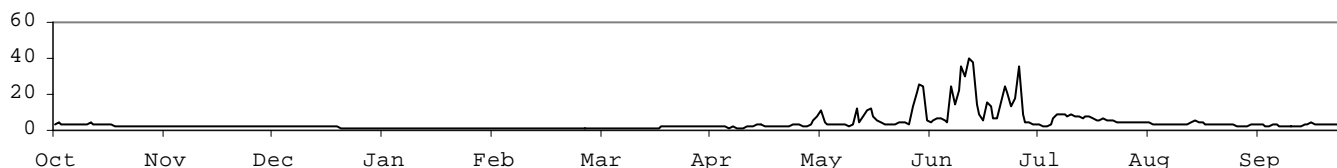
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3	2.2	1.9	1.6	1.4	1.4	2.3	2.3	21	8.7	4	2.7
2	4	2.2	1.9	1.6	1.4	1.4	2.6	3.3	26	5	4	2.6
3	3.7	2.2	1.9	1.6	1.4	1.4	2.3	5.1	25	4.3	4	2.6
4	3.8	2.2	1.9	1.6	1.4	1.4	2.4	7.5	5.7	3.3	3.9	3.1
5	3.7	2.2	1.9	1.6	1.4	1.4	2.5	11	4.2	2.9	4	3.3
6	3.5	2.2	1.9	1.6	1.4	1.4	2.3	4.7	5.7	2.8	4	3
7	3.2	2.2	1.9	1.6	1.4	1.4	2.6	3.4	7.1	2.6	3.8	2.8
8	3	2.2	1.9	1.6	1.4	1.4	2.3	3.5	6.6	2.3	3.6	2.7
9	3	2.2	1.9	1.6	1.4	1.4	1.6	3.6	5.2	3.3	3.3	2.6
10	3.2	2.2	1.9	1.6	1.4	1.5	1.9	3.5	5	6.4	3.2	3.1
11	4	2.2	1.9	1.6	1.4	1.5	1.6	3	24	9.2	3.1	3
12	3.5	2.2	1.9	1.6	1.4	1.5	1.6	2.8	14	8.8	3.1	2.7
13	3.1	2.2	1.8	1.6	1.4	1.5	1.6	2.6	22	8.6	3.1	2.6
14	2.9	2.2	1.8	1.6	1.4	1.5	1.8	3	36	8.3	3.1	2.5
15	2.9	2.2	1.8	1.6	1.4	1.5	1.9	12	30	9	2.9	2.6
16	2.8	2	1.7	1.6	1.4	1.5	2.3	4.9	40	7.9	2.9	2.5
17	2.9	2.1	1.7	1.6	1.4	1.5	2.8	7.6	38	7.9	3	2.4
18	2.6	2.1	1.7	1.6	1.4	1.4	2.8	11	15	7	3.9	2.4
19	2.6	2.1	1.7	1.6	1.4	1.5	2.4	12	8.8	7.6	5.6	3
20	2.6	2	1.7	1.6	1.4	1.6	2.3	7.6	6	7.7	4.8	3.6
21	2.4	2	1.6	1.6	1.4	1.9	2.2	5.9	16	6.3	4	3.9
22	2.4	2	1.6	1.6	1.4	2	2	4	13	5.7	3.6	3.7
23	2.4	2	1.6	1.6	1.4	1.9	1.9	3.7	6.4	5.5	3.5	3.4
24	2.3	2	1.6	1.6	1.4	1.9	1.8	3.6	6.7	6.6	3.2	3.4
25	2.1	2	1.6	1.6	1.4	2	1.9	3.7	16	5.6	3.1	3.3
26	2.3	2	1.6	1.6	1.4	2.2	2.2	3.6	24	5.2	3.1	3.2
27	2.4	1.9	1.6	1.5	1.4	2.2	3.5	3.9	21	5.2	3.1	2.9
28	2.3	1.9	1.6	1.5	1.4	1.9	3.4	4.2	13	4.9	3.1	2.8
29	2.4	1.9	1.6	1.5	1.4	1.9	3	4.3	18	4.5	2.9	2.8
30	2.2	1.9	1.6	1.5	---	1.9	2.6	3.4	36	4.3	2.8	3.6
31	2.2	---	1.6	1.4	---	2	---	13	---	4.2	2.7	---
TOTAL	89.4	62.9	54.3	49	40.6	50.9	68.4	167.7	515.4	181.6	108.4	88.8
MEAN	2.9	2.1	1.8	1.6	1.4	1.6	2.3	5.4	17.2	5.9	3.5	3
AC-FT	177	125	108	97	81	101	136	333	1020	360	215	176
MAX	4	2.2	1.9	1.6	1.4	2.2	3.5	13	40	9.2	5.6	3.9
MIN	2.1	1.9	1.6	1.4	1.4	1.4	1.6	2.3	4.2	2.3	2.7	2.4

CAL YR 2003 TOTAL 1229.5 MEAN 3.37 MAX 33 MIN 1.1 AC-FT 2440  
WTR YR 2004 TOTAL 1477.4 MEAN 4.04 MAX 40 MIN 1.4 AC-FT 2930

MAX DISCH: 88.2 CFS AT 19:00 ON May 31, 2004 GH 3.62 FT. SHIFT 0 FT.  
MAX GH: 3.62 FT. AT 19:00 ON May 31, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





ROARING FORK RIVER BASIN

09078500 NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO

**LOCATION.**--Lat 39°20'34", long 106°39'55", in SE¼NW¼ sec. 21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on left bank, 800 ft upstream from bridge on county road, 0.4 mi upstream from mouth, 0.5 mi downstream from Last Chance Creek, and 1.3 mi northwest of Norrie, CO.

**DRAINAGE AREA.**--42 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 42" diameter corrugated metal well. A Synergetics DCP w/satellite monitoring and a shaft encoder is operated by the US National Weather Service. Recorder and shaft encoder are referenced to inside drop tape. Primary record is satellite record with chart used as backup. Control is natural channel at low flows and boulders at high flows. Elevation of gage is 8,330 ft from topographic map.

**REMARKS.**-- The satellite record is complete and reliable except Nov. 3-20, 2003, when the control was ice-affected; Nov. 21, 2003 to Apr. 13, 2004, when the well was frozen; and Apr. 13-15, 2004, before satellite equipment was started in the spring. Gage heights were used from the graphic recorder Apr. 13-15. Record is good, except for periods of no gage height record and period of ice effect, which are poor. Natural flow of stream is affected by transmountain diversions through Boustead Tunnel. Station operated by George Wear; records developed by George Wear and Ed Wilson.

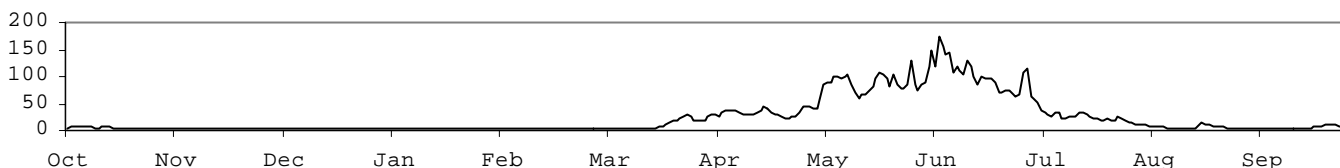
**RATING TABLE.**--FRYFNCO10 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	3.3	3.4	2.8	2.5	2.2	25	39	84	114	11	3
2	6	3.5	3.4	2.9	2.5	2.4	30	39	89	63	11	2.8
3	8.3	3.8	3.1	2.8	2.5	2.4	28	56	117	60	10	2.6
4	7.8	3.4	3	2.8	2.5	2.4	27	86	148	51	9.5	3.1
5	8.2	3	3	2.9	2.5	2.4	35	88	118	37	8.8	5.5
6	7.9	3.2	3	2.9	2.4	2.4	37	89	173	33	8.9	5.5
7	7.1	3.6	3.1	2.9	2.4	2.4	37	100	154	29	8.7	4.7
8	6.4	3.5	3.1	2.8	2.4	2.8	36	100	139	27	8.4	3.9
9	5.5	3.2	3.1	2.8	2.4	3.1	38	97	144	34	7.1	3.5
10	5.5	3.8	3	2.8	2.4	3.5	35	101	107	33	5	3.7
11	7.4	3.6	3.1	2.8	2.4	3.8	30	102	120	24	4	4.7
12	7.3	3	3.2	2.8	2.4	4.2	31	87	110	21	3.1	3.9
13	6.3	4.1	3.1	2.8	2.9	4.7	29	71	104	25	3	3.3
14	5.4	3.8	3.2	2.7	2.7	5	31	59	131	25	2.8	2.9
15	5.3	3.6	3.2	2.7	2.5	5.2	32	68	119	26	2.6	2.7
16	5.1	2.8	3.1	2.7	2.5	5.2	37	65	100	34	2.4	2.5
17	4.6	3.6	3.1	2.7	2.4	5.4	44	74	84	35	2.6	2.4
18	4.3	3.3	3.1	2.7	2.5	6.2	42	82	99	29	3.5	2.2
19	4.1	3.4	2.9	2.7	2.4	7.7	35	96	98	27	11	2.4
20	4.1	3.8	2.9	2.7	2.4	10	31	109	98	24	16	5
21	3.9	4	2.9	2.5	2.4	14	29	104	98	21	11	5.6
22	3.8	3.6	3.1	2.5	2.4	18	26	96	90	20	9.3	8.5
23	3.8	2.7	3.1	2.5	2.2	20	24	81	72	18	9.2	9.1
24	3.6	3.1	2.9	2.5	2.2	21	23	103	72	23	7.9	9.6
25	3.2	3.9	2.9	2.5	2.2	25	25	84	74	19	6.5	11
26	2.9	3.8	2.9	2.4	2.2	28	25	76	75	17	5.6	11
27	3.7	3.5	2.8	2.4	2.2	27	33	77	68	26	5.1	10
28	3.8	3.5	2.8	2.4	2.2	20	46	85	63	23	4.9	8.9
29	3.8	3.8	2.8	2.5	2.2	18	45	128	65	19	4.4	8.2
30	3.7	3.6	2.8	2.5	---	18	46	86	106	16	3.8	10
31	3.4	---	2.8	2.5	---	20	---	74	---	14	3.3	---
TOTAL	161.6	104.8	93.9	82.9	69.8	312.4	992	2602	3119	967	210.4	162.2
MEAN	5.2	3.5	3	2.7	2.4	10.1	33	84	104	31	6.8	5.4
AC-FT	321	208	186	164	138	620	1970	5160	6190	1920	417	322
MAX	8.3	4.1	3.4	2.9	2.9	28	46	128	173	114	16	11
MIN	2.9	2.7	2.8	2.4	2.2	2.2	23	39	63	14	2.4	2.2
CAL YR 2003	TOTAL	NA	MEAN	NA	MAX	NA	MIN	NA	AC-FT	NA		
WTR YR 2004	TOTAL	8878	MEAN	24.3	MAX	173	MIN	2.2	AC-FT	17610		

MAX DISCH: 210 CFS AT 01:00 ON Jun. 6, 2004 GH 4.14 FT. SHIFT 0 FT.  
MAX GH: 4.14 FT. AT 01:00 ON Jun. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09078600 FRYINGPAN RIVER NEAR THOMASVILLE, CO

**LOCATION.**--Lat 39°20'41", long 106°40'23", in NW¼NW¼ sec. 21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 400 ft upstream from private bridge, 400 ft downstream from mouth of North Fork Fryingpan River, 1.6 mi southeast of Thomasville, CO, and 1.7 mi northwest of Norrie, CO.

**DRAINAGE AREA.**--134 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in standard 42" diameter corrugated metal well with Sutron SatLink high data rate DCP satellite equipment. Recorder and shaft encoder are referenced to inside drop tape. Primary record is satellite data and chart record is used for backup. Control is a 100-ft. wide concrete dam 10 ft. below gage. Elevation of gage is 8,210 ft from topographic map.

**REMARKS.**--Satellite data is complete and reliable for the year except Apr. 5-6, 2004 and several missed transmissions during the year. Gage height data for these periods were obtained from the backup recorder or interpolated with no loss in accuracy. Record is good. Transmountain diversions above station occurred through Boustead Tunnel and through Busk-Ivanhoe Tunnel. Station operated by George Wear; record was developed by George Wear and Ed Wilson.

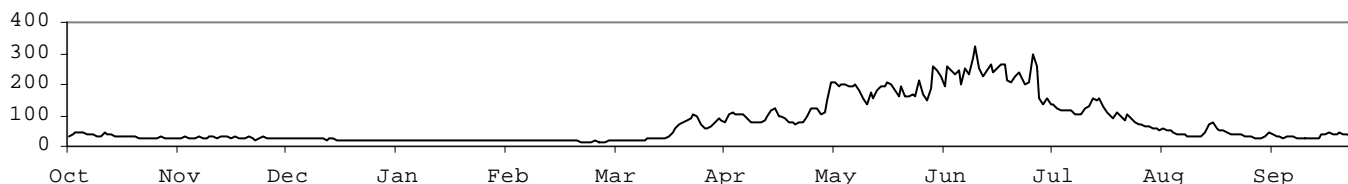
**RATING TABLE.**--FRYTHOCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	26	26	20	18	16	80	103	190	255	63	29
2	41	27	26	20	18	17	92	111	258	153	62	29
3	48	32	24	21	18	17	85	149	243	136	60	28
4	43	28	23	20	18	17	80	208	228	158	56	33
5	43	25	23	20	18	17	103	205	195	136	54	42
6	40	27	23	21	17	17	107	192	255	134	55	38
7	38	30	24	21	17	17	106	200	242	125	51	34
8	36	29	24	21	17	18	101	197	235	117	50	31
9	35	27	24	20	17	19	103	193	244	118	44	29
10	34	32	23	20	17	21	93	192	203	118	40	31
11	44	30	24	20	17	21	80	199	249	115	37	35
12	39	25	23	20	17	22	80	179	235	104	36	31
13	36	34	22	19	21	24	75	155	283	105	34	29
14	31	32	23	19	19	25	80	137	322	103	34	26
15	34	30	23	19	18	25	83	177	253	122	33	25
16	34	23	22	19	18	24	96	153	228	132	33	25
17	32	30	22	19	17	24	115	180	248	158	32	23
18	31	25	22	19	18	27	120	196	266	146	43	23
19	30	26	21	19	17	33	100	192	238	152	69	25
20	30	29	21	19	17	42	94	209	252	132	79	36
21	29	31	21	18	17	57	88	200	262	111	61	36
22	29	28	22	18	17	70	80	183	264	99	53	43
23	29	21	22	18	16	79	75	160	214	92	51	40
24	28	24	21	18	16	81	70	191	208	109	45	41
25	26	30	21	18	16	91	76	161	223	95	41	42
26	24	29	21	17	16	102	75	163	239	84	38	41
27	30	27	21	17	17	94	94	167	228	102	36	38
28	28	27	20	17	16	68	121	159	202	92	38	35
29	27	29	20	18	16	59	124	213	208	80	35	34
30	28	28	20	18	---	61	123	166	300	72	32	43
31	26	---	20	18	---	66	---	149	---	68	31	---
TOTAL	1038	841	692	591	501	1271	2799	5439	7215	3723	1426	995
MEAN	34	28	22	19	17	41	93	175	241	120	46	33
AC-FT	2060	1670	1370	1170	994	2520	5550	10790	14310	7380	2830	1970
MAX	48	34	26	21	21	102	124	213	322	255	79	43
MIN	24	21	20	17	16	16	70	103	190	68	31	23
CAL YR 2003	TOTAL	31807	MEAN	87.1	MAX	762	MIN	17	AC-FT	63090		
WTR YR 2004	TOTAL	26531	MEAN	72.5	MAX	322	MIN	16	AC-FT	52620		

MAX DISCH: 388 CFS AT 03:15 ON Jun. 18, 2004 GH 3.12 FT. SHIFT 0 FT.  
MAX GH: 3.12 FT. AT 03:15 ON Jun. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09080100 FRYINGPAN RIVER AT MEREDITH, CO

**LOCATION.**--Lat 39°21'45", long 106°43'55", in SE¼SE¼ sec. 11, T.8 S., R.84 W., Eagle County, Hydrologic Unit 14010004, on left bank at Meredith, CO, 0.1 mi downstream from Waterbury Creek, 0.7 mi downstream from Jakeman Gulch.

**DRAINAGE AREA.**--191 mi².

**GAGE.**--Graphic water-stage recorder in standard 42" diameter corrugated metal well. Station is outfitted with DCP satellite equipment. Recorder and shaft encoder are referenced to inside drop tape. Primary record is satellite data and chart record is used for backup. Control is natural channel (rock and cobble) at low flows and channel with channel banks at high flows. Elevation of gage is 7,780 ft from topographic map.

**REMARKS.**--Record is complete and reliable except for the following periods: November 23, 2003 through April 14, 2004 when gage well was frozen. Record is good except for periods of missing record which is considered poor. Transmountain diversions above station occurred through Boustead Tunnel and Busk - Ivanhoe Tunnel. Station maintained by George Wear and record developed by Steve Pope.

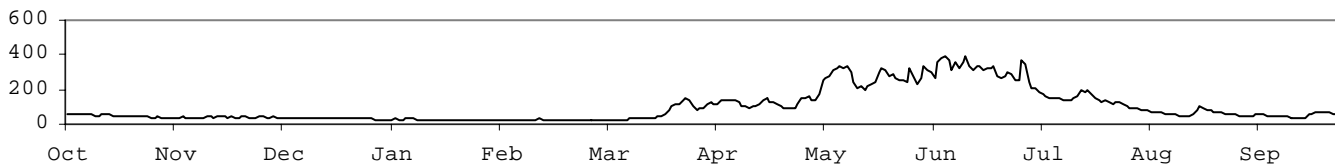
**RATING TABLE.**--FRYMERCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	35	36	28	25	22	112	136	261	342	89	49
2	55	35	36	28	25	24	128	139	329	237	87	46
3	63	44	34	29	25	24	116	176	308	209	83	45
4	59	39	32	28	25	24	110	255	305	213	80	48
5	58	33	32	28	25	24	140	268	269	186	76	60
6	57	39	32	29	24	24	144	276	358	178	75	58
7	54	40	34	29	24	24	141	313	382	165	73	53
8	53	40	34	29	24	27	134	328	391	155	72	49
9	51	35	34	28	24	28	135	331	375	154	67	47
10	50	45	32	28	24	31	122	324	315	152	62	46
11	59	43	34	28	24	32	103	334	354	149	57	51
12	57	32	32	28	24	34	103	302	323	140	54	47
13	53	45	31	28	29	36	94	248	358	138	53	45
14	47	44	32	27	27	38	99	204	398	135	51	41
15	48	42	32	27	25	38	104	224	337	148	50	40
16	47	29	31	27	25	36	118	201	313	165	48	40
17	46	41	31	27	24	36	139	220	332	200	47	37
18	44	36	31	27	25	41	146	233	338	186	56	34
19	44	40	29	27	24	49	128	243	307	192	83	36
20	44	41	29	27	24	63	124	298	319	169	101	52
21	42	41	29	25	24	84	115	320	319	147	89	55
22	42	38	31	25	24	102	103	315	335	133	82	66
23	49	29	31	25	22	115	98	273	279	124	79	65
24	42	34	29	25	22	119	88	290	260	133	73	65
25	40	42	29	25	22	133	95	262	272	125	68	64
26	29	41	29	24	22	148	95	253	298	110	64	64
27	43	38	29	24	24	137	113	252	287	128	60	62
28	39	38	28	24	22	99	146	242	251	126	60	59
29	37	41	28	25	22	85	152	323	250	115	57	58
30	37	39	28	25	---	88	156	277	366	104	53	69
31	35	---	28	25	---	92	---	235	---	96	51	---
TOTAL	1476	1159	967	829	700	1857	3601	8095	9589	4954	2100	1551
MEAN	48	39	31	27	24	60	120	261	320	160	68	52
AC-FT	2930	2300	1920	1640	1390	3680	7140	16060	19020	9830	4170	3080
MAX	63	45	36	29	29	148	156	334	398	342	101	69
MIN	29	29	28	24	22	22	88	136	250	96	47	34
CAL YR 2003	TOTAL	46091	MEAN	126.3	MAX	1070	MIN	24	AC-FT	91420		
WTR YR 2004	TOTAL	36878	MEAN	101	MAX	398	MIN	22	AC-FT	73150		

MAX DISCH: 456 CFS AT 04:00 ON Jun. 18, 2004 GH 3.25 FT. SHIFT -0.01 FT.  
MAX GH: 3.25 FT. AT 04:00 ON Jun. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



ROARING FORK RIVER BASIN

09080300 ROCKY FORK CREEK NEAR MEREDITH, CO

**LOCATION.**--Lat 39°21'42", long 106°49'12", in NW¼NW¼ sec. 18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004 on right bank at upstream end of flume constructed to carry Rocky Fork Creek across spillway to auxiliary outlet of Ruedi Dam on Fryingpan River and 4.6 mi west of Meredith, CO.

**DRAINAGE AREA.**--12.3 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder in a 3 ft. square metal doghouse style shelter on a 5 ft. deep, 24 inch diameter corrugated metal well. USBR operates a DCP and shaft encoder with satellite telemetry. Recorder and encoder are referenced to inside drop tape. Primary record is satellite data and chart record is used for backup. Control is v-notch, sharp crested weir. Elevation of gage is 7,494.50 ft.

**REMARKS.**--Record is complete and reliable except for periods when there was beaver activity in the control (Nov 1-22, Apr 15-27, and Sep 21-27, 30) and when the well was frozen (Dec 31, Jan 1-31, Feb 1-29, and Mar 1-10). Record is fair to poor overall because of regular beaver activity in the control and well icing. There are no diversions above the station. Station maintained and records developed by George Wear.

**RATING TABLE.**--RFCMERC001 USED FROM 01-OCT-2003 TO 30-SEP-2004

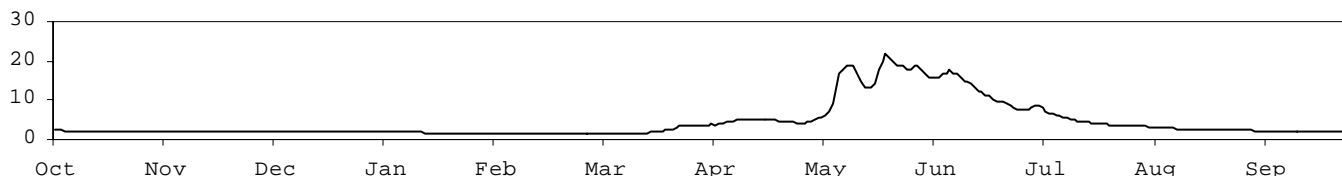
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.9	2.1	1.8	1.6	1.3	3.8	4.6	18	7.4	3.4	2.4
2	2.4	1.9	2.1	1.8	1.6	1.3	3.8	5	17	8.3	3.5	2.3
3	2.4	1.9	2.1	1.8	1.6	1.3	3.9	5.5	16	8.8	3.4	2.2
4	2.2	1.9	2.1	1.8	1.6	1.3	3.8	5.8	16	8.6	3.3	2.2
5	2.2	1.9	2.1	1.8	1.6	1.3	4	6.2	16	8	3.2	2.1
6	2.2	1.9	2.1	1.8	1.5	1.3	4.3	7.1	16	7.1	3.2	2.1
7	2.2	1.9	2.1	1.8	1.5	1.3	4.5	9.1	17	6.7	3.1	2.1
8	2.2	1.9	2.1	1.8	1.5	1.3	4.7	14	17	6.4	3	2.1
9	2.2	1.9	1.8	1.8	1.5	1.3	4.7	17	18	6.2	2.9	2.1
10	2.2	1.9	2	1.8	1.5	1.3	4.9	18	17	6	2.8	2.2
11	2.2	1.9	2	1.8	1.5	1.3	5	19	17	5.8	2.8	2.2
12	2.2	1.9	1.9	1.8	1.5	1.4	5	19	16	5.5	2.7	2.2
13	2.2	1.9	1.9	1.7	1.5	1.5	5	19	15	5.2	2.7	2.2
14	2.1	1.9	1.9	1.7	1.5	1.5	5	17	15	4.9	2.7	2.2
15	2.1	1.9	1.9	1.7	1.5	1.7	5	15	14	4.7	2.7	2.1
16	2.1	1.9	1.9	1.7	1.5	1.7	5	13	13	4.5	2.7	2.1
17	2.1	1.9	1.9	1.7	1.5	1.8	5	13	12	4.5	2.6	2.1
18	2.1	1.9	1.9	1.7	1.4	1.8	5	13	12	4.5	2.5	2.1
19	2.1	1.9	1.9	1.7	1.4	2	5	14	11	4.3	2.7	2.1
20	2.1	1.9	1.9	1.7	1.4	2.2	5	18	11	4	2.7	2.1
21	2.1	1.9	1.9	1.7	1.4	2.3	4.9	20	10	4	2.6	2.1
22	2.1	1.9	1.9	1.7	1.4	2.4	4.8	22	9.6	4	2.5	2.1
23	2.1	1.9	1.9	1.7	1.4	2.4	4.7	21	9.5	3.9	2.4	2.1
24	2.1	1.9	1.9	1.7	1.4	2.9	4.6	20	9.5	3.7	2.4	2.1
25	2.1	1.9	1.9	1.6	1.4	3.4	4.5	19	9.1	3.6	2.5	2.2
26	2.1	1.9	1.9	1.6	1.4	3.6	4.4	19	8.6	3.6	2.5	2.2
27	2.1	1.9	1.9	1.6	1.4	3.6	4.3	19	8.1	3.8	2.5	2.2
28	1.9	1.9	1.9	1.6	1.4	3.6	4.2	18	7.8	3.8	2.5	2.2
29	1.8	1.9	1.9	1.6	1.4	3.7	4.1	18	7.6	3.6	2.5	2.2
30	1.9	2	1.9	1.6	---	3.8	4.4	19	7.4	3.5	2.5	2.2
31	1.9	---	1.9	1.6	---	3.8	---	19	---	3.4	2.5	---
TOTAL	66.1	57.1	60.6	53.2	42.8	65.4	137.3	466.3	391.2	162.3	86	64.8
MEAN	2.1	1.9	2	1.7	1.5	2.1	4.6	15	13	5.2	2.8	2.2
AC-FT	131	113	120	106	85	130	272	925	776	322	171	129
MAX	2.4	2	2.1	1.8	1.6	3.8	5	22	18	8.8	3.5	2.4
MIN	1.8	1.9	1.8	1.6	1.4	1.3	3.8	4.6	7.4	3.4	2.4	2.1

CAL YR	2003	TOTAL	2559.1	MEAN	7.01	MAX	69	MIN	1.1	AC-FT	5080
WTR YR	2004	TOTAL	1653.1	MEAN	4.52	MAX	22	MIN	1.3	AC-FT	3280

MAX DISCH: 22.2 CFS AT 10:00 ON May 22, 2004 GH 0.97 FT. SHIFT -0.02 FT.  
MAX GH: 0.97 FT. AT 10:00 ON May 22, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



YAMPA RIVER BASIN

YAMPA RIVER ABOVE LAKE CATAMOUNT

**LOCATION.**--SE1/4 of the SE1/4 in Section 33, T5N, R84W of the Sixth Principal Meridian in Routt County.

**DRAINAGE AREA.**--361 sq mi (from topographic maps).

**PERIOD OF RECORD.**--State Engineer maintained station. Staff gage installed at current site and datum. Spot records from staff gage kept from April 1989 to October 2003 with some years with record dating back to 1978. Continuous hydrographic records kept from October 2003 to present.

