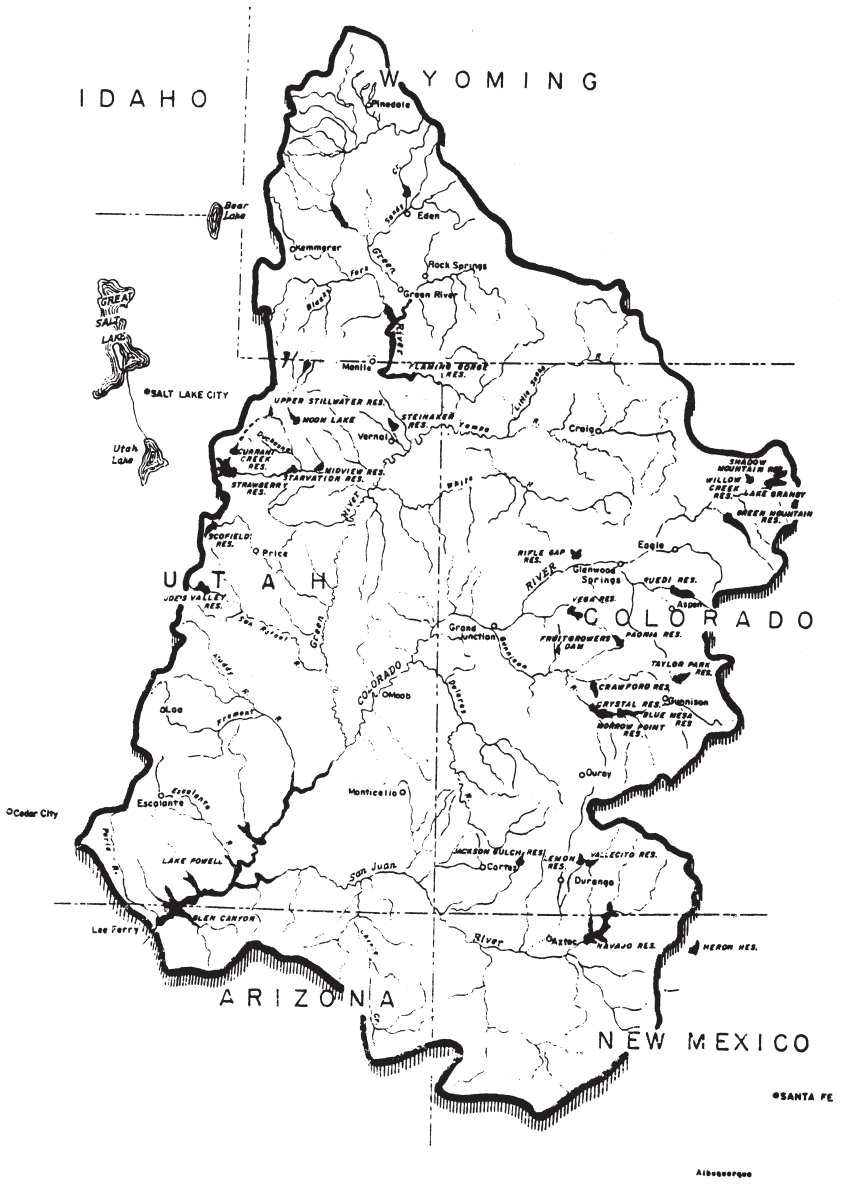
FIFTY-SIXTH ANNUAL REPORT

OF THE

Upper Colorado River Commission

SALT LAKE CITY, UTAH

SEPTEMBER 30, 2004



UPPER COLORADO RIVER BASIN

UPPER COLORADO RIVER
COMMISSION

UPPER COLORADO
RIVER COMMISSION
355 South 400 East • Salt Lake City • Utah 84111 • 801-531-1150 • FAX 801-531-9705

March 31, 2005

President George W. Bush
The White House
Washington, D.C. 20500

Dear President Bush:

The Fifty-Sixth Annual Report of the Upper Colorado River Commission, as required by Article VIII(d)(13) of the Upper Colorado River Basin Compact, is enclosed.

The budget of the Commission for fiscal year 2006 (July 1, 2005 - June 30, 2006) is included in this report as Appendix B.

This report has also been transmitted to the Governor of each State signatory to the Upper Colorado River Basin Compact.

Respectfully yours,

Don A. Ostler, P.E.
Executive Director

Enclosure

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PREFACE

Article VIII(d)(13) of the Upper Colorado River Basin Compact requires the Upper Colorado River Commission to "make and transmit annually to the Governors of the signatory States and the President of the United States of America, with the estimated budget, a report covering the activities of the Commission for the preceding water year."

Article VIII(1) of the By-Laws of the Commission specifies that "the Commission shall make and transmit annually on or before April 1 to the Governors of the states signatory to the Upper Colorado River Basin Compact and to the President of the United States a report covering the activities of the Commission for the water year ending the preceding September 30."

This Fifty-Sixth Annual Report of the Upper Colorado River Commission has been compiled pursuant to the above directives.

This Annual Report includes, among other things, the following:

- Membership of the Commission, its Committees, Advisers, and Staff;
- Roster of meetings of the Commission;
- Brief discussion of the activities of the Commission;
- Engineering and hydrologic data;
- Pertinent legal information;
- Information pertaining to congressional legislation;
- Map of the Upper Colorado River Basin;
- Status of the Storage Units and participating projects of the Colorado River Storage Project;
- Appendices containing:
  - Fiscal data, such as: budget, balance sheet, statements of revenue and expense.

COMMISSION

Scott M. Balcomb
Commissioner for
Colorado

L. Richard Bratton
Chairman
Commissioner for
United States

Philip B. Mutz
Commissioner for
New Mexico

D. Larry Anderson
Commissioner for
Utah

Patrick T. Tyrrell
Commissioner for
Wyoming

ALTERNATE COMMISSIONERS

Rod Kuharich	State of Colorado
Dallin W. Jensen	State of Utah
Dan S. Budd	State of Wyoming
Benjamin C. Bracken	State of Wyoming

OFFICERS OF THE COMMISSION

Chairman	L. Richard Bratton
Vice Chairman	D. Larry Anderson
Secretary	Don A. Ostler
Treasurer	Robert B. Nixon, Jr.
Assistant Treasurer	Silvia Norman

STAFF

Executive Director	Don A. Ostler
Assistant to the Executive Director and General Counsel	Jane Bird
Administrative Secretary	TeriKay Gomm

COMMITTEES

The Committees of the Commission convened when required during the year. Committees and their membership at the date of this report are as follows (the Chairman and the Secretary of the Commission are ex-officio members of all committees, Article V(4) of the By-Laws):

Legal Committee:

Ken Salazar
Carol D. Angel
Tanya Trujillo
Dallin W. Jensen
Norman K. Johnson
Hugh B. McFadden

Engineering Committee:

John W. Shields, Chairman
D. Randolph Seaholm
Harold (Hal) Simpson
Eric Kuhn
David H. Merritt
John Whipple
Robert King
Jerry Olds

Budget Committee:

Philip B. Mutz, Chairman
Rod Kuharich
D. Larry Anderson
Patrick T. Tyrrell

ADVISERS TO COMMISSIONERS

The following individuals serve as advisers to their respective Commissioner:

COLORADO

Legal:

Ken Salazar
Attorney General
State of Colorado
Denver, Colorado

Carol D. Angel
Senior Assistant Attorney General
Natural Resources Section
Denver, Colorado

Engineering:

D. Randolph Seaholm
Colorado Water Conservation Board
Denver, Colorado

Harold D. (Hal) Simpson
State Engineer
Denver, Colorado

David H. Merritt
Colorado River Water Conservation District
Glenwood Springs, Colorado

Eric Kuhn
Colorado River Water Conservation District
Glenwood Springs, Colorado

NEW MEXICO

Legal:

Tanya Trujillo
General Counsel
New Mexico Interstate Stream Commission
Santa Fe, New Mexico

Engineering:

John Whipple
Staff Engineer
New Mexico Interstate Stream Commission
Santa Fe, New Mexico

UTAH

Legal:

Dallin W. Jensen
Attorney at Law
Salt Lake City, Utah

Norman K. Johnson
Assistant Attorney General
Salt Lake City, Utah

Engineering:

Robert King
Chief, Interstate Streams
Division of Water Resources
Salt Lake City, Utah

Jerry Olds
State Engineer
Division of Water Rights
Salt Lake City, Utah

General Advisers:

Don A. Christiansen, Manager
Central Utah Water Conservancy
District
Orem, Utah

Scott Ruppe, Manager
Uintah Water
Conservancy District
Vernal, Utah

WYOMING

Legal:

Hugh B. McFadden
Deputy Attorney General
Cheyenne, Wyoming

Engineering:

John W. Shields
Interstate Streams Engineer
Cheyenne, Wyoming

MEETINGS OF THE COMMISSION

During the Water Year ending September 30, 2004 the Commission met as follows:

Meeting No. 247 October 8, 2003	St. George, Utah
Meeting No. 248 June 17, 2004	Salt Lake City, Utah

ACTIVITIES OF THE COMMISSION

Within the scope and limitations of Article I(a) of the Upper Colorado River Basin Compact and under the powers conferred upon the Commission by Article VIII(d), the principal activities of the Commission have consisted of: (A) research and studies of an engineering and hydrologic nature of various facets of the water resources of the Colorado River Basin especially as related to operation of the Colorado River reservoirs; (B) collection and compilation of documents for a legal library relating to the utilization of waters of the Colorado River System for domestic, industrial and agricultural purposes, and the generation of hydroelectric power; (C) legal analyses of associated laws, court decisions, reports and problems; (D) participating in activities and providing comments on proposals that would increase the beneficial consumptive uses in the Upper Basin, including environmental, fish and wildlife, endangered species and water quality activities to the extent that they might impair Upper Basin development; (E) cooperation with water resources agencies of the Colorado River Basin States on water and water-related problems; (F) an education and information program designed to aid in securing appropriations of funds by the United States Congress for the construction, planning and investigation of storage dams, reservoirs and water resource development projects of the Colorado River Storage Project that have been authorized for construction and to secure authorization for the construction of additional participating projects as the essential investigations and planning are completed; and (G) a legislative program consisting of the analysis and study of water resource bills introduced in the U.S. Congress for enactment, the preparation of evidence and argument and the presentation of testimony before the Committees of the Congress.

Many of the Commission's activities this past year have been in response to the drought. The Commissioners, Commission staff, and both legal and engineering Committee members have participated in Basin States meetings, drought workgroups and Upper Basin work meetings. Issues that have been addressed include the mid-year review of the Annual Operating Plan, conjunctive management strategies for Lakes Powell and Mead, Lower Basin shortage criteria, improvement of regulatory storage in the Lower Basin, management of high tributary flows in the Lower Basin and curtailment procedures for the Upper Basin.

A. ENGINEERING-HYDROLOGY

1. Colorado River Salinity Program

The Upper Colorado River Commission has continued its interest and involvement in the Colorado River Basin salinity problem. The Commission staff has worked with representatives of the Commission's member States in coordinating and correlating activities with other State and Federal agencies, particularly the Colorado River Basin Salinity Control Forum, which is composed of representatives from the seven Colorado River Basin States. The Forum has developed water quality standards and a plan of implementation to meet the Environmental Protection Agency Regulation (40 CFR Part 120, Water Quality Standards--Colorado River System: Salinity Control Policy and Standards Procedures).

Section 303 of the Clean Water Act requires that water quality standards be reviewed from time to time and at least once during each three-year period. The Forum in 2002 reviewed the existing State-adopted and Environmental Protection Agency-approved numeric salinity criteria and found no reason to recommend changes for the three lower mainstem stations.

The values are:

	Salinity in (mg/l)
Below Hoover Dam	723
Below Parker Dam	747
Imperial Dam	879

The Forum is now in the midst of its 2005 Review. For several years the states, the Upper Colorado River Commission and the Forum have been working with Reclamation as it attempts to create a river model that can reproduce flows and salinity concentrations of the past and predict probabilities of flows and salinity concentrations in the future. It now appears that this model has been developed sufficiently that it can be used as a tool in the preparation of the 2005 Review.

The Salinity Control Program has been successful in implementing controls that have reduced the average concentrations at downstream measuring points by perhaps 80 mg/l. The Forum's goals are based on long-term averages and the river model can assist with the analysis of future salinity control needs. Currently it is felt that about as much salinity control will need to be implemented in the next 15 years as have occurred in the last 15 years to meet water quality objectives.

The Salinity Control Program cannot offset short-term variances caused by short-term hydrologic variances from the norm. The Forum is also concerned that Reclamation has identified that salt has been stored in the lower part of Lake Powell and that now that stored salt may be released to the downstream water supply because of low lake levels that are the result of recent dry years.

2. Forecast of Stream Flow

The April 1, 2004 forecast of inflow to Lake Powell by the National Weather Service, Department of Commerce, for April-July was estimated to be 3,800,000 acre-feet[1]. The actual unregulated inflow to Lake Powell for the period April-July 2004 amounted to 3,638,000 acre-feet[2], which was about 49 percent of the 30-year (1971-2000) average flow. Actual regulated inflow to Lake Powell for the period April-July 2004 was 2,884,000 acre-feet.

For the period October 1, 2003 through September 30, 2004, the change in reservoir storage, excluding bank storage and evaporation, at selected reservoirs above Lake Powell was as follows:

- Fontenelle increased 30,800 acre-feet.
- Flaming Gorge increased 43,946 acre-feet.
- Taylor Park decreased 2,500 acre-feet.
- Blue Mesa increased 121,000 acre-feet.
- Morrow Point decreased 756 acre-feet.
- Crystal increased 2,400 acre-feet.
- Navajo increased 200,600 acre-feet.

The virgin flow[3] of the Colorado River at Lee Ferry[4] for the 2004 water year amounted to 10,000,000 acre-feet[5].

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[1] Including water to be stored upstream in other Colorado River Storage Project Reservoirs.

[2] Adjusted for upstream regulation and depletions.

[4] Virgin flow is the estimated flow of the stream if it were in its natural state and unaffected by the activities of man.

[5] Lee Ferry, Arizona is the division point between the upper and lower basins of the Colorado River as defined in the Colorado River Compact. It is located about one mile downstream from the mouth of the Paria River and about 16 miles downstream from Glen Canyon Dam.

