U.S. DEPARTMENT OF COMMERCE
OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
REPORT ON RIVER U.S. DEPARTMENT OF COMMERCE NWS-FORM E-19A

LID: DNVC2 PROXIMITY: AT

NAME: DENVER

STREAM: SOUTH PLATTE RIVER

COUNTY/STATE: Denver, CO BASIN: SOUTH PLATTE

SPONSOR:

RATE: \$

----- SITE -----

PERIOD OF RECORD: 5/1/1889 - PRESENT

SERVICE DATE:

CD-404:

HOME PHONE:

WORK PHONE:

DUTIES:

RECIPIENT: COMMS TYPE: TASK:

TELEM TYPE: ALERT TELEM OWNER: State OGA PHONE: DCP ID: CE51618C DCP OWNER: COEOMA

LATEST GAGE TYPE

START DATE 10/01/2001 OWNER OF GAGE float State DWR

LEVEL DATE
10.98 09/10/1933
18.66 06/17/1965
10.90 07/25/1998 HIGHEST BASED ON GAGE READING: HIGHEST BASED ON HIGH WATERMARKS: HIGHEST SINCE 1/01/1993:

HIGHEST SINCE 1/01/2003:

----- REMARKS -----

A GROUTED ROCK DAM APPROXIMATELY 50 FEET BELOW THE GAGE WAS BUILT BY THE URBAN DRAINAGE & FLOOD CONTROL DISTRICT IN APRIL 1990. THE DAM HAS BEEN PRESUMED TO ACT AS A CRITICAL FLOW WEIR FOR ALL FLOWS OBSERVED.

HYDROLOGIST: TRESTE' HUSE

REVISED, PRINTED DATES: 10/09/2003, 10/09/2003

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE

REPORT ON RIVER GAGE STATION

REVISED, PRINTED DATES: 10/09/2003, 10/09/2003

LOCATION: DENVER

STREAM: SOUTH PLATTE RIVER

BASIN: SOUTH PLATTE

HSA: BOU

REFERENCES:

FLOOD PLAIN INFORMATION, DENVER METROPOLITAN AREA; USCOE, 1963. REPORT ON FLOODS OF JUNE, 1965 - SOUTH PLATTE BASIN; USCOE, 1967. SOCDWR STATION DESCRIPTION 02/15/2002 USGS FORM 9-197; 1972. WRD COLORADO, PART 1 - 1965 THROUGH 1990.

ABBREVIATIONS:

BM - bench mark
DS - downstream
US - upstream
HW - high water
LW - low water
BB - right bank
BB - left bank
BB - left bank
BB - left bank
BB - mean gulf level
BB - mean low water
BB - mean sea level
BB - mean low tide
BB - mean tide
BB - water quality
BB - water quality
BB - reference mark
BB - reference mark
BB - right bank
BB - left bank
Boundary and Water Commission
Blow
Boundary
Baud Water Commission
Boundary
Bounda

LOCATION IDENTIFICATION: DNVC2

NWS INDEX NUMBER: PLADENCO

USGS NUMBER: 06714000

MAP OF GAGE LOCATION

LATITUDE: 39 45 35

SOURCE: STATION DESCRIPTION

LONGITUDE: 105 00 10

LOCATION: SOUTH PLATTE RIVER AT DENVER, CO

ID: DNVC2 HSA: BOU

Revised, Printed Dates: 10/09/2003, 10/09/2003 NWS FORM E-19 PAGE 1: GAGE MAP

BENCHMARKS

ELEVATION OF GAGE ZERO: 5157.640 VERTICAL DATUM:

LEVELING AGENCY AND DATE:

CHECKBAR: 0.000

RATING AGENCY: SOCDWR

| BENCHMARK | DESCRIPTION | GAGE ZERO | DATUM |
|-----------|--|-----------|----------|
| | | | |
| RM1 | USGS BRASS CAP IN TOP FLAGSTONE OF THE SE WINWALL OF THE NINETEENTH STREET | 23.360 | 5181.000 |
| | BRIDGE, APPROXIMATELY 80 FT FROM GAGE, ELEV. 23.46 FT. | | |
| | | | |
| RM2 | CROSS ON LOWEST FLAGSTONE STEP OF SOUTHEAST WINGWALL OF NINETEENTH STREET | 15.360 | 5173.000 |
| | BRIDGE, ELEV. 15.36 FT, ESTABLISHED 5/8/67. | | |

Revised, Printed Dates: 10/09/2003, 10/09/2003 NWS FORM E-19 PAGE 2: BENCHMARKS

LOCATION: SOUTH PLATTE RIVER AT DENVER, CO HSA: BOU ID: DNVC2

GAGES

DCP TELEM

NESS ID: CE51618C

OWNER: COEOMA

REPORT TIME: 00:05:00

INTERVAL: 240

TYPE OF TELEMETRY: ALERT

OWNER: State OGA

PHONE NUMBER:

