

Est. 1966

000002

WYOMING COLORADO RIVER WATER PICTURE 1965

Present uses: 265,000 acre-feet
25.40%

Projects and uses under construction or
firmly committed in 1965:

Seedskadee, incl. Fontenelle Res. evap.	165,000
Lyman	10,000
Eden Improvement Program	15,000
Industrial Westvaco	24,000
Savery-Pot Hook	12,000
Evaporation from main stem reservoirs	92,000

<i>City of Cheyenne</i>	Total	583,000
		55.9%
		21,000

14% of 6.3* maf = 882,000 acre-feet

882,000 - 583,000 = 299,000 acre-feet of consumptive use left for development as of 1965

* 6.3 maf of consumptive use assumed to be physically available as total supply for Upper Division States. (See Tipton Report)

000003

UTAH'S COLORADO RIVER WATER PICTURE 1965

Present uses:579,000 acre-feet
33.79%

Projects and uses under construction
or firmly committed in 1965:

CUP - Bonneville Unit	159,000	166,000
- Upalco Unit	18,000	20,000
- Jensen Unit	9,000	10,000
- Uintah Unit	40,000	45,000
Emery County	14,000	17,000
Evaporation - Main stem	152,000	✓
- Other	12,000	?
Kaiparowits Plateau power plant	102,000	

TOTAL being used or firmly committed1,085,000 acre-feet
63.32%

23% of 6.3* maf = 1,449,000 acre-feet

1,449,000 - 1,085,000 = 364,000 acre-feet of consumptive use left for
development as of 1965

* 6.3 maf of consumptive use assumed to be physically available as total
supply for Upper Division States. (See Tipton Report)

000004

NEW MEXICO'S COLORADO RIVER WATER PICTURE 1965

Present uses: 140,000 acre-feet
16.7%

Projects under construction or
firmly committed in 1965:

Utah Construction	25,000	✓	
Navajo Reservoir Contracts	100,000		
Town of Farmington	5,000	✓	
San Juan-Chama	110,000	✓	
Navajo Indian Irrigation	250,000	✓	
Navajo Indian Hogback	10,000	✓	
Hammond	5,000	✓	
Animas-LaPlata	25,000		USBR. 34,000
Evaporation - Main stem	74,000	✓	
- Other	15,000		10,000 Nav. 005

TOTAL being used or firmly committed 759,000 acre-feet
90.56%

6.5 708,000

11 1/4% of 6.3* maf = 708,000 acre-feet.

708,000 - 759,000 = -51,000 acre-feet of consumptive use overdeveloped.

*6.3 maf of consumptive use assumed to be physically available as total supply for Upper Division States. (See Tipton Report)

000005

COLORADO'S COLORADO RIVER WATER PICTURE 1965

Present uses: 1,786,000 acre-feet
46.31%

Projects and uses under construction
or firmly committed in 1965:

Savery-Pot Hook Project	26,000 ✓	
Hayden Steam Plant	12,000 ✓	
Fruitland Mesa Project	28,000 ✓	
Bostwich Park Project	3,000 ✓	
Homestake Creek Div	74,000 ✓	
Pueblo-Eagle River	3,000 ✓	
Fryingpan-Arkansas Project	70,000 ✓	
Silt Project	6,000 ✓	
Colorado Springs-Blue River	6,000 ✓	
Denver-Blue, Moffat, Williams, Eagle, and Pincy	240,000 ✓	
Englewood-Moffat Tunnel	10,000 ✓	
Independence Pass Tunnel	14,000 ✓	
Pine River Extension Lands	6,000	
Oil Shale Development	-250,000	100,000
Evaporation - Main Stem	340,000	342,000

TOTAL being used or firmly committed ⁴2,876,000 acre-feet
74.57%

51.75% of 6.3* maf = 3,260,000 acre-feet

3,260,000 - ^{2,720,000} 2,876,000 = ^{540,000} 384,000 acre-feet of consumptive use left for
development as of 1965.