3. Summary of Reservoir Levels and Contents

Runoff[6] during the year ending September 30, 2004 ranged from 57 percent of the long term (1923-2002) mean at the Colorado River Station near Cisco, Utah to 68 percent of the long term (1928-2002) San Juan River station near Bluff, Utah. The volumes of runoff at these stations were 2,693,400 acre-feet and 1,029,000 acre-feet respectively. Runoff at the Green River station near Green River, Utah totaled 2,073,700 acre-feet, which was 68 percent of the long term (1906-2002) mean.

Lake Powell's lowest elevation of the 2004 water year occurred on September 22, 2004 when the reservoir level was at elevation 3,570.65 feet (live content of 9,159,710 acre-feet). Lake Powell was at its highest point on October 1, 2003 at elevation 3,603.72 feet with a content of 12,108,559 acre-feet. A total of 8,335,000 acre-feet was released to the river below Glen Canyon Dam during the 2004 water year. The 1995-2004 (10-year) delivery to the Lower Basin (measured at Lee Ferry) was 102,512 acre-feet.

Lake Mead, on September 30, 2003, contained 15,618,000 acre-feet[7] of available storage water at elevation 1,142.07 feet. On September 30, 2004, the live storage of Lake Mead was 13,937,000 acre-feet (elev. 1,125.86 ft.) which is 4,768,000 acre-feet greater than the storage in Lake Powell.

Table 1 on page 10 shows the Statistical Data for Principal Reservoirs in the Upper Colorado River Basin. Table 2 on page 11 provides the same information for the Lower Colorado River Basin reservoirs.

The results of the long-range reservoir operation procedures adopted by the Secretary of the Interior for Lake Powell, Flaming Gorge, Fontenelle, Navajo, and Blue Mesa reservoirs in the Upper Colorado River Basin and for Lake Mead in the Lower Basin are illustrated on pages 13 through 20 for the 2004 water year.

In water year 2004, there was no equalization of storage as dictated by Section 602(a) of Public Law 90-537. The drawdown of Lake Powell was governed by factors other than the equalization criteria.

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[6] Based on provisional records subject to revision.

[7] Adjusted for the change in storage in Colorado River Storage Project Reservoirs.

[8] Based on April 1, 1967 Capacity Table revised according to Sedimentation Survey 1963-1964.

Table 1

STATISTICAL DATA FOR PRINCIPAL RESERVOIRS IN COLORADO RIVER BASIN UPPER BASIN

Colorado River Storage Project
(Total Surface Capacity)

(Units: Elevation = feet; Capacity = 1,000 acre-feet)

	Fontenelle		Flaming Gorge		Taylor Park		Blue Mesa		Morrow Point		Crystal		Navajo		Lake Powell	
	Elev.	Cap.	Elev.	Cap.	Elev.	Cap.	Elev.	Cap.	Elev.	Cap.	Elev.	Cap.	Elev.	Cap.	Elev.	Cap.
River elevation at dam (average tailwater)	-	-	5,603	0	9,174	0	7,160	0	6,775	0	6,534	0	5,720	0	3,138	0
Dead Storage	6,408	0.56	5,740	40	-	-	7,358	111	6,808	0	6,670	8	5,775	13	3,370	1,893
Inactive Storage (minimum power pool)	-	-	5,871	273	-	-	7,393	192	7,100	75	6,700	12	5,990 [1]	673	3,490	5,890
Rated Head	6,491	234	5,946	1,102	-	-	7,438	361	7,108	80	6,740	20	-	-	3,570	11,000
Maximum Storage (without surcharge)	6,506	345	6,040	3,789	9,330	106	7,519	941	7,160	117	6,755	25	6,085	1,709	3,700	26,215

[1] The elevation for inactive storage for Navajo Reservoir is required for the Navajo Indian Irrigation Project.

Table 2

STATISTICAL DATA FOR PRINCIPAL RESERVOIRS IN COLORADO RIVER BASIN LOWER BASIN

(Usable Surface Capacity)

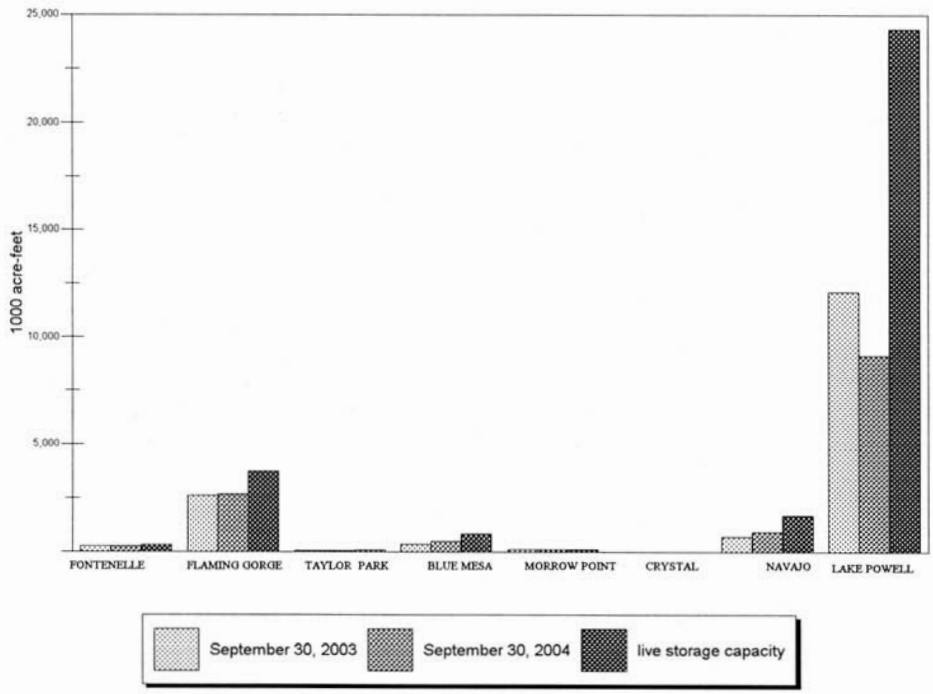
(Units: Elevation = feet; Capacity = 1,000 acre-feet)

	Lake Mead		Lake Mohave		Lake Havasu	
	Elev.	Capacity	Elev.	Capacity	Elev.	Capacity
River elevation at dam (average tailwater)	646	-2,378	506	-8.5	370	-28.6
Dead Storage	895	0	533.39	0	400	0
Inactive Storage (minimum power pool)	1,050	7,471	570	217.5	440 [1]	439.4
Rated Head	1,122.8	13,633	-	-	-	-
Maximum Storage (without surcharge)	1,221.4	26,159	647	1,809.8	450	619.4

[1] The elevation for inactive storage for Lake Havasu is the contractual minimum for delivery to Metropolitan Water District's Colorado River Aqueduct.

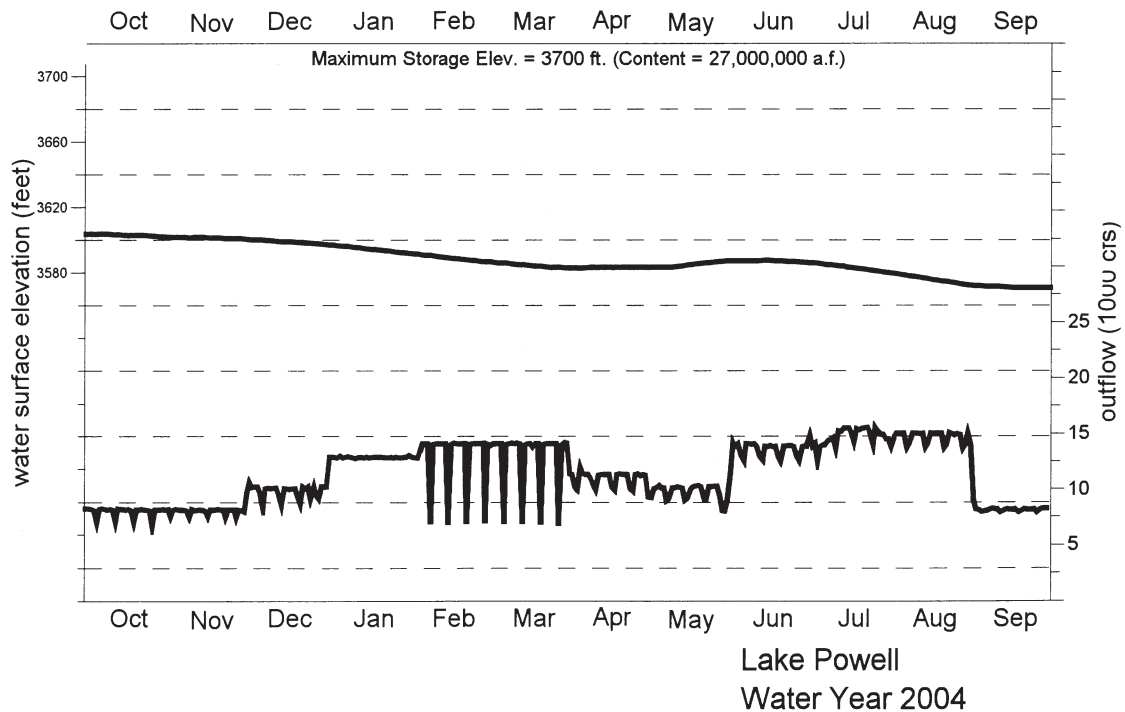
Storage in Principal Reservoirs at the End of Water Year 2004
Upper Basin
Live Storage Contents

reservoir	Sept. 30, 2003 (acre-feet)	percent live capacity	Sept. 30, 2004 (acre-feet)	percent live capacity	change in contents (acre-feet)
FONTENELLE	257,500	74.7%	288,300	83.6%	30,800
FLAMING GORGE	2,635,100	70.3%	2,678,600	71.4%	43,500
TAYLOR PARK	68,300	64.3%	66,800	62.9%	-1,500
BLUE MESA	386,500	46.6%	507,500	61.2%	121,000
MORROW POINT	111,800	95.5%	111,000	94.9%	-800
CRYSTAL	14,600	83.3%	16,500	94.1%	1,900
NAVAJO	734,000	43.3%	935,100	55.1%	201,100
LAKE POWELL	12,109,500	49.8%	9,169,500	37.7%	-2,940,000
TOTAL	16,317,300		13,773,300		-2,544,000



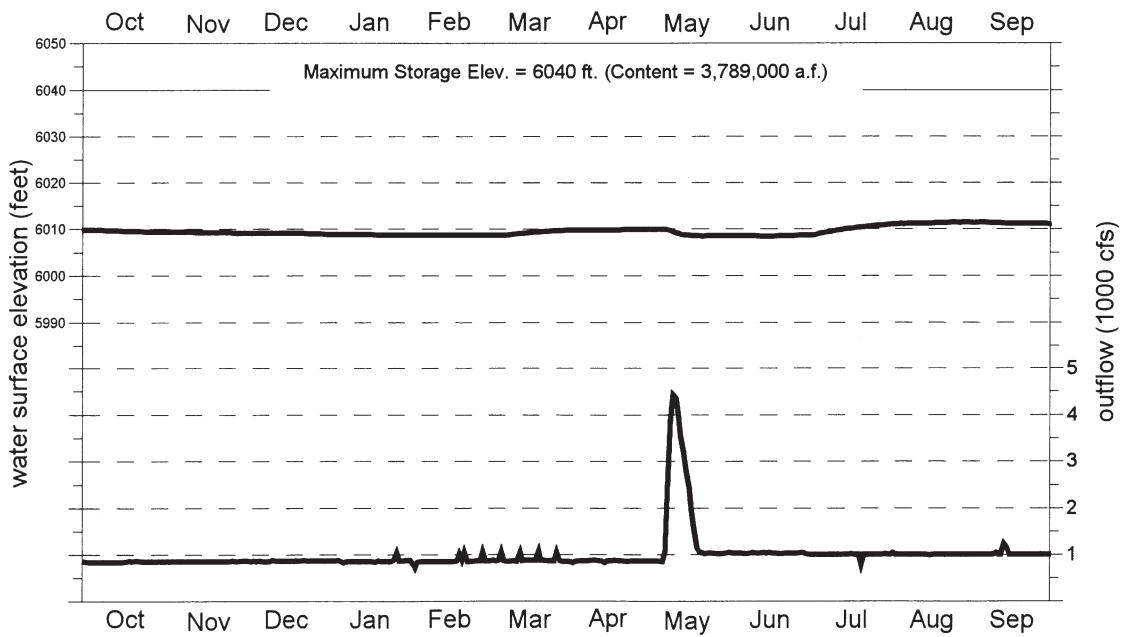
Lake Powell - Glen Canyon Dam

Live Storage Capacity - 24,322,000 acre-feet
Power Generation Capacity - 1,356,000 KW
Live Storage 9/30/04 - 9,169,500 acre-feet



Flaming Gorge

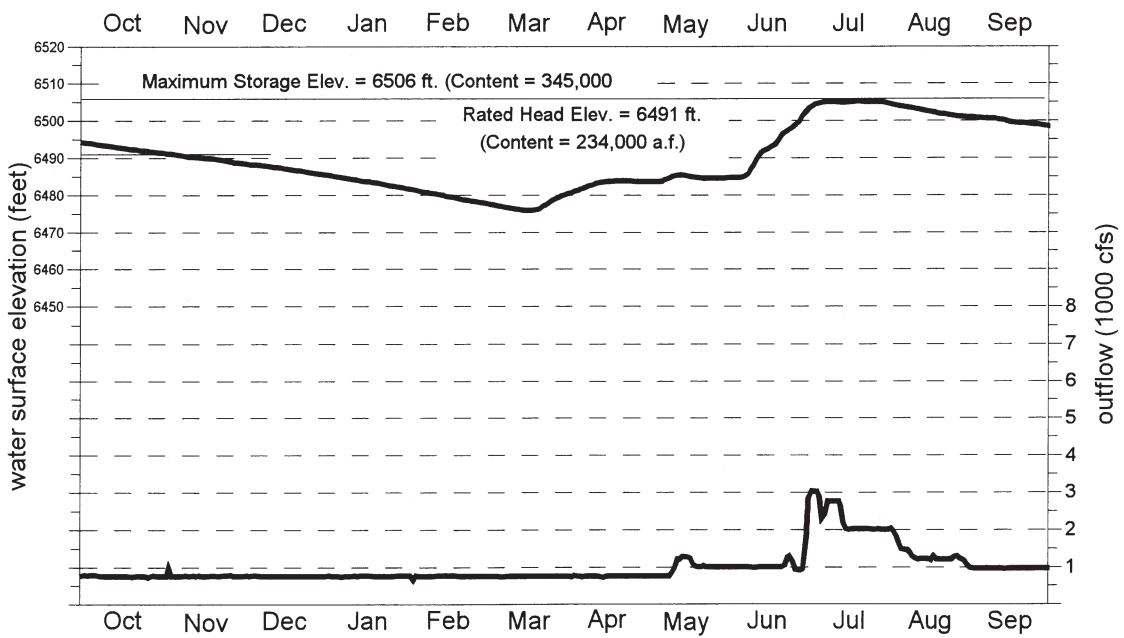
Live Storage Capacity - 3,749,000 acre-feet
Power Generation Capacity - 144,000 KW
Live Storage 9/30/04 - 2,678,600 acre-feet