**GAGE.**--Sutron Satlink logger with high data rate satellite telemetry and shaft encoder housed in a 42-inch diameter corrugated metal pipe shelter and stilling well. Stilling well equipped with two 1.5-inch intakes connected to risers. Shaft encoder referenced to inside staff gage (0.00 to 6.66 feet) located on the inside wall of the well. Altitude of gage is approximately 6880 ft (from topographic map).

**REMARKS.**--Primary record is 15-minute data from the Satlink logger. Continuous gage height records were kept from October 8, 2003 to September 30, 2004. Stilling well was installed on September 29, 2003 and recording equipment was installed on October 7, 2003. Outside staff gage installed in summer of 2002. This staff gage was destroyed as a result of ice in the winter of 2003/2004. The record is good except for the period November 2 and 3 and December 10, 2003 through March 6, 2004, which is considered fair due to possible ice-effect. The period of good record covers the time occurrence of the peak discharge. Discharges were estimated for the following days: November 2, 3, 22-24, 28, 29, December 10, 13, 16-21, 23-31, 2003; January 1, 2, 4-7, 12-15, 18-24, and February 11, 13-16, 2004. Station maintained and record developed by Erin Light.

**RATING TABLE.**--YAMABVC011 USED FROM 01-OCT-2003 TO 30-SEP-2004

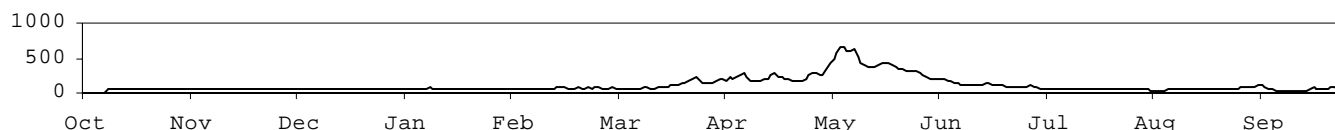
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	51	47	61	65	71	172	246	233	103	50	92
2	-	51	47	61	64	74	194	256	213	83	44	91
3	-	51	48	63	65	65	198	332	204	72	43	91
4	-	51	58	68	60	69	183	421	196	66	43	93
5	-	50	60	68	63	67	215	485	187	65	42	107
6	-	49	54	69	63	63	205	585	189	70	42	114
7	-	48	52	69	68	59	219	646	177	62	42	98
8	66	48	59	70	63	69	246	659	162	56	41	49
9	63	48	70	72	61	69	273	614	148	55	41	44
10	55	49	70	70	65	70	229	607	132	53	45	42
11	51	49	70	67	66	72	184	636	125	52	47	40
12	51	49	71	68	69	75	173	519	125	52	47	42
13	54	49	68	69	69	66	161	442	124	50	47	38
14	55	51	65	69	71	70	170	398	110	50	47	32
15	54	50	65	68	72	78	186	374	105	51	47	31
16	54	47	65	61	74	78	201	382	101	54	48	31
17	55	49	66	69	74	87	248	378	108	53	53	41
18	50	46	66	68	70	97	286	387	140	59	48	40
19	49	47	64	66	70	101	240	424	139	54	53	38
20	53	48	63	66	70	102	219	437	116	51	58	44
21	54	49	63	66	74	113	201	422	117	50	55	73
22	54	48	58	66	70	135	188	397	119	49	53	60
23	52	47	54	66	70	152	174	361	100	52	53	55
24	50	48	55	66	74	173	167	349	90	66	53	57
25	48	47	55	68	71	207	159	333	87	58	51	65
26	47	47	56	68	74	219	163	316	85	58	48	75
27	49	47	56	70	72	204	188	302	85	54	51	76
28	49	48	56	62	71	157	248	300	84	53	52	63
29	49	47	56	60	71	134	284	304	83	52	49	57
30	49	46	56	60	---	131	289	286	88	51	63	71
31	50	---	58	60	---	142	---	249	---	52	92	---
TOTAL	1261	1455	1851	2054	1989	3269	6263	12847	3972	1806	1548	1850
MEAN	52.5	49	60	66	69	105	209	414	132	58	50	62
AC-FT	2500	2890	3670	4070	3950	6480	12420	25480	7880	3580	3070	3670
MAX	66	51	71	72	74	219	289	659	233	103	92	114
MIN	47	46	47	60	60	59	159	246	83	49	41	31

WTR YR 2004 TOTAL 40165 MEAN 112 MAX 659 MIN 0 AC-FT 79666

MAX DISCH: 798 CFS AT 00:15 ON MAY 08, 2004 GH 3.645 FT. SHIFT 0.00 FT.  
MAX GH: 3.65 FT. AT 00:15 ON MAY 08, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## YAMPA RIVER BASIN

09238500 WALTON CREEK NEAR STEAMBOAT SPRINGS, CO

**LOCATION**--Lat. 40°24'29", long. 106°47'11", (Steamboat Springs, Colorado, Quad., scale, 1:24,000), in SW1/4NW1/4 sec. 11, T5N, R84W, (projected), Routt County, on left bank 0.4 miles downstream from Beaver Creek, 0.6 miles downstream from Storm King Creek, 4.5 miles upstream from its confluence with the Yampa River, and 6.0 miles southeast of Steamboat Springs.

**DRAINAGE AREA**--42.4 sq mi (from topographic maps)

**PERIOD OF RECORD**--1920 to 1922, State Engineer's Office; re-established 0.2 mile upstream 1965 to 1973, by USGS; re-established 1978 to 1987 by USGS at same datum; re-established by the State Engineer's Office in October of 2000, at the same datum as the USGS.

**GAGE**--Stevens A-71 water stage recorder and Sutron 8200A data collection platform with digital shaft encoder housed in a 6-ft X 42-inch corrugated metal shelter on a 6-ft X 42-inch metal well. Control is a concrete weir across stream. Altitude of gage is 7,050 ft (from topographic map).

**REMARKS**--The period of record is good except for the period May 4 to June 12, which is considered poor due to lack of definition of the high water rating. This period covers the time occurrence of the peak discharge, which is also considered poor. Discharges were estimated for the following days: October 14, 15, 25, 26, and 27, March 29, April 3, and April 6. The station is closed during the winter months. Station maintained and record developed by Erin Light.

**RATING TABLE**--WLTNCKCO08 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

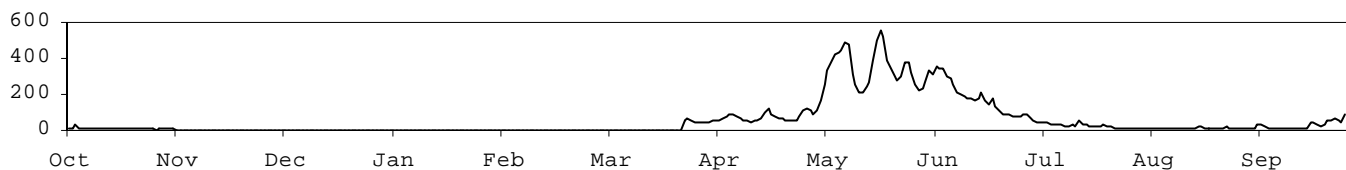
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	-	-	-	-	-	49	93	229	85	13	7.9
2	6.7	-	-	-	-	-	53	107	269	62	13	7.3
3	29	-	-	-	-	-	57	171	332	53	13	7.2
4	13	-	-	-	-	-	55	254	308	50	12	12
5	9.7	-	-	-	-	-	70	335	356	50	12	29
6	8.7	-	-	-	-	-	73	381	348	49	12	33
7	8.2	-	-	-	-	-	84	423	346	40	11	23
8	7.7	-	-	-	-	-	93	438	304	36	9.6	13
9	7.5	-	-	-	-	-	81	449	287	33	8.7	11
10	7.1	-	-	-	-	-	70	492	256	31	8.3	11
11	7.9	-	-	-	-	-	60	476	209	29	8.3	13
12	7.7	-	-	-	-	-	54	315	204	25	8.3	11
13	7.5	-	-	-	-	-	50	255	187	23	8.3	9.2
14	7.8	-	-	-	-	-	57	206	179	28	7.9	10
15	7.5	-	-	-	-	-	58	210	175	25	7.9	9.6
16	7.5	-	-	-	-	-	70	247	164	53	7.9	8.7
17	7.2	-	-	-	-	-	102	269	181	31	7.9	8.3
18	6.8	-	-	-	-	-	118	386	215	28	10	7.5
19	6.8	-	-	-	-	-	88	496	172	22	19	11
20	6.8	-	-	-	-	-	73	552	147	19	17	42
21	6.5	-	-	-	-	-	68	521	177	20	14	42
22	6.5	-	-	-	-	-	66	386	134	17	12	30
23	6.5	-	-	-	-	-	59	350	106	30	11	27
24	6.1	-	-	-	-	-	55	302	93	26	8.7	33
25	5.8	-	-	-	-	57	53	281	88	18	8.7	52
26	5.5	-	-	-	-	66	54	297	93	15	8.3	60
27	6.5	-	-	-	-	61	76	375	82	16	23	64
28	6.8	-	-	-	-	49	107	376	76	15	14	54
29	6.8	-	-	-	-	46	117	320	78	14	10	44
30	6.8	-	-	-	---	42	116	260	85	14	8.7	92
31	6.8	---	-	-	---	44	---	227	---	14	7.9	---
TOTAL	248.2	-	-	-	-	365	2186	10250	5880	971	341.4	782.7
MEAN	8	-	-	-	-	-	73	331	196	31	11	26.1
AC-FT	492	-	-	-	-	724	4340	20330	11660	1930	677	1550
MAX	29	-	-	-	-	66	118	552	356	85	23	92
MIN	5.5	-	-	-	-	-	49	93	76	14	7.9	7.2

WTR YR 2004 TOTAL 21024.3 MEAN 95.1 MAX 552 MIN 5.5 AC-FT 41700

MAX DISCH: 755 CFS AT 19:30 ON May. 19, 2004 GH 2.29 FT. SHIFT 0 FT.

MAX GH: 2.29 FT. AT 19:30 ON May. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## NORTH PLATTE RIVER BASIN

06616500 MICHIGAN RIVER near MEADOW CREEK RESERVOIR

**LOCATION**--Lat. 40°36'48", Long. 106°05'05", (Gould, Colorado Quadrangle, 1955), SE1/4 of the SE1/4 in Section 36 T8N, R78W in Jackson County. Under bridge on County Road 30 about 700 feet upstream of its confluence with Peterson Creek.

**DRAINAGE AREA**--Approximately 99 sq. mi.

**PERIOD OF RECORD**--Formerly known as the Michigan River near Gould station and was relocated due to removal of bridge location. Station has been in operation at this location since 1997.

**GAGE**--Sutron 8200A data collection platform with digital shaft encoder and satellite monitoring equipment, located on bridge abutment several meters away from river channel. The outside staff, with a range of 0.00 to 3.33 feet is located on the bridge abutment just to the left of the stilling well.

**REMARKS**--Primary record is hourly data from the data collection platform. Continuous gage height records were kept from October 1 to November 4, 2003 and March 20 to September 30, 2004. Record was not kept during any ice-affected period. The record is complete and reliable for all days throughout the period of record. The record is good for the entire record period. Station was closed during the winter November 5, 2003 through March 19, 2004. Station maintained and record developed by Erin Light.

**RATING TABLE**--MICMERC005 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

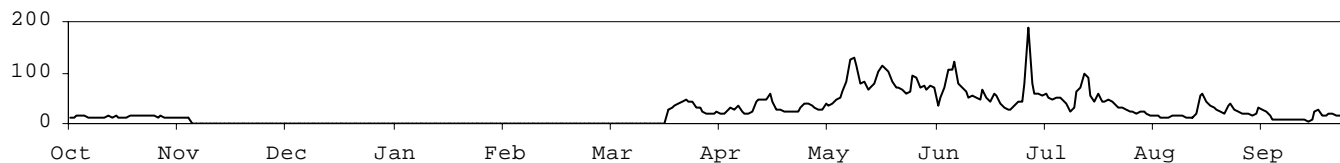
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.9	-	-	-	-	19	31	76	190	21	19
2	12	11	-	-	-	-	21	27	65	78	22	18
3	15	13	-	-	-	-	24	26	73	57	23	16
4	16	12	-	-	-	-	20	38	71	60	19	20
5	14	-	-	-	-	-	19	37	35	56	15	32
6	13	-	-	-	-	-	26	40	51	60	16	27
7	13	-	-	-	-	-	30	49	69	51	14	23
8	13	-	-	-	-	-	29	52	104	49	12	16
9	13	-	-	-	-	-	35	62	107	52	12	9.5
10	12	-	-	-	-	-	24	82	120	51	13	6.5
11	13	-	-	-	-	-	18	125	80	48	14	7.1
12	14	-	-	-	-	-	20	131	69	39	15	9.5
13	13	-	-	-	-	-	24	112	61	24	15	7.5
14	14	-	-	-	-	-	45	77	51	32	14	7.9
15	13	-	-	-	-	-	47	81	53	64	13	9.7
16	13	-	-	-	-	-	48	68	50	69	13	7.9
17	13	-	-	-	-	-	49	70	46	100	13	7.6
18	14	-	-	-	-	-	60	78	67	92	18	6.6
19	15	-	-	-	-	-	42	102	51	55	53	4.5
20	15	-	-	-	-	29	28	115	44	43	58	8.9
21	15	-	-	-	-	30	27	109	57	57	44	25
22	15	-	-	-	-	35	25	103	56	45	36	26
23	15	-	-	-	-	41	22	81	39	44	31	16
24	14	-	-	-	-	43	23	72	31	48	26	16
25	14	-	-	-	-	47	24	71	27	42	22	19
26	12	-	-	-	-	45	25	66	27	34	19	18
27	14	-	-	-	-	42	30	59	37	32	35	15
28	12	-	-	-	-	31	41	63	45	30	40	14
29	9.9	-	-	-	-	30	38	93	43	28	29	13
30	10	-	-	-	---	25	36	89	78	25	24	27
31	10	---	-	-	---	20	---	71	---	23	21	---
TOTAL	410.9	45.9	-	-	-	418	919	2280	1783	1678	720	453.2
MEAN	13.3	11.5	-	-	-	34.8	31	74	59	54	23	15.1
AC-FT	815	91	-	-	-	829	1820	4520	3540	3330	1430	899
MAX	16	13	-	-	-	47	60	131	120	190	58	32
MIN	9.9	-	-	-	-	-	18	26	27	23	12	4.5

WTR YR 2004 TOTAL 8708 MEAN 37.9 MAX 190 MIN - AC-FT 17270

MAX DISCH: 273 CFS AT 04:00 ON Jul. 1, 2004 GH 2.66 FT. SHIFT 0.00 FT.

MAX GH: 2.66 FT. AT 04:00 ON Jul. 1, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



NORTH PLATTE RIVER BASIN

06617500 ILLINOIS RIVER NEAR RAND

**LOCATION**--Lat. 40°27'45", Long. 106°10'30", (Rand Quadrangle, 1956), in SW1/4NE1/4 of Section 29, T6N, R78W in Jackson County, on right upstream bridge abutment on Jackson County Road 27.

**DRAINAGE AREA**--Approximately 70.6 sq. mi. (from topographic maps)

**PERIOD OF RECORD**--Established by the State Engineer's Office. Formerly published as Illinois Creek near Rand (1931-1940) at similar location. Hydrographic measurements taken in 1981 and 1985, but no records were kept. Records kept from 1987 to present. Records published in 1995.

**GAGE**--Sutron 8200A data collection platform with digital shaft encoder satellite telemetry. DCP housed in metal box several meters up bank from 12" metal stilling well and shaft encoder. Approximate elevation of gage is 8550 feet.

**REMARKS**--Primary record is hourly data from the data collection platform. Continuous gage height records were kept from October 1 through November 4, 2003 and March 23 to September 30, 2004. Record was not kept during any ice-affected period. The record is complete and reliable except for the following days: March 28 and 29 and April 15, 24, 26, and 30 due to possible ice-effect; and September 1 through 14 due to equipment malfunction. The record is good except for the period March 28 and 29 and April 15, 24, 26, and 30, which is considered fair and September 1 through 14, which is considered poor. Discharges were estimated for the following days: September 1 through 14. The station is closed during the winter months. Station maintained and record developed by Erin Light.

**RATING TABLE**--ILLRANCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

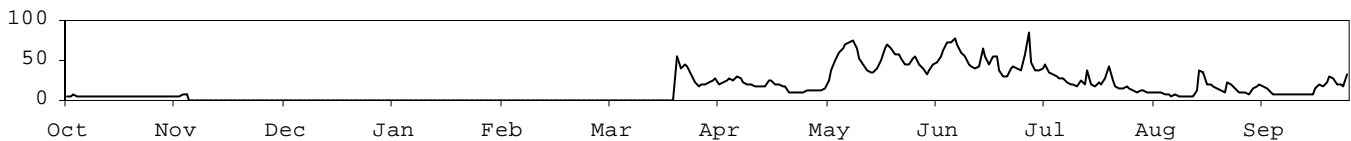
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	4.8	-	-	-	-	22	13	40	84	11	9.2
2	4.5	5.5	-	-	-	-	25	12	33	47	12	8.7
3	6.8	8.6	-	-	-	-	27	12	37	38	13	15
4	6.2	7.9	-	-	-	-	20	14	46	38	11	18
5	5.8	-	-	-	-	-	22	25	47	41	10	19
6	5.2	-	-	-	-	-	25	37	56	44	10	18
7	5.1	-	-	-	-	-	27	51	62	36	9.6	16
8	5.1	-	-	-	-	-	26	60	73	32	9.1	9.2
9	4.8	-	-	-	-	-	30	65	73	30	7.4	7.4
10	4.8	-	-	-	-	-	28	69	77	28	6.3	8.7
11	4.8	-	-	-	-	-	22	73	70	27	6	8.3
12	5	-	-	-	-	-	19	75	61	23	6.3	8.3
13	5.2	-	-	-	-	-	19	66	55	21	6.2	7.9
14	5.1	-	-	-	-	-	17	53	45	20	6.1	8.7
15	4.9	-	-	-	-	-	17	45	42	18	5.9	8.1
16	4.8	-	-	-	-	-	17	38	39	26	5.1	7.2
17	5	-	-	-	-	-	18	35	42	21	5.6	6.7
18	5.1	-	-	-	-	-	24	34	65	37	12	6.4
19	5.1	-	-	-	-	-	24	39	54	21	38	6.5
20	5	-	-	-	-	-	20	51	46	17	35	8.7
21	4.9	-	-	-	-	-	19	64	54	23	20	16
22	5.1	-	-	-	-	-	18	69	55	19	20	20
23	5.1	-	-	-	-	56	17	64	37	28	18	18
24	5	-	-	-	-	40	11	58	30	42	15	22
25	4.8	-	-	-	-	44	11	57	30	24	12	29
26	4.6	-	-	-	-	42	11	53	40	18	11	27
27	4.8	-	-	-	-	32	9.6	46	43	16	22	21
28	4.9	-	-	-	-	22	11	46	41	16	19	19
29	5.4	-	-	-	-	18	13	52	37	17	14	18
30	4.9	-	-	-	---	20	13	56	57	14	11	33
31	4.7	---	-	-	---	20	---	45	---	13	9.5	---
TOTAL	156.6	26.8	-	-	-	294	582.6	1477	1487	879	397.1	429
MEAN	5.1	6.7	-	-	-	32.7	19.4	48	50	28	12.8	14.3
AC-FT	311	53	-	-	-	583	1160	2930	2950	1740	788	851
MAX	6.8	8.6	-	-	-	56	30	75	77	84	38	33
MIN	4.1	-	-	-	-	-	9.6	12	30	13	5.1	6.4

WTR YR 2004 TOTAL 5729.1 MEAN 25.2 MAX 84 MIN - AC-FT 11360

MAX DISCH: 104 CFS AT 05:00 ON Jul. 1, 2004 GH 1.83 FT. SHIFT 0 FT.  
MAX GH: 1.83 FT. AT 05:00 ON Jul. 1, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





## SAN JUAN RIVER BASIN

## DOLORES TUNNEL OUTLET NEAR DOLORES, CO

LOCATION.--Lat 37°28'00", long 108°32'30", in SW¼SE¼ sec. 18, T. 37 N., R.15 W., NMPM, Montezuma County.

DRAINAGE AREA.--N/A

GAGE.--Sutron 8200 DCP in a concrete shelter and well at a 15 foot Parshall flume.

REMARKS.--Records good. Record is complete. Station maintained by the Dolores Conservancy District and records developed by Scott D. Brinton.