INTERVAL: 5

PAYOR/COST OF LINE: State OGA / \$

| G. | AGE TYPE | OWNER | MAINTENANCE | BEGAN | ENDED | GAGE LOCATION/REMARKS |
|----|-----------|-----------|-------------|------------|------------|---|
| - | | | | | | *************************************** |
| s | aff | USGS | USGS | 05/01/1889 | 10/31/1890 | STAFF GAGE 1270 FEET DOWNSTREAM AT DIFFERENT DATUM. |
| S | aff | USGS | USGS | 05/07/1895 | 06/18/1895 | STAFF GAGE 2070 FEET DOWNSTREAM AT DIFFERENT DATUM. |
| S | aff | USGS | USGS | 07/15/1895 | 08/11/1909 | STAFF GAGES AT VARIOUS SITES AND DATUMS BETWEEN FIFTEENTH |
| | | | | | | STREET BRIDGE AND SIXTEENTH ST. VIADUCT (1830 AND 1330 FT |
| | | | | | | UPSTREAM; LOCATIONS NOT DEFINITE, BUT SAME DATUM WAS USED |
| | | | | | | DURING THE PERIOD). |
| f | loat | USGS | USGS | 08/12/1909 | 08/28/1931 | WATER STAGE RECORDER AT SITE 1330 FEET UPSTREAM AT DATUM |
| | | | | | | 3.66 FEET HIGHER. |
| f | loat | USGS | USGS | 08/29/1931 | 06/28/1965 | WATER STAGE RECORDER AT NINETEENTH ST VIADUCT, 1330 FT |
| | | | | | | UPSTREAM. |
| f | loat | USGS | USGS | 03/19/1965 | 09/30/2001 | WATER STAGE RECORDER AT PRESENT SITE AND DATUM. |
| w | ireweight | USGS | USGS | 03/19/1965 | | |
| f | loat | State OGA | State OGA | 04/09/1998 | | |
| f | loat | State DWR | State DWR | 10/01/2001 | | |

HISTORY

| PUBLICATION/LOCATION | OF RECORDS | STARTING DATE | ENDING DATE |
|--|---|---|---|
| TYPE OF GAGE staff staff staff float float float wireweight float float float | OWNER USGS USGS USGS USGS USGS USGS USG | STARTING DATE 05/01/1889 05/07/1895 07/15/1895 08/12/1909 08/29/1931 03/19/1965 03/19/1965 04/09/1998 10/01/2001 | ENDING DATE 10/31/1890 06/18/1895 08/11/1909 08/28/1931 06/28/1965 09/30/2001 |
| ZERO ELEVATION | | STARTING DATE | |
| 5157.640 | | 03/19/1965 | |

CRESTS

FLOOD STAGE: 11.00 ACTION STAGE: 9.50 BANKFULL STAGE: 10.50 FLOOD FLOW: 12900 ACTION FLOW: 6860

DATE OF TIME CREST FLOW FROM HIGH BASED ON CAUSED BY

CREST LST (ft) (CFS) WATERMARKS OLD DATUM ICE JAM REMARKS

09/10/1933 UNDEF 10.98 22000 x

06/17/1965 UNDEF 18.66 40300 X 05/07/1973 UNDEF 10.85 17600

07/25/1998 UNDEF 10.90 13800

ID: DNVC2

LOW WATER RECORDS

| | FLOW (CFS) | REMARKS |
|------------|-------------------|---------|
| | | |
| 03/25/1951 | 8 | |

CONDITIONS AFFECTING FLOW

MILES ABOVE MOUTH: 306.0 DRAINAGE AREA: 3804.0 POOL STAGE: 0.0

STREAM BED: SAND, GRAVEL AND SMALL ROCKS.

REACH: CONFLUENCE OF BEAR CREEK TO CONFLUENCE OF CLEAR CREEK.

REGULATION: REGULATED TO SOME EXTENT BY CHATFIELD DAM, 14.7 MILES UPSTREAM. CONTROL IS A GROUTED ROCK DAM APPROXIMATELY 50 FEET BELOW THE GAGE. THE DAM IS PRESUMED TO ACT AS A CRITICAL FLOW WEIR FOR ALL FLOWS OBSERVED SINCE IT WAS BUILT BY UDFCD IN APRIL 1990.

DIVERSION: TRANSMOUNTAIN AND IRRIGATION DIVERSIONS AND POWER PLANT.

WINTER: RIVER STAYS OPEN DURING WINTER DUE TO WARM EFFLUENTS FROM THE METRO AREA.

TOPOGRAPHY: BANKS ARE COVERED WITH GRASS AND BRUSH AND ARE NOT USUALLY SUBJECT TO OVERFLOW. CHANNEL IS STRAIGHT FOR 1800 FEET ABOVE AND 200 FEET BELOW GAUGE.

REMARKS: CONTROL IS A GROUTED ROCK DAM APPROXIMATELY 50 FEET BELOW THE GAGE WHICH WAS BUILT IN APRIL, 1990. FLOW ALSO AFFECTED BY STORAGE RESERVOIRS. AFFECTED BY DIVERSION FOR IRRIGATION OF ABOUT 79,000 ACRES, AND RETURN FLOW FROM IRRIGATED AREAS.

DAMAGE

| STAGE | AREAS AFFECTED |
|-------|---|
| 8.50 | WATER BEGINS TO AFFECT LOWEST SECTIONS OF BIKE PATH/WALKWAY |
| 9.50 | ACTION STAGE. RIVER OVERFLOWS BANKS NEAR UNION STATION. |
| 10.50 | RIVER OVERFLOWS BANKS NEAR UNION AVENUE STATION |
| 11.00 | FLOOD STAGE. CONSIDERABLE OVERBANK FLOW ALONG REACH. |
| 14.00 | 100 YEAR FLOOD. |
| 18.66 | FLOOD OF RECORD - JUNE 15, 1965. |

RIVER STAGE DATA

18.66 - FLOOD OF RECORD - JUNE 15, 1965.

14.00 - 100 YEAR FLOOD.

11.00 - FLOOD STAGE. CONSIDERABLE OVERBANK FLOW ALONG REACH.

10.50 - RIVER OVERFLOWS BANKS NEAR UNION AVENUE STATION

9.50 - ACTION STAGE. RIVER OVERFLOWS BANKS NEAR UNION STATION.