Flaming Gorge Reservoir
Water Year 2004

Fontenelle

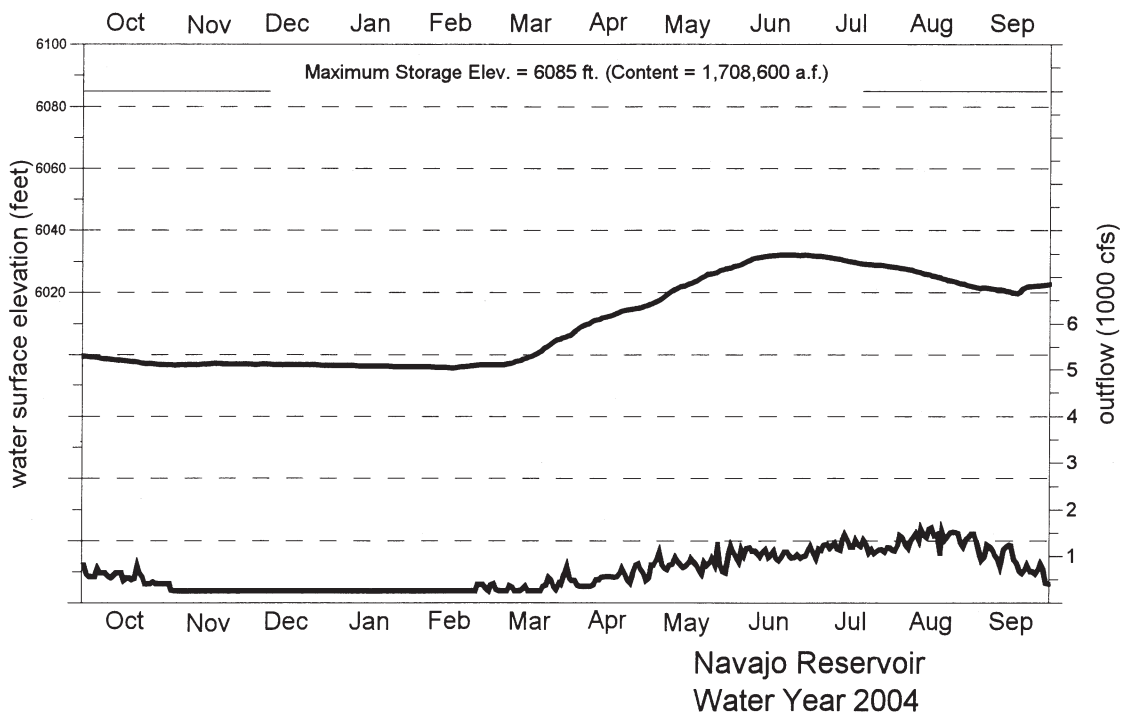
Live Storage Capacity - 344,800 acre-feet
Power Generation Capacity - 13,000 KW
Live Storage 9/30/04 - 288,300 acre-feet



Fontenelle Reservoir
Water Year 2004

Navajo

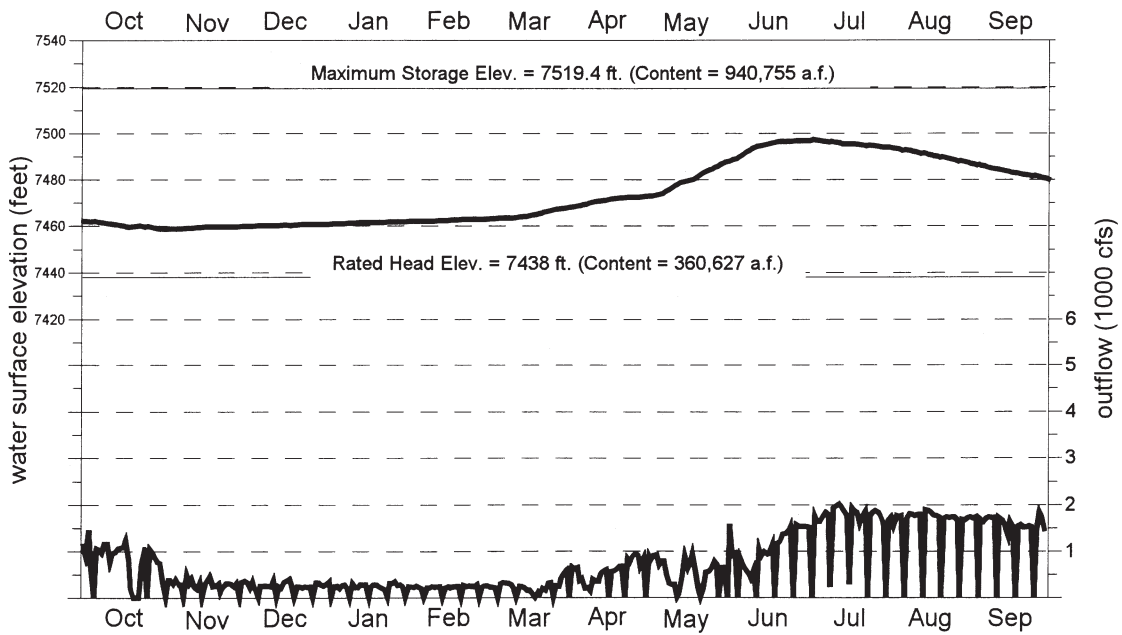
Live Storage Capacity - 1,695,900 acre-feet
Power Generation Capacity - 0 KW
Live Storage 9/30/04 - 935,100 acre-feet



Navajo Reservoir
Water Year 2004

Blue Mesa

Live Storage Capacity - 829,000 acre-feet
Power Generation Capacity - 96,000 KW
Live Storage 9/30/04 -507,500 acre-feet



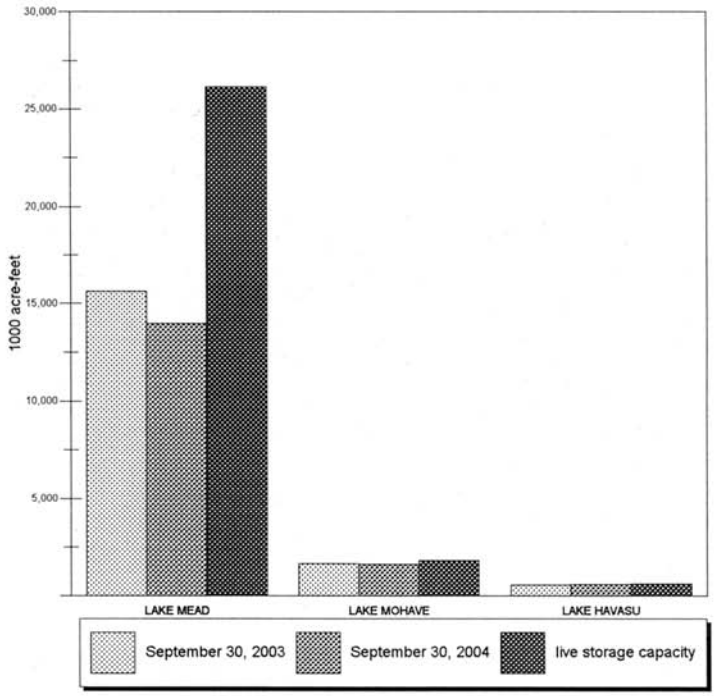
Blue Mesa Reservoir
Water Year 2004

Storage in Principal Reservoirs at the End of Water Year 2004

Lower Basin

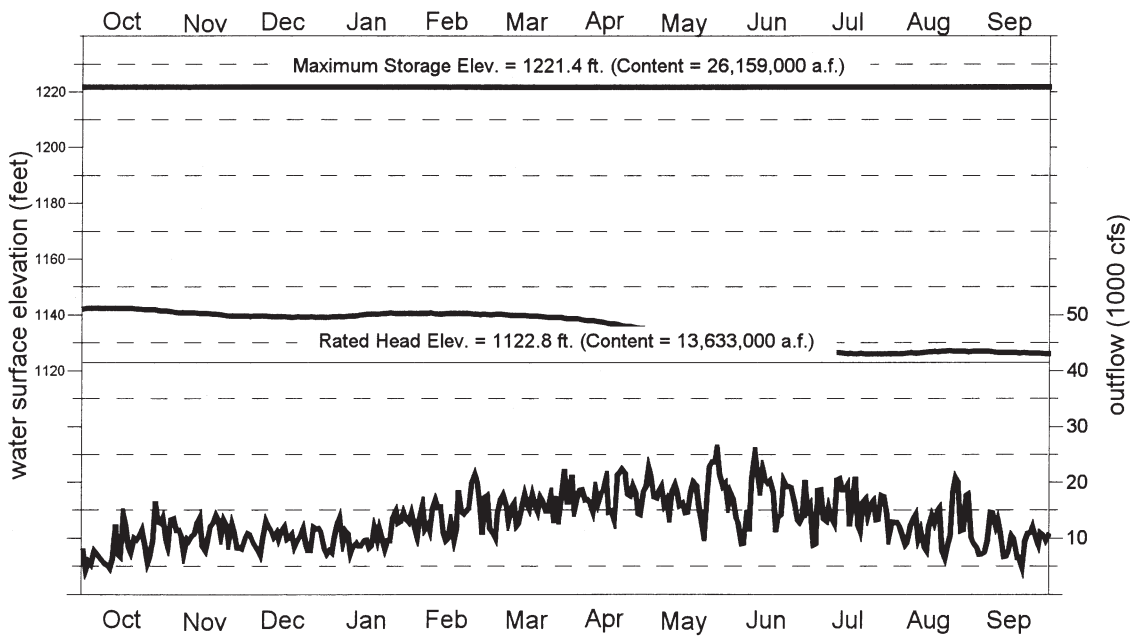
Live Storage Contents

reservoir	Sept. 30, 2003 (acre-feet)	percent live capacity	Sept. 30, 2004 (acre-feet)	percent live capacity	change in contents (acre-feet)
LAKE MEAD	15,618,000	59.7%	13,937,000	53.3%	-1,681,000
LAKE MOHAVE	1,643,000	90.8%	1,605,000	88.7%	-38,000
LAKE HAVASU	562,000	90.8%	589,000	95.2%	27,000
TOTAL	17,823,000		16,131,000		-1,692,000



Lake Mead - Hoover Dam

Live Storage Capacity - 26,159,000 acre-feet
Power Generation Capacity - 1,914,000 KW
Live Storage 9/30/04 - 13,937,000



Lake Mead Reservoir
Water Year 2004

4. Flows of Colorado River

Table 3 on pages 21 and 22 shows the estimated virgin flow of the Colorado River at Lee Ferry, Arizona for each water year from 1896 through 2004. Column (4) of the table shows the average virgin flow for any given year within the period computed through water year 2004. Column (5) shows the average virgin flow for a given year within the period computed since water year 1896. Column (6) shows the average virgin flow for each progressive ten-year period beginning with the ten-year period ending on September 30, 1905. The difference between the virgin flow for a given year and the average flow over the 107-year period, 1896 through 2004, is shown in Column (7).

Article III(d) of the Colorado River Compact stipulates that "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 a continuing progressive series beginning with the first day of October next succeeding the ratification of this Compact." Prior to the storage of water in the Colorado River Storage Project reservoirs, which began in 1962, the flow of the river at Lee Ferry in any ten consecutive years was greatly in excess of the 75,000,000 acre-feet required by the Compact. Beginning in 1962, Colorado River Storage Project reservoirs have regulated the river above Glen Canyon Dam. Table 4, on page 24, shows the historic flow at Lee Ferry for the period 1953 through 2004. The historic flow for each progressive ten-year period from 1953 through 2004, beginning with the ten-year period ending September 30, 1962, the commencement of storage in Colorado River Storage Project reservoirs, is shown in Column (3).

In each consecutive ten-year period, the total flow equaled or exceeded the 75,000,000 acre-feet required by the Compact. The flow at Lee Ferry during the ten-year period ending September 30, 2004 was 102,512 acre-feet.