RATING TABLE.--DOLTUNCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

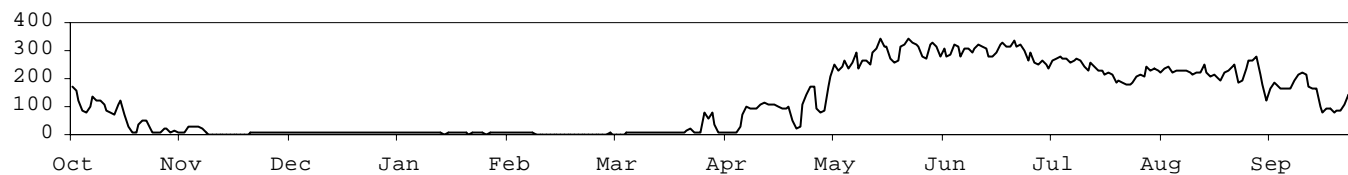
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	5.9	4.4	3.8	4.1	3.5	37	81	320	256	205	267
2	160	5.9	4.4	3.9	4.1	3.6	6.0	88	330	253	241	275
3	118	31	4.2	3.7	3.9	3.4	6.0	169	311	261	228	217
4	88	31	4.1	3.7	3.7	3.4	6.1	207	280	253	236	180
5	79	31	4.1	3.7	3.7	3.4	6.3	253	310	239	227	120
6	97	28	4.1	3.8	3.7	3.5	5.4	229	277	263	218	164
7	134	19	4.1	4.1	3.7	3.8	5.4	242	285	273	237	187
8	122	4.8	4.1	4.1	3.7	5.1	28	266	322	275	244	179
9	119	3.4	4.1	3.9	3.7	5.1	73	239	312	268	218	164
10	105	3.4	4.1	3.7	3.5	5.0	98	254	281	268	225	164
11	89	3.4	4.1	3.9	3.4	5.0	95	294	309	259	229	164
12	76	3.4	4.1	3.9	3.4	5.1	95	237	306	261	228	161
13	73	3.4	4.1	3.7	3.4	4.6	96	263	295	268	225	195
14	107	3.4	4.1	3.6	3.4	4.6	110	264	304	265	221	216
15	121	3.4	4.1	3.5	3.4	8.0	116	253	318	246	217	223
16	70	3.4	4.1	3.7	3.4	7.2	110	292	314	231	224	215
17	26	3.4	4.1	3.7	3.4	5.7	107	310	306	260	220	170
18	6.3	3.0	4.1	3.6	3.4	5.6	108	345	279	240	248	167
19	6.3	3.1	4.1	3.7	3.4	7.4	99	312	282	229	223	162
20	38	3.2	4.1	3.7	3.4	6.2	93	314	292	230	208	101
21	50	3.6	4.1	3.6	3.4	6.7	95	273	321	211	211	82
22	47	4.1	4.1	3.5	3.4	6.1	97	257	325	222	199	94
23	21	3.9	4.1	3.7	3.4	5.2	47	261	317	215	193	91
24	5.9	3.8	4.1	3.7	3.4	15	20	312	317	185	223	80
25	5.9	4.1	4.1	3.7	3.4	24	25	321	336	196	225	84
26	5.7	4.2	4.1	3.7	3.4	7.0	104	345	317	188	242	86
27	22	4.5	4.1	3.5	3.4	6.5	142	327	321	179	250	109
28	18	4.5	4.1	5.1	3.4	6.1	169	323	301	175	189	141
29	5.9	4.4	3.8	4.3	3.4	77	171	316	267	185	190	103
30	11	4.4	3.8	4.1	---	59	92	275	290	209	237	64
31	6.0	---	3.7	4.1	---	78	---	268	---	211	265	---
TOTAL	2005.0	238.0	126.8	118.4	102.4	389.8	2262.2	8190	9145	7274	6946	4625
MEAN	64.7	7.93	4.06	3.82	3.53	12.6	75.4	264	305	235	224	154
AC-FT	3980	472	252	235	203	773	4490	16240	18140	14430	13780	9170
MAX	172	31	4.4	5.1	4.1	78	171	345	336	275	265	275
MIN	5.7	3.0	3.7	3.5	3.4	3.4	5.4	81	267	175	189	64

CAL YR 2003 TOTAL 33448.1 MEAN 91.6 MAX 285 MIN 3.0 AC-FT 66340  
WTR YR 2004 TOTAL 41422.6 MEAN 113 MAX 345 MIN 3.0 AC-FT 82160

MAX DISCH: 355 CFS AT 07:15 ON May. 18, 2004 GH 3.04 FT. SHIFT 0.07 FT.  
MAX GH: 3.04 FT. AT 07:15 ON May. 18, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



SAN JUAN RIVER BASIN

LONE PINE CANAL BELOW GREAT CUT DIKE NEAR DOLORES, CO

LOCATION.--Lat 37°30'24", long 108°35'28", in NW¼SW¼ sec. 35, T.38 N., R.16 W., NMPM, Montezuma County.

DRAINAGE AREA.--N/A

GAGE.--Sutron 8200 DCP in a concrete shelter and well at a 12 foot Parshall flume.

REMARKS.--Records good. Record is complete. Station maintained by the Dolores Conservancy District and records developed by Scott D. Brinton.

RATING TABLE.--MVIDIVCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

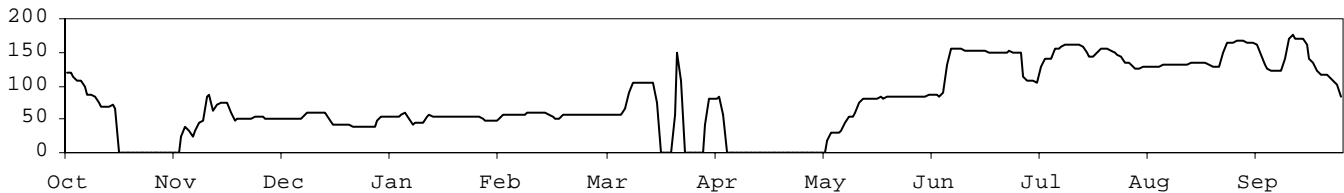
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	.00	51	54	48	56	42	.00	85	113	131	167
2	118	.00	50	54	52	56	80	.00	85	106	125	167
3	113	25	50	54	56	57	81	.00	85	106	125	165
4	107	40	50	54	56	57	82	.00	86	106	128	165
5	106	32	50	57	56	56	84	.00	86	105	129	164
6	99	23	50	60	56	56	57	18	87	128	129	160
7	88	32	50	50	56	56	.00	30	83	141	128	145
8	86	46	56	42	56	56	.00	31	91	140	128	130
9	85	47	61	45	58	67	.00	31	130	140	127	124
10	76	83	60	45	60	91	.00	32	154	155	130	122
11	70	88	59	44	61	103	.00	46	154	154	131	122
12	69	64	59	53	61	103	.00	53	154	158	132	121
13	69	73	59	57	60	103	.00	54	154	161	132	121
14	71	76	59	54	60	103	.00	60	153	160	132	139
15	65	76	50	55	60	104	.00	75	153	160	131	170
16	.00	76	42	54	56	104	.00	82	151	161	130	177
17	.00	60	42	54	53	104	.00	82	151	160	132	170
18	.00	49	42	54	52	75	.00	82	151	159	133	170
19	.00	50	42	54	52	.00	.00	82	151	150	134	170
20	.00	51	42	54	56	.00	.00	82	151	143	133	162
21	.00	51	42	54	56	.00	.00	83	150	142	134	141
22	.00	51	40	54	56	.15	.00	82	150	149	133	134
23	.00	51	39	54	56	56	.00	83	149	155	130	123
24	.00	54	39	54	56	150	.00	83	149	155	128	116
25	.00	55	39	54	56	108	.00	83	150	154	128	116
26	.00	53	39	54	56	.00	.00	83	150	151	128	115
27	.00	52	40	54	56	.00	.00	83	151	149	150	109
28	.00	52	40	51	56	.00	.00	84	149	145	164	105
29	.00	52	47	47	56	.00	.00	84	150	142	164	101
30	.00	52	53	48	---	.00	.00	85	149	135	163	84
31	.00	---	54	48	---	.00	---	85	---	133	166	---
TOTAL	1341.00	1514.00	1496	1620	1629	1721.15	426.00	1758.00	3992	4416	4188	4175
MEAN	43.3	50.5	48.3	52.3	56.2	55.5	14.2	56.7	133	142	135	139
AC-FT	2660	3000	2970	3210	3230	3410	845	3490	7920	8760	8310	8280
MAX	119	88	61	60	61	150	84	85	154	161	166	177
MIN	.00	.00	39	42	48	.00	.00	.00	83	105	125	84

CAL YR 2003 TOTAL 25896.80 MEAN 71.0 MAX 365 MIN .00 AC-FT 51370  
WTR YR 2004 TOTAL 28276.15 MEAN 77.3 MAX 177 MIN .00 AC-FT 56090

MAX DISCH: 182 CFS AT 10:15 ON Sep. 16, 2004 GH 2.34 FT. SHIFT 0.00 FT.  
MAX GH: 2.34 FT. AT 10:15 ON Sep. 16, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## DOLORES RIVER BASIN

## DOLORES RIVER BELOW MCPHEE RESERVOIR NEAR DOLORES, CO

**LOCATION.**--Lat 37°34'33", long 108°34'33", in SE¼SE¼ sec. 2, T.38 N., R.16 W., NMPM, Montezuma County.

**DRAINAGE AREA.**--550 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and a Sutron 8200 DCP on separate floats in a concrete shelter and well. Control is an 15-ft. Parshall flume set in a flat concrete structure that acts as a weir at high flows. Datum of gauge is 6,630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Records good. Record is complete. Diversions for irrigation of up to 47,000 acres upstream of gage in the Dolores River basin and diversions for irrigation of up to 4700 acres in the San Juan River Basin. Flow regulated by McPhee Reservoir, capacity 381,000 acre-feet. Station maintained and records developed by Scott D. Brinton.

**RATING TABLE.**--DOLBMCCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

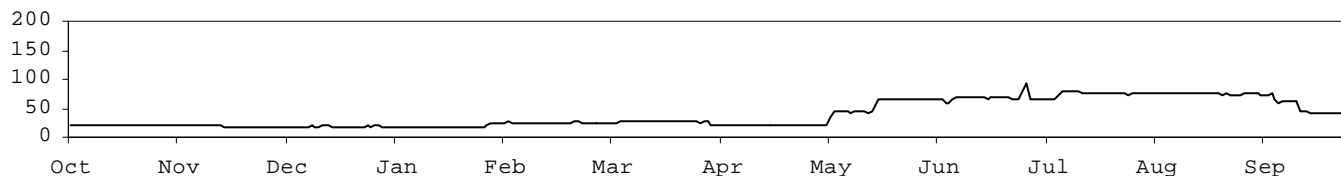
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	22	18	18	23	24	22	21	66	65	76	76
2	20	22	18	18	24	25	21	21	65	65	76	76
3	20	22	18	18	26	25	21	21	65	65	76	76
4	20	22	18	18	25	25	20	22	65	65	76	77
5	20	22	18	18	24	25	21	35	66	65	76	74
6	20	22	18	18	24	26	21	46	66	65	75	74
7	20	22	18	17	24	26	21	44	59	65	75	74
8	21	22	18	17	24	26	21	44	59	65	75	75
9	21	22	19	18	24	26	21	44	64	73	75	66
10	21	21	16	17	24	26	21	44	68	78	76	60
11	21	22	16	17	24	26	21	43	68	78	76	61
12	21	22	19	17	24	26	21	45	68	78	76	61
13	21	19	19	17	24	26	21	44	68	78	76	61
14	21	18	19	17	24	26	21	44	68	78	76	61
15	21	18	18	17	24	26	21	44	68	78	76	61
16	21	18	18	17	24	26	21	43	68	77	76	46
17	21	18	18	17	25	26	21	44	68	77	76	45
18	22	18	18	17	24	26	21	59	68	77	75	45
19	22	18	18	17	24	26	21	67	67	77	75	40
20	22	18	18	17	24	26	21	67	68	77	75	41
21	22	18	18	17	24	26	21	67	68	77	75	43
22	22	18	18	17	26	26	21	67	68	76	75	43
23	22	18	18	17	26	26	21	66	68	76	75	42
24	22	18	18	17	24	26	21	65	68	76	75	42
25	22	18	19	17	24	26	21	66	68	75	74	41
26	22	18	18	17	24	26	21	66	67	75	75	40
27	22	18	19	17	24	26	21	66	66	75	74	40
28	22	18	19	20	24	26	21	66	67	75	74	40
29	22	18	18	23	24	25	21	66	79	74	74	41
30	22	18	18	23	---	26	21	66	92	76	74	171
31	22	---	18	23	---	26	---	66	---	77	75	---
TOTAL	658	588	561	555	703	799	630	1569	2033	2278	2333	1793
MEAN	21.2	19.6	18.1	17.9	24.2	25.8	21.0	50.6	67.8	73.5	75.3	59.8
AC-FT	1310	1170	1110	1100	1390	1580	1250	3110	4030	4520	4630	3560
MAX	22	22	19	23	26	26	22	67	92	78	76	171
MIN	20	18	16	17	23	24	20	21	59	65	74	40

CAL YR	2003	TOTAL	7250	MEAN	20.7	MAX	39	MIN	14	AC-FT	14980
WTR YR	2004	TOTAL	14500	MEAN	39.6	MAX	171	MIN	16	AC-FT	28760

MAX DISCH: 550 CFS AT 11:15 ON Sep. 30, 2004 GH 3.77 FT. SHIFT -0.07 FT.  
MAX GH: 3.77 FT. AT 11:15 ON Sep. 30, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



SAN JUAN RIVER BASIN

BLANCO DIVERSION NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°12'13", long 106°48'35", in NW¼NE¼ sec. 11, T.34 N., R.1 E., NMPM, Archuleta County.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder with a Sutron 8200 DCP on separate floats in a concrete shelter and well at a 12 foot Parshall flume.

REMARKS.--Record good. Record is complete. Station maintained by the U.S.B.R. and record developed by Scott D. Brinton.

RATING TABLE.--BLADIVCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

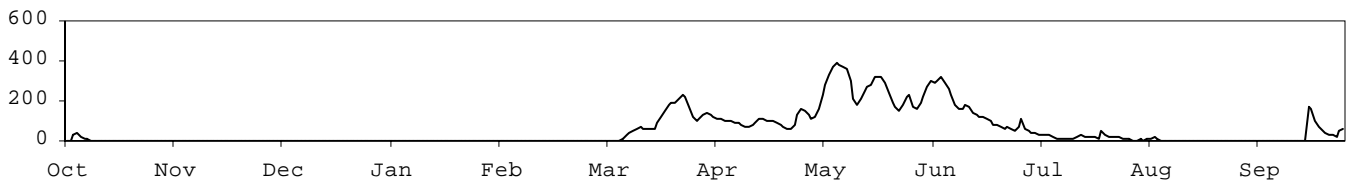
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.00	.00	.00	.00	.00	144	107	194	63	2.4	.00
2	.97	.00	.00	.00	.00	.00	135	116	221	52	3.3	.00
3	27	.00	.00	.00	.00	.00	122	163	269	45	8.4	.04
4	41	.00	.00	.00	.00	.00	109	229	300	37	3.1	1.6
5	19	.00	.00	.00	.00	.00	109	278	293	32	5.5	1.4
6	13	.00	.00	.00	.00	.00	100	330	298	32	12	1.3
7	8.4	.00	.00	.00	.00	.00	97	372	317	29	16	.87
8	4.8	.00	.00	.00	.00	9.5	102	388	294	26	5.8	.13
9	3.2	.00	.00	.00	.00	33	95	384	256	23	3.2	.00
10	1.7	.00	.00	.00	.00	43	87	375	229	15	2.6	.00
11	1.2	.00	.00	.00	.00	51	77	357	185	14	2.0	.00
12	.78	.00	.00	.00	.00	63	68	296	160	13	1.6	.00
13	.37	.00	.00	.00	.00	68	71	215	156	13	.48	.00
14	.19	.00	.00	.00	.00	60	83	185	176	13	2.3	.00
15	.50	.00	.00	.00	.00	56	87	206	167	15	3.4	.47
16	.28	.00	.00	.00	.00	59	107	248	143	19	.36	.24
17	.46	.00	.00	.00	.00	62	114	266	135	26	.00	.19
18	.63	.00	.00	.00	.00	87	104	283	122	17	.24	.56
19	.43	.00	.00	.00	.00	116	98	318	120	19	.00	.80
20	.26	.00	.00	.00	.00	146	97	321	108	19	.73	175
21	.54	.00	.00	.00	.00	177	94	318	98	18	1.0	165
22	.00	.00	.00	.00	.00	189	82	288	85	14	.42	100
23	.00	.00	.00	.00	.00	192	74	237	76	48	.00	71
24	.00	.00	.00	.00	.00	211	64	192	70	32	.00	53
25	.00	.00	.00	.00	.00	234	62	168	65	20	.00	41
26	.00	.00	.00	.00	.00	216	78	154	71	18	.00	33
27	.00	.00	.00	.00	.00	173	127	177	61	18	.00	27
28	.00	.00	.00	.00	.00	121	159	219	55	17	.00	22
29	.00	.00	.00	.00	.00	104	152	226	71	13	.00	55
30	.00	.00	.00	.00	---	113	131	169	108	8.1	.00	62
31	.00	---	.00	.00	---	133	---	159	---	5.9	.00	---
TOTAL	124.94	.00	.00	.00	.00	2716.50	3029	7744	4903	734.0	74.83	811.60
MEAN	4.03	.000	.000	.000	.000	87.6	101	250	163	23.7	2.41	27.1
AC-FT	248	.00	.00	.00	.00	5390	6010	15360	9730	1460	148	1610
MAX	41	.00	.00	.00	.00	234	159	388	317	63	16	175
MIN	.00	.00	.00	.00	.00	.00	62	107	55	5.9	.00	.00

CAL YR	2003	TOTAL	15166.76	MEAN	42	MAX	420	MIN	.00	AC-FT	30080
WTR YR	2004	TOTAL	20137.87	MEAN	55	MAX	388	MIN	.00	AC-FT	39940

MAX DISCH: 471 CFS AT 21:00 ON May. 7, 2004 GH 4.24 FT. SHIFT 0.00 FT.  
MAX GH: 4.24 FT. AT 21:00 ON May. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## SAN JUAN RIVER BASIN

09343300 RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO

**LOCATION.**--Lat 37°12'13", long 106°48'42", in NW¼ sec. 11, T.34 N., R.1 E., NMPM, Archuleta County, Hydrologic Unit 14080101, on left bank 250 ft downstream from Blanco Diversion Dam, 1.1 mi downstream from Leche Creek, and 12 mi southeast of Pagosa Springs.

**DRAINAGE AREA AND PERIOD OF RECORD.**--69.1 mi<sup>2</sup>. March 1971 to current year.

**GAGE.**--Graphic water-stage recorder with a Sutron 8200 DCP on separate floats in a concrete shelter and well. Control is an 4-ft. Parshall flume set in a flat wide concrete structure that acts as a weir at high flows, with a supplemental outside gage. The DCP is the primary record. Datum of gage is 7,858.04 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Bureau of Reclamation).

**REMARKS.**--Record from the DCP is complete except from Dec. 8, 2003 to Jan. 7, 2004 when the gage was bypassed for repairs to the flume. Any data missing from the initial satellite transmissions was filled in from the DCP's logger files. It is reliable except for the following periods: Stage-discharge relationship affected by ice Nov. 23-24 and 28, 2003; Jan. 9-15; Feb. 13-19; Mar. 1, 2004. Indefinite stage-discharge relationship due to trash lodged in the flume Sep. 19-20, 2004. Record good except for estimated daily discharges, which are poor, and periods of flow above 65 cfs which are fair. Station maintained by the U.S.B.R. and record developed by Scott D. Brinton.

**RATING TABLE.**--RIOBLACO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

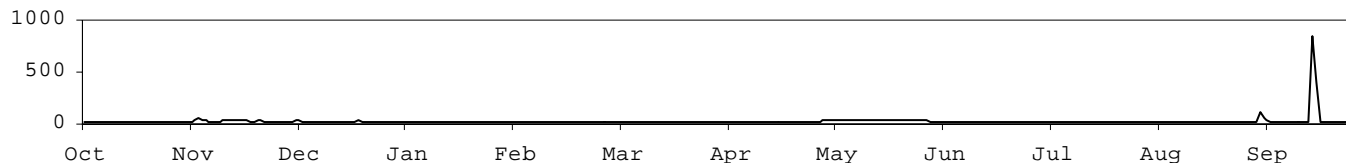
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	30	e20	16	e17	24	42	21	23	23	12
2	23	33	30	e20	16	18	23	42	21	23	23	10
3	28	61	26	e20	17	18	23	43	22	23	23	11
4	23	40	25	e16	15	19	23	42	22	23	22	114
5	21	33	25	e14	17	18	23	42	21	23	22	66
6	21	28	23	e16	17	17	23	42	22	21	22	31
7	21	27	23	e16	18	20	23	44	22	21	23	25
8	21	28	e24	17	19	26	23	42	22	22	22	20
9	21	28	e22	16	17	23	23	41	21	21	21	18
10	22	29	e20	16	17	22	23	41	21	22	21	16
11	27	32	e20	16	19	23	23	42	21	22	20	16
12	25	30	e20	16	18	23	22	41	21	22	20	15
13	22	42	e18	14	e12	22	23	41	21	22	20	14
14	21	44	e18	16	e13	21	23	41	21	22	21	13
15	21	37	e20	20	e14	22	23	42	22	22	22	12
16	20	31	e18	22	e14	22	23	41	22	22	21	12
17	18	30	e14	18	e15	21	23	42	22	21	19	11
18	18	27	e24	19	e16	22	22	41	22	21	20	11
19	17	28	e30	18	e18	22	22	42	22	21	19	e850
20	17	34	e26	18	19	21	22	43	22	21	20	e400
21	17	30	e26	18	19	22	22	42	22	21	20	21
22	17	27	e24	19	19	22	22	42	22	20	20	21
23	17	e20	e22	23	18	22	22	41	22	21	19	21
24	16	e22	e24	21	18	23	22	41	23	21	17	21
25	15	25	e24	19	18	23	21	42	24	21	16	21
26	14	23	e24	21	18	22	22	42	24	21	16	22
27	14	22	e20	28	19	21	22	42	23	22	15	22
28	14	e21	e18	21	19	22	23	43	23	22	14	22
29	14	23	e18	17	19	23	23	43	23	22	13	22
30	14	24	e20	17	---	23	25	42	22	21	12	22
31	14	---	e20	17	---	23	---	42	---	21	12	---
TOTAL	586	894	696	569	494	663	681	1299	659	671	598	1892
MEAN	18.9	29.8	22.5	18.4	17.0	21.4	22.7	41.9	22.0	21.6	19.3	63.1
AC-FT	1160	1770	1380	1130	980	1320	1350	2580	1310	1330	1190	3750
MAX	28	61	30	28	19	26	25	44	24	23	23	850
MIN	13	15	14	14	12	17	21	41	21	20	12	10
CAL YR 2003	TOTAL	8385.8	MEAN	23.0	MAX	150	MIN	9.8	AC-FT	16630		
WTR YR 2004	TOTAL	9702	MEAN	26.5	MAX	850	MIN	10	AC-FT	19240		

MAX DISCH: Undetermined

MAX GH: Undetermined

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.

e-Estimated



## SAN JUAN RIVER BASIN

## RIO BLANCO AT MOUTH NEAR TRUJILLO, CO

**LOCATION.**--Lat 37°07'40", long 107°02'03", in SW¼SE¼ sec. 2, T.33 N., R.2 W., NMPM, Archuleta County.

**DRAINAGE AREA.**--170 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder and a Sutron 8210 DCP with shaft encoder on separate floats in a 42 inch CMP shelter and well. Datum of gauge is 6640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Record is reliable except for the following periods: Stage-discharge relationship affected by ice Dec. 1, 16-23, 26 and 30-31, 2003; Jan. 1-4, 7-21, 25 and 29-31; Feb. 1, 3-5, 8, 12-28; March 2-4 and 7-14, 2004. Record is complete except for the following periods: Nov. 3-30; Dec. 2-15, 24-25 and 27-29, 2003; Jan. 5-6, 22-24 and 26-28; Feb. 2, 6-7, 9-11 and 29; Mar 1 and 5-6; Sep. 20-24, 2004 when the inlets were plugged. Record fair except for the estimated periods, which are poor. Station maintained by Val Valentine and record developed by Scott D. Brinton.

**RATING TABLE.**--RIOMOUCO03 USED FROM 01-OCT-2003 TO 30-SEP-2004

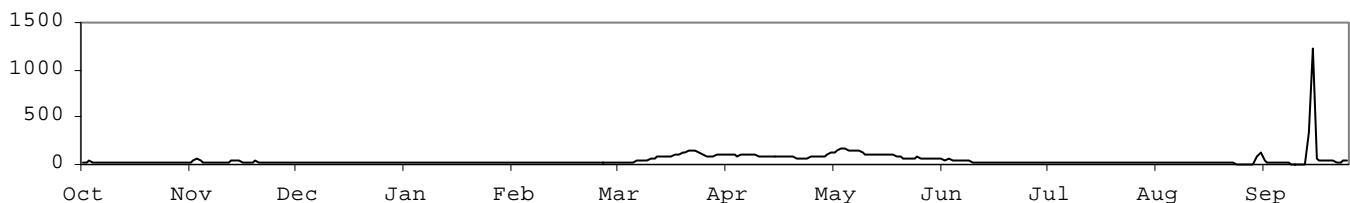
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	18	e24	e22	e18	e22	98	94	60	24	20	9.1
2	17	32	e26	e22	e18	e24	98	95	e56	23	21	8.5
3	36	e60	e26	e22	e20	e26	101	98	e54	23	21	8.1
4	30	e40	e24	e20	e16	e28	107	119	e54	23	19	90
5	27	e30	e24	e16	e18	e28	112	132	54	22	19	123
6	24	e30	e22	e18	e20	e26	106	148	52	21	20	40
7	23	e28	e22	e18	e20	e28	95	160	54	20	19	26
8	23	e26	e22	e18	e20	e30	108	165	52	22	18	23
9	22	e26	e20	e18	e18	e34	115	157	49	20	16	18
10	21	e28	e20	e18	e18	e36	111	154	44	21	15	17
11	25	e30	e18	e18	e20	e40	103	149	39	21	15	15
12	26	e30	e18	e18	e20	e50	99	140	36	21	15	15
13	24	e40	e18	e16	e14	e60	89	117	33	21	14	13
14	22	e45	e16	e16	e16	e70	87	103	28	21	14	10
15	22	e40	e18	e20	e18	79	86	102	26	21	15	8.9
16	22	e30	e16	e24	e16	77	90	107	25	22	15	7.4
17	21	e28	e12	e20	e18	75	93	108	24	22	15	6.9
18	19	e26	e16	e20	e18	82	90	104	23	21	16	6.3
19	19	e26	e22	e20	e20	90	86	106	22	21	16	332
20	19	e32	e30	e20	e22	101	82	101	22	21	17	e1220
21	18	e30	e30	e20	e22	115	80	99	22	21	16	e60
22	19	e26	e28	e20	e22	128	76	97	23	20	17	e50
23	19	e20	e22	e20	e22	130	74	89	23	22	17	e40
24	19	e22	e24	e20	e24	145	69	78	22	27	15	e36
25	18	e24	e24	e20	e24	152	68	70	23	22	13	32
26	17	e22	e24	e22	e26	147	68	65	24	21	12	32
27	17	e22	e22	e26	e30	132	71	65	23	23	11	31
28	17	e20	e20	e24	e26	98	88	67	23	23	11	30
29	17	e22	e20	e20	e24	86	93	74	25	22	10	35
30	17	e22	e22	e20	---	85	93	69	25	21	9.8	39
31	18	---	e22	e20	---	91	---	65	---	21	9.3	---
TOTAL	653	875	672	616	588	2315	2736	3297	1040	674	481.1	2382.2
MEAN	21.1	29.2	21.7	19.9	20.3	74.7	91.2	106	34.7	21.7	15.5	79.4
AC-FT	1300	1740	1330	1220	1170	4590	5430	6540	2060	1340	954	4730
MAX	36	60	30	26	30	152	115	165	60	27	21	1220
MIN	15	18	12	16	14	22	68	65	22	20	9.3	6.3

CAL YR 2003 TOTAL 11911 MEAN 32.6 MAX 384 MIN 12 AC-FT 23630  
WTR YR 2004 TOTAL 16329.3 MEAN 44.6 MAX 1220 MIN 6.3 AC-FT 32390

MAX DISCH: Undetermined  
MAX GH: 5.88 FT. AT 01:00 ON Sep. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



SAN JUAN RIVER BASIN

09344000 NAVAJO RIVER AT BANDED PEAK RANCH, NEAR CHROMO, CO

**LOCATION.**--Lat 37°05'07", long 106°41'20", in SE¼NW¼ sec. 24, T.33 N., R.2 E., NMPM, Archuleta County, Hydrologic Unit 14080101, on right bank at downstream side of private bridge on Banded Peak Ranch, 0.5 mi downstream from Cutthroat Creek, 2.8 mi downstream from East Fork of the Navajo River, and 11.2 mi northeast of Chromo, Co.