8.50 - WATER BEGINS TO AFFECT LOWEST SECTIONS OF BIKE PATH/WALKWAY

18.66 06/17/1965 10.98 09/10/1933

REACH: CONFLUENCE OF BEAR CREEK TO CONFLUENCE OF CLEAR CREEK.

ELEVATION ZERO: 5157.64



STATION DESCRIPTION

Station number: 06714000

South Platte River at Denver, Colorado

Revised by: R. E.. Cooper

Date 02-15-2002

LOCATION: Lat. 39°45'35", Long. 105°00'10", (Arvada, Colo., scale 1:24000, published to nearest 01") in the NE1/4 SE1/4 sec.28, T. 3 S., R. 68W. on right bank 90 ft. upstream from historic Nineteenth Street Bridge and 0.4 mile downstream from the confluence of Cherry Creek. Hydrologic Unit 10190003.

DRAINAGE: 3.804 sq. miles (from topographic map)

GAGE: Stevens A-35 recorder and satellite monitoring in 6x6 ft. concrete shelter over a 60 inch stilling well. Three 2" intakes are valved into a city water line, which is used to flush the pipes. The recorder is set by tape and weight from an adjustable reference point on the edge of recorder shelf. A wire weight gage next to the shelter reads the outside water level by means of cantilever suspension of the weight over the channel.

The DCP is equipped with a speech modem and can be accessed via phone (303-297-9505). The DCP and phone are owned by the USACOE and are maintained by the USGS. The gage has also been equipped with real-time radio telemetry (float-encoder & transmitter) used for flood alerts, and an automated, refrigerated water-sampling system. The Alert equipment is owned by the Urban Drainage and Flood Control District and maintained by DIAD, Inc (Longmont). The water quality equipment is part of a special study funded by the UDFCD and operated by the USGS Colorado District. The water quality equipment has its own phone line (303-297-3185)

Phone lines and the water line have been broken numerous times by Denver Parks construction activities. In some cases, repairs could not be made by contractors who did the damage. In these cases, Colorado DWR or the USACOE have guaranteed payment (to Quest, etc.) for the repair work and forwarded the bill to the appropriate Denver Parks official or general contractor.

Datum of gage is 5,157.64 ft. above mean sea level, datum of 1929, supplementary adjustment of 1960.

The gage is subject to very rapid rises in stage due to urban storms and in the past there have been questions raised about inlet lag. It would be very desirable to have a comparative series of IG vs OG readings under conditions of rapid change.

HISTORY: Station first established May 1, 1889, by the State Engineer's Office at a site 1270 ft. downstream at the foot of Twenty-first Street. Non-recording gage at different datum in use until October 31, 1890.

The station was re-established May 7, 1895, at site 2070 ft. downstream at Twenty-Third St. viaduct. Non-recording gage to June 18, 1895 at different datum. (No record published.)

July 15, 1895 to August 11, 1909, recording and non-recording gage at one or more sites between Fifteenth St. bridge and Sixteenth St. Viaduct. (1,830 and 1330 ft. upstream; locations not definite, but same datum was used during the period.)

August 12, 1909 to August 28, 1931, water stage recorder at Sixteenth St. viaduct, 1330 ft. upstream. August 29, 1931 to June 28, 1965, water stage recorder at Nineteenth St. Bridge, 90 ft. downstream at datum 3.66 ft. higher.

June 29, 1965 to March 18, 1966, water-stage recorder at site 70 ft. downstream at present datum. Since March 19, 1965, water stage recorder at present site and datum.

REFERENCE AND BENCHMARKS: R.M. nos. 3, 4, 5, 6 destroyed.

R.M. No. 1: USGS Brass cap in top flagstone of the SE Wingwall of the Nineteenth St. bridge, apx. 80 ft. from gage, elevation = 23.46

R.M. No. 2: Cross on Lowest flagstone step of SE Wingwall of Nineteenth St. Bridge, Elevation = 15.36, established 5-8-67

RP Elevation = 19.83 = Tape length

PZF, Inlet Elevations, & Wire Weight Check Bar Elevation—Not determined.

CHANNEL AND CONTROL: The control is a grouted rock dam approximately 50 feet below the gage. The dam has been presumed to act as a critical flow weir for all flows observed since it was built by the Urban Drainage and Flood Control District in April 1990. However, measurements and observations have not been made for flood conditions.

Directly across the channel from the gage, and above the control, is a spillback gate for the Farmers and Gardeners Ditch. This flow goes directly into the control pool. The spillback chute to the river is very steep. Flows are very shallow, very turbulent, air entrained, extremely fast and practically unmeasureable with Price meters. During routine operation of the ditch, this flow is often estimated at about 10 cfs. The ditch rider states that the headgate will draw about 35 cfs from the river and the ditch is decreed at 24 cfs. The remainder is spilled.

<u>DISCHARGE MEASUREMENTS:</u> Low to medium stages measured by wading 50 to 100 ft. above the gage. High flows are cabled from the Fifteenth St. Bridge.

FLOODS: Maximum discharge, 40,300 cfs June 17, 1965 (gage height, 18.66 ft, from floodmarks.) on the basis of contracted-opening measurement of peak flow

POINT OF ZERO FLOW: Not determined.

WINTER FLOW: River stays open during winter due to warm effluents from the Metro area.

REGULATION AND DIVERSION: Natural flow of stream affected by trans-mountain diversions, storage reservoirs, diversions, diversions for irrigation of about 79.000 acres, and return flow from irrigated areas.

ACCURACY: With frequent measurements, records should be good.

COOPERATION: Station maintained by State Engineer of Colorado, in cooperation with U.S.G.S.