Table 3

ESTIMATED VIRGIN FLOW AT LEE FERRY

(million acre-feet)

(1) Years to 2004	(2) Year Ending Sept. 3	(3) Estimated Virgin Flow	(4) Average to 2004	(5) Average Since 1896	(6) Progressive 10-year Moving Average	(7) Virgin Flow Minus 109-year Average
109	1896	10.1	14.8	10.1		-4.7
108	1897	18.0	14.8	14.1		3.2
107	1898	13.8	14.8	14.0		-1.0
106	1899	15.9	14.8	14.5		1.0
105	1900	13.2	14.8	14.2		-1.7
104	1901	13.6	14.8	14.1		-1.3
103	1902	9.4	14.9	13.4		-5.5
102	1903	14.8	14.9	13.6		-0.1
101	1904	15.6	14.9	13.8		0.7
100	1905	16.0	14.8	14.0	14.0	1.1
99	1906	19.1	14.8	14.5	14.9	4.2
98	1907	23.4	14.8	15.2	15.5	8.5
97	1908	12.9	14.7	15.1	15.4	-2.0
96	1909	23.3	14.7	15.7	16.1	8.4
95	1910	14.2	14.6	15.6	16.2	-0.7
94	1911	16.0	14.6	15.6	16.5	1.1
93	1912	20.5	14.6	15.9	17.6	5.6
92	1913	14.5	14.6	15.8	17.6	-0.4
91	1914	21.2	14.6	16.1	18.1	6.3
90	1915	14.0	14.5	16.0	17.9	-0.9
89	1916	19.2	14.5	16.1	17.9	4.3
88	1917	24.0	14.5	16.5	18.0	9.1
87	1918	15.4	14.3	16.4	18.2	0.5
86	1919	12.5	14.3	16.3	17.2	-2.4
85	1920	22.0	14.3	16.5	17.9	7.1
84	1921	23.0	14.3	16.8	18.6	8.1
83	1922	18.3	14.2	16.8	18.4	3.4
82	1923	18.3	14.1	16.9	18.8	3.4
81	1924	14.2	14.1	16.8	18.1	-0.7
80	1925	13.0	14.0	16.6	18.0	-1.9
79	1926	15.9	14.0	16.6	17.7	1.0
78	1927	18.6	14.0	16.7	17.1	3.7
77	1928	17.3	14.0	16.7	17.3	2.4
76	1929	21.4	13.9	16.8	18.2	6.5
75	1930	14.9	13.9	16.8	17.5	0.0
74	1931	7.8	13.9	16.5	16.0	-7.1
73	1932	17.2	14.0	16.6	15.9	2.3
72	1933	11.4	13.9	16.4	15.2	-3.5
71	1934	5.6	13.9	16.1	14.3	-9.3
70	1935	11.6	14.0	16.0	14.2	-3.3
69	1936	13.8	14.0	16.0	14.0	-1.1
68	1937	13.7	14.0	15.9	13.5	-1.2
67	1938	17.5	14.1	16.0	13.5	2.6
66	1939	11.1	14.0	15.8	12.5	-3.8
65	1940	8.6	14.0	15.7	11.8	-6.3
64	1941	18.1	14.1	15.7	12.9	3.2
63	1942	19.1	14.1	15.8	13.1	4.2
62	1943	13.1	14.0	15.8	13.2	-1.8
61	1944	15.2	14.0	15.7	14.2	0.3
60	1945	13.4	14.0	15.7	14.4	0.3
59	1946	10.4	14.0	15.6	14.0	-1.5
58	1947	15.5	14.1	15.6	14.2	-4.5
57	1948	15.6	14.1	15.6	14.0	0.6
56	1949	16.4	14.0	15.6	14.5	1.5
55	1950	12.9	14.0	15.6	15.0	-2.0
54	1951	11.6	14.0	15.5	14.3	-3.3
53	1952	20.7	14.0	15.6	14.5	5.8
52	1953	10.6	13.9	15.5	14.2	-4.3
51	1954	7.7	14.0	15.4	13.5	-7.2

Table 3

ESTIMATED VIRGIN FLOW AT LEE FERRY

(million acre-feet)

(1) Years to 2004	(2) Year Ending Sept. 3	(3) Estimated Virgin Flow	(4) Average to 2004	(5) Average Since 1896	(6) Progressive 10-year Moving Average	(7) Virgin Flow Minus 109-year Average
50	1955	9.2	14.1	15.3	13.1	-5.6
49	1956	10.7	14.2	15.2	13.1	-4.2
48	1957	20.1	14.3	15.3	13.6	5.2
47	1958	16.5	14.1	15.3	13.6	1.6
46	1959	8.6	14.1	15.2	12.9	-6.3
45	1960	11.3	14.2	15.1	12.7	-3.6
44	1961	8.5	14.3	15.0	12.2	-6.4
43	1962	17.3	14.4	15.0	12.1	2.4
42	1963	8.4	14.3	15.0	11.8	-6.5
41	1964	10.2	14.5	14.9	12.1	-4.7
40	1965	18.9	14.6	14.9	13.1	4.0
39	1966	11.2	14.5	14.9	13.1	-3.7
38	1967	11.9	14.6	14.8	12.3	-3.0
37	1968	13.7	14.6	14.8	12.0	-1.2
36	1969	14.4	14.7	14.8	12.6	-0.5
35	1970	15.4	14.7	14.8	13.0	0.5
34	1971	15.1	14.6	14.8	13.7	0.2
33	1972	12.2	14.8	14.8	13.1	-2.7
32	1973	19.4	14.7	14.9	14.2	4.5
31	1974	13.3	14.6	14.8	14.6	-1.6
30	1975	16.6	14.6	14.9	14.3	1.7
29	1976	11.6	14.5	14.8	14.4	-3.3
28	1977	5.8	14.6	14.7	13.8	-9.1
27	1978	15.2	15.0	14.7	13.9	0.3
26	1979	17.9	15.0	14.8	14.3	3.0
25	1980	17.5	14.8	14.8	14.5	2.6
24	1981	8.2	14.7	14.7	13.8	-6.7
23	1982	16.2	15.0	14.7	14.2	1.3
22	1983	24.0	15.0	14.8	14.6	9.1
21	1984	24.5	14.5	14.9	15.8	9.6
20	1985	20.8	14.0	15.0	16.2	5.9
19	1986	21.9	13.7	15.1	17.2	7.0
18	1987	16.9	13.2	15.1	18.3	2.0
17	1988	11.8	13.0	15.1	18.0	-3.1
16	1989	10.1	13.1	15.0	17.2	-4.8
15	1990	9.0	13.3	15.0	16.3	-5.9
14	1991	12.3	13.6	14.9	16.8	-2.6
13	1992	11.0	13.7	14.9	16.2	-3.9
12	1993	18.0	13.9	14.9	15.6	3.1
11	1994	10.5	13.5	14.9	14.2	-4.4
10	1995	20.1	13.8	14.9	14.2	5.2
9	1996	14.3	13.1	14.9	13.4	-0.6
8	1997	21.0	13.0	15.0	13.8	6.1
7	1998	16.9	11.8	15.0	14.3	2.0
6	1999	16.4	11.0	15.0	15.0	1.5
5	2000	10.9	9.9	15.0	15.1	-4.0
4	2001	11.0	9.6	14.9	15.0	-3.9
3	2002	6.4	9.2	14.9	14.6	-8.5
2	2003	11.1	10.6	14.8	13.9	-3.7
1	2004	10.0	10.0	14.8	13.9	-3.9
Maximum		24.5			18.8	9.6
Minimum		5.6			11.8	-9.3
Average		14.8			12.1	0.0

Table 4

HISTORIC FLOW AT LEE FERRY
1953-2004

Water Year Ending Sept. 30	Historic Flow (1,000 a.f.)	Progressive 10- Year Total (1,000 a.f.)
1954	6,116	
1955	7,307	
1956	8,750	
1957	17,340	
1958	14,260	
1959	6,756	
1960	9,192	
1961	6,674	
1962	14,790	
1963	2,520	93,705
1964	2,427	90,016
1965	10,835	93,544
1966	7,870	92,664
1967	7,824	83,148
1968	8,358	77,246
1969	8,850	79,340
1970	8,688	78,836
1971	8,607	80,769
1972	9,330	75,309
1973	10,141	82,930
1974	8,277	88,780
1975	9,274	87,219
1976	8,494	87,843
1977	8,269	88,288
1978	8,369	88,299
1979	8,333	87,782
1980	10,950	90,044
1981	8,316	89,753
1982	8,323	88,746
1983	17,520	96,125
1984	20,518	108,366
1985	19,109	118,201
1986	16,866	126,573
1987	13,450	131,754
1988	8,160	131,545
1989	7,995	131,207
1990	8,125	128,382
1991	8,132	128,198
1992	8,023	127,898
1993	8,137	118,515
1994	8,306	106,303
1995	9,242	96,436
1996	11,530	91,100
1997	13,857	91,507
1998	13,444	96,791
1999	11,428	100,224
2000	9,603	101,702
2001	8,362	101,932
2002	8,346	102,255
2003	8,365	102,483
2004*	8,335	102,512

Storage in Flaming Gorge and Navajo Reservoirs began in 1962.
Storage in Glen Canyon Reservoir began in 1963.
Storage in Fontenelle reservoir began in 1964.
*Based upon provisional streamflow records subject to revision.

The graphs on pages 27 and 28 illustrate some of the pertinent historical facts related to the amounts of water produced by the Colorado River System above Lee Ferry, Arizona, the compact division point between the Upper and Lower Colorado River Basins. The first graph, on page 27, is entitled Colorado River Flow at Lee Ferry, Arizona. The top of each vertical bar represents the estimated virgin flow of the river, i.e., the flow of the river in millions of acre-feet past Lee Ferry for a given year had it not been depleted by activities of man. Each vertical bar has two components: The lower shaded part represents the estimated or measured historic flow at Lee Ferry, and the difference between the two sections of the bar in any given year represents the stream depletion, or the amount of water estimated to have been removed by man from the virgin supply upstream from Lee Ferry. It is worth noting that in 1977, and again in 1981, the historic flow at Lee Ferry exceeded the virgin flow. Beginning in 1962, part of this depletion at Lee Ferry was caused by the retention and storage of water in storage units of the Colorado River Storage Project. The horizontal line (at approximately 14.8 million acre-feet) shows the long-term average virgin flow from 1896 through 2004. Because the Colorado River Compact is administered on the basis of running averages covering periods of ten years, the progressive ten-year average historic and virgin flows are displayed on this graph.

The second graph on page 28, entitled Lee Ferry Average Annual Flow for Selected Periods, is a graphical representation of historic and virgin flow averages for several periods of record. The periods of water years selected were those to which reference is usually made for various purposes in documents pertaining to the Colorado River System.

Several important hydrologic facts are apparent from these two graphs on pages 27 and 28.

(1) A vast majority of the high flows occurred prior to 1929.

(2) Since the 1924-1933 decade, the progressive ten-year average virgin flow has not exceeded the average virgin flow except in the 1941-1950 and the exceptionally wet 1975-1984 through 1984-1993 decades.

(3) For the period 1896-1921, which is prior to the Colorado River Compact of 1922, the average virgin flow was estimated to be 16.8 million acre-feet per year, which is considerably greater than for any other period selected, including the long-term average. A stream-gaging station at Lees Ferry, Arizona was not installed until 1921. Thus, the virgin flow at Lees Ferry prior to the 1922 Compact is estimated based upon records obtained at other stations, e.g. the stream gage on the Colorado River at Yuma, Arizona for the period 1902-1921.

(4) For the longest period shown, 1896-2004, the estimated average annual virgin flow is 14.8 million acre-feet and the average annual historic flow is 12.0 million acre-feet.

(5) For the next longest period, 1906-2004, the estimated average annual virgin flow is 14.8 million acre-feet and the average annual historic flow is 11.9 million acre-feet. Many of the early records for this series of years, as well as for the 1896-2004 period, are based upon the estimates of flows made at other gaging stations, as mentioned in (3) above. This average is about equal to the 15.0 million acre-feet estimated for the 1906-1967 period which was used as the basis for justification of a water supply for the Central Arizona Project authorized in 1968.

(6) The estimated average annual virgin flow during the 1914-2004 period is

14.6 million acre-feet. This period is an extension of the 1914-1965 period used in the Upper Colorado Region Comprehensive Framework Studies of 1971. The average annual virgin flow for the 1914-1965 time period is 14.6 million acre-feet.

(7) The average annual virgin flow for the period 1914-1945 is 15.6 million acre-feet. This was the period of record used by the negotiators of the Upper Colorado River Basin Compact of 1948.

(8) For the period 1922-2004, which is the period of record since the signing of the Colorado River Compact, the average annual virgin flow is 16.8 million acre-feet and the average annual historic flow is 10.9 million acre-feet. Records for this series of years are based upon actual measurements of flows at Lees Ferry. The ten-year moving average flow since 1922 is considerably less than the ten-year moving average flow prior to 1922.

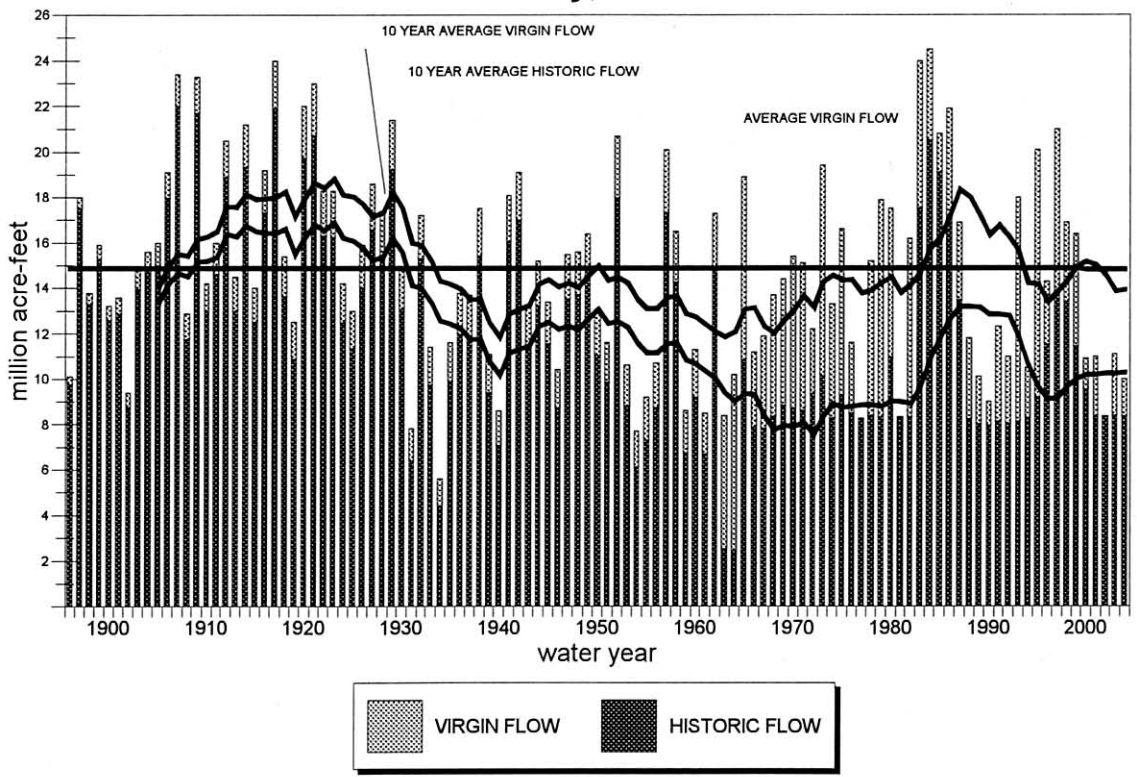
(9) Two completely unrelated ten-year periods of minimum flows have occurred since 1930. During these periods, 1931-1940 and 1954-1963, the average annual virgin flow amounts to only 11.9 million acre-feet.

(10) For a 12-year period, 1953-1964, the average annual virgin flow amounts to only 11.6 million acre-feet.