**DRAINAGE AREA.**--69.8 mi<sup>2</sup>.

**GAGE.**--Graphic water stage-recorder and a Sutron DCP in a 48-inch wood shelter and well. Also equipped with an air temperature sensor. The DCP record is the primary record. Datum of gage is 7,939.3 ft above National Geodetic Vertical Datum of 1929 (river-profile survey).

**REMARKS.**--Record is complete. It is reliable except for the following periods: Stage-discharge relationship affected by ice: Nov. 23, 24, 27 and 28; Dec. 10, 11, 13, 14, 16-19, 23-25 and 27-31, 2003; Jan. 4-6, 9-14, 18, 19, 22-24 and 26-30; Feb. 2, 6, 7 and 9-17; Mar. 6 and 7, 2004. Record fair except for the winter period which is poor. Station maintained and record developed by Scott D. Brinton.

**RATING TABLE.**--NAVBANCO23 USED FROM 01-OCT-2003 TO 30-SEP-2004

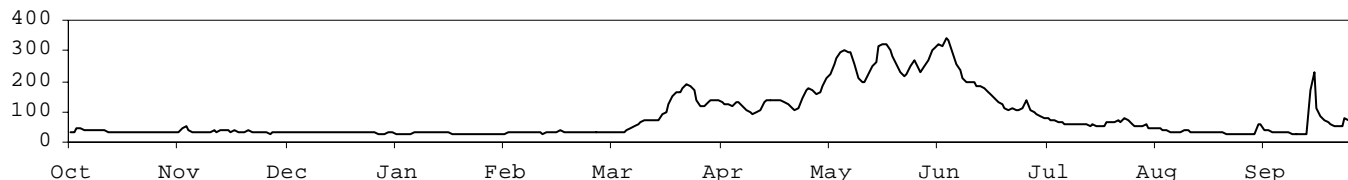
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	33	34	31	28	32	135	159	248	108	50	28
2	36	45	35	27	e28	34	136	162	270	97	53	27
3	46	52	34	26	31	34	135	184	301	90	57	28
4	47	40	33	e26	31	33	132	209	310	86	47	61
5	42	36	34	e26	31	32	122	220	323	81	46	59
6	41	34	34	e28	e30	e32	122	257	317	76	45	42
7	40	34	34	34	e30	e34	120	278	342	72	44	37
8	38	36	35	33	30	41	129	298	332	69	41	35
9	37	35	33	e32	e30	47	129	300	295	65	38	33
10	38	35	e32	e30	e32	53	116	292	258	63	36	32
11	38	37	e32	e30	e32	58	106	293	233	60	36	31
12	36	36	32	e30	e30	66	97	255	212	59	36	30
13	36	38	e30	e30	e28	71	93	209	196	57	34	30
14	36	38	e30	e30	e30	69	101	194	197	58	37	29
15	35	39	32	32	e32	70	108	195	197	57	37	28
16	35	36	e30	32	e32	72	128	221	182	60	33	28
17	35	37	e32	31	e34	75	139	249	186	62	33	28
18	34	32	e32	e28	37	90	140	262	178	52	33	28
19	34	33	e32	e28	36	100	138	317	167	58	33	170
20	34	35	34	28	34	125	137	324	160	54	35	231
21	34	37	35	28	35	151	138	320	147	54	36	113
22	33	36	35	e26	35	162	129	302	133	51	35	83
23	33	e34	e30	e28	34	165	122	283	122	63	32	70
24	33	e32	e30	e28	34	180	112	254	112	67	31	64
25	32	31	e30	28	34	188	108	230	108	66	30	59
26	31	31	32	e26	33	184	114	216	114	69	29	54
27	32	e28	e30	e26	34	170	142	223	107	66	29	50
28	32	e30	e24	e28	33	135	173	250	103	76	28	50
29	32	30	e26	e28	32	119	180	271	112	72	28	78
30	31	32	e28	e28	---	120	170	243	137	59	28	71
31	31	---	e30	28	---	128	---	227	---	53	28	---
TOTAL	1106	1062	984	894	930	2870	3851	7697	6099	2080	1138	1707
MEAN	35.6	35.4	31.7	28.8	32.1	92.6	128	248	203	67.1	36.7	56.9
AC-FT	2190	2110	1950	1770	1840	5690	7640	15270	12100	4130	2260	3390
MAX	47	52	35	34	37	188	180	324	342	108	57	231
MIN	31	28	24	26	28	32	93	159	103	51	28	27

CAL YR	2003	TOTAL	27546	MEAN	75.5	MAX	494	MIN	21	AC-FT	54640
WTR YR	2004	TOTAL	30418	MEAN	83.1	MAX	342	MIN	24	AC-FT	60330

MAX DISCH: 592 CFS AT 20:45 ON Sep. 19, 2004 GH 3.49 FT. SHIFT -0.05 FT.  
MAX GH: 3.49 FT. AT 20:45 ON Sep. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



SAN JUAN RIVER BASIN

OSO DIVERSION NEAR CHROMO, CO

LOCATION.--Lat 37°01'49", long 106°44'14", in NE¼NE¼ sec. 9, T.32 N., R.2 E., NMPM, Archuleta County.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder and a Sutron 8200 DCP on separate floats in a concrete shelter and well at a 15 foot Parshall flume.

REMARKS.--Records good. Record is complete. Station maintained by the U.S.B.R. and record developed by Scott D. Brinton.

RATING TABLE.--OSODIVCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

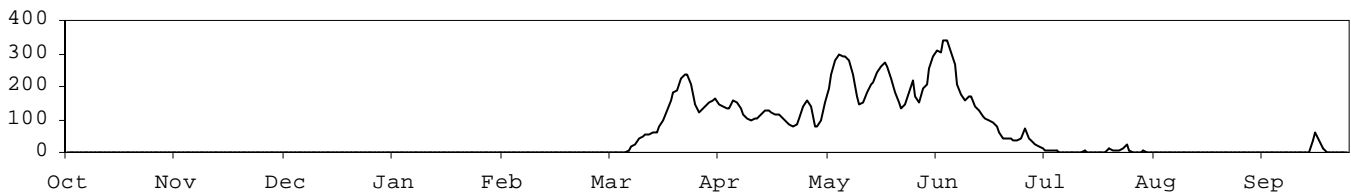
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	153	76	193	41	.00	.00
2	.00	.00	.00	.00	.00	.00	157	78	209	34	1.8	.00
3	.00	.00	.00	.00	.00	.00	161	99	253	26	5.8	.00
4	.00	.00	.00	.00	.00	.00	145	152	290	21	.00	.00
5	.00	.00	.00	.00	.00	.00	137	194	310	15	.00	.00
6	.00	.00	.00	.00	.00	.00	131	237	305	8.6	.00	.00
7	.00	.00	.00	.00	.00	.00	131	278	338	8.3	.00	.00
8	.00	.00	.00	.00	.00	.00	159	294	340	6.7	.00	.00
9	.00	.00	.00	.00	.00	6.1	153	292	305	4.3	.00	.00
10	.00	.00	.00	.00	.00	17	133	288	264	1.7	.00	.00
11	.00	.00	.00	.00	.00	25	117	278	207	.27	.00	.00
12	.00	.00	.00	.00	.00	40	102	236	177	.51	.00	.00
13	.00	.00	.00	.00	.00	51	98	172	157	.35	.00	.00
14	.00	.00	.00	.00	.00	53	104	146	169	.27	.00	.00
15	.00	.00	.00	.00	.00	54	102	151	168	.57	.00	.00
16	.00	.00	.00	.00	.00	58	115	181	137	.35	.00	.00
17	.00	.00	.00	.00	.00	61	127	204	125	4.4	.00	.00
18	.00	.00	.00	.00	.00	78	126	212	110	.00	.00	.00
19	.00	.00	.00	.00	.00	98	119	245	106	.37	.00	.00
20	.00	.00	.00	.00	.00	125	117	261	98	.40	.00	36
21	.00	.00	.00	.00	.00	156	116	274	89	.00	.00	62
22	.00	.00	.00	.00	.00	184	105	261	77	.00	.00	37
23	.00	.00	.00	.00	.00	190	96	227	59	.13	.00	15
24	.00	.00	.00	.00	.00	223	86	182	45	9.5	.00	.00
25	.00	.00	.00	.00	.00	238	80	151	40	8.3	.00	.00
26	.00	.00	.00	.00	.00	234	82	133	44	8.1	.00	.00
27	.00	.00	.00	.00	.00	206	106	146	39	4.8	.00	.00
28	.00	.00	.00	.00	.00	146	142	181	35	13	.00	.00
29	.00	.00	.00	.00	.00	124	156	219	45	23	.00	.00
30	.00	.00	.00	.00	---	126	141	171	73	6.1	.00	.00
31	.00	---	.00	.00	---	139	---	150	---	1.3	.00	---
TOTAL	.00	.00	.00	.00	.00	2632.10	3697	6169	4807	248.32	7.60	150.00
MEAN	.000	.000	.000	.000	.000	84.9	123	199	160	8.01	.25	5.00
AC-FT	.00	.00	.00	.00	.00	5220	7330	12240	9530	493	15	298
MAX	.00	.00	.00	.00	.00	238	161	294	340	41	5.8	62
MIN	.00	.00	.00	.00	.00	.00	80	76	35	.00	.00	.00

CAL YR	2003	TOTAL	14139.13	MEAN	38.7	MAX	416	MIN	.00	AC-FT	28040
WTR YR	2004	TOTAL	17711.02	MEAN	48.4	MAX	340	MIN	.00	AC-FT	35130

MAX DISCH: 412 CFS AT 00:15 ON Jun. 8, 2004 GH 3.41 FT. SHIFT .00 FT.  
MAX GH: 3.41 FT. AT 00:15 ON Jun. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





SAN JUAN RIVER BASIN

09344400 NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO

**LOCATION.**--Lat 37°01'49", long 106°44'14", in NE¼NW¼ sec. 9, T.32 N., R.2 E., NMPM, Archuleta County, Hydrologic Unit 14080101, on left bank 600 ft downstream from Oso Diversion Dam, 5.8 mi east of Chromo, and 6.1 mi upstream from Little Navajo River.

**DRAINAGE AREA AND PERIOD OF RECORD.**--100.5 mi<sup>2</sup>. March 1971 to current year.

**GAGE.**--Graphic water-stage recorder with a Sutron 8200 DCP on separate floats in a concrete shelter and well. Control is an 8-ft. Parshall flume set in a flat wide concrete structure that acts as a weir at high flows. The Parshall flume is equipped with a supplemental outside gage. The DCP is the primary record. Datum of gage is 7,665.30 ft above mean sea level.

**REMARKS.**--Record from the DCP is complete, any data missing from the initial satellite transmissions were filled in from the DCP's logger files. The record is reliable except for the following periods: Stage-discharge relationship affected by ice Nov. 27-30; Dec. 10-11, 13-17 and 28-31, 2003; Jan. 1-2, 4-16 and 27-29; Feb. 5-18, 2004. Records good, except for estimated flows, which are poor, and periods of flow above 140 cfs, which are fair. Station maintained and record developed by Scott D. Brinton.

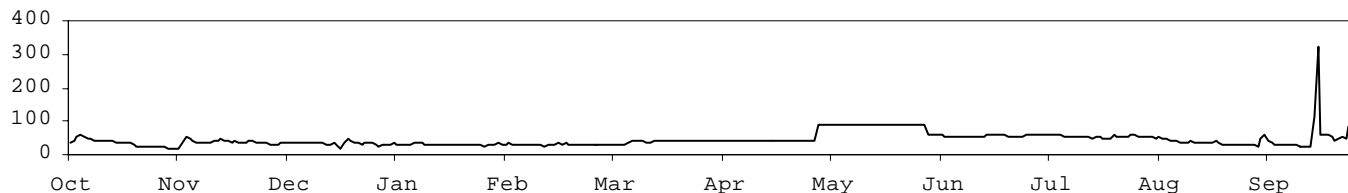
**RATING TABLE.**--NAVOSOCO04 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	20	36	e34	32	29	40	91	60	58	52	28
2	43	35	38	e30	32	30	40	90	58	58	51	27
3	54	54	37	27	34	28	40	90	57	59	56	25
4	60	45	36	e28	30	29	40	91	57	58	52	49
5	51	40	36	e28	e30	28	40	91	57	58	49	60
6	48	37	37	e30	e28	27	40	92	55	58	51	39
7	45	37	37	e36	e28	29	40	92	56	57	48	33
8	43	38	38	e34	e30	36	40	91	55	57	46	30
9	41	38	36	e34	e28	42	40	91	55	57	43	29
10	41	38	e34	e32	e30	41	40	92	55	56	40	28
11	41	40	e34	e32	e30	41	40	91	56	52	40	27
12	40	39	34	e32	e28	41	40	91	55	54	38	27
13	39	45	e32	e30	e24	38	40	91	54	52	33	27
14	38	44	e32	e30	e28	38	40	91	54	51	33	27
15	37	42	e34	e30	e30	39	40	91	55	52	42	25
16	36	38	e32	e28	e32	40	40	92	55	52	36	23
17	36	39	e20	27	e34	39	40	92	56	56	34	23
18	35	35	34	27	e30	39	40	92	58	49	35	23
19	30	34	45	28	34	40	40	91	58	51	35	111
20	22	37	39	28	32	40	40	92	58	52	38	321
21	22	39	38	28	32	39	40	91	57	50	37	61
22	22	39	34	27	31	39	40	91	57	49	39	59
23	22	36	31	27	29	39	40	91	57	50	36	57
24	22	35	34	28	30	40	40	90	56	59	31	51
25	22	35	36	30	29	40	39	90	56	56	31	44
26	22	34	35	27	29	40	39	90	55	55	30	45
27	22	e30	31	e24	29	39	40	91	55	56	29	51
28	21	e32	e26	e28	31	39	40	91	56	56	29	47
29	20	e32	e28	e28	29	40	40	92	58	57	28	82
30	20	e34	e30	31	---	40	42	92	58	57	28	86
31	20	---	e32	33	---	40	---	91	---	56	28	---
TOTAL	1051	1121	1056	916	873	1149	1200	2825	1689	1698	1198	1565
MEAN	33.9	37.4	34.1	29.5	30.1	37.1	40.0	91.1	56.3	54.7	38.6	52.1
AC-FT	2080	2220	2090	1820	1730	2280	2380	5600	3350	3370	2380	3100
MAX	60	54	45	36	34	42	42	92	60	59	56	321
MIN	20	20	20	24	24	27	39	90	54	49	28	23
CAL YR 2003	TOTAL	15659	MEAN	42.9	MAX	119	MIN	20	AC-FT	31060		
WTR YR 2004	TOTAL	16341	MEAN	44.6	MAX	321	MIN	20	AC-FT	32410		

MAX DISCH: 570 CFS AT 05:30 ON Sep. 20, 2004 GH 3.90 FT. SHIFT 0.05 FT.  
MAX GH: 3.90 FT. AT 05:30 ON Sep. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



SAN JUAN RIVER BASIN

LITTLE OSO DIVERSION NEAR CHROMO, CO

LOCATION.--Lat 37°04'32", long 106°48'38", in SW¼SE¼ sec. 23, T.33 N., R.1 E., NMPM, Archuleta County.

DRAINAGE AREA.--N/A. March 1971 to current year.

GAGE.--Graphic water-stage recorder with Sutron 8200 DCP on separate floats in a concrete shelter at a 6 foot Parshall flume. The DCP is the primary record.

REMARKS.--Records good. Record complete. Station maintained by the U.S.B.R. and record developed by Scott D. Brinton.

RATING TABLE.--LOSODVCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

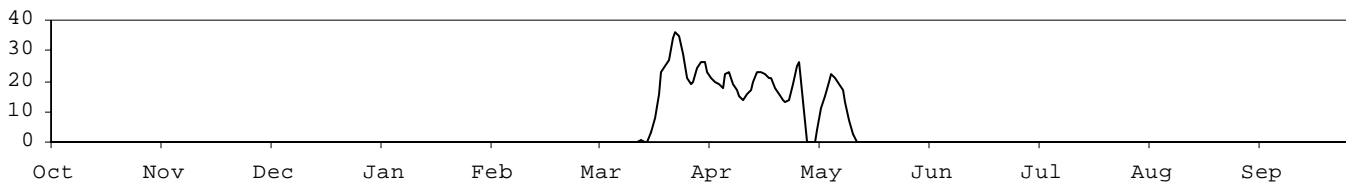
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	26	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	26	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	21	4.1	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	20	11	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	19	15	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	18	20	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	22	22	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	23	21	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	19	19	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	17	17	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.11	15	13	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	14	7.2	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	16	2.5	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.40	17	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	20	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.20	23	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	3.1	23	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	8.1	22	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	16	21	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	23	21	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	25	18	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	27	16	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	34	14	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	36	13	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	35	14	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	29	19	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	21	25	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	19	26	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	20	13	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	24	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	320.91	584	151.8	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	10.4	19.5	4.90	.000	.000	.000	.000
AC-FT	.00	.00	.00	.00	.00	637	1160	301	.00	.00	.00	.00
MAX	.00	.00	.00	.00	.00	36	26	22	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00	.00

CAL YR	2003	TOTAL	569.50	MEAN	1.56	MAX	36	MIN	.00	AC-FT	1130
WTR YR	2004	TOTAL	1056.71	MEAN	2.89	MAX	36	MIN	.00	AC-FT	2100

MAX DISCH: 68.5 CFS AT 08:15 ON Mar. 21, 2004 GH 1.93 FT. SHIFT .00 FT.  
MAX GH: 1.93 FT. AT 08:15 ON Mar. 21, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



## SAN JUAN RIVER BASIN

09345200 LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM NEAR CHROMO, CO

**LOCATION.**--Lat 37°04'32", long 106°48'38", in SW¼SE¼ sec. 23, T.33 N., R.1 E., NMPM, Archuleta County, on right bank downstream from Little Oso Diversion Dam.

**DRAINAGE AREA AND PERIOD OF RECORD.**--N/A, December 5, 1996 to current year.

**GAGE.**--Graphic water stage-recorder and a Sutron 8200 DCP and shaft encoder on separate floats in a wooden shelter and concrete well. Supplemental outside staff gage. Control is a 5-foot Parshall flume set in concrete. The DCP is the primary record.

**REMARKS.**--Record is reliable except for the following periods: Stage-discharge relationship affected by ice Nov. 24-26, 2003; Jan. 23-24 and 26-27; Feb. 2, 6-7 and 13-16, 2004. Floats frozen in ice in the well Nov. 27, 2003 to Jan. 19, 2004. The record is complete. Records fair, except for estimated daily flows, which are poor. Station maintained by Sherry Schutz and records developed by Scott D. Brinton.

**RATING TABLE.**--LITOSOCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

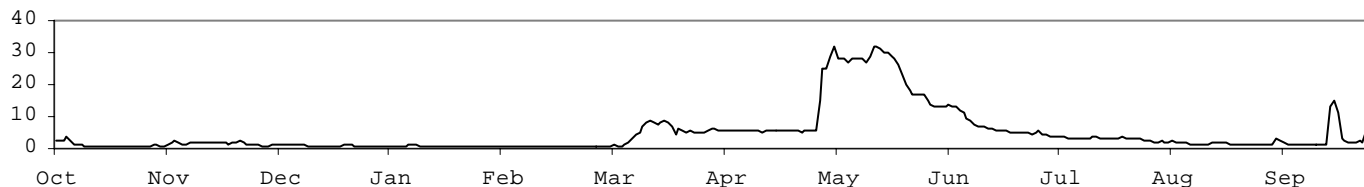
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	.94	e1.0	e.90	.73	.82	6.0	25	13	4.6	2.1	1.2
2	2.3	2.0	e1.0	e.90	e.70	.82	5.4	25	13	4.1	2.0	1.3
3	2.5	2.6	e1.0	e.80	.69	.90	5.6	29	13	4.0	2.2	1.2
4	3.8	1.6	e1.0	e.80	.69	.98	5.5	32	13	3.9	1.8	2.9
5	2.4	1.4	e1.0	e.80	.77	.91	5.5	28	14	3.8	2.0	2.7
6	1.4	1.5	e1.0	e.90	e.70	.89	5.5	28	13	3.7	2.2	1.8
7	1.2	1.6	e1.0	e1.0	e.70	1.1	5.7	28	13	3.5	1.8	1.5
8	1.1	1.7	e1.0	e1.0	.68	1.9	5.6	27	12	3.4	1.6	1.5
9	.88	1.7	e1.0	e1.0	.65	3.4	5.8	28	11	3.3	1.6	1.4
10	.89	1.7	e.90	e.90	.59	4.4	5.6	28	9.6	3.3	1.6	1.4
11	.93	1.8	e.90	e.90	.60	5.3	5.7	28	8.5	3.2	1.5	1.4
12	.87	1.7	e.90	e.90	.60	6.6	5.9	28	7.8	3.2	1.4	1.3
13	.78	2.0	e.90	e.90	e.60	8.1	5.8	27	7.1	3.2	1.4	1.3
14	.69	2.1	e.90	e.90	e.60	8.9	5.1	29	6.8	3.2	1.5	1.3
15	.68	1.8	e.90	e.90	e.60	8.0	5.6	32	6.6	3.8	1.5	1.2
16	.64	1.7	e.90	e.90	e.60	7.7	5.5	32	6.3	3.5	1.4	1.2
17	.60	2.0	e.90	e.90	.58	8.3	5.5	31	6.0	3.3	1.7	1.2
18	.60	1.2	e.90	e.80	.73	8.8	5.5	30	5.9	3.2	1.9	1.2
19	.60	1.6	e.90	e.80	.91	8.4	5.5	30	5.8	3.2	1.6	1.3
20	.60	2.1	e1.0	.88	.78	6.6	5.4	29	5.6	3.2	1.7	1.5
21	.60	2.2	e1.0	.87	.78	4.6	5.5	28	5.4	3.2	1.6	1.1
22	.60	2.1	e1.0	.84	.78	6.1	5.6	26	5.2	3.1	1.5	3.2
23	.59	1.2	e.90	e.80	.78	5.7	5.7	23	4.9	3.5	1.4	2.4
24	.52	e1.0	e.90	e.80	.78	5.1	5.4	20	4.9	3.4	1.4	2.1
25	.52	e1.0	e.90	.88	.78	5.4	5.2	18	4.8	3.2	1.4	2.0
26	.64	e1.0	e.90	e.80	.78	5.1	5.6	17	4.8	2.9	1.4	2.1
27	.87	e.80	e.80	e.80	.78	4.9	5.6	17	4.7	3.0	1.3	2.3
28	.98	e.90	e.80	.80	.89	5.1	5.4	17	4.6	2.9	1.3	2.1
29	.98	e.90	e.80	.77	.84	5.2	5.5	17	5.2	2.6	1.2	5.9
30	.88	e1.0	e.80	.68	---	5.9	15	15	5.6	2.3	1.2	5.4
31	.88	---	e.90	.73	---	6.0	---	14	---	2.2	1.1	---
TOTAL	34.32	46.84	28.70	26.55	20.69	151.92	176.2	786	241.1	102.9	49.3	93.5
MEAN	1.11	1.56	.93	.86	.71	4.90	5.87	25.4	8.04	3.32	1.59	3.12
AC-FT	68	93	57	53	41	301	349	1560	478	204	98	185
MAX	3.8	2.6	1.0	1.0	.91	8.9	15	32	14	4.6	2.2	15
MIN	.52	.80	.80	.68	.58	.82	5.1	14	4.6	2.2	1.1	1.2

CAL YR 2003 TOTAL 1948.80 MEAN 5.3 MAX 33 MIN .52 AC-FT 3870  
WTR YR 2004 TOTAL 1758.02 MEAN 4.8 MAX 32 MIN .52 AC-FT 3490

MAX DISCH: 74.5 CFS AT 21:15 ON Sep. 19, 2004 GH 2.31 FT. SHIFT -0.02 FT.  
MAX GH: 2.31 FT. AT 21:15 ON Sep. 19, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



SAN JUAN RIVER BASIN

09362750 FLORIDA RIVER ABOVE LEMON RESERVOIR NEAR DURANGO, CO

LOCATION.--Lat 37°25'36", long 107°40'28", in SW¼NE¼ sec. 31, T.37 N., R.7 W., NMPM, La Plata County.