2,720,000
70.55%

*6.3 maf of consumptive use assumed to be physically available as total supply for Upper Division States. (See Tipton Report)

000006

COLORADO PROJECTS AUTHORIZED

by September 20, 1965 DRAFT

		2,725,000	
Present and committed uses:		2,876,000	acre-feet
Projects authorized by H.R. 4671			
	(Project Depl.)	(Accum. Depl.)	
Animas-LaPlata	94,000 . 93,000	2,970,000	2,812,000
Dolores	74,000	3,044,000	2,887,000
Dallas Creek	37,000	3,081,000	2,924,000
		79.89%	
Projects conditionally authorized by H. R. 4671:			
San Miguel	74,000 ✓	3,155,000	2,998,000
West Divide	71,000 ✓	3,226,000	3,069,000
		← 83.65%	
Yellow Jacket	50,000 57,000	3,276,000	3,126,000
Battlement Mesa	11,000	3,287,000	3,137,000
Bluestone	13,000	3,300,000	3,152,000
Grand Mesa	32,000	3,332,000	3,182,000
Basalt	26,000	3,358,000	3,208,000
Juniper	48,000 47,000	3,406,000	3,305,000
Middle Park	29,000	3,435,000	3,312,000
Upper Gunnison.	32,000 22,000	3,467,000	3,356,000
		89.89%	87%

51.75% of 6.3* maf = 3,260,000 acre-feet (see arrow above)

COLORADO WATER CONSERVATION BOARD
215 State Services Building
1525 Sherman Street
Denver 3, Colorado

May 8, 1961

STUDY C-1

ANALYSIS OF COLORADO RIVER FLOW AT LEE FERRY IN TERMS OF THE COLORADO RIVER COMPACT, 1922-1960

Units - 1000 Acre-Feet

(Columns 2 through 8 are cumulative totals computed in consecutive and successive ten-year periods.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Year	Historic Flow at Lee Ferry	Cumulative Total in Consecutive & Successive Ten-Year Periods	*Compact Delivery to Lower Basin	Actual Excess Delivery to Lower Basin	Upper Basin Historic Depletion	Balance Available to Upper Basin Pursuant to Compact Allocation	Total Water Available for Upper Basin Depletion Pursuant to Compact Allocation	Excess de- livery at Lee Ferry Adjusted for Full Upper & Lower Basin Compact Allocation
1922	16,302							
23	16,261							
24	12,481							
25	11,341							
26	14,009							
27	16,587							
28	15,323							
29	19,223							
1930	13,070							
31	6,388	140,985	75,000	65,985	18,653	56,347	75,000	9,638
32	15,286	139,969	75,000	64,969	18,607	56,393	75,000	8,576
33	9,745	133,453	"	58,453	18,210	56,790	75,000	1,663
34	4,396	125,368	"	50,368	17,734	50,368	68,102	
35	9,912	123,939	"	48,939	17,679	48,939	66,618	
36	11,970	121,900	"	46,900	17,665	46,900	64,565	

STUDY C-1

(Continued)