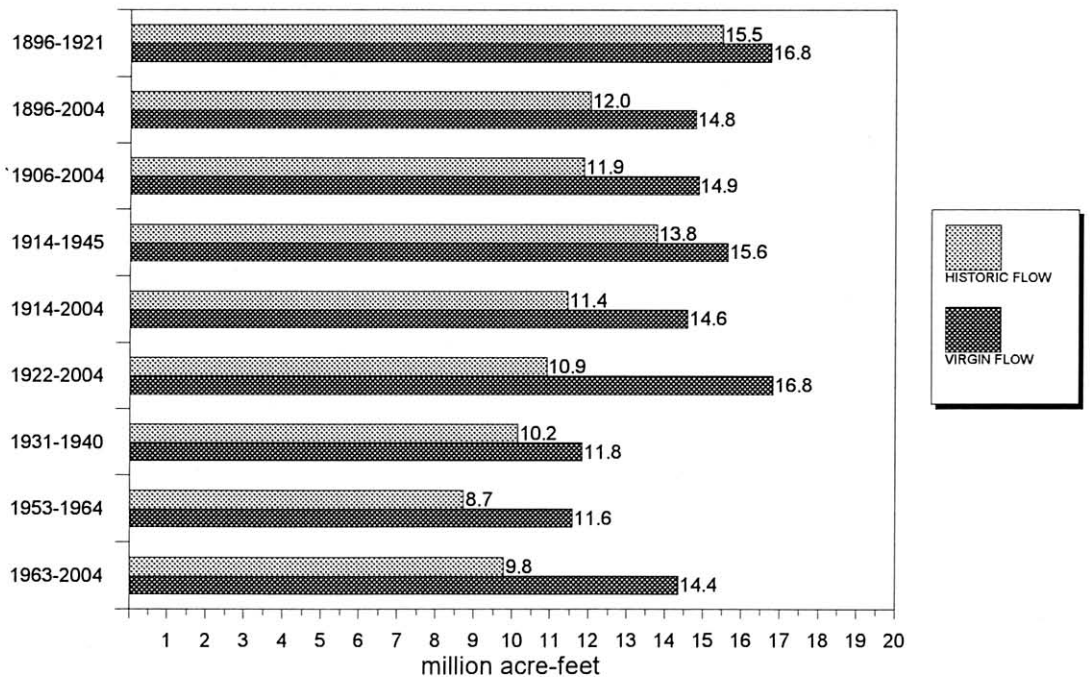
(11) Since Glen Canyon Dam was closed in 1963, the estimated virgin flow for the subsequent 41 years is 14.3 million acre-feet. The estimated historical flow for the same period (1963-2004) is 9.8 million acre-feet.

Colorado River Flow

at Lee Ferry, Arizona



Lee Ferry Average Annual Virgin Flow For Selected Periods



B. LEGAL

1. Water Newsletter

The legal staff continues to inform the Commissioners, their advisers and other interested parties about developments in the courts, Congress and certain Federal agencies through the *Water Newsletter*. Current information can be found in the newsletter. In addition, the legal staff has prepared legal memoranda on matters needing more detailed treatment.

2. Court Case

Action has been taken in the following case of importance to the Upper Colorado River Basin States:

South Florida Water Management District v. Miccousukee Tribe of Indians, 541 U.S. ____, 158 L.Ed.2d 264, 124 S.Ct. ____ (2004).

In this case, petitioner South Florida Water Management District operates a pumping facility that transfers water from a canal into a reservoir or impoundment area a short distance away. Respondents Miccosukee Tribe of Indians and the Friends of the Everglades brought a citizen suit under the Clean Water Act (CWA) contending that the pumping facility is required to obtain a discharge permit under the National Pollutant Discharge Elimination System (NPDES). The district court agreed with respondents and granted their motion for summary judgment. A panel of the United States Court of Appeals for the Eleventh Circuit affirmed, basing its holding (as did the district court) on the determination that the canal and reservoir are two distinct water bodies. The Supreme Court vacates the decision of the Eleventh Circuit and remands the case to the district court for further development of the factual record as to the accuracy of that determination. The Court finds that petitioner and the Federal government, as *amicus curia*, raised three separate arguments, any of which would, if accepted, lead to the conclusion that the pumping station does not require a point source discharge permit under the NPDES program. The Court rejects petitioner's argument that an NPDES permit is not required for the pumping station because it does not "add" pollutants to the water, holding that under the definitions in the CWA, the pumping station is clearly a "point source" that need only convey the pollutant to "navigable waters" without generating a pollutant itself. The government contended that all water bodies that fall within the CWA's definition of "navigable waters" should be viewed unitarily for purposes of NPDES permitting requirements, so such permits are not required when water from a navigable water body is discharged, unaltered, into another navigable water body. Without accepting this legal argument, the Court states that because it finds it necessary to vacate the judgment of the Eleventh Circuit with respect to a third argument of petitioner, the "unitary waters" argument will be open for the parties on remand. Petitioner contends that the canal from which the waters come that the pumping station pumps into an impoundment area are not distinct water bodies at all but are instead two hydrologically indistinguishable parts of a single water body. The Court holds that further development of the record is necessary to resolve the dispute over the validity of the distinction between the canal and impoundment area, stating that after reviewing the full record, the district court might conclude that the canal and impoundment area are not meaningfully distinct water bodies, in which case the pumping station would not need an NPDES permit.

3. Legislation

In the Second Session of the 108th Congress (without regard to the water year), Congress enacted the following statutes that are important to the Upper Colorado River Basin States:

Public Law 108-451, approved December 10, 2004, to provide for adjustments to the Central Arizona Project in Arizona, to authorize the Gila River Indian Community water rights settlement, to reauthorize and amend the Southern Arizona Water Rights Settlement Act of 1982.

Public Law 108-439, approved December 3, 2004, to authorize additional appropriations for the Reclamation Safety of Dams Act of 1978.

Public Law 108-400, approved October 30, 2004, to amend the Colorado Canyons National Conservation Area and Black Ridge Canyons Wilderness Act of 2000 to rename the Colorado Canyons National Conservation Area as the McInnis Canyons National Conservation Area.

Public Law 108-382, approved October 30, 2004, to authorize the Secretary of the Interior to convey certain lands and facilities of the Provo River Project.

Public Law 108-361, approved October 25, 2004, to authorize the Secretary of the Interior to implement water supply technology and infrastructure programs aimed at increasing and diversifying domestic water resources.

Public Law 108-345, approved October 18, 2004, to redesignate the Ridges Basin Reservoir, Colorado as Lake Nighthorse.

COLORADO RIVER STORAGE PROJECT AND PARTICIPATING PROJECTS

A. AUTHORIZED STORAGE UNITS

(Information relative to storage units and participating projects has been provided by the United States Department of the Interior, Bureau of Reclamation.)

The Colorado River Storage Project (CRSP) was authorized for construction by the United States Congress in the CRSP Act of April 11, 1956 (70 Stat. 105). Four storage units were authorized by this Act: Glen Canyon Dam and Reservoir (Lake Powell) on the Colorado River in Utah and Arizona; Navajo Dam and Reservoir on the San Juan River in New Mexico and Colorado; Flaming Gorge Dam and Reservoir on the Green River in Utah and Wyoming; and the Wayne N. Aspinall Storage Unit (Aspinall Unit), formerly named the Curecanti Storage Unit and rededicated in July 1981, on the Gunnison River in Colorado. The Aspinall Unit consists of three dams and reservoirs: Blue Mesa, Morrow Point, and Crystal. Combined, the four storage units provide about 33,583,000 acre-feet of water storage capacity. The CRSP Act, as amended, also authorized the construction of 11 participating projects. Ten additional participating projects have been authorized by subsequent congressional legislation.

The storage units and participating projects are described in the 56th and earlier annual reports of the Upper Colorado River Commission. Progress in construction, planning, operation, and investigation of the storage units and participating projects accomplished during the past water year is briefly outlined as follows:

1. Glen Canyon Storage Unit

Glen Canyon Dam and Reservoir (Lake Powell) comprises the key storage unit of the CRSP and is the largest of the initial four, providing about 80 percent of the storage and generating capacity. Construction of the dam was completed in 1963. In addition to water storage for flood control and consumptive uses, Glen Canyon Dam was built as a hydroelectric peaking power facility, permitting it to move from low electrical output during low power demand to high electrical output in peak demand periods. To that extent, flow releases from the dam were adjusted daily, and at times hourly, to respond to variances in electrical demand.

At optimum operations, the generators at Glen Canyon Dam are capable of producing 1,304 megawatts of power. Water releases from the dam occur at 200-230 feet below the surface of Lake Powell, which results in clear cold water with year-round temperatures of 45 degrees F to 50 degrees F. The recreation, irrigation, and hydropower benefits introduced to the southwest by Glen Canyon Dam are extensive and continue to expand.

Since the damming of the river in 1963, there has been only one flow release that approached average pre-dam spring floods. In 1983, a combination of unanticipated hydrologic events in the Upper Colorado River Basin, combined with a lack of available storage space in Lake Powell, resulted in emergency releases from Glen Canyon Dam that reached 93,000 cubic feet per second (cfs). Except for the flood events of the mid-1980s, historic daily releases prior to the preparation of the final Glen Canyon Dam environmental impact statement (EIS) generally ranged between 1,000 cfs and 25,000 cfs, with flows averaging between 5,000 cfs and 20,000 cfs.

As a result of construction and operation of Glen Canyon Dam, the Colorado River ecosystem below the dam has changed significantly from its pre-dam natural character. In addition, the dam's highly variable flow releases from 1964 to 1991 caused concern over resource degradation resulting from dam operations. The Secretary of the Interior (Secretary) adopted interim operations criteria in October 1991 that narrowed the range of daily powerplant fluctuations. Since the signing of the operating criteria in February 1997, these releases do not now exceed 25,000 cfs, other than during occasional experimental flows, and have most often averaged between 10,000 cfs and 20,000 cfs.

Responding to concerns that changes to the Colorado River ecosystem were resulting from dam operations, Reclamation launched the Glen Canyon Environmental Studies program in 1982. The research program's first phase (1982-1988) focused on developing baseline resource assessments of physical and biotic resources. The second program phase (1989-1996) expanded research programs in native and non-native fishes, hydrology and aquatic habitats, terrestrial flora and fauna, cultural and ethnic resources, and social and economic impacts.

By the late 1980s, sufficient knowledge had been developed to raise concerns that downstream impacts were occurring, and that additional information needed to be developed to quantify the effects and to develop management actions that could avoid and/or mitigate the impacts. This collective information, and other factors, led to a July 1989 decision by the Secretary to direct Reclamation to prepare an EIS on the operation of Glen Canyon Dam. The intent was to evaluate alternative operation strategies to lessen the impacts of operations on downstream resources.

In October 1992, the President signed into law the Reclamation Projects Authorization and Adjustments Act, Public Law (P.L.) 102-575. Responding to continued concerns over potential impacts of Glen Canyon Dam operations on downstream resources, Congress included the Grand Canyon Protection Act (GCPA) as Title 18 of the Reclamation Projects Act. Section 1802(a) of the GCPA requires the Secretary to operate Glen Canyon Dam:

> . . . in accordance with the additional criteria and operating plans specified in Section 1804 and exercise other authorities under existing law in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including, but not limited to natural and cultural resources and visitor use.

The GCPA directs the Secretary to implement this section in a manner fully consistent with all existing laws that govern allocation, appropriation, development, and exportation of the waters of the Colorado River Basin.

Section 1804 of the GCPA required preparation of an EIS, adoption of operating criteria and plans, reports to Congress, and allocation of costs. The Operation of Glen Canyon Dam Final Environmental Impact Statement was filed with the Environmental Protection Agency in March 1995 and a Record of Decision (ROD) was signed in October 1996. The ROD changed two flow parameters from those shown in the preferred alternative of the EIS. They were (1) increasing the normal maximum flow from 20,000 cfs to 25,000 cfs and (2) increasing the upramp rate from 2,500 cfs/hour to 4,000 cfs/hour. The ROD also changed the triggering mechanisms for conducting beach/habitat-building flows (experimental flows above powerplant capacity). Instead of conducting them in years when Lake Powell storage is low on January 1, they were to be conducted in years when Lake Powell storage is high and reservoir releases in excess of powerplant capacity are required for dam safety purposes. Following the signing of the ROD, the Secretary

adopted a set of operating criteria and a 1997 plan of operation. This terminated the 1991 interim flow criteria.

The signing of the ROD began a new chapter in the history of Glen Canyon Dam. In addition to meeting traditional water and power needs, the dam is now being operated in a more environmentally sensitive manner. The EIS process demonstrated the value of a cooperative, integrative approach to dealing with complex environmental issues. The inclusion of all stakeholders resulted in a process that will serve to guide future operations of Glen Canyon Dam and become a template for other river systems.

a. Adaptive Management

Section 1805 of the GCPA directs the Secretary to establish and implement long-term monitoring programs on the natural, recreational, and cultural resources of Grand Canyon National Park and Glen Canyon National Recreation Area. The Adaptive Management Program (AMP) is a key element of the preferred alternative outlined in the final EIS and implemented by the ROD. The program provides for operation of Glen Canyon Dam for environmental purposes in Glen and Grand Canyons in addition to traditional water and power generation.

The AMP provides a process for incorporating science into recommendations to the Secretary from a diverse group of stakeholders in the evaluation and management of future dam operations. The AMP calls for the continued interaction of managers and scientists to both monitor the effects of current dam operations on the Colorado River ecosystem, and to conduct research on alternative dam operating criteria that may be necessary to ensure protection of resources and improve natural processes. The AMP identifies the following entities that contribute to the adaptive management process: (1) Adaptive Management Work Group (AMWG), (2) Technical Work Group (TWG), (3) Grand Canyon Monitoring and Research Center (GCMRC), and (4) independent review panels.

The AMWG is a Federal Advisory Committee chartered by the Secretary and consists of a group of stakeholders including federal and state resource managers, Native American tribes, power marketers, environmental groups, recreationists, and representatives of other interest groups. The AMWG was established to develop, evaluate, and recommend alternative operations strategies for Glen Canyon Dam, and make recommendations to the Secretary. The AMWG does not displace federal agency, tribal, or state agency legal authority and responsibility to manage resources in the best interests of both the environment and society.

In addition to the AMWG, the TWG and GCMRC were created to play vital roles as part of the adaptive management process. The TWG is composed of technical representatives appointed by the AMWG. The TWG provides the AMWG detailed guidance on issues and objectives, develops criteria and standards for research and monitoring programs, provides information for annual resource reports, and translates the AMWG's management objectives into research needs for the GCMRC. The GCMRC (now under the auspices of the United States Geological Survey) conducts the research and monitoring necessary to evaluate operations and the independent review panels provide outside review and credibility. The AMWG currently meets two to three times a year and the TWG currently meets about six times a year.