DRAINAGE AREA.--50.9 mi².

GAGE.--Graphic water stage-recorder and a Sutron 8200 DCP with a shaft encoder on a separate float in a 42" corrugated metal shelter and well. The DCP record is the primary record. Also equipped with a Sutron air temperature sensor. Datum of gauge is 8,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Record is complete and reliable except for the following periods: stage-discharge relationship affected by ice Dec. 10, 13-14, 16-17, 23-24 and 27-31, 2003; Jan. 4-16; Feb. 2 and 4-5, 2004. Inlets frozen Feb 6 to March 12, 2004. There is some gage height variation at this time but it is flow into and out of the well through the alluvium the gage is built on. Record good, except for estimated daily discharges, which are poor. Station maintained and records developed by Scott D. Brinton.

RATING TABLE.--FLOALECO06 USED FROM 01-OCT-2003 TO 30-SEP-2004

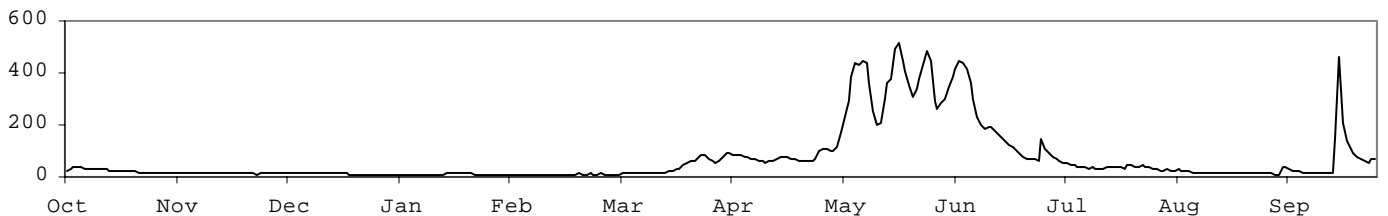
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	17	15	11	10	e9.0	75	97	288	89	26	12
2	29	17	15	11	e10	e10	90	102	303	76	24	11
3	35	19	14	11	10	e11	90	118	345	67	28	11
4	39	16	13	e10	e10	e12	88	168	383	62	23	35
5	36	18	13	e8.0	e9.0	e12	84	227	416	56	22	35
6	34	17	13	e9.0	e9.0	e13	83	291	444	51	33	30
7	34	18	13	e10	e9.0	e14	77	387	442	47	25	25
8	31	17	13	e10	e8.0	e16	74	437	412	44	23	22
9	30	17	12	e10	e9.0	e16	70	427	361	41	20	20
10	28	17	e12	e11	e9.0	e16	66	447	299	38	19	19
11	30	17	12	e11	e9.0	e16	62	438	233	36	17	19
12	27	17	12	e11	e8.0	e16	58	362	199	34	16	17
13	26	18	e12	e10	e7.0	16	57	254	182	37	14	17
14	24	19	e12	e11	e8.0	17	60	199	191	32	16	16
15	24	16	12	e12	e9.0	18	61	209	192	32	16	15
16	23	17	e12	e12	e9.0	19	67	298	178	33	17	14
17	22	18	e12	12	e9.0	20	74	364	161	40	17	13
18	21	15	12	13	e10	23	78	378	143	36	19	13
19	20	17	11	14	e10	28	77	491	136	37	17	150
20	20	17	11	13	e9.0	34	71	513	125	37	17	465
21	19	17	11	12	e12	45	68	448	112	36	16	206
22	18	16	11	12	e11	54	65	407	97	34	18	135
23	18	11	e11	11	e10	62	62	353	87	48	16	104
24	17	16	e11	11	e12	65	58	309	78	48	15	94
25	17	18	11	11	e10	72	58	336	73	36	16	77
26	15	16	11	10	e10	82	59	376	69	39	15	68
27	16	14	e9.0	11	e12	81	70	429	66	44	14	60
28	16	15	e8.0	11	e10	68	99	488	65	38	13	54
29	16	15	e9.0	11	e9.0	60	110	447	150	35	13	73
30	15	15	e10	11	---	57	106	295	107	31	12	72
31	15	---	e10	10	---	59	---	265	---	29	12	---
TOTAL	740	497	363.0	341.0	277.0	1041.0	2217	10360	6337	1343	569	1902
MEAN	23.9	16.6	11.7	11.0	9.55	33.6	73.9	334	211	43.3	18.4	63.4
AC-FT	1470	986	720	676	549	2060	4400	20550	12570	2660	1130	3770
MAX	39	19	15	14	12	82	110	513	444	89	33	465
MIN	15	11	8.0	8.0	7.0	9.0	57	97	65	29	12	11

CAL YR 2003 TOTAL 18629.6 MEAN 51.0 MAX 527 MIN 5.0 AC-FT 36950  
WTR YR 2004 TOTAL 25987.0 MEAN 71.0 MAX 513 MIN 7.0 AC-FT 51550

MAX DISCH: 803 CFS AT 03:45 ON Sep. 20, 2004 GH 3.76 FT. SHIFT 0.01 FT.  
MAX GH: 3.76 FT. AT 03:45 ON Sep. 20, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



## SAN JUAN RIVER BASIN

## FLORIDA RIVER BELOW LEMON RESERVOIR NEAR DURANGO, CO

**LOCATION.**--Lat 37°22'50", long 107°39'43", in NE¼NW¼ sec. 20, T.36 N., R.7 W., NMPM, La Plata County.

**DRAINAGE AREA.**--69.1 mi<sup>2</sup>.

**GAGE.**--Water-stage recorder with a Sutron 8200 DCP with a shaft encoder on a separate float in a 42" corrugated metal shelter and well and a concrete control. The DCP record is the primary record. Datum of gauge is 7,960 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Record is complete and reliable. Record good. Diversions for irrigation of up to 80 acres upstream of gage. Flow regulated by Lemon Reservoir, capacity 40,100 acre feet. Station maintained and records developed by Scott D. Brinton.

**RATING TABLE.**--FLOBLECO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

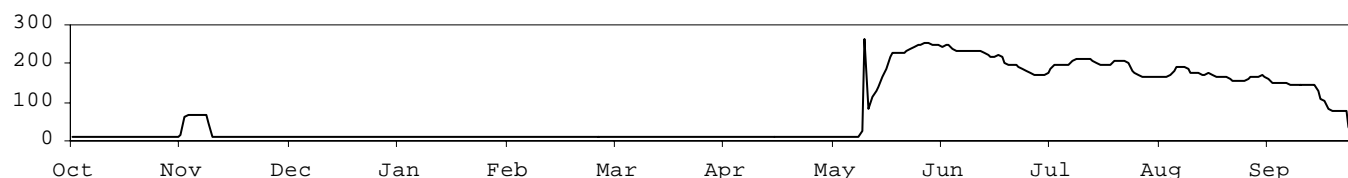
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	17	8.8	9.3	9.7	9.3	9.7	10	252	172	166	164
2	9.7	61	8.8	9.3	10	9.3	9.8	10	249	170	166	163
3	9.7	65	8.8	9.3	10	9.3	10	10	248	170	166	166
4	9.6	67	8.8	8.7	10	9.3	10	10	248	170	166	170
5	9.3	67	8.8	9.3	10	9.3	10	10	245	176	166	168
6	9.3	67	8.8	9.7	10	9.3	10	10	246	188	166	158
7	9.3	67	8.8	9.7	10	9.3	10	10	247	197	165	148
8	9.3	67	9.6	9.7	10	9.3	11	10	239	196	164	148
9	9.3	45	9.3	9.7	10	9.3	11	10	233	196	171	148
10	9.4	8.3	9.3	9.7	10	9.3	10	10	234	196	183	148
11	9.7	8.3	9.3	9.7	10	9.3	10	11	234	196	189	148
12	9.7	8.3	9.3	9.7	10	9.3	10	9.8	235	205	189	147
13	9.6	8.3	9.3	9.7	10	9.3	10	26	235	211	189	146
14	9.6	8.3	9.4	9.7	10	9.3	10	265	235	211	185	146
15	9.7	8.3	9.3	9.7	10	9.3	10	84	235	211	175	146
16	9.6	8.3	9.3	9.7	10	9.3	10	112	234	211	175	144
17	9.2	8.3	9.3	9.7	10	9.3	10	131	228	210	174	144
18	8.8	8.3	9.3	9.7	10	9.3	10	138	222	209	173	144
19	8.8	8.5	9.3	9.7	9.8	9.3	10	166	216	202	173	144
20	8.8	8.5	9.3	9.7	9.3	9.3	10	186	216	194	175	129
21	8.8	8.7	9.3	9.7	9.3	9.1	10	216	221	194	172	110
22	8.8	8.8	9.3	9.7	9.3	9.1	10	229	216	194	164	101
23	8.8	8.8	9.3	9.7	9.3	9.1	10	229	202	195	164	84
24	8.8	8.8	9.3	9.7	9.2	9.3	10	229	199	209	164	76
25	8.8	8.8	9.3	9.7	9.3	9.3	10	229	199	209	164	76
26	8.8	8.7	9.3	9.7	9.3	9.3	10	234	199	208	160	76
27	8.8	8.9	9.3	9.7	9.3	9.3	10	239	191	207	157	76
28	8.8	9.0	9.3	9.7	9.3	9.3	10	242	184	201	157	76
29	8.8	8.9	9.3	9.7	9.3	9.3	10	249	180	181	157	38
30	8.8	8.9	9.3	9.7	---	9.1	10	250	175	177	155	9.3
31	8.8	---	9.3	9.7	---	9.9	---	251	---	172	160	---
TOTAL	284.8	703.0	285.2	298.1	282.4	288.1	301.5	3825.8	6697	6038	5250	3741.3
MEAN	9.18	23.4	9.20	9.62	9.74	9.29	10.0	123	223	195	169	125
AC-FT	565	1390	566	591	560	571	598	7590	13280	11980	10410	7420
MAX	9.7	67	9.6	9.7	10	9.9	11	265	252	211	189	170
MIN	8.8	8.3	8.8	8.7	9.2	9.1	9.7	9.8	175	170	155	9.3

CAL YR 2003 TOTAL 18114.0 MEAN 49.6 MAX 242 MIN 1.7 AC-FT 35930  
WTR YR 2004 TOTAL 27995.2 MEAN 76.5 MAX 265 MIN 8.3 AC-FT 55530

MAX DISCH: 490 CFS AT 12:45 ON May. 14, 2004 GH 3.99 FT. SHIFT -0.03 FT.  
MAX GH: 3.99 FT. AT 12:45 ON May. 14, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



SAN JUAN RIVER BASIN

09357500 ANIMAS RIVER AT HOWARDSVILLE, CO

LOCATION.--Lat 37°49'59", long 107°35'56", in SE¼SE¼ sec. 2, T.41 N., R.7 W., NMPM, San Juan County.

DRAINAGE AREA.--55.9 mi<sup>2</sup>.

GAGE.--Graphic water stage-recorder and a Sutron 8200 DCP with a shaft encoder on a separate float in a 36"x 36" wooden shelter and well. The DCP record is the primary record. Datum of gage is 9,616.98 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 18, 1939, at datum 1.00 ft. higher.

REMARKS.--Record is reliable except for the following periods: Stage-discharge relationship affected by ice Nov. 18, 23-24 and 27-29; Dec. 3-4, 9-13, 15-20, 23-25 and 27-30, 2003; Jan. 4-14, 18-19 and 22-30; Feb. 2, 6-17, 20, 26 and 28-29; March 1 and 6-8, 2004. The record is complete. Record good, except for estimated daily discharges, which are poor. Station maintained and record developed by Scott D. Brinton.

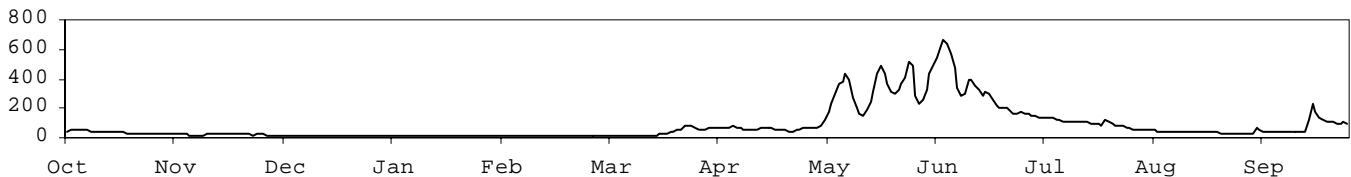
RATING TABLE.--ANIHOWCO08 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	25	20	18	17	e15	65	65	253	161	57	27
2	54	26	20	18	e17	15	69	68	330	155	56	27
3	54	25	e20	18	17	15	70	83	429	147	53	28
4	55	21	e20	e16	17	15	65	124	492	133	49	67
5	51	20	20	e16	17	15	65	179	544	135	51	49
6	48	19	20	e17	e17	e15	68	231	626	141	49	43
7	48	19	20	e18	e16	e15	72	305	671	137	45	41
8	46	20	20	e18	e17	e15	75	360	635	130	44	41
9	44	20	e20	e18	e17	16	72	384	572	126	41	40
10	43	21	e19	e18	e17	17	66	439	478	120	39	44
11	43	21	e19	e18	e17	18	60	395	336	113	38	44
12	41	21	e19	e18	e17	19	55	272	285	108	37	42
13	39	23	e19	e18	e17	19	52	201	301	108	36	42
14	35	23	19	e18	e17	19	54	158	387	110	35	40
15	35	21	e19	18	e17	20	56	149	387	105	34	39
16	34	21	e19	18	e17	19	63	188	348	111	34	37
17	34	22	e18	18	e17	20	68	248	320	103	36	36
18	33	e21	e18	e18	17	23	69	317	288	102	39	37
19	33	21	e18	e18	17	26	62	439	306	97	38	118
20	32	22	e18	18	e17	31	58	482	293	97	39	233
21	31	22	18	18	17	35	57	428	255	93	38	183
22	30	23	18	e18	17	41	53	371	219	86	39	141
23	30	e20	e18	e18	17	54	50	311	198	120	37	122
24	29	e21	e19	e18	17	61	46	302	199	115	34	115
25	26	21	e19	e17	17	76	47	325	198	96	33	113
26	23	21	19	e16	e16	81	48	363	174	88	32	107
27	23	e20	e18	e17	16	75	55	404	164	82	31	98
28	24	e20	e17	e17	e16	63	65	519	161	75	31	92
29	25	e20	e17	e18	e16	52	69	485	171	69	30	103
30	24	20	e18	e18	---	50	68	281	162	65	28	101
31	24	---	19	18	---	56	---	235	---	61	28	---
TOTAL	1138	640	585	548	488	1011	1842	9111	10182	3389	1211	2250
MEAN	36.7	21.3	18.9	17.7	16.8	32.6	61.4	294	339	109	39.1	75.0
AC-FT	2260	1270	1160	1090	968	2010	3650	18070	20200	6720	2400	4460
MAX	55	26	20	18	17	81	75	519	671	161	57	233
MIN	23	19	17	16	16	15	46	65	161	61	28	27
CAL YR 2003	TOTAL	29287	MEAN	80.2	MAX	966	MIN	13	AC-FT	58090		
WTR YR 2004	TOTAL	32395	MEAN	88.5	MAX	671	MIN	15	AC-FT	64260		

MAX DISCH: 915 CFS AT 20:30 ON Jun. 7, 2004 GH 3.25 FT. SHIFT -0.05 FT.  
MAX GH: 3.25 FT. AT 20:30 ON Jun. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



## SAN JUAN RIVER BASIN

## LA PLATA AND CHERRY CREEK DITCH NEAR HESPERUS, CO

LOCATION.--Lat 37°19'26", long 108°03'41", in SE¼NW¼ sec. 3, T.35 N., R.11 W., NMPM, La Plata County.

DRAINAGE AREA.--N/A

GAGE.--Sutron 8200 DCP in a wooden shelter and metal well at a 5 foot Parshall flume.

REMARKS.--Records good. Station maintained by Matthew A. Schmitt. Records developed by Scott D. Brinton.

RATING TABLE.--LPCDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

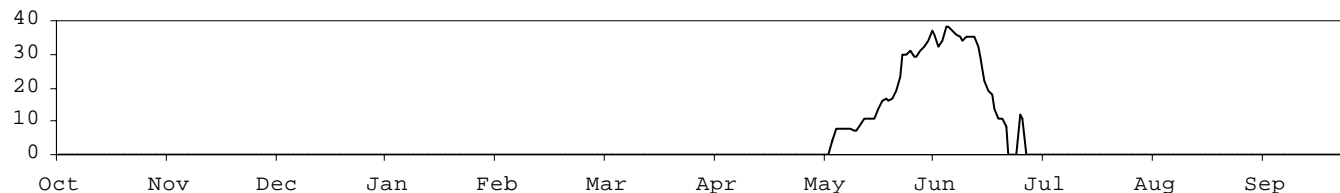
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	31	.05	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	37	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	.00	.01
6	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	.00	.01
7	.00	.00	.00	.00	.00	.00	.00	4.0	34	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	8.0	38	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	7.8	38	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	7.7	37	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.14	7.9	36	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	7.6	35	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	7.0	34	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	7.0	35	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	8.9	35	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	11	35	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	11	32	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	11	29	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	11	22	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	14	19	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	16	18	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	17	14	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	16	11	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	17	11	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	19	8.1	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	23	.01	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	31	12	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	29	11	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	29	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.14	380.90	746.11	.05	.00	.02
MEAN	.000	.000	.000	.000	.000	.000	.005	12.3	24.9	.002	.000	.001
AC-FT	.00	.00	.00	.00	.00	.00	.30	756	1480	.10	.00	.04
MAX	.00	.00	.00	.00	.00	.00	.14	31	38	.05	.00	.01
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR	2003	TOTAL	796.91	MEAN	2.18	MAX	27	MIN	.00	AC-FT	1580
WTR YR	2004	TOTAL	1127.22	MEAN	3.08	MAX	38	MIN	.00	AC-FT	2240

MAX DISCH: 39.7 CFS AT 22:00 ON Jun. 7, 2004 GH 1.48 FT. SHIFT 0.06 FT.  
MAX GH: 1.48 FT. AT 22:00 ON Jun. 7, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



SAN JUAN RIVER BASIN

PINE RIDGE DITCH NEAR HESPERUS, CO

LOCATION.--Lat 37°17'31", long 108°02'07", in SW¼NE¼ sec. 14, T.35 N., R.11 W., NMPM, La Plata County.

DRAINAGE AREA.--N/A

GAGE.--Graphic water-stage recorder and a Sutron 8200 DCP on separate floats in a metal shelter and concrete well at a 3 foot Parshall flume.

REMARKS.--Station maintained by Matthew A. Schmitt. Records developed by Scott D. Brinton.

RATING TABLE.--PINDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

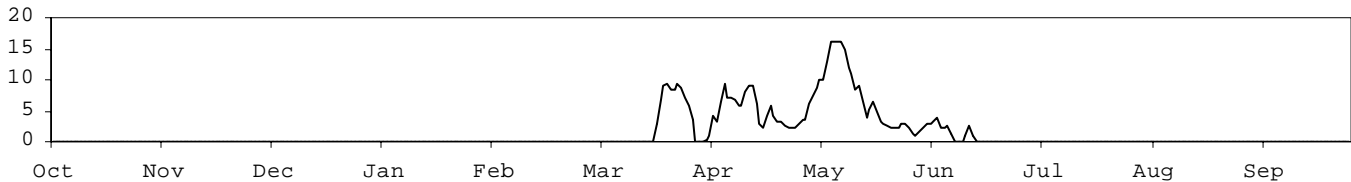
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	6.1	1.5	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.30	7.4	2.4	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	1.0	8.7	2.9	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	4.3	10	2.9	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	3.3	10	3.1	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	6.5	13	3.9	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	9.2	16	2.3	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	7.0	16	2.1	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	7.2	16	2.5	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	6.8	16	1.4	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	5.8	15	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	5.8	12	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	8.1	11	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	8.9	8.5	1.0	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	9.1	9.0	2.6	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	6.0	6.5	1.1	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	3.0	3.9	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	2.2	5.1	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	2.9	4.1	6.6	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	6.9	5.7	5.0	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	9.0	4.3	3.1	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	9.3	3.1	2.9	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	8.4	3.2	2.5	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	8.5	2.5	2.1	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	9.3	2.3	2.3	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	8.8	2.2	2.4	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	7.0	2.3	2.8	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	5.8	2.9	2.9	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	3.5	3.6	2.2	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	3.7	1.4	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	1.0	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	79.40	134.40	227.4	29.70	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	2.56	4.48	7.34	.99	.000	.000	.000
AC-FT	.00	.00	.00	.00	.00	157	267	451	59	.00	.00	.00
MAX	.00	.00	.00	.00	.00	9.3	9.2	16	3.9	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00

CAL YR 2003	TOTAL	297.04	MEAN	0.81	MAX	12	MIN	0.00	AC-FT	589
WTR YR 2004	TOTAL	470.90	MEAN	1.29	MAX	16	MIN	0.00	AC-FT	934

MAX DISCH: 16.8 CFS AT 03:45 ON May. 8, 2004 GH 1.39 FT. SHIFT -0.15 FT.  
MAX GH: 1.39 FT. AT 03:45 ON May. 8, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.





SAN JUAN RIVER BASIN

09365500 LA PLATA RIVER AT HESPERUS, CO

**LOCATION.**--Lat 37°17'23", long 108°02'24", in NE¼SW¼ sec. 14, T.35 N., R.11 W., NMPM La Plata County, Hydrologic Unit 14080105, on right bank at Hesperus 700 ft downstream from U.S. Highway 160.

**DRAINAGE AREA AND PERIOD OF RECORD.**--37 mi<sup>2</sup>, approximately. Periodic data June 1904 to Nov. 1910. Continuous from June 1917 to current year, with some periods of monthly data only.

**GAGE.**--Graphic water stage-recorder and a Sutron Satlink DCP with a shaft encoder on a separate float, and an air temperature sensor, in a 64"x 64" concrete block shelter and a 42" concrete well. The DCP record is the primary record. Datum of gage is 8,104.71 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record from the DCP is complete, any data missing from the initial satellite transmissions were filled in from the DCP's logger files. It is reliable except for the following periods: Nov. 24 - Dec. 11,2003 when both floats froze in ice in the well. Stage-discharge relationship affected by ice Nov. 23; Dec. 13-18 and 27-31,2003; Jan. 3-10, 12-13 and 26-28; Feb. 2, 4-17 and 27-28, 2004. Record good except for estimated flows, which are poor. Station maintained and record developed by Scott D. Brinton.