Units - 1000 Acre-Feet

(Columns 2 through 8 are cumulative totals computed in consecutive and successive ten-year periods.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Year	Historic Flow at Lee Ferry	Cumulative Total in Consecutive & Successive Ten-Year Periods	*Compact Delivery to Lower Basin	Actual Excess Delivery to Lower Basin	Upper Basin Historic Depletion	Balance Available to Upper Basin Pursuant to Compact Allocation	Total Water Available for Upper Basin Depletion Pursuant to Compact Allocation	Excess delivery at Lee Ferry Adjusted for Full Upper & Lower Basin Compact Allocation
1937	11,897	117,210	75,000	42,210	17,479	42,210	59,689	
38	15,440	117,327	"	42,327	17,628	42,327	59,955	
39	9,394	107,498	"	32,498	17,108	32,498	49,606	
1940	7,082	101,510	"	26,510	16,812	26,510	43,322	
41	16,052	111,174	"	36,174	17,527	36,174	53,701	
42	17,029	112,917	"	37,917	17,666	37,917	55,583	
43	11,263	114,435	"	39,435	17,895	39,435	57,330	
44	13,221	123,260	"	48,260	18,584	48,260	66,844	
45	11,545	124,893	"	49,893	18,812	49,893	68,705	
46	8,745	121,668	"	46,668	18,663	46,668	65,331	
47	13,516	123,287	"	48,287	18,777	48,287	67,064	
48	13,687	121,534	"	46,534	18,577	46,534	65,111	
49	14,359	126,499	"	51,499	18,957	51,499	70,456	
1950	11,057	130,474	"	55,474	19,426	55,474	74,900	
51	9,831	124,253	"	49,253	19,383	49,253	68,636	
52	17,980	125,204	"	50,204	19,980	50,204	70,184	
53	8,805	122,746	"	47,746	19,983	47,746	67,729	
54	6,116	115,641	"	40,641	19,622	40,641	60,263	
55	7,307	111,403	"	36,403	19,600	36,403	56,003	
56	8,750	111,408	"	36,408	19,889	36,408	56,297	
57	17,340	115,232	"	40,232	20,622	40,232	60,854	
58	14,260	115,805	"	40,805	20,957	40,805	61,762	

STUDY C-1
(Continued)

(Columns 2 through 8 are cumulative totals computed in consecutive and successive ten-year periods.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Year	Historic Flow at Lee Ferry	Cumulative Total in Consecutive & Successive Ten-Year Periods	*Compact Delivery to Lower Basin	Actual Excess Delivery to Lower Basin	Upper Basin Historic Depletion	Balance Available to Upper Basin Pursuant to Compact Allocation	Total Water Available for Upper Basin Pursuant to Compact Allocation	Excess delivery at Lee Ferry Adjusted for Full Upper & Lower Basin Compact Allocation
1959	6,756	108,202	75,000	33,202	20,676	33,202	53,878	
1960	9,193	106,338	"	31,338	20,695	31,338	52,033	
Averages	12,126	119,851	75,000	44,851	18,796	44,188	62,984	663
1950-60 Ave	11,321							

Water Year	Historic
1914	12,340
15	12,500
16	12,320
17	21,830
18	13,650
19	19,860
1920	19,740
21	20,720

Column 1 sets forth the historic flow of the Colorado River as measured at Lee Ferry on an annual basis. Historic flow should not be confused with virgin flow since the latter would be greater because of the adding back of upstream depletions.

Column 2 is the historic flow at Lee Ferry computed in consecutive and successive ten-year periods.

Column 3 sets forth required delivery of water at Lee Ferry under Article III(d) of the Colorado River Compact which reads as follows: "The states of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre feet for any period of ten consecutive years reckoned in continuing progressive series beginning with the first day of October next succeeding the ratification of this compact".

Column 4 is the result obtained by subtracting Column 3 from Column 2.

Column 5 is the estimated historic depletion by states of the Upper Division.

Column 6 reflects the balance of the water available to the states of the Upper Division not to exceed 75,000,000 acre feet in any consecutive and successive ten-year period. (Column 4 or 75,000,000 minus Column 5, whichever is the smaller).

Annual Report	Historic
1961	6,622
62	16,790
63	2,520
64	3,421
1965	10,805
66	2,910
67	2,323

STUDY C-1
(Continued)

Column 7 shows the quantity of water actually available to the Upper Division states within the ten-year limitation of 75,000,000 acre feet (Column 5 plus Column 6).

Column 8 is the amount by which the sum of Columns 4 and 5 exceeds 75,000,000 acre feet.

*NOTE: The waters available to the Lower Basin also include all tributaries which enter the Colorado River below Lee Ferry. Depletions from such downstream tributaries by Lower Basin states are charged to the Lower Basin pursuant to the terms of the Colorado River Compact. The average annual inflow between Lee Ferry and Parker Dam is approximately one million acre feet. In addition to this inflow the State of Arizona is depleting the flow of the Gila River by more than one million acre feet annually on the average.