High flows above powerplant capacity to move deposited sediment to rebuild beaches and shoreline environments did not occur in 2002 or 2003, but did occur in November 2004 following a series of large sediment inputs from the Paria River. Environmental compliance for this action, which included a change in timing of the high flow from January to November, was completed through a supplement

to the 2002 environmental assessment (EA) followed by a separate FONSI and biological opinion.

b. Glen Canyon Dam Temperature Modification Project

Prior to construction of Glen Canyon Dam, the Colorado River would warm seasonally from near freezing to about 85°F. Since construction of the dam, releases from the dam have been cold throughout the year (about 45-55°F). Cold temperatures can cause thermal shock to young endangered fish, and increase mortality as they descend from warm tributaries into the mainstem of the Colorado River. A biological opinion issued in December 1994 by the U.S. Fish and Wildlife Service found that the operation of Glen Canyon Dam jeopardized the continued existence of two endangered fish and adversely modified their critical habitats. The reasonable and prudent alternative provided that Reclamation implement a selective withdrawal program and determine feasibility.

Based on Reclamation's September 1997 feasibility cost estimates, a selective withdrawal structure could cost up to $140 million, depending upon the type of design. The least expensive modification evaluated would take advantage of the existing trashrack structure and bulkhead gate rails, reducing the construction costs to $20 to $40 million. More expensive options could be used in a greater number of years and a wider range of reservoir elevations.

In January 1999, Reclamation released a draft EA for public review. Peer review of the document suggested that a testing and monitoring plan be prepared and included in the draft EA. This and other concerns led Reclamation to withdraw the plan and continue studies on the feasibility of selective withdrawal. Reclamation has continued evaluating the feasibility of a temperature control device by convening experts in workshops and commissioning a risk assessment by Science Advisors to the AMP. In August 2003, after hearing results of the risk assessment, the AMWG recommended that Reclamation should proceed in completing the environmental compliance for the temperature control device. Reclamation has sent out a scoping letter on a proposal to modify two of the eight penstocks in the dam with temperature control devices and to test the devices through adaptive management before making a decision on whether additional modification would be warranted. If significant adverse impacts are found in that evaluation, the no-action alternative, which is to continue to release cold water through the existing power penstock intake, will be considered.

c. Recreational Use

The extensive recreational use of Glen Canyon National Recreation Area, which surrounds Lake Powell, is demonstrated by the visitation of 1,861,772 people during calendar year 2004, a reduction of slightly over 35,000 (or 1 percent). The reduction in visitation can probably be attributed to the ongoing drought and historic low water levels as well as erroneous media reports that the lake is inaccessible. Visitation numbers for the Carl Hayden Visitor Center are no longer being tracked separately, but are included in the numbers above. The National Park Service has concession-operated facilities at Wahweap, Dangling Rope, Halls Crossing, Hite, and Bullfrog Basin on the reservoir, and at Lees Ferry located 16 miles below the dam on the Colorado River.

The Park Service initiated a $22 million facilities upgrade project in the Glen Canyon National Recreation Area during fiscal year 2004 with work continuing into 2005. Among the improvements either completed or in the works are permanent and temporary extensions of boat ramps at Bullfrog, Antelope Point, and Wahweap. In addition, utility work and low water parking areas were installed to keep up with ramp conditions. The ramp used by the ferry service at Halls Crossing was also extended with gravel.

Boat Ramp at Hite Marina, Glen Canyon Storage Unit, Utah
–Bureau of Reclamation photo

Other projects include construction of employee housing at Halls Crossing, Hite, and Bullfrog, as well as rehabilitation of employee housing at Lees Ferry. The Wahweap pipeline to Page wastewater project was completed as well as the rehabilitation of courtesy docks at Rainbow Bridge and Dangling Rope Marina. New marina restrooms for Wahweap and Bullfrog, an electrical upgrade at Wahweap Marina, a Hite water well project, and rehabilitation of the Bullfrog sewer lagoons and Wahweap water lab were either completed or are underway.

The Navajo Nation, in partnership with the National Park Service and the Bureau of Indian Affairs, opened the Antelope Point Marina public launch ramp in July 1999. Improvements at Antelope Point Marina have been progressing with the completion of Phase I of the project. The marina was opened for business in June 2004. Antelope Point Marina is being leased and operated by Antelope Point Holdings, LLC, under a lease agreement with the Navajo Nation and a concession contract with the National Park Service. Phase I work put in place a covered fuel dock, infrastructure and utilities, dry boat storage, 80 wet slips for lease, effluent holding tanks, and grading for the future hotel. In addition, parking for the marina (including trailer spaces), a boat maintenance and repair building, grading for the marina launch ramp, and initial concierge service facilities were installed. The marina offers luxury houseboat rentals and shuttle service and security is available to slip customers 24 hours a day. Electronic key cards provide access to parking and all marina facilities. Phase II is expected to be completed in July 2006 and will include private, resort-style bathrooms and laundry facilities at the marina, a floating marina village with a full-service restaurant, a marina store, public restrooms, and tour boat operations. In addition, a public marina with 200 slips will be built including 120 wet slips reserved for the houseboat and power boat rental fleet and the remaining 80 wet slips reserved for courtesy and commercial purposes. Phase III, scheduled to be completed in February 2007, will include a 150-space recreational vehicle area with water and power, a 50-unit campground area, public restrooms that will have shower and laundry facilities, and a convenience store. Phase IV, the final phase, is scheduled to be completed in December 2008. This last stage will feature a 225-unit resort as well as a Navajo cultural center and studios to showcase Navajo artists.

Visitation at Rainbow Bridge for calendar year 2004 was reported by the National Park Service to be 73,675, a decrease of 25,000+ (or 25%). The probable reason for the decrease is the lower water level at Lake Powell, making the hike to the bridge over 2 miles. The trail from Lake Powell to the natural bridge was severely damaged by winter storms and the trail was temporarily closed in January 2005 until damage could be assessed and necessary repairs made.

The Carl Hayden Visitor Center, adjacent to Glen Canyon Dam and powerplant in Page, Arizona, is owned and maintained by Reclamation and operated by the National Park Service. The Glen Canyon Natural History Association conducts public tours of the dam and operates the book sales area in the visitor center. Public guided tours of the dam had been discontinued because of the national threat level advisory and the need to implement stronger security measures at the dam. However, tours are now on-going as long as the threat advisory stays at yellow or below. No self-guided tours of the dam are allowed.

The visitor center was remodeled during late 2003 and early 2004 with new, fully-refurbished public restrooms, an employees-only restroom, and a new glass facade which extends the usable interior on the south side of the building. In 2005, the National Park Service's office space and restrooms inside the visitor center will be remodeled. In out-years, new interpretive exhibits will be installed that will provide access and effective communications for all visitors, including those who have communication impairments.

2. Flaming Gorge Storage Unit

Flaming Gorge Dam and Powerplant were completed in 1963. Uprating of the units in 1992 increased the plant nameplate capacity from 108 megawatts to about 151 megawatts.

In water year 2004, Flaming Gorge Dam was operated in accordance with the Biological Opinion on the Operation of Flaming Gorge Dam, issued in November 1992. The biological opinion calls for high spring releases to occur each year, timed with the peak of the Yampa River, so as to mimic historic Green River flows.

In September 2000, a final report entitled, *Flow and Temperature Recommendations for Endangered Fishes in the Green River Downstream of Flaming Gorge Dam* was published by the Upper Colorado River Endangered Fish Recovery Program (Recovery Program). The report, prepared by a multi-disciplinary team, synthesizes research conducted on endangered fish in the Green River under the Recovery Program and presents flow recommendations for three reaches of the Green River. Reclamation began the National Environmental Policy Act (NEPA) process on the implementation of an operation at Flaming Gorge Dam that meets these flow recommendations. A Notice of Intent to prepare an EIS was published in the *Federal Register* on June 6, 2000. The draft EIS was published in August 2004. The final EIS is scheduled for release in April 2005 with a ROD scheduled for completion in May 2005.

a. Recreational Use

A new interagency agreement between the Ashley National Forest and the Bureau of Reclamation for management of the primary jurisdiction area (visitor center, dam, Reclamation warehouses, and some water treatment facilities) was signed in 2004 and will be in effect for 10 years with a potential to renew after that time.

Boat ramps and marinas are located at several sites around the lake, and there are 26 designated campgrounds in the area, four of which are accessible only by boat. Fishing is an important recreational activity both on the reservoir and in the Green River below the dam, as is rafting. Other activities in the area include camping, picnicking, scenic biking, hiking, horseback riding, motor coach tours, snowmobiling, snowshoeing, and cross-country skiing. Public tours of the dam are conducted by the Intermountain Natural History Association, a non-profit partner at the Visitor Center. Tours of the inside of the dam are conducted when the terrorist alert level is low. However, when the terrorist alert level is high, tours of the inside of the dam are suspended and tourists are taken to a dam overlook area where guides present information about construction and operation of the dam.

A fueling accident caused a fire that destroyed the store and café at Cedar Springs Marina and damaged the fuel dock in July 2004. The damage to the fuel dock was repaired later that month and the marina opened to public use at that time. In August 2004, the U.S. Forest Service issued a request for comments in order to respond to a request from the Cedar Springs concessionaire to improve and enlarge the area to better serve the public and reduce crowding conflicts. Some of the actions proposed include moving 40 boat slips to Buckskin Cove, extending power to Buckskin Cove, building a suitable shop building for boat maintenance and equipment storage, providing adequate dry storage area for boats, and providing a convenience store and restaurant near the parking lot. The request, if approved, would enlarge the area by 20 to 30 acres, more than doubling the current operation.

The U.S. Forest Service received a grant from Wyoming Game and Fish to renovate and improve the Holmes Crossing boating area. The project included adding a boat ramp lane, installing an accessible vault toilet, improving the old ramp, divider docks, and increased parking above the high water line. In December, the District Ranger for the Flaming Gorge Ranger District issued a decision memorandum to renew Red Canyon Lodge's operating permit for an additional 25 years. No changes in operations or facilities are expected at this time.

3. Navajo Storage Unit

The purposes of Navajo Dam and Reservoir include regulating flows of the Colorado River, flood control, hydropower, fish and wildlife, recreation, and assisting the Upper Basin States in developing compact apportioned water.
The water stored behind Navajo Dam provides a water supply for the Navajo Indian Irrigation Project (NIIP) near Farmington, the San Juan-Chama participating project in the Rio Grande Basin, and the Hammond participating project, all in New Mexico. Part of the water is also used for municipal and industrial (M&I) purposes in northwestern New Mexico. Navajo Dam was completed in 1963.

Between 2002 and 2004, Reclamation approved subcontracts between the Jicarilla Apache Nation and San Juan River water users to address severe drought conditions. A shortage sharing agreement was negotiated each year to protect water storage, water uses, and endangered species. Subcontracts were issued pursuant to the December 8, 1992, contract between the Jicarilla Apache Nation and the United States and the Jicarilla Apache Nation Water Rights Settlement Act of January 3, 1992 (P.L. 102-441).

Reclamation is completing an EIS on the operations of Navajo Dam and Reservoir (Navajo Unit). The cooperating agencies assisting Reclamation in the EIS process include the: Jicarilla Apache Nation, Southern Ute Indian Tribe, Navajo Nation, Ute Mountain Ute Tribe, Southwestern Water Conservation District, New Mexico Interstate Stream Commission, San Juan Water Commission, city of Farmington, Albuquerque Army Corps of Engineers, U.S. Fish and Wildlife Service, Bureau of Indian Affairs, Bureau of Land Management, Colorado Water Conservation Board, and National Park Service. Reclamation and the cooperating agencies will continue to meet throughout the EIS process.

The draft EIS was released for public review and comment in September 2002. The public comment period concluded on December 4, 2002, and over 350 comments were received. The draft EIS evaluated the potential impacts of operating Navajo Reservoir to assist in meeting the flow recommendations provided by the San Juan River Basin Recovery Implementation Program. The purpose of the proposed federal action is to provide sufficient releases of water at times, quantities, and durations necessary to conserve two endangered fish species and their designated critical habitat in the San Juan River downstream from Farmington, New Mexico. Reclamation would maintain the authorized purposes of the Navajo Unit which include enabling future water development to proceed in the San Juan River Basin in compliance with applicable laws, compacts, court decrees, and American Indian trust responsibilities. At this time, Reclamation and Department of the Interior staff are working to obtain an acceptable final biological opinion (BO). After a final BO is received, it will take approximately three months before the final EIS can be released, with the potential for a Record of Decision to be issued a minimum of 30 days thereafter.

a. Recreational Use

Under separate agreements with Reclamation, the Colorado Division of Parks and Outdoor Recreation is responsible for public recreation at Navajo Reservoir within the state of Colorado, and New Mexico State Parks manages public recreation at the reservoir within the state of New Mexico.

A new concessionaire has been found for the San Juan Marina on the Colorado side of the lake. Atlantic-Meeco was the successful bidder and is expected to be in place with full operations by the summer season of 2005. In addition, Aramark will be building two tire break waters at the boat ramp cove for protection.

The State Park in Colorado received a "Starburst" award for the recreation rehabilitation project that was recently completed (a 50/50 cost-share with Reclamation). The Starburst Award is a Colorado state-wide award and is given to state agencies that demonstrate creative and cost-efficient use of state lottery funds, positive economic and social impacts from the project, and community participation.

On the New Mexico side, New Mexico State Parks continues its management and improvement of the recreation areas with some cost-share assistance from Reclamation. Three separate recreation areas comprise Navajo Lake State Park in New Mexico. Pine River, the most developed area along the lake, includes a visitor center with interpretive exhibits. Sims Mesa is across the lake and also has a small visitor center with interpretive exhibits. The San Juan River area below the dam is world renowned for excellent trout fishing and includes wheelchair-accessible fishing facilities. Navajo Lake is New Mexico's second largest lake and offers the full gamut of water sports and services. It contains both cold- and warm-water fish species.

New Mexico State Parks began its upgrade of the wastewater collection system at Pine River and Sims Mesa recreation areas with some cost-sharing assistance from the Bureau of Reclamation ($150,000). The visitor center and main campground wastewater work is scheduled to be completed in April 2005. While most of the facilities will remain open during construction, those facilities that require water will be closed until the work is done (visitor center and bathroom/shower facilities in the camp loops), with the exception of Cedar Loop.