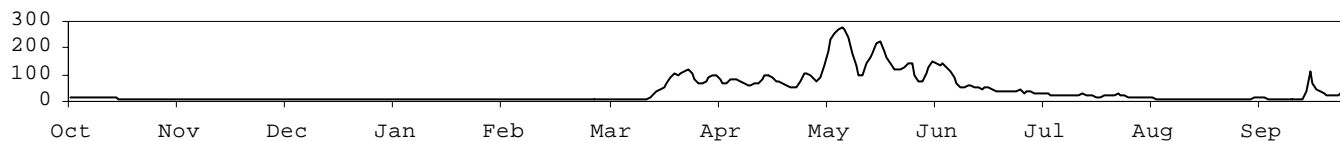
**RATING TABLE.**--LAPHESCO35 USED FROM 01-OCT-2003 TO 07-MAY-2004  
LAPHESCO36 USED FROM 07-MAY-2004 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.4	e6.0	6.5	6.6	6.3	91	79	78	38	14	4.8
2	13	7.6	e6.0	7.3	e6.0	6.1	95	76	102	35	13	4.6
3	15	8.2	e5.5	e7.0	5.6	6.0	94	89	130	32	13	4.9
4	16	7.6	e5.5	e6.0	e6.0	6.0	79	136	150	30	12	15
5	15	7.3	e6.0	e5.0	e6.0	6.0	71	189	145	27	13	18
6	14	7.0	e6.0	e6.0	e5.5	6.0	70	231	137	27	13	15
7	14	6.9	e6.0	e6.5	e6.0	6.2	82	255	140	27	11	13
8	13	6.9	e6.0	e6.0	e6.0	6.7	84	267	129	25	9.7	11
9	13	6.8	e5.5	e6.0	e5.5	7.3	80	277	110	24	8.7	9.8
10	13	6.7	e5.5	e6.0	e6.0	7.8	73	272	92	23	8.2	10
11	13	6.7	e5.5	6.2	e6.0	8.4	66	243	67	23	7.7	9.5
12	13	6.7	6.0	e5.5	e5.5	9.3	60	183	56	21	7.1	9.0
13	12	9.0	e6.0	e5.5	e5.0	9.8	60	133	51	20	7.0	8.5
14	12	7.8	e6.0	5.9	e5.5	10	67	97	57	21	7.3	8.1
15	11	7.4	e6.0	5.5	e5.5	14	70	99	59	19	7.5	7.6
16	10	7.0	e6.0	5.5	e5.5	26	84	140	56	20	6.9	7.5
17	10	7.0	e6.0	5.4	e5.5	35	100	166	51	29	7.2	7.3
18	9.9	6.8	e6.0	5.4	6.1	44	101	178	47	24	6.9	7.5
19	9.4	6.4	6.4	5.7	5.8	54	91	217	50	21	6.8	37
20	9.4	6.5	6.4	5.4	5.8	71	78	226	49	19	6.6	114
21	9.2	6.4	6.4	5.3	5.8	91	72	184	44	18	7.0	65
22	8.8	6.5	6.4	5.4	5.8	108	66	164	41	17	6.6	45
23	8.6	e5.5	6.6	5.5	5.7	101	59	146	37	22	6.1	36
24	8.4	e6.0	6.7	5.9	6.1	105	54	120	36	25	5.9	30
25	8.1	e6.0	6.0	5.3	5.8	115	50	122	34	22	5.7	26
26	7.9	e5.5	6.4	e5.0	5.8	122	53	123	40	21	5.5	24
27	7.7	e5.0	e6.0	e5.0	e6.0	105	75	126	39	28	5.4	22
28	7.5	e5.5	e5.0	e5.0	e6.0	82	107	142	39	24	5.2	20
29	7.3	e5.5	e5.0	5.6	6.4	69	106	145	42	20	5.0	29
30	7.3	e5.5	e5.5	6.6	---	69	96	95	29	18	4.8	29
31	7.2	---	e5.5	6.5	---	76	---	75	---	16	4.9	---
TOTAL	335.7	201.1	183.8	179.4	168.8	1388.9	2334	4995	2137	736	248.7	648.1
MEAN	10.8	6.70	5.93	5.79	5.82	44.8	77.8	161	71.2	23.7	8.02	21.6
AC-FT	666	399	365	356	335	2750	4630	9910	4240	1460	493	1290
MAX	16	9.0	6.7	7.3	6.6	122	107	277	150	38	14	114
MIN	7.2	5.0	5.0	5.0	5.0	6.0	50	75	29	16	4.8	4.6
CAL YR 2003	TOTAL	9529.9	MEAN	26.0	MAX	195	MIN	4.6	AC-FT	18900		
WTR YR 2004	TOTAL	13556.5	MEAN	37.0	MAX	277	MIN	4.6	AC-FT	26890		

MAX DISCH: 307 CFS AT 03:30 ON May 10, 2004 GH 4.79 FT. SHIFT -0.02 FT.  
MAX GH: 4.79 FT. AT 03:30 ON May 10, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



SAN JUAN RIVER BASIN

CHERRY CREEK AT THE MOUTH NEAR RED MESA, CO

LOCATION.--Lat 37°07'03", long 108°11'53", in NW¼SW¼ sec. 7, T.33 N., R.12 W., NMPM, La Plata County.

DRAINAGE AREA.--66 mi<sup>2</sup>.

GAGE.--Graphic water-stage recorder and a Sutron 8200 DCP with shaft encoder on separate floats in a concrete shelter and well. Datum of gauge is 6,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Record is reliable except for the following periods: the stage-discharge relationship was affected by ice Jan. 16-24, 2004; the inlets were frozen Jan. 25-31; Feb. 1 and 16-26, 2004. Record poor. Record developed by Scott D. Brinton.

RATING TABLE.--CHEREDCO02 USED FROM 01-OCT-2003 TO 30-SEP-2004

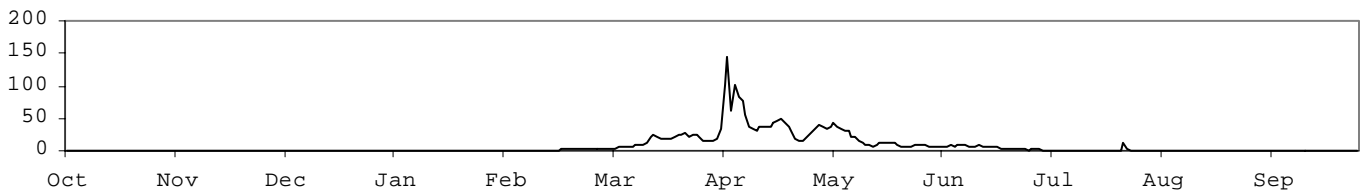
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	e.00	4.4	16	39	6.2	2.9	.00	.00
2	.00	.00	.00	.00	.00	3.5	18	37	5.6	2.3	.00	.00
3	.00	.00	.00	.00	.00	3.7	33	34	5.9	1.2	.00	.00
4	.00	.00	.00	.00	.00	4.1	101	38	5.0	.83	.00	.00
5	.00	.00	.00	.00	.00	5.2	146	43	6.5	.67	.00	.00
6	.00	.00	.00	.00	.00	5.2	63	37	7.4	.62	.00	.00
7	.00	.00	.00	.00	.00	6.1	101	35	8.2	.31	.00	.00
8	.00	.00	.00	.00	.00	5.8	84	32	7.0	.21	.00	.00
9	.00	.00	.00	.00	.00	6.0	76	30	9.2	.29	.00	.00
10	.00	.00	.00	.00	.00	7.7	54	23	9.2	.17	.00	.00
11	.00	.00	.00	.00	.00	8.6	36	21	8.2	.09	.00	.00
12	.00	.00	.00	.00	.00	10	34	15	7.3	.00	.00	.00
13	.00	.00	.00	.00	.00	13	32	11	6.7	.00	.00	.00
14	.00	.00	.00	.00	.00	22	38	9.4	7.3	.00	.00	.00
15	.00	.00	.00	.00	.00	24	37	8.3	8.2	.00	.00	.00
16	.00	.00	.00	e.50	e.50	21	36	7.5	6.9	.00	.00	.00
17	.00	.00	.00	e1.0	e1.0	19	37	8.4	6.7	.00	.00	.00
18	.00	.00	.00	e1.0	e2.0	18	42	11	6.0	.00	.00	.00
19	.00	.00	.00	e1.0	e3.0	18	45	11	5.8	.00	.00	.00
20	.00	.00	.00	e1.0	e2.0	20	48	11	4.8	.00	.00	.00
21	.00	.00	.00	e1.0	e2.0	22	43	12	3.6	.00	.00	.00
22	.00	.00	.00	e1.0	e2.0	25	37	12	4.3	.00	.00	.00
23	.00	.00	.00	e1.0	e2.0	26	30	9.9	4.1	.00	.00	.00
24	.00	.00	.00	e.50	e3.0	27	20	7.6	3.6	.00	.00	.00
25	.00	.00	.00	e.00	e3.0	23	14	5.4	3.3	.00	.00	.00
26	.00	.00	.00	e.00	e3.0	25	16	4.7	3.3	13	.00	.00
27	.00	.00	.00	e.00	3.9	25	20	4.8	2.9	1.6	.00	.00
28	.00	.00	.00	e.00	4.3	21	24	8.6	1.6	.00	.00	.00
29	.00	.00	.00	e.00	3.5	16	30	9.8	1.5	.00	.00	.00
30	.00	.00	.00	e.00	---	14	37	9.9	1.8	.00	.00	.00
31	.00	---	.00	e.00	---	15	---	8.2	---	.00	.00	---
TOTAL	.00	.00	.00	8.00	35.20	464.3	1348	554.5	168.1	24.19	.00	.00
MEAN	.000	.000	.000	.26	1.21	15.0	44.9	17.9	5.60	.78	.000	.000
AC-FT	.00	.00	.00	16	70	921	2670	1100	333	48	.00	.00
MAX	.00	.00	.00	1.0	4.3	27	146	43	9.2	13	.00	.00
MIN	.00	.00	.00	.00	.00	3.5	14	4.7	1.5	.00	.00	.00

CAL YR	2003	TOTAL	855.84	MEAN	2.34	MAX	124	MIN	.00	AC-FT	1700
WTR YR	2004	TOTAL	2602.29	MEAN	7.11	MAX	146	MIN	.00	AC-FT	5160

MAX DISCH: 263 CFS AT 20:15 ON Jul. 26, 2004 GH 3.23 FT. SHIFT 0.14 FT.  
MAX GH: 3.51 FT. AT 05:45 ON Mar. 14, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



## SAN JUAN RIVER BASIN

## LONG HOLLOW AT THE MOUTH NEAR RED MESA, CO

**LOCATION.**--Lat 37°03'02", long 108°10'23", in SE¼SW¼ sec. 32, T.33 N., R.12 W., NMPM, La Plata County.

**DRAINAGE AREA.**--46.5 mi<sup>2</sup>.

**GAGE.**--Graphic water-stage recorder with a Sutron 8200 DCP and shaft encoder on separate floats in a 3' by 3' wooden shelter and well. The control is a four foot Parshall flume equipped with a staff gauge. Datum of gauge is 6,190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Record from the DCP is complete, any data missing from the initial satellite transmissions was filled in from the DCP's logger files or from the chart record. It is reliable except for the following periods: stage-discharge relationship was affected by ice: Nov. 23-24 and 27-29; Dec. 10, 15-18 and 28-29, 2003; Jan. 4-6, 9-10, 13-14, 22-24 and 26-30; Feb. 1-2 and 5-16, 2004. Record fair except for estimated daily discharges, which are poor, and periods of flow above 65 cfs which are poor. Station maintained and record developed by Scott D. Brinton.

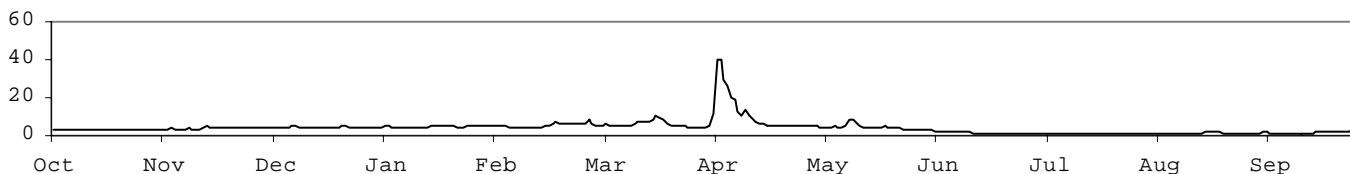
**RATING TABLE.**--LONREDCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.6	4.6	4.5	e5.0	5.6	4.5	5.1	2.8	1.4	1.1	1.3
2	3.1	3.6	4.6	4.9	e4.8	5.7	4.8	4.8	2.8	1.3	1.1	1.3
3	3.6	3.8	4.6	5.2	5.1	5.7	12	4.7	2.7	1.2	1.2	1.4
4	3.5	3.6	4.6	e4.5	5.4	6.0	40	4.5	2.6	1.3	1.2	1.9
5	3.3	3.6	4.5	e4.2	e4.8	5.7	40	4.3	2.5	1.3	1.3	1.8
6	3.3	3.6	4.7	e4.4	e4.6	5.3	30	4.4	2.3	1.3	1.5	1.5
7	3.4	3.6	4.8	4.5	e4.6	5.3	26	5.0	2.2	1.2	1.3	1.5
8	3.4	3.7	4.9	4.4	e4.4	5.2	20	4.4	2.1	1.2	1.2	1.5
9	3.3	3.6	4.7	e4.4	e4.4	5.5	19	3.8	2.0	1.2	1.2	1.5
10	3.3	3.6	e4.6	e4.4	e4.2	5.6	13	4.9	1.8	1.3	1.2	1.5
11	3.4	3.6	4.7	4.5	e4.2	5.5	11	7.9	1.8	1.2	1.2	1.5
12	3.3	3.7	4.7	4.4	e4.2	6.4	14	8.4	1.8	1.2	1.2	1.4
13	3.3	5.3	4.5	e4.4	e4.2	7.2	11	7.6	1.7	1.2	1.2	1.5
14	3.3	4.7	4.4	e4.6	e4.4	7.8	8.5	5.6	1.7	1.1	1.2	1.4
15	3.3	4.2	e4.4	5.0	e4.6	7.8	7.2	4.6	1.5	1.2	1.2	1.4
16	3.3	4.2	e4.4	5.3	e4.8	7.5	6.6	4.3	1.4	1.1	1.5	1.4
17	3.3	4.4	e4.4	5.2	5.5	8.2	6.0	4.1	1.4	1.2	1.4	1.5
18	3.3	4.4	e4.4	5.0	6.8	11	5.7	4.5	1.3	1.2	1.5	1.5
19	3.3	4.4	4.5	5.0	7.1	9.5	5.5	4.7	1.2	1.1	1.7	2.3
20	3.3	4.5	4.7	5.1	6.1	8.7	5.4	4.6	1.2	1.1	1.7	2.4
21	3.3	4.5	5.0	5.0	5.9	6.6	5.1	5.0	1.2	1.1	1.7	2.3
22	3.4	4.6	5.0	e4.6	6.2	5.5	5.2	4.5	1.2	1.1	1.6	2.0
23	3.5	e4.2	4.6	e4.6	5.9	5.1	5.3	3.9	1.3	1.2	1.6	1.9
24	3.5	e4.4	4.4	e4.6	6.7	5.1	5.6	3.8	1.3	1.3	1.4	1.9
25	3.4	4.7	4.4	5.0	6.3	5.1	5.4	3.7	1.2	1.3	1.3	1.9
26	3.3	4.6	4.4	e5.0	6.3	4.8	5.2	3.5	1.3	1.3	1.3	2.0
27	3.4	e4.3	4.3	e4.8	6.5	4.7	5.1	3.2	1.3	1.1	1.2	2.0
28	3.5	e4.4	e4.2	e4.8	8.2	4.6	5.0	3.1	1.3	1.1	1.2	1.9
29	3.6	e4.5	e4.2	e5.0	6.1	4.4	4.9	3.1	1.5	1.2	1.2	2.7
30	3.6	4.7	4.4	e5.0	---	4.4	5.6	3.1	1.5	1.5	1.2	2.8
31	3.5	---	4.5	5.2	---	4.5	---	2.9	---	1.2	1.2	---
TOTAL	104.0	124.6	141.1	147.5	157.3	190.0	342.6	142.0	51.9	37.7	41.0	52.9
MEAN	3.35	4.15	4.55	4.76	5.42	6.13	11.4	4.58	1.73	1.22	1.32	1.76
AC-FT	206	247	280	293	312	377	680	282	103	75	81	105
MAX	3.6	5.3	5.0	5.3	8.2	11	40	8.4	2.8	1.5	1.7	2.8
MIN	2.7	3.6	4.2	4.2	4.2	4.4	4.5	2.9	1.2	1.1	1.1	1.3
CAL YR 2003	TOTAL	1565.7	MEAN	4.29	MAX	66	MIN	1.1	AC-FT	3110		
WTR YR 2004	TOTAL	1532.6	MEAN	4.19	MAX	40	MIN	1.1	AC-FT	3040		

MAX DISCH: 70 CFS AT 23:15 ON Apr. 4, 2004 GH 2.51 FT. SHIFT 0.06 FT.  
MAX GH: 2.51 FT. AT 23:15 ON Apr. 4, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



## SAN JUAN RIVER BASIN

## PIONEER DITCH AT THE COLORADO-NEW MEXICO STATELINE

LOCATION.--Lat 36°59'58", long 108°11'09", in NW¼SE¼ sec. 10, T.32 N., R.13 W., NMPM, La Plata County.

DRAINAGE AREA.--N/A

GAGE.--Water-stage recorder with Sutron 8200 DCP and shaft encoder in a shelter and well at a 1 foot Parshall flume.

REMARKS.--Record from the DCP is complete, any data missing from the initial satellite transmissions were filled in from the DCP's logger files. The record is reliable except for the following periods: Float resting on mud in the well Oct. 28-31; Nov. 1-18; Dec. 5-16 and 27-31, 2003; Jan. 1-31; Feb. 1-29; March 1-31; Apr. 1-13, 2004. Records fair, except for estimated flows, which are poor. Station maintained and record developed by Scott D. Brinton.

RATING TABLE.--PIODITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

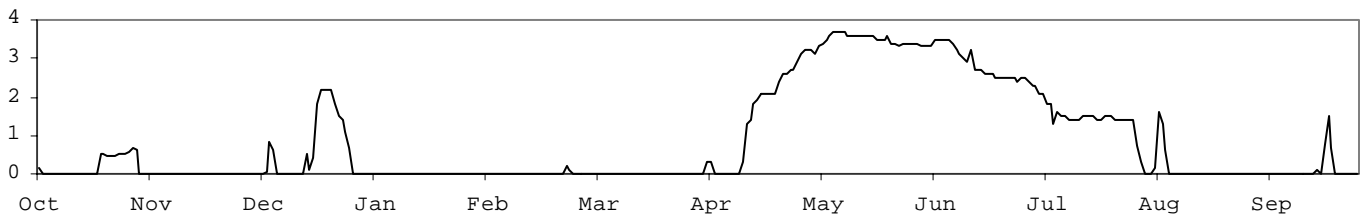
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	e.00	.00	e.00	e.00	e.00	e.00	3.2	3.3	2.4	.29	.00
2	.00	e.00	.00	e.00	e.00	e.00	e.00	3.2	3.3	2.3	.00	.00
3	.00	e.00	.03	e.00	e.00	e.00	e.30	3.1	3.3	2.3	.00	.00
4	.00	e.00	.85	e.00	e.00	e.00	e.30	3.3	3.3	2.1	.00	.00
5	.00	e.00	e.60	e.00	e.00	e.00	e.00	3.4	3.5	2.1	.16	.00
6	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.5	3.5	1.8	1.6	.00
7	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.6	3.5	1.8	1.3	.00
8	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.7	3.5	1.3	.60	.00
9	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.7	3.5	1.6	.00	.00
10	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.7	3.4	1.5	.00	.00
11	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.7	3.2	1.5	.00	.00
12	.00	e.00	e.00	e.00	e.00	e.00	e.00	3.6	3.1	1.4	.00	.00
13	.00	e.00	e.00	e.00	e.00	e.00	e.30	3.6	3.0	1.4	.00	.00
14	.00	e.00	e.50	e.00	e.00	e.00	1.3	3.6	2.9	1.4	.00	.00
15	.00	e.00	e.10	e.00	e.00	e.00	1.4	3.6	3.2	1.4	.00	.00
16	.00	e.00	e.40	e.00	e.00	e.00	1.8	3.6	2.7	1.5	.00	.00
17	.00	e.00	1.8	e.00	e.00	e.00	1.9	3.6	2.7	1.5	.00	.00
18	.51	e.00	2.2	e.00	e.00	e.00	2.1	3.6	2.7	1.5	.00	.00
19	.50	.00	2.2	e.00	e.00	e.00	2.1	3.6	2.6	1.5	.00	.09
20	.48	.00	2.2	e.00	e.00	e.00	2.1	3.5	2.6	1.4	.00	.00
21	.48	.00	2.2	e.00	e.00	e.00	2.1	3.5	2.6	1.4	.00	.78
22	.49	.00	1.8	e.00	e.00	e.00	2.1	3.5	2.5	1.5	.00	1.5
23	.52	.00	1.5	e.00	e.00	e.00	2.4	3.6	2.5	1.5	.00	.69
24	.54	.00	1.4	e.00	e.20	e.00	2.6	3.4	2.5	1.5	.00	.00
25	.54	.00	1.1	e.00	e.10	e.00	2.6	3.4	2.5	1.4	.00	.00
26	.57	.00	.69	e.00	e.00	e.00	2.7	3.3	2.5	1.4	.00	.00
27	.70	.00	e.00	e.00	e.00	e.00	2.7	3.4	2.5	1.4	.00	.00
28	e.60	.00	e.00	e.00	e.00	e.00	2.9	3.4	2.4	1.4	.00	.00
29	e.00	.00	e.00	e.00	e.00	e.00	3.1	3.4	2.5	1.4	.00	.00
30	e.00	.00	e.00	e.00	---	e.00	3.2	3.4	2.5	1.4	.00	.00
31	e.00	---	e.00	e.00	---	e.00	---	3.4	---	.72	.00	---
TOTAL	6.11	.00	19.57	.00	.30	.00	40.00	108.1	87.8	48.72	3.95	3.06
MEAN	.20	.000	.63	.000	.010	.000	1.33	3.49	2.93	1.57	.13	.10
AC-FT	12	.00	39	.00	.60	.00	79	214	174	97	7.8	6.1
MAX	.70	.00	2.2	.00	.20	.00	3.2	3.7	3.5	2.4	1.6	1.5
MIN	.00	.00	.00	.00	.00	.00	.00	3.1	2.4	.72	.00	.00

CAL YR	2003	TOTAL	328.09	MEAN	.90	MAX	4.5	MIN	.00	AC-FT	651
WTR YR	2004	TOTAL	317.61	MEAN	.87	MAX	3.7	MIN	.00	AC-FT	630

MAX DISCH: 3.94 CFS AT 16:15 ON May. 9, 2004 GH 0.92 FT. SHIFT 0.07 FT.  
MAX GH: 0.92 FT. AT 16:15 ON May. 9, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



## SAN JUAN RIVER BASIN

## ENTERPRISE DITCH AT THE COLORADO-NEW MEXICO STATELINE

LOCATION.--Lat 37°00'50", long 108°11'18", in SW¼SE¼ sec. 3, T.32 N., R.13 W., NMPM, La Plata County.

DRAINAGE AREA.--N/A

GAGE.--Water-stage recorder with Sutron 8200 DCP in a shelter and well at a 2 foot Parshall flume.

REMARKS.--Records good. Record complete. Station maintained by Matthew A. Schmitt.  
Records developed by Scott D. Brinton.

RATING TABLE.--ENTDITCO01 USED FROM 01-OCT-2003 TO 30-SEP-2004

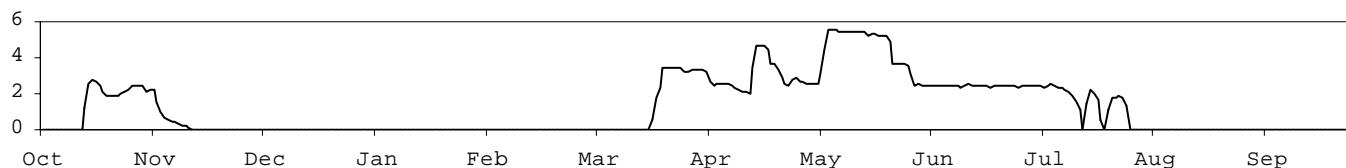
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.2	.00	.00	.00	.00	3.3	2.6	2.6	2.5	.00	.00
2	.00	1.6	.00	.00	.00	.00	3.3	2.6	2.5	2.5	.00	.00
3	.00	.97	.00	.00	.00	.00	3.2	2.6	2.4	2.4	.00	.00
4	.00	.69	.00	.00	.00	.00	2.7	2.6	2.5	2.4	.00	.00
5	.00	.61	.00	.00	.00	.00	2.5	3.1	2.5	2.4	.00	.00
6	.00	.46	.00	.00	.00	.00	2.6	4.5	2.5	2.3	.00	.00
7	.00	.40	.00	.00	.00	.00	2.6	5.6	2.5	2.4	.00	.00
8	.00	.30	.00	.00	.00	.00	2.6	5.6	2.4	2.6	.00	.00
9	.00	.20	.00	.00	.00	.00	2.6	5.6	2.5	2.4	.00	.00
10	.00	.18	.00	.00	.00	.00	2.5	5.5	2.5	2.3	.00	.00
11	.00	.10	.00	.00	.00	.00	2.3	5.5	2.4	2.3	.00	.00
12	.00	.00	.00	.00	.00	.00	2.2	5.4	2.4	2.2	.00	.00
13	1.2	.00	.00	.00	.00	.00	2.1	5.4	2.3	2.1	.00	.00
14	2.6	.00	.00	.00	.00	.00	2.1	5.5	2.5	1.9	.00	.00
15	2.8	.00	.00	.00	.00	.00	2.0	5.4	2.6	1.6	.00	.00
16	2.7	.00	.00	.00	.00	.00	3.4	5.4	2.5	1.1	.00	.00
17	2.4	.00	.00	.00	.00	.00	4.7	5.4	2.5	.00	.00	.00
18	2.1	.00	.00	.00	.00	.00	4.7	5.2	2.4	1.5	.00	.00
19	1.9	.00	.00	.00	.00	.59	4.7	5.3	2.4	2.2	.00	.00
20	1.9	.00	.00	.00	.00	1.8	4.5	5.3	2.4	2.0	.00	.00
21	1.9	.00	.00	.00	.00	2.3	3.7	5.2	2.3	1.7	.00	.00
22	1.9	.00	.00	.00	.00	3.4	3.7	5.2	2.4	.56	.00	.00
23	2.0	.00	.00	.00	.00	3.4	3.3	5.2	2.5	.00	.00	.00
24	2.1	.00	.00	.00	.00	3.4	2.9	4.9	2.5	1.1	.00	.00
25	2.2	.00	.00	.00	.00	3.4	2.6	3.7	2.4	1.8	.00	.00
26	2.4	.00	.00	.00	.00	3.4	2.5	3.7	2.4	1.8	.00	.00
27	2.5	.00	.00	.00	.00	3.4	2.8	3.7	2.4	1.9	.00	.00
28	2.5	.00	.00	.00	.00	3.2	2.9	3.7	2.5	1.8	.00	.00
29	2.5	.00	.00	.00	.00	3.2	2.7	3.6	2.3	1.3	.00	.00
30	2.1	.00	.00	.00	.00	3.3	2.7	3.1	2.4	.00	.00	.00
31	2.2	---	.00	.00	---	3.3	---	2.4	---	.00	.00	---
TOTAL	41.90	7.71	.00	.00	.00	38.09	90.4	138.5	73.4	53.06	.00	.00
MEAN	1.35	.26	.000	.000	.000	1.23	3.01	4.47	2.45	1.71	.000	.000
AC-FT	83	15	.00	.00	.00	76	179	275	146	105	.00	.00
MAX	2.8	2.2	.00	.00	.00	3.4	4.7	5.6	2.6	2.6	.00	.00
MIN	.00	.00	.00	.00	.00	.00	2.0	2.4	2.3	.00	.00	.00
CAL YR 2003	TOTAL	402.78	MEAN	1.10	MAX	5.7	MIN	.00	AC-FT	799		
WTR YR 2004	TOTAL	443.06	MEAN	1.21	MAX	5.6	MIN	.00	AC-FT	879		

MAX DISCH: 5.66 CFS AT 18:30 ON May. 6, 2004 GH 0.81 FT. SHIFT -0.01 FT.