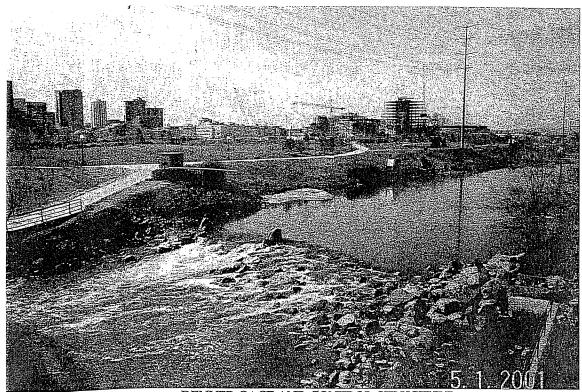
<u>PURPOSE:</u> Flow measurement for administration of water rights by the State Engineer. Water Quality monitoring site and flood alert gage.

JOB HAZARD ANALYSIS SUMMARY: This is a highly regulated site in an urban setting and subject to human control. Use caution at all times when traversing steep banks, and when near the boulder control. Drowning is a potential hazard--beware of swift and/or deep water. A PFD is to be used when working in or over water. Slipping/falling hazards exist where shale bottom is exposed and during the winter period. Summer hazards include lightning during thunderstorms and stinging insects. Bridge measurements can be made from the sidewalk on the north side of the Fifteenth street bridge. However, the sidewalk should be closed to pedestrian and bicycle traffic during the measurement. People moving around the crane often step off or nearly off the sidewalk and are at considerable danger from wide vehicles travelling west on Fifteenth Street. Human traffic past the gage can also be troublesome, as many transient individuals frequent the area. The area is used for free parking during Rockies games and LoDo festivals and this also brings in a diverse human element.

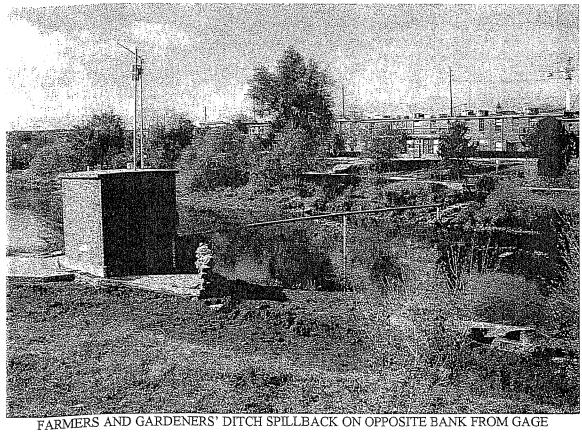
ROAD LOG: Take Interstate 25 to Twentieth Street. Proceed East, cross the river, and take the first street south to Nineteenth street. Turn back West toward the historic Nineteenth St. bridge over the river. The gage is visible about 90 ft. South of the old bridge.

From downtown, take Fifteenth Street northwest to Grinnell Street. Turn right (north) and proceed through the park to the corner of Grinnell and Nineteenth Street. Turn left (west); the old bridge and gage are just ahead.

Vehicles can be parked on the old bridge or on the park sidewalk. Allow some clearance for bicycle and pedestrian traffic.



DENVER GAGE AND CONTROL STRUCTURE



STATE OF COLORADO

Division of Water Resources

OFFICE OF THE STATE ENGINEER

Rating Table ID:

PLADENCO33

Time of last edit: 10/24/2002 13:51

| 2000年1月1日日 | erna - M | in the second | .02 | .03 | .04 | .05 | .06 | .07 | .08 | .09 | DHF |
|------------|----------|---------------|-------|------|----------|----------|-----------------|-------|--------|--------------|-----|
| | | .01 | | 100 | | | | | | | |
| 1.00 | | | | | | <u> </u> | | | | | |
| .10 | | | | | | | | | | | |
| .20 | | | | | | | | | | | |
| .30 | | | | | | | | | | | |
| .40 | | | | | | | | | | | |
| .50 | | | | | | | | | | | |
| .60 | | | | | | | 200 | 222 | 2.67 | 3.00 | |
| .70 | 0.00 | 0.333 | 0.667 | 1.00 | 1.33 | 1.67 | 2.00 | 2.33 | 2.67 | | 3.3 |
| .80 | 3.33 | 3.67 | 4.00 | 4.33 | 4.67 | 5.00 | 5.33 | 5.67 | 6.00 | 6.33 9.67 | 3 |
| .90 | 6.67 | 7.00 | 7.33 | 7.67 | 8.00 | | 8.67 | 9.00 | 9.33 | | |
| 2.00 | 10.0 | 11.0 | 11.9 | 12.8 | 13.8 | 14.8 | 15.7 | 16.6 | 17.6 | 18.6 | 3. |
| .10 | 19.5 | 20.4 | 21.4 | 22.4 | 23.3 | 24.2 | 25.2 | 26.2 | 27.1 | 28.0 | 9. |
| .20 | 29.0 | 29.9 | 30.8 | 31.7 | 32.6 | 33.5 | 34.4 | 35.3 | 36.2 | 37.1 | 9. |
| .30 | 38.0 | 39.0 | 39.9 | 40.8 | 41.8 | 42.8 | 43.7 | 44.6 | 45.6 | 46.6 | 9. |
| .40 | 47.5 | 48.6 | 49.6 | 50.6 | 51.7 | 52.8 | 53.8 | 54.8 | 55.9 | 57.0 | 9. |
| .50 | 58.0 | 59.2 | 60.4 | 61.6 | 62.8 | | | 66.4 | 67.6 | 68.8 | 1: |
| .60 | 70.0 | 71.4 | 72.8 | 74.2 | 75.6 | | | 79.8 | 81.2 | 82.6 | 1. |
| | | 85.6 | 87.2 | 88.8 | 90.4 | | | 95.2 | 96.8 | 98.4 | 1 |
| .70 | 84.0 | | 103 | 105 | 107 | | | | | 115 | 1 |
| .80 | 100 | 102 | | 124 | 127 | | | 134 | | 139 | 1 |
| .90 | 117 | 119 | 122 | | 151 | | | 159 | | 164 | 2 |
| 3.00 | 141 | 144 | 146 | 149 | <u> </u> | | | | | 193 | 2 |
| .10 | 167 | 170 | 173 | 176 | 179 | | | | | 223 | 2 |
| .20 | 196 | 199 | 202 | 205 | 208 | | | | | 256 | 3 |
| .30 | 226 | 229 | 233 | 236 | | | | | | 290 | 3 |
| .40 | 259 | 262 | 266 | 270 | | | | | | | 3 |
| .50 | 294 | 298 | 302 | 305 | 309 | | | | | 328 | |
| .60 | 332 | 336 | 340 | 344 | 348 | | | | | 368 | 3 |
| .70 | 372 | 376 | 380 | 385 | 389 | 393 | | | | | 4 |
| .80 | 414 | 418 | 423 | 428 | 432 | 430 | 441 | 446 | | | |
| .90 | 459 | 464 | 468 | 473 | 478 | 482 | 487 | 492 | 2 497 | 501 | 4 |
| 4.00 | 506 | 511 | 516 | 521 | | 5 530 | 535 | 540 | 545 | 550 | 4 |
| | 555 | 560 | 565 | 571 | | | | 5 591 | 597 | 602 | 4 |
| .10 | | 612 | 618 | 623 | | | | | 650 | 656 | |
| .20 | 607 | | 672 | 678 | <u> </u> | | | | | 711 | |
| _30 | 661 | 667 | | 735 | | | | | | 770 | |
| .40 | 717 | 723 | 729 | | | | | | | | |
| .50 | 776 | 782 | | 795 | | | | | | | , |
| .60 | 838 | 844 | | 857 | | | | | | | |
| .70 | 901 | 908 | | 921 | | | - 1 | | | | |
| .80 | 967 | 974 | | | | | | | | | |
| .90 | 1040 | 1050 | | | | | | | | | - |
| 5.00 | 1110 | 1120 | | | | | | | | | |
| .10 | 1180 | 1190 | 1200 | 1200 | | | | | | | |
| .20 | 1260 | 1270 | | 1280 | 129 | | | | | | |
| .30 | 1330 | 1340 | | | 137 | | | | | | |
| .40 | 1420 | 1430 | | | | | 0 147 | 0 148 | | | |
| .50 | 1500 | 1510 | | | | | | 0 156 | 0 1560 | | - |
| | 1580 | | | | | | | | 0 1650 | | |
| .60 | | | | | | | | | 0 1740 | 1750 | |
| .70 | 1670 | | | | | | | | | 0 1850 | |
| .80 | 1760 | | | | | | | | | | - |
| .90 | 1860 | | | | | | | | | | |
| 6.00 | 1950 | | | | | | | | | | |
| .10 | 2050 | 2060 | 2070 | 208 | 0 209 | 0 210 | ιυ ן ∠11 | | 0 223 | | |

STATE OF COLORADO

Division of Water Resources

OFFICE OF THE STATE ENGINEER

Rating Table ID:

PLADENCO33

Time of last edit: 10/24/2002 13:51

| Gage | 00 | - 01 | .02 | .03 | .04 | .05 | .06 | .07 | .08 | .09 | DIF |
|-------|-------------|---------|-------------|---------------|--------|----------|--------------|-------|-------------|-------|-----|
| .30 | 2250 | 2260 | 2270 | 2280 | 2290 | 2300 | 2320 | 2330 | 2340 | 2350 | 100 |
| .40 | 2360 | 2370 | 2380 | 2390 | 2400 | 2420 | 2430 | 2440 | 2450 | 2460 | 110 |
| .50 | 2470 | 2480 | 2490 | 2500 | 2510 | 2520 | 2540 | 2550 | 2560 | 2570 | 110 |
| .60 | 2580 | 2590 | 2600 | 2610 | 2620 | 2640 | 2650 | 2660 | 2670 | 2680 | 110 |
| .70 | 2690 | 2700 | 2710 | .2720 | 2730 | 2740 | 2760 | 2770 | 2780 | 2790 | 110 |
| .80 | 2800 | 2810 | 2820 | 2840 | 2850 | 2860 | 2870 | 2880 | 2900 | 2910 | 110 |
| .90 | 2920 | 2930 | 2940 | 2960 | 2970 | 2980 | 2990 | 3000 | 3020 | 3030 | 120 |
| 7.00 | 3040 | 3050 | 3060 | 3080 | 3090 | 3100 | 3110 | 3120 | 3140 | 3150 | 120 |
| .10 | 3160 | 3170 | 3190 | 3200 | 3210 | 3220 | 3240 | 3250 | 3260 | 3280 | 120 |
| .20 | 3290 | 3300 | 3320 | 3330 | 3340 | 3360 | 3370 | 3380 | 3390 | 3410 | 130 |
| .30 | 3420 | 3430 | 3450 | 3460 | 3480 | 3490 | 3500 | 3520 | 3530 | 3550 | 130 |
| .40 | 3560 | 3580 | 3590 | 3600 | 3620 | 3640 | 3650 | 3660 | 3680 | 3700 | 140 |
| .50 | 3710 | 3730 | 3740 | 3760 | 3770 | 3790 | 3810 | 3820 | 3840 | 3850 | 150 |
| | 3870 | 3890 | 3900 | 3920 | 3940 | 3960 | 3970 | 3990 | 4010 | 4020 | 160 |
| .60 | 4040 | | + | | | 4130 | 4150 | 4170 | 4180 | 4200 | 170 |
| .70 | | 4060 | 4080 | 4090 | 4110 | 4320 | 4330 | 4350 | 4370 | 4390 | 180 |
| .80 | 4220 | 4240 | 4260 | 4280 | 4300 | <u> </u> | 4530 | 4550 | 4570 | 4590 | 190 |
| .90 | 4410 | 4430 | 4450 | 4470 | 4490 | 4510 | | 4750 | 4770 | 4790 | 200 |
| 8.00 | 4610 | 4630 | 4650 | 4670 | 4690 | 4710 | 4730 4940 | 4960 | 4770 | 5000 | 200 |
| .10 | 4810 | 4830 | 4850 | 4870 | 4890 | 4920 | | | 5190 | 5210 | 210 |
| .20 | 5020 | 5040 | 5060 | 5080 | 5100 | 5120 | 5150 | | | | 210 |
| .30 | 5230 | 5250 | 5270 | 5300 | 5320 | 5340 | 5360 | | 5410 | 5430 | |
| .40 | 5450 | 5470 | 5490 | 5520 | 5540 | 5560 | | · | 5630 | 5650 | 220 |
| .50 | 5670 | 5690 | 5720 | 5740 | 5760 | 5780 | | | 5850 | 5880 | 220 |
| .60 | 5900 | 5920 | 5950 | 5970 | 5990 | | 6040 | · | 6080 | 6110 | 230 |
| .70 | 6130 | 6150 | 6180 | 6200 | 6230 | 6250 | | | 6320 | 6350 | 230 |
| .80 | 6370 | 6390 | 6420 | 6440 | 6470 | 6490 | | | 6560 | 6590 | 240 |
| .90 | 6610 | 6640 | 6660 | 6680 | 6710 | | | | 6810 | 6840 | 240 |
| 9.00 | 6860 | 6880 | 6910 | 6940 | 6960 | | | | 7060 | 7080 | 250 |
| .10 | 7110 | 7140 | 7160 | 7190 | 7210 | | | | 7320 | 7340 | 250 |
| .20 | 7370 | 7400 | 7420 | 7450 | 7470 | | | | 7580 | 7600 | 260 |
| .30 | 7630 | 7660 | 7680 | 7710 | 7740 | | | | 7850 | 7870 | 260 |
| .40 | 7900 | 7930 | 7950 | 7980 | 8010 | | | | 8120 | 8140 | 270 |
| .50 | 8170 | 8200 | 8230 | 8250 | 8280 | 8310 | | | 8390 | 8420 | 270 |
| .60 | 8450 | 8480 | 8510 | 8530 | 8560 | 8590 | | | 8670 | | 280 |
| .70 | 8730 | 8760 | 8790 | 8820 | 8850 | 8880 | | | 8960 | | 280 |
| .80 | 9020 | 9050 | 9080 | 9110 | 9140 | 9160 | | | 9250 | | 290 |
| .90 | 9310 | 9340 | 9370 | 9400 | 9430 | 9460 | | | 9550 | 9580 | 290 |
| 10.00 | 9610 | 9640 | 9670 | 9700 | 9730 | | | | 9850 | 9880 | 300 |
| .10 | 9910 | 9940 | 9970 | 10000 | 10000 | 10100 | 10100 | | | | |
| .20 | | 10200 | 10300 | | 10300 | | 10400 | 10400 | 10400 | | |
| .30 | 10500 | 10500 | 10600 | 10600 | 10700 | 10700 | 10700 | 10800 | | | |
| .40 | | 10900 | 11000 | - | 11000 | 11000 | 11100 | 11100 | | | |
| .50 | | 11200 | 11300 | | | | 11400 | 11400 | 11400 | 11500 | 300 |
| .60 | · | 11500 | | | | | | 11700 | 11700 | 11800 | 300 |
| .70 | · | 11800 | 11900 | | | | | | 12100 | 12200 | 300 |
| .80 | | 12200 | 12300 | | | | | ~ | | 12500 | 400 |
| .90 | | 12500 | 12600 | | | | | | | | 300 |
| 11.00 | | 12900 | | | | | | | | | |
| .10 | | 13200 | 13300 | | | | | | | | 300 |
| .20 | | 13600 | | | | | | | | | |
| .30 | | 13900 | | | | | | | | | |
| .40 | | 14300 | | | | | | | | | |
| | 14200 | , 17500 | 1 17700 | , ,,,,,,, | 1 1000 | 1 | 1 | 15000 | | | |

STATE OF COLORADO

Division of Water Resources

OFFICE OF THE STATE ENGINEER

Rating Table ID:

PLADENCO33

Time of last edit: 10/24/2002 13:51

| Gage | .00 | 01 | .02 | .03 | c.04 | .05 | .06 | 207 | .08 | .09. | DIFF |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| .60 | 15100 | 15100 | 15200 | 15200 | 15200 | 15200 | 15300 | 15300 | 15300 | 15400 | 400 |
| .70 | 15400 | 15400 | 15500 | 15500 | 15600 | 15600 | 15600 | 15700 | 15700 | 15800 | 300 |
| .80 | 15800 | 15800 | 15900 | 15900 | 16000 | 16000 | 16000 | 16100 | 16100 | 16200 | 400 |
| .90 | 16200 | 16200 | 16300 | 16300 | 16400 | 16400 | 16400 | 16500 | 16500 | 16600 | 400 |
| 12.00 | 16600 | 16600 | 16700 | 16700 | 16800 | 16800 | 16800 | 16900 | 16900 | 17000 | 400 |
| .10 | 17000 | | | | | | | | | | 400 |
| .20 | | | | | | | | | | | |
| .30 | | | | | | | | | | | |
| .40 | | | | | | | | | | | |
| .50 | | | | | | | | | | | |
| .60 | | | | | | | | | | | |
| .70 | | | | | | | | | | | |
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| .90 | | | | | | | | | | | |
| 13.00 | | | | | | | | | | | |

1:00:35PM

Water Resources

Data Category: Surface Water Colorado

Geographic Area:

GO

Peak Streamflow for Colorado

USGS 06714000 SOUTH PLATTE RIVER AT DENVER, CO.

Available data for this site Station home page

Denver County, Colorado

GO

Hydrologic Unit Code 10190003 Latitude 39°45'35", Longitude 105°00'10" NAD27 Drainage area 3,861.00 square miles

Gage datum 5,157.64 feet above sea level NGVD29

| Output formats |
|-------------------------|
| <u>Table</u> |
| Graph |
| Tab-separated file |
| WATSTORE formatted file |
| Reselect output format |

| Water Year | Date | Gage Height (feet) | Stream- flow (cfs) |
|---------------|---------------|--------------------------|--------------------------|
| 1895 | Aug. 02, 1895 | | 1,940 ¹ |
| 1896 | Oct. 07, 1895 | | 1,090 ¹ |
| 1897 | Aug. 05, 1897 | | $2,420^{1}$ |
| 1898 | May 28, 1898 | | 2,310 ¹ |
| 1899 | Aug. 05, 1899 | | 1,420 |
| 1900 | Apr. 29, 1900 | | 5,980 |
| 1901 | Jun. 15, 1901 | | 1,390 ¹ |
| 1903 | Jun. 16, 1903 | | 1,240 ⁵ |
| 1904 | Jun. 03, 1904 | | 1,700 ⁵ |
| 1905 | May 04, 1905 | | $2,200^5$ |
| 1906 | May 26, 1906 | | 1,020 ⁵ |
| 1909 | Aug. 07, 1909 | | 5,100 ⁵ |
| 1910 | Jul. 30, 1910 | | 1,600 ⁵ |
| 1911 | Aug. 11, 1911 | | 2,900 ⁵ |
| 1912 | Jul. 14, 1912 | | 13,000 ⁵ |
| 1913 | Jul. 25, 1913 | | 4,000 ⁵ |
| 1914 | May 21, 1914 | | 9,480 ⁵ |
| | | | |

| Water Year | Date | Gage Height (feet) | Stream- flow (cfs) |
|---------------|---------------|--------------------------|--------------------------|
| 1950 | Jun. 16, 1950 | 4.23 | 4,290 ⁵ |
| 1951 | Aug. 03, 1951 | 4.57 | 5,470 ⁵ |
| 1952 | May 24, 1952 | 3.06 | 1,850 ⁵ |
| 1953 | Jul. 09, 1953 | 4.07 | 4,290 ⁵ |
| 1954 | Jul. 21, 1954 | 2.94 | $2,010^5$ |
| 1955 | Aug. 28, 1955 | 3.87 | 3,800 ⁵ |
| 1956 | Aug. 01, 1956 | 4.93 | 5,920 ⁵ |
| 1957 | May 15, 1957 | 4.67 | 4,920 ⁵ |
| 1958 | May 08, 1958 | 3.76 | 3,080 ⁵ |
| 1959 | May 21, 1959 | 2.12 | 1,930 ⁵ |
| 1960 | Jul. 03, 1960 | 2.71 | 2,820 ⁵ |
| 1961 | Jul. 31, 1961 | 2.66 | $2,200^5$ |
| 1962 | Jun. 29, 1962 | 2.42 | 1,610 ⁵ |
| 1963 | Jun. 15, 1963 | 4.35 | 4,700 ⁵ |
| 1964 | May 29, 1964 | 2.94 | 3,020 ⁵ |
| 1965 | Jun. 17, 1965 | 15.00 | 40,300 ⁵ |
| 1966 | Jul. 21, 1966 | 5.18 | 2,670 ⁵ |