Pine River Recreation Area, most of Sims Mesa, and Cottonwood Campground on the San Juan River were evaluated this past year to determine what improvements need to be made for persons who have disabilities. The remainder of Sims Mesa and the other day-use sites on the river below the dam are scheduled to be evaluated in the spring of 2005. Once the evaluations are completed, needed improvements will be identified and work will begin to schedule upgrades to increase opportunities for persons with disabilities. The Miller Mesa area of Navajo Reservoir was closed to all public use in 2004 and will continue to be closed until further notice.

Every year, for the past eight years, Reclamation's Farmington Construction Office has sponsored a successful C.A.S.T. (Catch A Special Thrill) for Kids fishing event. The event is accomplished with the assistance of local BASS organizations, private entities and volunteers, and the C.A.S.T. for Kids Foundation. The C.A.S.T. for Kids experience provides a one-day fishing and boating opportunity for children who have disabilities or who are otherwise disadvantaged. It is a family-oriented activity and the communities near the New Mexico side of Navajo Reservoir participate. The next event is scheduled for May 21, 2005.

The issuance of a draft resource management plan/environmental assessment for the Navajo Reservoir area has been delayed because of other commitments, but is expected to be released in the winter of 2005 for public comment.

Pine River Marina at Navajo Dam, Navajo Storage Unit, New Mexico
–Bureau of Reclamation photo

4. Wayne N. Aspinall Storage Unit

The Aspinall Unit includes Blue Mesa, Morrow Point, and Crystal dams, reservoirs, and powerplants. The Aspinall Unit is located in Gunnison and Montrose Counties, Colorado, on the Gunnison River upstream from the Black Canyon of the Gunnison National Park.

Similar to Glen Canyon, Flaming Gorge, and Navajo, the Aspinall Unit is being evaluated to determine how operations can be modified to assist downstream endangered fish. Flow recommendations for endangered fish in the Gunnison River were completed in 2003. Reclamation has initiated preparation of an EIS on Aspinall operations to provide an operational pattern to assist in the conservation of endangered fish while continuing to meet Aspinall Unit purposes.

Reclamation is also working with the Department of the Interior to help resolve federal reserved water right issues within the downstream Black Canyon of the Gunnison National Park. Water rights, reserved for the Black Canyon in 1933, were upheld and ordered for quantification by the Colorado Supreme Court in 1982. The National Park Service completed data collection to quantify the right and filed for quantification in 2001. There were many objectors to the right and a stay of proceedings was granted to facilitate negotiations. In April 2003, the Department of the Interior and the State of Colorado signed an agreement to resolve the reserved right; the agreement calls for a 1933 reserved right of 300 cfs. In addition, Colorado will develop a 2003 instream flow right to protect spring flows. Work is ongoing to implement the agreement; however, the agreement is being challenged in court.

a. Recreational Use

Recreation use for the Aspinall Unit is managed by the National Park Service as the Curecanti National Recreation Area (NRA). The recreation area offers a variety of drive-in, boat-in, and hike-in campgrounds. Facilities range from the highly developed Elk Creek Campground to remote boat-in campsites. Activities include fishing, hiking, wildlife viewing, camping, picnicking, photography, and boating.

In 1965, the National Park Service entered into an agreement with the Bureau of Reclamation to construct and manage recreational facilities and to manage natural and cultural resources and recreation on and adjacent to the reservoirs. The area then became known as the Curecanti National Recreation Area. The NRA is currently identified by an administrative boundary that has not been established by legislation. Curecanti offers 10 campgrounds that include a variety of drive-in, boat-in, and hike-in experiences. Facilities range from Elk Creek Campground with showers, marina, restaurant, amphitheater and visitor center, to remote boat-in campsites on Blue Mesa Reservoir. Half of the developed campgrounds have been added to the national reservation system website, www.ReserveUSA.com. The most popular activities at Curecanti include hiking, wildlife viewing, camping, picnicking, photography, boating, salmon and trout fishing, hunting, windsurfing, sailing, waterskiing, cross country skiing, and ice-fishing. The National Park Service reports that there were over 1 million visitors to the Curecanti National Recreation Area during calendar year 2004.

In 1999, Congress directed the National Park Service to conduct a Resource Protection Study to assess area resources within and surrounding the NRA, and to identify and recommend a variety of practicable alternatives and tools to protect those resources. Congress would like this information prior to writing legislation that would formally establish the NRA. A report on the study's findings and recommendations will be sent to Congress in the winter of 2005. Congress will make the final determination as to what action, if any, to take. The Curecanti

Blue Mesa Dam Spillway Gates, Wayne N. Aspinall Storage Unit, Colorado
–Bureau of Reclamation photo

National Recreation Area is under the national fee demonstration program and several projects have been undertaken with the funds raised.

5. Storage Units Fishery Information

The Flaming Gorge, Wayne N. Aspinall, Glen Canyon, and Navajo storage units continue to provide excellent warm- and cold-water fishing both in the reservoirs and in the tailwater streams below the dams. Visitors at the reservoirs totaled between approximately four and five million last year. Lake Powell accounts for about 43 percent of the total recreation visits, Flaming Gorge accounts for 32 percent, and Curecanti accounts for 25 percent, with the remainder occurring at Navajo Reservoir and the Ashley National Forest outside of the Flaming Gorge National Recreation Area. Lake Powell is almost exclusively a warm-water fishery with bluegill, striped bass, crappie, walleye, channel catfish, and smallmouth and largemouth bass as the harvested species. Angling use on reservoirs appears to be constant, while demand and use for the tailwaters is increasing dramatically (Reclamation does not gather specific data on angler usage at its reservoirs).

The cool, clear depths of Flaming Gorge are ideal for trout. These famous angling waters have produced fish of state and world record size, including: lake trout (Mackinaw) over 50 pounds, German brown trout over 30 pounds, and rainbow trout over 25 pounds. Flaming Gorge also supports numerous cutthroat trout, kokanee salmon, small mouth bass, and channel catfish. While the lake claims the big ones, the Green River below the dam boasts one of the Nation's finest blue ribbon trout streams. Fish populations in the river have been counted as high as 22,000 per river mile.

The Aspinall reservoirs are exclusively cold-water fisheries, with five species of sports fish available: rainbow, mackinaw, brown, and brook trout, as well as kokanee salmon. The Aspinall reservoirs boast the largest kokanee salmon fishery in the United States.

Navajo Reservoir provides both cold and warm-water fisheries, including catfish, crappie, and smallmouth bass in the shallows and near the lake surface. Kokanee salmon, northern pike, and many varieties of trout are found in the deeper, colder waters. There is a special snagging season for spawning kokanee salmon held from October 1 through December 31 of each year at Navajo Reservoir.

The four tailwaters (the San Juan River below Navajo Dam, the Green River below Flaming Gorge Dam, the Gunnison River below Crystal Dam, and the Colorado River below Glen Canyon Dam) have provided "blue ribbon" trout fishing that many view as some of the best in the western United States. The Green River tailwater receives about one half of the total use, with the Colorado River tailwater, San Juan River tailwater, and Gunnison River tailwater providing the remainder.

B. TRANSMISSION DIVISION

The power system includes high voltage transmission lines that interconnect to the Colorado River Storage Project hydro-powerplants and deliver power to major load centers or other delivery points. The system is interconnected with adjacent federal, public, and private utility transmission systems. The Transmission Division was transferred to the Department of Energy, Western Area Power Administration, in fiscal year 1978.

Generation at CRSP powerplants amounted to 3.97 billion kilowatt-hours during fiscal year 2004. The major portion, 3.33 billion kilowatt-hours, was produced at Glen Canyon Dam. The balance was produced at Flaming Gorge, Blue Mesa, Morrow Point, Crystal, Fontenelle, McPhee, and Towaoc Powerplants.

Table 5 lists the gross generation for fiscal years 2003 and 2004 and the percentage of change:

Table 5
Gross Generation (Kilowatt-Hours)
and Percentage of Change for
Fiscal Years 2003 and 2004

Powerplant	Fiscal Year 2003	Fiscal Year 2004	Percent Change
Glen Canyon	3,527,196,000	3,328,793,000	-5.6
Flaming Gorge	236,629,000	236,681,000	0.0
Blue Mesa	130,923,000	142,539,000	8.9
Morrow Point	187,407,000	195,118,000	4.1
Crystal	95,494,910	4,705,000	-95.1
Fontenelle	41,600,000	45,472,000	9.3
McPhee	470,438	2,655,481	464.5
Towaoc	6,508,150	16,486,900	153.3
Total	4,226,228,498	3,972,450,381	-6.0

C. AUTHORIZED PARTICIPATING PROJECTS

Twenty-one participating projects have been authorized by Congress. Eleven were authorized by the initial authorizing Act of April 11, 1956 (70 Stat. 105), two were authorized by the Act of June 13, 1962 (76 Stat. 96), three were authorized by the Act of September 2, 1964 (78 Stat. 852), and five were authorized by the Act of September 30, 1968 (82 Stat. 886). Ten are in Colorado, three in New Mexico, two in Utah, four in Wyoming, one in both Colorado and Wyoming, and one in both Colorado and New Mexico. Participating projects develop, or would develop, water in the upper Colorado River system for irrigation, M&I uses, and other purposes, and participate in the use of revenues from the Upper Colorado River Basin Fund to help repay the costs of irrigation features that are beyond the ability of the water users to repay.

Table 6 shows completed participating projects:

Table 6
Completed Participating Projects

Project	State	Dam	Year Completed
Paonia	Colorado	Paonia	1962
Smith Fork	Colorado	Crawford	1962
Florida	Colorado	Lemon	1963
Silt	Colorado	Rifle Gap	1966
Bostwick Park	Colorado	Silver Jack	1971
Dallas Creek	Colorado	Ridgway	1991
Dolores Project	Colorado	McPhee	1998
Hammond	New Mexico	---	1962
San Juan-Chama	New Mexico	Heron	1971
Vernal Unit	Utah	Steinaker	1961
Emery County	Utah	Joes Valley	1966
Lyman	Utah	Stateline	1979
Eden	Wyoming	Big Sandy	1952
Eden	Wyoming	Eden	1959
Seedskadee	Wyoming	Fontenelle	1968
Lyman	Wyoming	Meeks Cabin	1971

The present status of construction, investigation, and recreational facilities for the participating projects is as follows:

1. Colorado

a. Fryingpan-Arkansas Project

Although the Fryingpan-Arkansas Project is not a participating project of the CRSP because it does not participate in the Upper Colorado River Basin Fund, it is sometimes referred to as a limited participating project because it does utilize water diverted from the upper Colorado River system to the eastern slope of Colorado.

The Eastern Colorado Area Office, located in Loveland, Colorado, directs the operation and maintenance activities of the Fryingpan-Arkansas Project. A field office in Pueblo, Colorado, coordinates with the Southeastern Colorado Water Conservancy District and the State Division Engineer.

NEPA compliance on the Ruedi Round II Water Marketing Program was completed on January 16, 1990, with the signing of a ROD on the proposed action. The proposed action made 46,500 acre-feet of water available for marketing to western slope contractors. In 1999, the U.S. Fish and Wildlife Service issued a Final Programmatic Biological Opinion for the Bureau of Reclamation's Operations and Depletions, Other Depletions, and Funding and Implementation of the Recovery Program Actions in the Upper Colorado River above the Confluence with the Gunnison River, which was accepted by Reclamation in January 2000. In 2003, Reclamation, the U.S. Fish and Wildlife Service, and the Colorado Water Conservation Board executed a long-term agreement (through the year 2012) described in the Final Programmatic Biological Opinion to make 10,825 acre-feet /year of water available to enhance flows in the 15-Mile Reach. This water is in addition to water made available as a result of earlier Endangered Species Act consultation on the Ruedi Round II Water Marketing Program (5,000 acre-feet/year withheld from water sales and 5,000 acre-feet made available in 4 out of 5 years).

Contents of reservoirs within the Fryingpan-Arkansas Project as of September 30, 2004, were as follows: Ruedi Reservoir, 80,122 acre-feet; Turquoise Lake, 79,710 acre-feet; combined Mt. Elbert Forebay and Twin Lakes Reservoir, 115,304 acre-feet; and Pueblo Reservoir, 101,800 acre-feet. During water year 2004 (October 1, 2003, through September 30, 2004), transmountain diversions from the Colorado River Basin in Colorado by the Fryingpan-Arkansas Project via the Charles H. Boustead Tunnel totaled 27,399 acre-feet.

b. Dolores Project

Dolores Project construction began in 1976. By fiscal year 1995, all primary project facilities were completed and in operation. All remaining work has been completed with the exception of final archeology reports which are scheduled to be completed by August 2005. In 1996, Reclamation signed petitions allocating the last approximately 1,800 acre-feet of full-service irrigation water to full-service users. Reclamation substantially completed construction of the Dolores Project in fiscal year 1998. The final cost allocation for the project was completed in October 2000 and approved by the Upper Colorado Regional Director by memorandum dated January 25, 2001.

Reclamation negotiated agreements with the three primary contractual beneficiaries: the Dolores Water Conservancy District (District), Montezuma Valley Irrigation Company, and Ute Mountain Ute Indian Tribe. These cooperative agreements and grants provided for the benefiting entities to complete the work, rather than using Reclamation's traditional construction methods. There are no major remaining Reclamation items to be completed. Reclamation has deposited $371,000 with the National Fish and Wildlife Foundation to be used for cost sharing of the acquisition of up to 3,300 acre-feet of water for fish and wildlife enhancement downstream from McPhee Dam. To date, no water has been acquired for the downstream fishery.

The District's agreements for completing its work items and providing 3,900 acre-feet of water for downstream fish and wildlife purposes were completed in 1998. Full payment was made to the Montezuma Valley Irrigation Company under a grant agreement with fiscal year 1996 funds. The Ute Mountain Ute Tribe's agreement allowing Reclamation to lease 3,300 acre-feet of unused tribal irrigation water has been completed. The grant agreement allowing the tribe to complete their work items was completed September 30, 2004. Payment in full was made in fiscal year 1996 for leasing 3,300 acre-feet of water for downstream fish and wildlife purposes, and full payment under the grant allowing completion of work items has been made.