MAX GH: 0.81 FT. AT 18:30 ON May. 6, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.



SAN JUAN RIVER BASIN

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

**LOCATION.**--Lat 36°59'59", long 108°11'17", in NW¼SE¼ sec. 10, T.32 N., R.13 W., NMPM, La Plata County, CO, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State line, 0.5 mi downstream of Johnny Pond Arroyo, and 4.9 mi north of La Plata, NM.

**DRAINAGE AREA AND PERIOD OF RECORD.**--331 mi<sup>2</sup>. Jan. 1920 to current year. Monthly data only for some periods.

**GAGE.**--Stevens A-71 graphic water stage-recorder and Sutron Satlink DCP and shaft encoder on separate floats in a 42- inch diameter concrete well and a 64 inch by 64 inch cement block shelter. The floats are located inside of a 14 inch PVC oil cylinder. Also equipped with an air temperature sensor. The DCP record is the primary record. The DCP record is the primary record. Datum of gage is 5,975.15 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Record from the DCP is complete, any data missing from the initial satellite transmissions were filled in from the DCP's logger files. It is reliable except for the following periods: Stage-discharge relationship affected by ice Dec. 5,2003; Both floats were hung up Sep. 4-6, 2004. Record good except for estimated flows, which are poor. Station maintained and record developed by Scott D. Brinton.

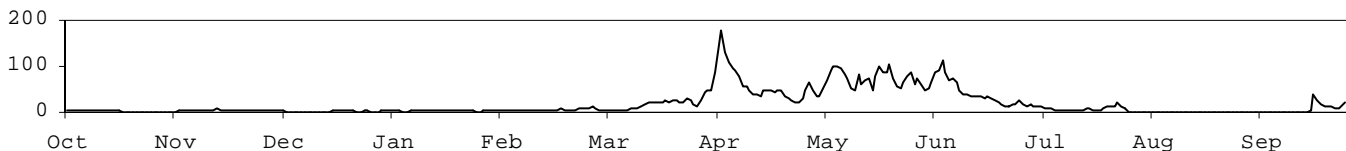
**RATING TABLE.**--LAPMEXCO32 USED FROM 01-OCT-2003 TO 30-SEP-2004

DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.4	3.2	3.4	3.3	6.3	48	46	62	12	.00	.00
2	2.6	3.0	2.8	3.6	2.7	6.4	48	35	49	16	.00	.00
3	5.1	4.3	2.0	3.4	3.8	6.4	89	33	51	15	.37	.01
4	6.3	5.2	1.1	2.3	4.0	6.4	147	52	67	13	1.0	e.80
5	5.9	5.3	e.80	1.3	3.2	6.1	179	70	88	11	1.7	e1.0
6	4.9	5.1	.73	2.0	2.3	5.3	130	90	91	8.3	.74	e.80
7	4.1	4.9	.74	4.3	2.6	5.3	108	99	115	6.8	.21	.46
8	4.0	4.5	.57	3.7	3.0	5.3	97	102	87	7.1	.37	.29
9	4.2	4.1	.01	3.3	2.6	5.9	93	94	69	6.5	1.2	.25
10	4.2	3.9	.00	3.5	2.9	7.1	77	84	73	6.4	1.0	.20
11	4.7	4.0	.00	3.8	2.7	8.6	57	76	65	5.8	.92	.12
12	4.5	4.0	.00	3.5	2.4	9.7	58	51	50	5.1	.61	.03
13	3.5	7.7	.00	2.8	2.6	12	47	50	39	5.4	.34	.02
14	2.5	6.0	.00	2.7	3.2	18	41	84	37	4.4	.33	.01
15	2.8	4.3	.24	3.4	3.4	22	37	62	35	5.1	.29	.00
16	2.5	3.9	2.3	3.4	3.1	21	34	70	36	3.6	.45	.00
17	2.1	4.1	4.9	3.2	3.4	20	47	75	34	6.0	.54	.00
18	1.5	3.8	6.1	2.9	5.7	22	50	50	34	8.8	.46	.00
19	1.5	3.6	6.3	2.8	7.9	22	50	78	32	6.8	1.1	1.2
20	1.4	3.6	3.9	3.0	5.4	24	44	101	33	5.0	1.4	6.4
21	1.5	3.6	3.8	2.9	5.1	23	47	88	29	3.5	1.1	39
22	1.7	3.6	3.4	2.4	5.3	25	48	86	25	4.3	.86	24
23	1.7	3.0	1.3	2.4	5.4	24	36	103	22	7.9	.56	18
24	1.7	3.1	.77	2.6	7.3	21	30	73	18	13	.34	15
25	1.8	3.6	2.4	3.2	6.8	21	25	58	15	13	.39	12
26	1.9	3.5	2.4	1.7	6.6	29	21	53	15	11	.28	11
27	1.8	3.1	2.0	1.9	6.6	26	21	67	18	21	.10	10
28	1.9	3.1	1.1	2.6	12	19	31	80	16	14	.05	8.0
29	1.9	4.3	1.9	2.8	7.4	14	50	85	25	8.3	.06	14
30	1.5	3.3	3.7	2.9	---	27	64	62	17	1.9	.01	23
31	1.4	---	3.3	3.8	---	42	---	75	---	.19	.00	---
TOTAL	89.5	120.9	61.76	91.5	132.7	510.8	1854	2232	1347	256.19	16.78	185.59
MEAN	2.89	4.03	1.99	2.95	4.58	16.5	61.8	72.0	44.9	8.26	.54	6.19
AC-FT	178	240	123	181	263	1010	3680	4430	2670	508	33	368
MAX	6.3	7.7	6.3	4.3	12	42	179	103	115	21	1.7	39
MIN	1.4	1.4	.00	1.3	2.3	5.3	21	33	15	.19	.00	.00
CAL YR 2003	TOTAL	4600.13	MEAN	12.6	MAX	382	MIN	.00	AC-FT	9120		
WTR YR 2004	TOTAL	6898.72	MEAN	18.8	MAX	179	MIN	.00	AC-FT	13680		

MAX DISCH: 202 CFS AT 08:15 ON Apr. 5, 2004 GH 4.98 FT. SHIFT 0.03 FT.  
MAX GH: 4.98 FT. AT 08:15 ON Apr. 5, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated



SAN JUAN RIVER BASIN

09370000 MANCOS RIVER NEAR MANCOS, CO

LOCATION.--Lat 37°21'13", long 108°15'41", in NE¼NE¼ sec. 27, T.36 N., R.13 W., NMPM, Montezuma County.

DRAINAGE AREA.--72.6 mi<sup>2</sup>.

GAGE.--Graphic water-stage recorder and a Sutron 8200 DCP and shaft encoder on separate floats in a 42" concrete well and 64"x64" cement block shelter. The DCP is the primary record. Datum of gauge is 7,190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Record is complete. Record is reliable except for the following periods when the stage-discharge relationship was affected by ice: Nov. 23-29; Dec. 3-5, 9-13, 15-16, 23-24 and 27-30, 2003; Jan. 4-8, 13-14, 18-19, 21-24 and 26-27; Feb. 1-2, 6-7, 9, 12-15, 20 and 29; March 1 and 5-7, 2004. Record fair, except for estimated daily discharges, which are poor. Station maintained and record developed by Scott D. Brinton.

RATING TABLE.--MANMANCO08 USED FROM 01-OCT-2003 TO 30-SEP-2004

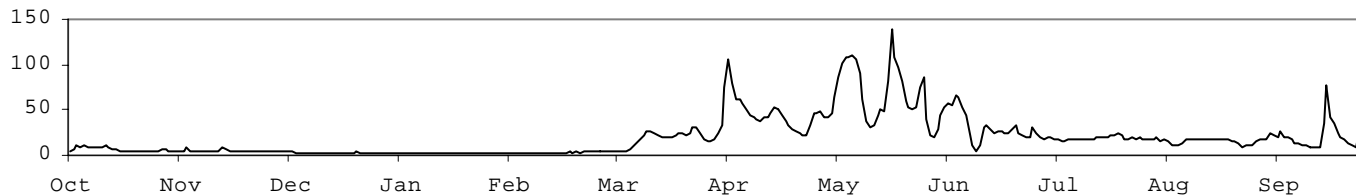
DISCHARGE, IN CFS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.0	3.7	2.8	e2.8	e4.5	25	42	19	20	17	17
2	6.7	5.4	3.5	3.0	e2.8	5.1	34	42	29	18	17	17
3	12	8.3	e3.4	3.2	2.8	5.1	75	46	45	20	20	17
4	9.7	4.9	e3.2	e2.8	2.8	4.9	106	65	54	19	16	25
5	10	3.8	e3.2	e2.6	2.8	e4.5	80	85	57	18	17	21
6	9.6	3.6	3.2	e3.0	e2.8	e5.0	61	102	56	17	15	20
7	9.6	4.2	3.1	e3.2	e2.8	e6.0	62	109	67	16	11	27
8	9.6	4.4	3.0	e3.0	2.8	9.4	58	109	65	16	11	19
9	9.1	4.9	e3.0	3.3	e2.8	13	50	110	53	17	10	19
10	9.1	5.4	e3.0	3.3	2.8	18	44	105	45	18	13	17
11	10	5.1	e3.2	3.3	2.9	23	41	91	23	18	17	14
12	8.2	4.6	e3.2	3.2	e2.8	26	39	61	12	18	17	13
13	6.0	8.1	e3.2	e3.2	e2.8	27	38	37	5.4	18	17	12
14	5.6	6.6	3.3	e3.2	e3.0	24	41	31	11	18	18	12
15	5.3	5.0	e3.2	3.2	e3.0	21	41	34	31	18	17	9.5
16	5.0	4.1	e3.0	3.2	3.2	19	47	44	33	18	17	9.1
17	5.5	5.4	3.0	3.2	2.9	19	52	50	28	20	17	8.1
18	5.3	4.8	3.2	e3.2	3.1	20	51	48	25	19	18	8.5
19	4.3	5.2	3.1	e3.2	3.4	20	44	82	27	19	18	35
20	4.1	4.5	3.0	3.2	e3.2	22	38	138	26	20	18	77
21	4.0	4.5	3.4	e3.2	3.4	24	34	108	25	21	17	41
22	3.9	4.4	3.2	e3.0	3.3	25	28	96	24	21	17	35
23	4.1	e3.5	e3.2	e3.0	3.4	23	26	81	28	24	17	24
24	4.3	e4.0	e3.2	e3.0	3.6	25	24	59	32	22	16	19
25	4.9	e4.0	3.0	3.1	4.1	30	23	52	25	18	15	17
26	4.7	e3.5	3.0	e2.6	4.2	31	22	51	22	17	13	14
27	5.6	e3.5	e3.0	e2.8	4.1	25	33	54	19	19	9.2	12
28	6.0	e3.5	e2.8	2.7	4.3	18	47	76	20	18	11	9.2
29	5.3	e3.5	e2.8	2.7	e4.0	15	46	85	31	19	11	23
30	3.9	3.5	e2.8	2.7	---	15	49	40	25	17	11	24
31	3.8	---	2.9	2.8	---	18	---	21	---	17	15	---
TOTAL	199.6	140.2	97.0	93.9	92.7	545.5	1359	2154	962.4	578	473.2	615.4
MEAN	6.44	4.67	3.13	3.03	3.20	17.6	45.3	69.5	32.1	18.6	15.3	20.5
AC-FT	396	278	192	186	184	1080	2700	4270	1910	1150	939	1220
MAX	12	8.3	3.7	3.3	4.3	31	106	138	67	24	20	77
MIN	3.8	3.5	2.8	2.6	2.8	4.5	22	21	5.4	16	9.2	8.1

CAL YR	2003	TOTAL	5576.6	MEAN	15.2	MAX	94	MIN	2.0	AC-FT	11060
WTR YR	2004	TOTAL	7310.9	MEAN	20.0	MAX	138	MIN	2.6	AC-FT	14500

MAX DISCH: 166 CFS AT 16:45 ON Apr. 4, 2004 GH 4.78 FT. SHIFT -0.18 FT.  
MAX GH: 4.78 FT. AT 16:45 ON Apr. 4, 2004

FOR MORE COMPLETE OR DETAILED INFORMATION SEE DAILY OR MONTHLY RECORD.  
e-Estimated







# Index

## A

ABC LATERAL NEAR MONTROSE .....	184
ALAMOSA CREEK ABOVE TERRACE RESERVOIR .....	152
ALAMOSA RIVER ABOVE WIGHTMAN FORK NEAR JASPER, CO .....	148
ALAMOSA CREEK BELOW TERRACE RESERVOIR .....	153
ALAMOSA RIVER BELOW RANGER CREEK, CO .....	151
ALVA B. ADAMS TUNNEL AT EAST PORTAL .....	62
ANIMAS RIVER AT HOWARDSVILLE .....	216
ARKANSAS RIVER ABOVE PUEBLO .....	86
ARKANSAS RIVER AT CANON CITY .....	84
ARKANSAS RIVER AT CATLIN DAM, NEAR FOWLER .....	93
ARKANSAS RIVER AT CATLIN DAM, NEAR FOWLER, CO (COMBINED) .....	95
ARKANSAS RIVER AT GRANITE .....	76
ARKANSAS RIVER AT LA JUNTA .....	98
ARKANSAS RIVER AT NEPESTA ROAD BRIDGE NEAR NEPESTA, CO .....	92
ARKANSAS RIVER AT PORTLAND .....	85
ARKANSAS RIVER AT SALIDA .....	81
ARKANSAS RIVER BELOW X-Y DITCH DAM NR CARLTON, CO .....	109
ARKANSAS RIVER NEAR NEPESTA .....	91
ARKANSAS RIVER NEAR ROCKY FORD, CO .....	96
ARKANSAS RIVER NEAR WELLSVILLE .....	82
AURORA HOMESTAKE PIPELINE ABOVE ELEVENMILE RESERVOIR .....	54

## B

BEAR CREEK AT MORRISON .....	11
BEAR CREEK AT MOUTH, AT SHERIDAN .....	12
BERTHOUD PASS DITCH AT BERTHOUD PASS .....	60
BIG SPRING CREEK AT MEDANO RANCH .....	145
BIG THOMPSON RIVER AT MOUTH NEAR LA SALLE .....	43
BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE .....	35
BIG THOMPSON RIVER (ABOVE LAKE ESTES) AT ESTES PARK .....	29
BIG THOMPSON RIVER (BELOW LAKE ESTES) NEAR ESTES PARK .....	31
BLANCO DIVERSION NEAR PAGOSA SPRINGS, CO .....	206
BLUE RIVER AT HIGHWAY 9 BRIDGE BELOW BRECKENRIDGE .....	189
BOB CREEK DITCH NEAR GLENDEVEY, CO .....	68
BOREAS PASS DITCH AT BOREAS PASS .....	56
BOULDER CREEK FEEDER CANAL NEAR LYONS .....	40
BOULDER CREEK NEAR ORODELL .....	21
BOUSTEAD TUNNEL AT EAST PORTAL NEAR LEADVILLE .....	115
BUCKHORN CREEK NEAR MASONVILLE .....	36
BUSK-IVANHOE TUNNEL AT EAST PORTAL NEAR MALTA .....	116

## C

CACHE LA POUDDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS .....	44
CACHE LA POUDDRE RIVER NEAR GREELEY .....	45
CAMERON PASS DITCH AT CAMERON PASS .....	64
CARNERO CREEK NEAR LA GARITA .....	146
CATLIN CANAL, NEAR FOWLER .....	94
CHALK CREEK AT NATHROP .....	80
CHAPMAN GULCH NEAR NAST .....	194
CHARLES HANSEN FEEDER CANAL BELOW BIG THOMPSON SIPHON NEAR DRAKE .....	37
CHARLES HANSEN FEEDER CANAL POWER PLANT TO BIG THOMPSON RIVER .....	39
CHARLES HANSEN FEEDER CANAL WASTEWAY TO BIG THOMPSON NEAR DRAKE .....	38
CHERRY CREEK AT THE MOUTH NEAR RED MESA .....	220
CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR .....	77
CLEAR CREEK AT DERBY .....	14
CLEAR CREEK BELOW CLEAR CREEK RESERVOIR, NEAR GRANITE, CO .....	78
CLOSED BASIN PROJECT CANAL NEAR ALAMOSA .....	129
COAL CREEK NEAR PLAINVIEW .....	25
COLUMBINE DITCH NEAR FREEMONT PASS .....	110
CONEJOS RIVER BELOW PLATORO RESERVOIR .....	163
CONEJOS RIVER NEAR LASAUSES, CO (COMBINED) .....	170
CONEJOS RIVER NEAR LASAUSES, MAIN (NORTH) CHANNEL, CO .....	168
CONEJOS RIVER NEAR LASAUSES, SECONDARY (SOUTH) CHANNEL .....	169
CONEJOS RIVER NEAR MOGOTE .....	164
COTTON CREEK NEAR MINERAL HOT SPRINGS .....	133
COTTONWOOD CREEK AT BUENA VISTA .....	79
COTTONWOOD CREEK NEAR CRESTONE .....	142
CROOKED ARROYO NEAR SWINK .....	97
CUCHARAS RIVER AT BOYD RANCH NEAR LA VETA .....	88
CUCHARAS RIVER AT HARRISON BRIDGE NEAR LA VETA, CO .....	89
CULEBRA CREEK AT SAN LUIS .....	171

## D

DEADMAN CREEK NEAR CRESTONE .....	143
DEADMAN DITCH NEAR DEADMAN PARK .....	69
DILLE TUNNEL (EAST PORTAL) NEAR DRAKE .....	34
DOLORES RIVER BELOW MCPHEE RESERVOIR NEAR DOLORES .....	205
DOLORES TUNNEL OUTLET NEAR DOLORES, CO .....	203
DON LA FONT DITCH NO.2 AT PIEDRA PASS .....	177
DON LA FONT DITCH NO.1 AT PIEDRA PASS .....	176
DON LA FONT DITCH, COMBINED, AT PIEDRA PASS .....	178

## E

EAST PORTAL HOOSIER PASS TUNNEL NEAR ALMA .....	55
EAST PORTAL MOFFAT TUNNEL NEAR ROLLINSVILLE .....	61
ENTERPRISE DITCH AT THE COLORADO-NEW MEXICO STATELINE .....	223
EWING DITCH AT TENNESSEE PASS .....	111

## F

FISH CREEK NEAR ESTES PARK .....	30
FLORIDA RIVER ABOVE LEMON RESERVOIR NEAR DURANGO .....	214
FLORIDA RIVER BELOW LEMON RESERVOIR NEAR DURANGO .....	215
FRYING PAN RIVER NEAR IVANHOE LAKE .....	191
FRYING PAN RIVER NEAR THOMASVILLE, CO .....	196
FRYING PAN RIVER NEAR MEREDITH .....	197

## G

GARNER CREEK NEAR VILLA GROVE .....	131
GOOSE CREEK AT WAGONWHEEL GAP .....	122
GRAND RIVER DITCH AT LA POUVRE PASS .....	63
GRAPE CREEK NEAR WESTCLIFFE .....	83
GUNNISON RIVER BELOW REDLANDS DIVERSION DAM NEAR GRAND JUNCTION .....	188

## H

HAROLD D. ROBERTS TUNNEL NEAR GRANT .....	57
HIGHLAND CANAL BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO .....	107
HOMESTAKE TUNNEL NEAR GOLD PARK .....	114
HORSE CREEK at HIGHWAY 194 nr LAS ANIMAS, CO .....	99
HUERFANO RIVER AT MANZANARES CROSSING NEAR REDWING .....	87

## I

ILLINOIS RIVER NEAR RAND .....	202
IVANHOE CREEK NEAR NAST .....	192

## K

KERBER CREEK NEAR VILLA GROVE, CO .....	130
---	-----

## L

LA GARITA CREEK NEAR LA GARITA .....	147
LA JARA CREEK AT GALLEGOS RANCH, NEAR CAPULIN .....	154
LA PLATA AND CHERRY CREEK DITCH NEAR HESPERUS, CO .....	217
LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE .....	224
LA PLATA RIVER AT HESPERUS .....	219
LAKE CREEK ABOVE TWIN LAKES RESERVOIR .....	74
LAKE CREEK BELOW TWIN LAKES .....	75
LAKE FORK CREEK BELOW SUGAR LOAF DAM NEAR LEADVILLE .....	73
LARAMIE-POUDRE TUNNEL NEAR CHAMBERS LAKE .....	67
LARKSPUR DITCH NEAR MARSHALL PASS .....	118
LEFTHAND DIVERSION AT SO. ST. VRAIN CREEK NEAR WARD .....	18
LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM NEAR CHROMO, CO .....	213
LITTLE OSO DIVERSION NEAR CHROMO, CO .....	212
LITTLE SPRING CREEK AT MEDANO RANCH NEAR MOSCA, CO .....	144
LITTLE THOMPSON RIVER @ CANYON MOUTH NEAR BERTHOUD .....	42
LONE PINE CANAL BELOW GREAT CUT DIKE NEAR DOLORES, CO .....	204
LONG HOLLOW AT THE MOUTH NEAR RED MESA .....	221
LOS PINOS RIVER NEAR ORTIZ .....	166

## M

MAJOR CREEK NEAR VILLA GROVE .....	132
MANCOS RIVER NEAR MANCOS .....	225
MICHIGAN DITCH AT CAMERON PASS .....	65
MICHIGAN RIVER NEAR MEADOW CREEK RESERVOIR .....	201
MIDDLE BOULDER CREEK AT NEDERLAND .....	20
MIDDLE ST. VRAIN CREEK NR. PEACEFUL VALLEY, CO .....	16
MUDDY CREEK ABOVE PAONIA RESERVOIR .....	182
MUDDY CREEK BELOW PAONIA RESERVOIR .....	183

## N

NAVAJO RIVER AT BANDED PEAK RANCH, NEAR CHROMO .....	209
NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO .....	211
NINEMILE CANAL BELOW NINEMILE DAM NEAR HIGBEE .....	104
NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR .....	120
NORTH CRESTONE CREEK NEAR CRESTONE .....	138
NORTH FORK BIG THOMPSON RIVER AT DRAKE .....	33
NORTH FORK FRYINGPAN RIVER NEAR NORRIE .....	195
NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT .....	6
NORTON DRAIN NEAR LA SAUSES .....	156

## O

OLYMPUS TUNNEL (ESTES FOOTHILLS CANAL) AT LAKE ESTES .....	32
OSO DIVERSION NEAR CHROMO, CO .....	210
OXFORD FARMERS DITCH NEAR NEPESTA, CO .....	90