| 1915 | Apr. 27, 1915 | | 2,620 ⁵ |
|------|---------------|-------|---------------------|
| 1916 | Aug. 04, 1916 | | 2,400 ⁵ |
| 1917 | May 25, 1917 | | 2,400 ⁵ |
| 1918 | Jun. 24, 1918 | | 3,050 ⁵ |
| 1919 | Aug. 01, 1919 | | 4,650 ⁵ |
| 1920 | Aug. 03, 1920 | | 2,410 ⁵ |
| 1921 | Jun. 08, 1921 | | 8,790 ⁵ |
| 1922 | Jul. 28, 1922 | | 5,850 ⁵ |
| 1923 | Jul. 12, 1923 | | 4,200 ⁵ |
| 1924 | Jun. 04, 1924 | | 2,950 ⁵ |
| 1925 | Aug. 12, 1925 | | 1,310 ⁵ |
| 1926 | Apr. 22, 1926 | | 3,190 ⁵ |
| 1927 | Aug. 14, 1927 | | 1,890 ⁵ |
| 1928 | Jun. 03, 1928 | | 1,930 ⁵ |
| 1929 | Aug. 06, 1929 | | 2,140 ⁵ |
| 1930 | Aug. 04, 1930 | | 3,250 ⁵ |
| 1931 | Aug. 16, 1931 | | 2,680 ⁵ |
| 1932 | Jul. 13, 1932 | 3.44 | 2,000 ⁵ |
| 1933 | Sep. 10, 1933 | 10.98 | 22,000 ⁵ |
| 1934 | Aug. 09, 1934 | 3.30 | 1,300 ⁵ |
| 1935 | May 31, 1935 | 8.10 | 12,320 ⁵ |
| 1936 | Aug. 12, 1936 | 4.79 | 4,020 ⁵ |
| 1937 | Jun. 01, 1937 | 5.35 | 5,280 ⁵ |
| 1938 | Aug. 28, 1938 | 5.60 | 5,870 ⁵ |
| 1939 | Mar. 10, 1939 | 5.10 | 4,790 ⁵ |
| 1940 | Sep. 10, 1940 | 4.14 | 2,480 ⁵ |
| 1941 | Jun. 22, 1941 | 4.98 | 4,000 ⁵ |
| 1942 | Apr. 25, 1942 | 8.09 | 10,200 ⁵ |
| 1943 | Jul. 21, 1943 | 3.20 | 1,400 ⁵ |
| 1944 | Jun. 08, 1944 | 4.32 | 2,500 ⁵ |
| 1945 | Aug. 06, 1945 | 6.14 | 6,280 ⁵ |
| 1946 | Jul. 18, 1946 | 4.86 | 3,530 ⁵ |
| | | | |

| 1967 | Jul. 07, 1967 | 6.63 | 5,460 ⁵ |
|------|---------------|-------|---------------------|
| 1968 | Aug. 13, 1968 | 5.25 | 2,780 ⁵ |
| 1969 | May 07, 1969 | 10.47 | 21,100 ⁵ |
| 1970 | Jun. 11, 1970 | 6.58 | 6,330 ⁵ |
| 1971 | Aug. 19, 1971 | 4.97 | 3,130 ⁵ |
| 1972 | Jun. 04, 1972 | 5.05 | 3,380 ⁵ |
| 1973 | May 07, 1973 | 10.85 | 17,600 ⁵ |
| 1974 | Jun. 08, 1974 | 5.35 | 3,390 ⁵ |
| 1975 | Jul. 20, 1975 | 7.88 | 7,600 ⁶ |
| 1976 | Sep. 27, 1976 | 4.79 | 2,140 ⁶ |
| 1977 | Jul. 25, 1977 | 4.69 | 2,120 ⁶ |
| 1978 | May 17, 1978 | 4.43 | 1,720 ⁶ |
| 1979 | Aug. 16, 1979 | 6.09 | 4,260 ⁶ |
| 1980 | May 07, 1980 | 6.59 | 4,890 ⁶ |
| 1981 | May 28, 1981 | 4.58 | 1,740 ⁶ |
| 1982 | May 12, 1982 | 5.57 | 3,220 ⁶ |
| 1983 | Jun. 27, 1983 | 7.29 | 6,600 ⁶ |
| 1984 | Aug. 20, 1984 | 7.32 | 6,840 ⁶ |
| 1985 | Jul. 19, 1985 | 7.70 | 8,280 ⁶ |
| 1986 | Jul. 20, 1986 | 5.68 | 5,060 ⁶ |
| 1987 | Jun. 08, 1987 | 7.77 | 12,200 ⁶ |
| 1988 | Aug. 04, 1988 | 5.54 | 6,100 ⁶ |
| 1989 | Jun. 03, 1989 | 4.45 | 4,210 ⁶ |
| 1990 | May 29, 1990 | 7.10 | 5,200 ⁶ |
| 1991 | Jun. 01, 1991 | 8.01 | 7,460 ⁶ |
| 1992 | Aug. 24, 1992 | 8.42 | 6,170 ⁶ |
| 1993 | Jun. 18, 1993 | 6.33 | 2,720 ⁶ |
| 1994 | Aug. 10, 1994 | 7.92 | 5,460 ⁶ |
| 1995 | Jun. 04, 1995 | 9.42 | 8,440 ⁶ |
| 1996 | Jul. 12, 1996 | 7.40 | 3,750 ⁶ |
| 1997 | Aug. 11, 1997 | 8.64 | 6,220 ⁶ |
| 1998 | Jul. 25, 1998 | 10.90 | 12,600 ⁶ |

| 1947 Jun. 22, 1947 | 4.98 $3,920^5$ | 1999 | Aug. 05, 1999 | 8.37 | 5,150 ⁶ |
|--------------------|-------------------------|------|---------------|------|--------------------|
| 1948 Apr. 30, 1948 | 4.45 3,440 ⁵ | 2000 | Aug. 17, 2000 | 8.31 | 5,410 ⁶ |
| 1949 Jun. 14, 1949 | 6.21 8,800 ⁵ | 2001 | Jul. 08, 2001 | 9.63 | 8,620 ⁶ |
| | | 2002 | Sep. 13, 2002 | 6.15 | 2,090 ⁶ |

2 Peak Streamflow Qualification Codes.

- 1 -- Discharge is a Maximum Daily Average
- 5 -- Discharge affected to unknown degree by Regulation or Diversion
- 6 -- Discharge affected by Regulation or Diversion

Questions about data <u>gs-w-co_NWISWeb_Data_Inquiries@usgs.gov</u>
Feedback on this websitegs-w-co_NWISWeb_Maintainer@usgs.gov
Surface Water for Colorado: Peak Streamflow
http://waterdata.usgs.gov/co/nwis/peak?

Top Explanation of terms

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