## P

PINE RIDGE DITCH NEAR HESPERUS, CO .....	218
PINE RIVER WEMINUCHE PASS DITCH AT WEMINUCHE PASS .....	180
PINOS CREEK NEAR DEL NORTE .....	125
PIONEER DITCH AT COLORADO-NEBRASKA STATE LINE .....	72
PIONEER DITCH AT HEADGATE NEAR LAIRD .....	71
PIONEER DITCH AT THE COLORADO-NEW MEXICO STATELINE .....	222
PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE .....	103
PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, CO (COMBINED) .....	105
PURGATOIRE RIVER BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO (COMBINED) .....	108
PURGATOIRE RIVER BELOW HIGHLAND DAM NEAR LAS ANIMAS, CO .....	106
PURGATOIRE RIVER AT TRINIDAD, CO .....	102

## R

RATON CREEK ABOVE STARKVILLE (WY2003) .....	100
RATON CREEK ABOVE STARKVILLE .....	101
REDLANDS CANAL NEAR GRAND JUNCTION .....	187
RIO BLANCO AT MOUTH NEAR TRUJILLO .....	208
RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS .....	207
RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES .....	157
RIO GRANDE AT ALAMOSA .....	128
RIO GRANDE AT RIO GRANDE-ALAMOSA COUNTY LINE, CO .....	127
RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE .....	119
RIO GRANDE NEAR DEL NORTE .....	124
RIO GRANDE NEAR LOBATOS .....	172
RIO GRANDE NEAR MONTE VISTA .....	126
RIO GRANDE RIVER AT WAGONWHEEL GAP, CO. ....	121
RITO ALTO CREEK NEAR CRESTONE .....	135
ROARING FORK RIVER BELOW MAROON CREEK NEAR ASPEN .....	190
ROCKY FORK CREEK NEAR MEREDITH .....	198

## S

SAGUACHE CREEK NEAR SAGUACHE .....	137
SAN ANTONIO RIVER AT MOUTH, NEAR MANASSA .....	167
SAN ANTONIO RIVER AT ORTIZ .....	165
SAN ISABEL CREEK NEAR CRESTONE .....	136
SANGRE DE CRISTO CREEK NEAR FORT GARLAND .....	160
SKYLINE DITCH NEAR CHAMBERS LAKE .....	66
SOUTH BOULDER CREEK BELOW GROSS RESERVOIR NEAR COAL CREEK .....	22
SOUTH BOULDER CREEK DIVERSION NEAR ELDERADO SPRINGS .....	23
SOUTH BOULDER CREEK NEAR ELDERADO SPRINGS .....	24
SOUTH CANAL NEAR MONTROSE .....	185
SOUTH CHANNEL NORTON DRAIN DITCH NEAR LA SAUSES .....	155
SOUTH CRESTONE CREEK NEAR CRESTONE .....	139
SOUTH FORK FRYINGPAN RIVER AT UPPER STATION NEAR NORRIE .....	193
SOUTH FORK RIO GRANDE AT SOUTH FORK .....	123
SOUTH FORK SOUTH PLATTE RIVER BELOW ANTERO RESERVOIR .....	1

SOUTH PLATTE RIVER ABOVE ELEVENMILE CANYON RESERVOIR, NEAR HARTS	3
SOUTH PLATTE RIVER ABOVE SPINNEY MOUNTAIN RESERVOIR	2
SOUTH PLATTE RIVER AT BALZAC	48
SOUTH PLATTE RIVER AT DENVER	13
SOUTH PLATTE RIVER AT HENDERSON	15
SOUTH PLATTE RIVER AT JULESBURG	52
SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 1	50
SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 2	49
SOUTH PLATTE RIVER AT JULESBURG, CO. CHANNEL NO 4	51
SOUTH PLATTE RIVER AT SOUTH PLATTE	7
SOUTH PLATTE RIVER AT WATERTON	9
SOUTH PLATTE RIVER BELOW CHATFIELD RESERVOIR	10
SOUTH PLATTE RIVER BELOW CHEESMAN LAKE	5
SOUTH PLATTE RIVER BELOW STRONTIA SPRINGS RESERVOIR	8
SOUTH PLATTE RIVER NEAR KERSEY	46
SOUTH PLATTE RIVER NEAR WELDONA	47
SOUTH PLATTE RIVER(BELOW ELEVENMILE RESERVOIR) NEAR LAKE GEORGE	4
SOUTH ST. VRAIN CREEK NEAR WARD	17
SPANISH CREEK NEAR CRESTONE	141
ST. VRAIN CREEK AT LYONS	19
ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE	26
ST. VRAIN SUPPLY CANAL NEAR LYONS	41
STRAIGHT CREEK TUNNEL AT EAST PORTAL EISENHOWER TUNNEL	58

T

TABOR DITCH AT SPRING CREEK PASS	174
TARBELL DITCH NEAR COCHETOPA PASS	173
TRANSMOUNTAIN DIVERSIONS INTO THE SOUTH PLATTE BASIN IN COLORADO	53
TREASURE PASS DITCH AT WOLF CREEK PASS	175
TRINCHERA CREEK ABOVE MOUNTAIN HOME RESERVOIR	159
TRINCHERA CREEK ABOVE TURNERS RANCH, NEAR FORT GARLAND	158
TRINCHERA CREEK BELOW SMITH RESERVOIR, NEAR BLANCA	162
TWIN LAKES TUNNEL AT EAST PORTAL NEAR TWIN LAKES	117

U

UNCOMPAHGRE RIVER NEAR OLATHE	186
UTE CREEK NEAR FORT GARLAND	161

V

VIDLER TUNNEL NEAR ARGENTINE PASS	59
-----------------------------------	----

W

WALTON CREEK NEAR STEAMBOAT SPRINGS, CO	200
WEMINUCHE PASS DITCH AT WEMINUCHE PASS	181
WIGHTMAN FORK AT MOUTH NEAR JASPER, CO	150
WIGHTMAN FORK BELOW CROPSY CREEK, NEAR SUMMITVILLE, CO	149
WILD CHERRY CREEK NEAR CRESTONE	134
WILLIAMS CREEK-SQUAW PASS DITCH AT SQUAW PASS	179
WILLOW CREEK NEAR CRESTONE	140
WILSON SUPPLY DITCH NEAR EATON RESERVOIR	70
WIND RIVER BY-PASS NEAR ESTES PARK, CO.	28
WIND RIVER NEAR ESTES PARK	27
WURTZ DITCH EXTENSION NEAR LEADVILLE	113
WURTZ DITCH NEAR TENNESSEE PASS	112

Y

YAMPA RIVER ABOVE LAKE CATAMOUNT	199
----------------------------------	-----



2004 Water Year Stream Flow Data on CD

Mean daily flow values for gaging stations are available on a CD upon request from this Office. Each station's data are in a file named by an eight-character station identification code, followed by the filename extension "H???", where the ?? represents the year being searched. For example, the values for "Clear Creek at Derby, water year 2004 are in the file "Clederco.H2004". A list of the eight character codes follows.

The files contain ASCII text information. There are two columns. The first column is the number of the day of the water year, and the second is that day's mean flow. October 1 is day number 1. September 30 is day 365, except in leap years when there would be 366 days. The first line of some "H" files may contain information on the instantaneous peak for the water year.

Station Identification Codes  
for Data on Diskette and CD

DIV I

CODE	NAME
AHOMPLCO	AURORA HOMESTAKE PIPELINE
ADATUNCO	ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK
BCRMORCO	BEAR CREEK AT MORRISON
BCRSHECO	BEAR CREEK AT SHERIDAN
BERDITCO	BERTHOUD PASS DITCH AT BERTHOUD PASS
BFCLYOCO	BOULDER CREEK FEEDER CANAL NEAR LYONS
BIGLASCO	BIG THOMPSON AT MOUTH, NEAR LA SALLE
BOBGLNCO	BOB CREEK DITCH NEAR GLENDEVEY
BOCBGRCO	SOUTH BOULDER CREEK BELOW GROSS RESERVOIR
BOCELSCO	SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS
BOCMIDCO	MIDDLE BOULDER CREEK AT NEDERLAND
BOCOROCO	BOULDER CREEK NEAR ORODELL
BORDITCO	BOREAS PASS DITCH AT BOREAS PASS
BOSDELCO	SOUTH BOULDER CREEK, DIVERSION NR ELDORADO SPRINGS
BTABESCO	BIG THOMPSON RIVER ABOVE LAKE ESTES
BTBLESCO	BIG THOMPSON RIVER BELOW LAKE ESTES
BTCANYCO	BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE
BTPPMCCO	CHARLES HANSEN FEEDER CANAL POWER PLANT TO BIG THOMPSON
BUCRMVCO	BUCKHORN CREEK NEAR MASONVILLE
BTNFDRCO	NORTH FORK BIG THOMPSON RIVER AT DRAKE
CAPDCPCO	CAMERON PASS DITCH NEAR CAMERON PASS
CLAFTCCO	CACHE LA POUFRE AT CANYON MOUTH, NEAR FORT COLLINS
CLAGRECO	CACHE LA POUFRE NEAR GREELEY
CLEDERCO	CLEAR CREEK AT DERBY
COCREPCO	COAL CREEK NEAR PLAINVIEW
DEADDPCCO	DEADMAN DITCH NEAR DEADMAN PARK
DILTUNCO	DILLE TUNNEL NEAR DRAKE
FISHESCO	FISH CREEK NEAR ESTES PARK
GRNDRDCO	GRAND RIVER DITCH AT LA POUFRE PASS
HFCBBSCO	CHARLES HANSEN FEEDER CANAL BELOW BIG THOMPSON SIPHON
HFCWASCO	CHARLES HANSEN FEEDER CANAL WASTEWAY TO BIG THOMPSON
HSPTUNCO	HOOSIER PASS TUNNEL AT MONTGOMERY RES., NEAR ALMA
LAPTUNCO	LARAMIE POUFRE TUNNEL
LEFTHDCO	LEFTHAND DIVERSION S. ST. VRAIN CREEK NEAR WARD
LTCANYCO	LITTLE THOMPSON RIVER AT CANYON MOUTH, NEAR BERTHOUD
MICDCPCO	MICHIGAN DITCH AT CAMERON PASS
MIDSTECO	MIDDLE ST. VRAIN CREEK NR. PEACEFUL VALLEY
MOFTUNCO	MOFFAT WATER TUNNEL, GILPIN COUNTY
OLYTUNCO	OLYMPUS TUNNEL (ESTES FOOTHILLS CANAL) AT LAKE ESTES
ONEJURCO	SOUTH PLATTE RIVER AT JULESBURG CHANNEL #1
PIOHDGCO	PIONEER DITCH AT HEADGATE
PIOSTLCO	PIONEER DITCH AT CO/NE STATE LINE
PLAANTCO	SOUTH PLATTE RIVE BELOW ANTERO RESERVOIR
PLABALCO	SOUTH PLATTE RIVER AT COOPER BRIDGE, NEAR BALZAC
PLACHACO	SOUTH PLATTE RIVER BELOW CHATFIELD RESERVOIR
PLACHECO	SOUTH PLATTE RIVER BL. CHEESMAN RESERVOIR
PLADENCO	SOUTH PLATTE RIVER AT DENVER
PLAGEOCO	SOUTH PLATTE RIVER NEAR LAKE GEORGE
PLAGRACO	NORTH FORK SOUTH PLATTE RIVER AT GRANT
PLAHARCO	SOUTH PLATTE RIVER ABOVE ELEVENMILE RESERVOIR
PLAHENCO	SOUTH PLATTE RIVER AT HENDERSON
PLAJUCCO	SOUTH PLATTE RIVER AT JULESBURG COMBINED
PLAJULCO	SOUTH PLATTE RIVER AT JULESBURG LEFT CHAN. #4
PLAJURCO	SOUTH PLATTE RIVER AT JULESBURG RIGHT CHAN. #2
PLAKERCO	SOUTH PLATTE RIVER NEAR KERSEY
PLASPICO	SOUTH PLATTE RIVER ABOVE SPINNEY RESERVOIR
PLASPLCO	SOUTH PLATTE RIVER AT SOUTH PLATTE
PLASTRCO	SOUTH PLATTE RIVER BELOW STRONTIA SPRINGS
PLAWATCO	SOUTH PLATTE RIVER AT WATERTON
PLAWELCO	SOUTH PLATTE RIVER NEAR WELDONA

ROBTUNCO	ROBERTS TUNNEL AT EAST PORTAL NEAR GRANT
SKYDCLCO	SKYLINE DITCH AT CHAMBERS LAKE
SSVWARCO	SOUTH ST. VRAIN NEAR WARD
STCTUNCO	STRAIGHT CREEK TUNNEL AT EISENHOWER TUNNEL
SVCLYOCO	SAINT VRAIN CREEK AT LYONS
SVCPLACO	ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE
SVSLYOCO	ST. VRAIN SUPPLY CANAL NEAR LYONS
VIDTUNCO	VIDLER TUNNEL NEAR ARGENTINE PASS
WINDESCO	WIND RIVER NEAR ESTES PARK
WINBYPCO	WIND RIVER BY-PASS NEAR ESTES PARK
WSDEARCO	WILSON SUPPLY DITCH NEAR EATON RESERVOIR

DIV II

CODE	NAME
ARKCACCO	ARKANSAS RIVER AND CATLIN CANAL COMBINED
ARKCANCO	ARKANSAS RIVER AT CANYON CITY
ARKCARCO	ARKANSAS RIVER BELOW X-Y DITCH DAM NEAR CARLTON
ARKCATCO	ARKANSAS RIVER BELOW CATLIN DAM NEAR FOWLER
ARKGRNCO	ARKANSAS RIVER AT GRANITE
ARKLAJCO	ARKANSAS RIVER AT LA JUNTA
ARKNEPCO	ARKANSAS RIVER NEAR NEPESTA
ARKNECCO	ARKANSAS RIVER AT NEPESTA ROAD BRIDGE COMBINED
ARKPORCO	ARKANSAS RIVER AT PORTLAND
ARKPUECO	ARKANSAS RIVER ABOVE PUEBLO
ARKROCCO	ARKANSAS RIVER AT ROCKY FORD
ARKSALCO	ARKANSAS RIVER AT SALIDA
ARKWELCO	ARKANSAS RIVER NEAR WELLSVILLE
BOUTUNCO	CHARLES H. BOUSTEAD TUNNEL
BUSTUNCO	BUSK-IVANHOE TUNNEL
CATCANCO	CATLIN CANAL AT CATLIN DAM, NEAR FOWLER
CANSWKCO	CROOKED ARROYO NEAR SWINK
CCACCRCO	CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR
CCBCCRCO	CLEAR CREEK BELOW CLEAR CREEK RESERVOIR
CHCRNACO	CHALK CREEK AT NATHROP
COLDITCO	COLUMBINE DITCH
COCRBVCO	COTTONWOOD CREEK NEAR BUENA VISTA
CRBRLVCO	CUCHARAS RIVER AT BOYD RANCH NEAR LA VETA
CRHBLVCO	CUCHARAS RIVER AT HARRISON BRIDGE NEAR LA VETA
EWIDITCO	EWING DITCH
GRAWESCO	GRAPE CREEK NEAR WESTCLIFFE
HILCANCO	HIGHLAND CANAL BELOW HIGHLAND DAM NEAR LAS ANIMAS
HOMTUNCO	HOMESTAKE TUNNEL
HRC194CO	HORSE CREEK AT HIGHWAY 194
HUREDCCO	HUERFANO RIVER NEAR REDWING
LAKATLCO	LAKE CREEK ABOVE TWIN LAKES RESERVOIR
LAKBTLCO	LAKE CREEK BELOW TWIN LAKES RESERVOIR
LARDITCO	LARKSPUR DITCH AT MARSHALL PASS
LFCBSLCO	LAKE FORK CREEK BELOW SUGAR LOAF DAM NR. LEADVILLE
NMCHIGCO	NINEMILE CANAL AT NINEMILE DAM NEAR HIGBEE
OXFDITCO	OXFORD FARMERS DITCH NEAR NEPESTA
PURHILCO	PURGATOIRE RIVER BELOW HIGHLAND DAM NEAR LAS ANIMAS
PURHICCO	PURGATOIRE RIVER BELOW HIGHLAND DAM NR LAS ANIMAS (COMBINED)
PURNICCO	PURGATOIRE R AT NINEMILE DAM, NR HIGBEE COMBINED
PURNINCO	PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE
PURTRICO	PURGATOIRE RIVER AT TRINIDAD
RACRSTCO	RATON CREEK ABOVE STARKVILLE
TWITUNCO	TWIN LAKES TUNNEL
WURDITCO	WURTZ DITCH NEAR TENNESSEE PASS
WUREXDCCO	WURTZ EXTENSION DITCH NEAR TENNESSEE PASS

DIV III

CODE	NAME
ALABELCO	ALAMOSA CREEK BELOW TERRACE RESERVOIR
ALARANCO	ALAMOSA RIVER BELOW RANGER CREEK
ALATERCO	ALAMOSA CREEK ABOVE TERRACE RESERVOIR
ALAWIGCO	ALAMOSA RIVER ABOVE WIGHTMAN FORK NEAR JASPER
BIGSPRING	BIG SPRING CREEK AT MEDANO RANCH
CARLAGCO	CARNERO CREEK NEAR LA GARITA
CBPALACO	CLOSED BASIN PROJECT CANAL NEAR ALAMOSA
CHECRECO	CHERRY CREEK NEAR CRESTONE
COCRMICO	COTTON CREEK NEAR MINERAL HOT SPRINGS
COCRESCO	COTTONWOOD CREEK NEAR CRESTONE
CONLASCO	COMBINED CONEJOS RIVER (NORLASCO SOULASCO)
CONMOGCO	CONEJOS RIVER NEAR MOGOTE
CONPLACO	CONEJOS RIVER BELOW PLATORO RESERVOIR

CULSANCO	CULEBRA CREEK AT SAN LUIS
DEDCRECO	DEADMAN CREEK NEAR CRESTONE
DLFCMBCO	DON LA FONT DITCH, COMBINED, AT PIEDRA PASS
DLFDT1CO	DON LA FONT DITCH NO. 1 AT PIEDRA PASS
DLFDT2CO	DON LA FONT DITCH NO. 2 AT PIEDRA PASS
GARVILCO	GARNER CREEK NEAR VILLA GROVE
GOOWAGCO	GOOSE CREEK AT WAGONWHEEL GAP
KERVILCO	KERBER CREEK NEAR VILLA GROVE
LAGLAGCO	LA GARITA CREEK NEAR LA GARITA
LAJCAPCO	LAJARA CREEK AT GALLEGOS RANCH NEAR CAPULIN
LOSORTCO	LOS PINOS RIVER NEAR ORTIZ
MAJVILCO	MAJOR CREEK NEAR VILLA GROVE
NCLCONCO	NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR
NOCRESCO	CRESTONE CREEK, NORTH NEAR CRESTONE
NORDLSCO	NORTON DRAIN NEAR LA SAUSES
NORDSCCO	SOUTH CHANNEL NORTON DRAIN DITCH NEAR LA SAUSES
NORLASCO	NORTH CHANNEL CONEJOS RIVER NEAR LASAUSES
PINDELCO	PINOS CREEK NEAR DEL NORTE
PRWDITCO	PINE RIVER WEMINUCHE PASS DITCH AT WEMINUCHE PASS
RIOALACO	RIO GRANDE RIVER AT ALAMOSA
RIODELCO	RIO GRANDE NEAR DEL NORTE
RIOLINCO	RIO GRANDE AT RIO GRANDE-ALAMOSA COUNTY LINE
RIOLOBCO	RIO GRANDE NEAR LOBATOS
RIOMILCO	RIO GRANDE AT THIRTY MILE BRIDGE
RIOMONCO	RIO GRANDE AT MONTE VISTA
RIOWAGCO	RIO GRANDE RIVER AT WAGONWHEEL GAP
RIOSFKCO	SOUTH FORK RIO GRANDE RIVER AT SOUTH FORK
RITCRECO	RITO ALTO CREEK NEAR CRESTONE
RIOTRICO	RIO GRANDE RIVER ABOVE THE MOUTH OF TRINCHERA CREEK
SAGSAGCO	SAGUACHE CREEK NEAR SAGUACHE
SANCRECO	SAN ISABEL CREEK NEAR CRESTONE
SANFTGCO	SANGRE DE CRISTO CREEK NEAR FT. GARLAND
SANMANCO	SAN ANTONIO RIVER NEAR MANASSA
SANORTCO	SAN ANTONIO RIVER AT ORTIZ
SOUCRECO	SOUTH CRESTONE CREEK NEAR CRESTONE
SOULASCO	SOUTH CHANNEL CONEJOS RIVER NEAR LASAUSES
SPACRECO	SPANISH CREEK NEAR CRESTONE
TABDITCO	TABOR DITCH AT SPRING CREEK PASS
TARBELCO	TARBELL DITCH NEAR COCHETOPA PASS
TREDITCO	TREASURE PASS DITCH AT WOLF CREEK PASS
TRIMTNCO	TRINCHERA CREEK ABOVE MOUNTAIN HOME RESERVOIR
TRISMICO	TRINCHERA CREEK BELOW SMITH RESERVOIR
TRITURCO	TRINCHERA CREEK AB. TURNER'S RANCH
UTEFTGCO	UTE CREEK NEAR FORT GARLAND
WCSDDITCO	WILLIAM'S CREEK-SQUAW PASS DITCH AT SQUAW PASS
WEMDITCO	WEMINUCHE PASS DITCH AT WEMINUCHE PASS
WFKMOUCO	WIGHTMAN FORK AT MOUTH AT ALAMOSA RIVER
WILCRECO	WILLOW CREEK NEAR CRESTONE

DIV IV

CODE	NAME
ABCLATCO	ABC LATERAL
GUNREDCO	GUNNISON RIVER BELOW REDLANDS DIVERSION DAM
MUDAPRCO	MUDDY CREEK ABOVE PAONIA RESERVOIR
MUDBPRCO	MUDDY CREEK BELOW PAONIA RESERVOIR
RLCGRJCO	REDLANDS CANAL NR GRAND JUNCTION
SOUCANCO	SOUTH CANAL NR MONTROSE
UNCOLACO	UNCOMPAGRE RIVER NEAR OLATHE

DIV V

CODE	NAME
BLUNINCO	BLUE RIVER AT HIGHWAY 9 BRIDGE
ROABMCCO	ROARING FORK RIVER BELOW MAROON CREEK NEAR ASPEN
FRYIVLCO	FRYINGPAN RIVER NEAR IVANHOE LAKE
IVCRNACO	IVANHOE CREEK NEAR NAST
FRYSFUCO	SOUTH FORK FRYINGPAN RIVER AT UPPER STATION
CHAGULCO	CHAPMAN GULCH NEAR NAST
FRYFNCO	NORTH FORK FRYINGPAN RIVER NEAR NORRIE
FRYTHOCO	FRYINGPAN RIVER NEAR THOMASVILLE
FRYMERCO	FRYINGPAN RIVER AT MEREDITH
RFCMERCOC	ROCKY FORK CREEK NEAR MEREDITH



DIV VI

CODE	NAME
ILLRANCO	ILLINOIS RIVER NEAR RAND
MICMERC	MICHIGAN RIVER NEAR MEADOW CREEK RESERVOIR
WLTNCKCO	WALTON CREEK NEAR STEAMBOAT SPRINGS
YAMABVCO	YAMPA RIVER ABOVE LAKE CATAMOUNT

DIV VII

CODE	NAME
ANIHOWCO	ANIMAS RIVER NEAR HOWARDSVILLE
BLADIVCO	BLANCO DIVERSION NEAR PAGOSA SPRINGS
CHEREDCO	CHERRY CREEK AT THE MOUTH NEAR RED MESA
DOLBMCCO	DOLORS RIVER BELOW MCPHEE RESERVOIR
DOLTUNCO	DOLORS TUNNEL OUTLET NEAR DOLORS
ENTDITCO	ENTERPRISE DITCH AT THE COLO-NEW MEXICO STATELINE
FLOALECO	FLORIDA RIVER ABOVE LEMON RESERVOIR NEAR DURANGO
FLOBLECO	FLORIDA RIVER BELOW LEMON RESERVOIR
LAPHESCO	LA PLATA RIVER AT HESPERUS
LAPMEXCO	LA PLATA RIVER AT THE COLORADO/NEW MEXICO LINE
LITOSOCO	LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM NR CHROMO
LONREDCO	LONG HOLLOW AT THE MOUTH NEAR RED MESA
LOSODVCO	LITTLE OSO DIVERSION NEAR CHROMO
LPCDITCO	LA PLATA AND CHERRY CREEK DITCH NEAR HESPERUS
MANMANCO	MANCOS RIVER NEAR MANCOS
MVIDIVCO	LONE PINE CANAL BELOW GREAT CUT DIKE NEAR DOLORS
NAVBANCO	NAVAJO RIVER AT BANDED PEAKS RANCH NEAR CHROMO
NAVOSOCO	NAVAJO RIVER BELOW OSO DIVERSION DAM NEAR CHROMO
OSODIVDO	OSO DIVERSION NEAR CHROMO
PINDITCO	PINE RIDGE DITCH NEAR HESPERUS
PIODITCO	PIONEER DITCH AT THE COLORADO-NEW MEXICO STATELINE
RIOBLACO	RIO BLANCO BELOW BLANCO DIVERSION DAM NEAR PAGOSA
RIOMOUCO	RIO BLANCO AT THE MOUTH NEAR TRUJILLO