In order to mitigate construction of salinity control modifications to the Upper Hermana, Lone Pine, and Rocky Ford Laterals (parts of the Dolores Project), 55 acres of new wetlands were developed at the Lone Dome Wetlands Area below McPhee Dam. In order to complete the remaining 20 acres of mitigation, Reclamation has developed Simon Draw wetlands near the Totten Reservoir area. A long-term management agreement between Reclamation and the Colorado Division of Wildlife for operation and maintenance of the Lome Dome Wetlands Area is in place and a similar agreement with the Montezuma Valley Irrigation Company is in negotiations.

Recreation at McPhee Reservoir is the responsibility of the San Juan National Forest, Dolores Ranger District, through a contract with Reclamation. The Lone Dome Recreation Area is located below McPhee Dam and includes 12 miles of public access to the Dolores River. This area is comprised of lands administered by the U.S. Forest Service, Bureau of Land Management, and Colorado Division of Wildlife. The U.S. Forest Service is currently studying ways to improve recreation at the reservoir through the formation of the McPhee Recreation Plan Committee (MRPC). The MRPC is a grassroots effort consisting of representatives from various local governmental and non-profit organizations. The two camping areas (family and group) are reservable on the www.ReserveUSA.com website. The campgrounds provide many services including a boat ramp, a fish cleaning station, and showers. A marina fire at McPhee destroyed the facility in 2002. Scoping to replace the facility was initiated in December 2004 by the U.S. Forest Service.

c. Fruitland Mesa Project

As required by Section 204(l) of the Federal land Policy and Management Act (P.L. 94-579), Reclamation completed a withdrawal review on lands withdrawn for the Fruitland Mesa Project. In December 1988, Reclamation submitted a report to the Bureau of Land Management recommending that its withdrawals for this project, totaling approximately 22,600 acres, be terminated in their entirety. That recommendation was never processed by the Bureau of Land Management. In September 1996, the Interior Department's Inspector General completed an audit report entitled, *Withdrawn Lands, Department of the Interior.* As a result of recommendations made in that audit report, it was anticipated that the Bureau of Land Management would soon begin to clear a large backlog of unprocessed recommendations.

d. San Miguel Project – West Divide Project

Both projects have been found to be economically unjustified. As required by Section 204(l) of the Federal land Policy and Management Act (P.L. 94-579), Reclamation completed a withdrawal review on lands withdrawn for the West Divide Project. In March 1987, Reclamation submitted a report to the Bureau of Land Management recommending that its withdrawals for this project, totaling approximately 739.6 acres, be terminated in their entirety. That recommendation was never processed by the Bureau of Land Management. In September 1996, the Interior Department's Inspector General completed an audit report entitled, *Withdrawn Lands, Department of the Interior.* As a result of recommendations made in that audit report, it was anticipated that the Bureau of Land Management would soon begin to clear a large backlog of unprocessed recommendations.

e. Dallas Creek Project

Block notice number one was issued for the Dallas Creek Project on May 31, 1989, covering all M&I water use. The notice involved 28,100 acre-feet of water. Repayment on that notice began in 1990. Block notice number two was issued on March 21, 1990. The notice included all irrigation waters for the project, involving 11,200 acre-feet. The notice was issued to Tri-County Water

Conservancy District. The first payment under the repayment contract was made in February 1993 and will continue until February 2042.

An accessibility evaluation of the recreation facilities at Ridgway Reservoir was completed in 2003. A determination is being made as to what improvements are needed to accommodate visitors with disabilities and to provide them with a quality recreation experience. Action plans should be completed by the end of fiscal year 2005. Recreation at Ridgway Reservoir is managed by the Colorado Division of Parks and Outdoor Recreation under an agreement with Reclamation. Ridgway's sandy swim beach, beach house, and full-service marina make it very popular for water-sport enthusiasts. Boating, scuba diving, water skiing, windsurfing, and swimming are some of the offerings at the park. There are numerous picnicking and camping sites available including miles of trails around the reservoir and downstream of the dam. In addition, Ridgway State Park has a friends group that contributes time and talent to provide enhancements to the park. In 2004, the Friends of Ridgway State Park helped install a bridge over Dallas Creek, re-vegetated a portion of Elk Ridge Campground, and held interpretive programs for visitors. During the spring of 2004, Colorado State Parks temporarily closed Dakota Terraces in order to make improvements to the wastewater system.

The Western Colorado Area Office (WCAO) of the Bureau of Reclamation sponsored a Catch a Special Thrill (C.A.S.T.) for Kids event at Ridgway on May 18, 2004. Special needs children from the area fished the ponds below the dam and enjoyed a pizza lunch and gift handouts after fishing. The WCAO will again sponsor a C.A.S.T. for Kids event at the reservoir where fishing ponds below the dam are stocked for that purpose. The 2005 event is scheduled for mid-May.

f. Smith Fork Project

All major construction for rehabilitation of existing recreation facilities at Crawford Reservoir was completed in fiscal year 1997. Rehabilitation included water, sewer, electric, and road upgrades; campground expansion and modification; and construction of a maintenance building. An accessibility evaluation for the recreation facilities is underway and should be completed within the next year.

g. Silt Project

Recent growth in western Colorado has caused the Public Service Company of Colorado (now XCEL Energy) to begin upgrading their electrical transmission lines from 69 kV to 115kV. This upgrade is anticipated to be complete in 2006. In order for the Silt Pumping Plant to continue to deliver Silt Project irrigation water, the Silt Water Conservancy District (Reclamation's project managing entity) must replace the existing transformer (69kV-2.4kV) with a new transformer (115kV-2.4 kV). In 2003, the District developed a feasibility study for the transformer replacement. The total cost of the project is estimated at $540,100 and will be financed by the District, loans, and in-kind services and grants. The District has been approved for a $486,000 loan from the Colorado Water Conservation Board. The Western Area Power Administration has completed the transformer design and specifications. Transformer replacement will be scheduled once XCEL Energy finalizes its decision and schedule to upgrade their electrical transmission lines.

In the winter of 2002, Reclamation and the State of Colorado began a major construction project to rehabilitate recreation facilities at Rifle Gap Reservoir. Rehabilitation will include upgrading the park's infrastructure (sewer, water, electricity, and roads); recreation facilities (campgrounds, picnic sites, boat ramp, group use area, restrooms, and parking); and support facilities (Visitor Center, Park Headquarters, and maintenance building). Facilities will be designed and

constructed to meet accessibility and health and safety standards. All work is being cost-shared with the Colorado Division of Parks and Outdoor Recreation and will be completed by the end of calendar year 2006.

The construction currently underway is the third phase of the three-phase project. Phase I included substantial improvements to the swim beach area, boat ramp, and the Bass day-use area. Phase II included a new visitor center and park headquarters, maintenance buildings, park road improvements, group picnic facilities, a trailer dump station, and significant improvements to the Cottonwood Campground including electrical and water hookups and shower facilities. Phase III will not be completed until late 2005 and will concentrate primarily on campground facility improvements and the addition of a new campground complete with utility hookups, flush restrooms, and shower facilities.

The park will remain open throughout the construction project with some traffic re-routed around the new visitor center. The visitor center will have a meeting room available to the public for a small fee as well as interpretive displays, educational materials, and local information such as maps and area attractions. In addition, the visitor center will be open daily and staff will be available to provide annual and daily passes as well as registrations for snowmobiles and boats.

h. Paonia Project

Recreation at Paonia Reservoir is operated by the Colorado Division of Parks and Outdoor Recreation under agreement with Reclamation. The original recreation facilities were built in 1963 and Colorado State Parks assumed management in 1965. There are two campgrounds, a picnic area, and boat launching facilities.

The recreation facilities are officially scheduled for rehabilitation in 2005 and 2006 and construction has begun. This is a small park and offers a primitive experience. Three toilet facilities will be made fully accessible (parking and route) under the rehabilitation program or prior to 2005 if funding is available. Since there is no drinking water available at the reservoir, visitors are encouraged to bring their own. The recreational attractions at Paonia Reservoir include the beautiful landscape surrounding the park, waterskiing, and camping. The park's abundance of wildflowers makes it a destination for photographers and native plant hobbyists. It is also known for northern pike fishing (best from late June through late August).

2. Colorado and New Mexico

a. Animas-La Plata Project

The Animas-La Plata Project achieves the purposes of the 1988 Colorado Ute Indian Water Rights Settlement Act and the Colorado Ute Settlement Act Amendment of 2000. Construction of the Durango Pumping Plant and Ridges Basin Dam and Reservoir will provide the Southern Ute Indian and Ute Mountain Ute Tribes with a reliable water supply for their future needs, while protecting scarce water resources for existing water users in southwestern Colorado and northwestern New Mexico.

The Bureau of Reclamation has implemented the initial steps to improve its working relationship with the project sponsors and the management of construction of the project. Reclamation has had several follow-up meetings with the project sponsors to begin the process of reestablishing communications and trust among the involved parties. More formal consultation protocols have been developed to allow the sponsors to have input into decisions affecting the overall cost of the project. Organizational changes have been implemented to realign the management of the project under a newly established Animas-La Plata Project

Construction Office. Reclamation is reviewing the options available within current laws and policies to address the allocation of project costs among the various project purposes and beneficiaries. Eight contracts have been negotiated and/or awarded for the construction of various project features, with a cumulative contract value totaling approximately $104 million out of total estimated earnings of nearly $291 million. One large contract for the completion of Ridges Basin Dam is in the procurement stage, with final negotiations and awards scheduled to occur in early calendar year 2005.

Overall costs of the project are estimated at $522 million (October 2005 price level). About $180 million has been obligated as of September 2004. It remains a priority of the Secretary to implement the Colorado Ute Settlement Act Amendments of 2000 by completing the project in a cost effective and efficient manner.

Recreation-related development for the Animas-La Plata Project is supposed to be performed by a non-federal entity. Planning includes development on the Ridges Basin Reservoir and the purchase, using project funds, of public access points along the Animas River. A minimum pool in the reservoir will be provided to improve water quality and support a recreational fishery. Development plans around the reservoir consists of facilities that would provide for a broad range of recreational activities, such as camping, hiking, picnicking, boating, fishing, and sightseeing.

3. Colorado and Wyoming

a. Savery-Pot Hook Project

The Savory-Pot Hook Project has been cancelled. As required by Section 204(l) of the Federal Land Policy and Management Act (P.L. 94-579), Reclamation completed a withdrawal review on lands withdrawn for the Savery-Pot Hook Project. In April 1983, Reclamation submitted a report to the Wyoming Bureau of Land Management State Director recommending that its withdrawals for the project, totaling approximately 11,303 acres, be terminated in their entirety. That recommendation was not processed by the Bureau of Land Management. In September 1996, the Interior Department's Inspector General completed an audit report entitled, *Withdrawn Lands, Department of the Interior.* As a result of recommendations made in that audit report, it was anticipated that the Bureau of Land Management would soon begin to clear a large backlog of unprocessed recommendations. In July 1999, Reclamation sent another request to the Wyoming Bureau of Land Management requesting a revocation of withdrawn lands for the project. In September 2000, a similar request was sent to the Bureau of Land Management for the state of Colorado. All of the land for the Savory-Pot Hook Project located in the state of Colorado has now been revoked. There are presently 1,205.42 acres still withdrawn for the Savory-Pot Hook Project in Wyoming where Reclamation is working with BLM to get the land revoked.

4. New Mexico

a. Navajo Indian Irrigation Project

The Navajo Indian Irrigation Project (NIIP) was authorized in 1962 by Public Law 87-483 to develop the necessary infrastructure to deliver San Juan River water to approximately 110,630 acres of farmland in the northeastern part of the Navajo Reservation near Farmington, New Mexico. Reclamation was designated by Congress to design, construct, and initially operate and maintain the project. The authorizing legislation also provided that construction funding for the project be sought by the Bureau of Indian Affairs (BIA) in its budget appropriation.

The project's facilities are, and will be, constructed in 11 blocks of approximately 10,000 acres each. Currently, NIIP is about 75 percent complete with eight blocks completed and approximately 71,500 acres currently under irrigation. In fiscal year 2003, a moratorium on new construction was place on NIIP until a Memorandum of Understanding between the Department of the Interior and the Navajo Nation has been completed and signed. Completion of NIIP will require an additional $450 to $465 million and 15 to 20 more years depending on the level of annual appropriations allocated by Congress.

The farmland served by NIIP is operated by the Navajo Agricultural Products Industry (NAPI), an enterprise of the Navajo Nation, charged with managing and operating a commercial farm on lands held in trust for the Navajo Nation. During 2004, the farm produced high value crops including potatoes, wheat, corn, and beans processed and marketed under the "Navajo Pride" brand.

The fiscal year 2005 BIA appropriation that will be transferred to Reclamation for continued project development is about $10 million. With the moratorium on any new construction, the fiscal year 2005 construction budget will be used to fund the correction of construction deficiencies and completion of all ongoing construction contracts.

5. Utah

a. Central Utah Project

The Central Utah Project (CUP) provides water for irrigation, M&I uses, and power generation. Benefits also include recreation, fish and wildlife, flood control, water conservation, water quality control, and area development. The initial phase consists of six units. The largest of these is the Bonneville Unit that involves the diversion of water from the Uinta Basin, a part of the Colorado River Basin, to the Great Basin, with associated resource developments in both basins. The other units, Vernal, Uintah, Upalco, and Jensen, provide for local development in the Uinta Basin.

(i). Bonneville Unit

Legislation introduced in 1991 by the Utah congressional delegation to increase the ceiling to allow completion of the Bonneville Unit of the CUP was passed on October 30, 1992, as P.L. 102-575, Central Utah Project Completion Act (CUPCA). The legislation allows the Central Utah Water Conservancy District (District) to plan and construct the remaining CUP features under the purview of the Department of the Interior. Interior's CUPCA Office and the District have prioritized remaining work items to ensure that the most important work is accomplished first under the remaining ceiling.

The Utah Lake Drainage Basin Water Delivery System (ULS) will complete the Bonneville Unit by delivering 101,900 acre-feet of Bonneville Unit water from the Strawberry Reservoir to the Wasatch Front area. The ULS was first announced in a *Federal Register* notice on October 14, 1998. On September 30, 2004, the Department of the Interior filed the ULS Final Environmental Impact Statement and on December 22, 2004, the Assistant Secretary for Water and Science signed the ULS Record of Decision. Contracts for implementation of the ULS have been negotiated and will be executed in the spring of 2005. The District completed the Supplement to the 1988 Definite Plan Report for the Bonneville Unit which was approved by the CUPCA Office and Reclamation on November 19, 2004.

Public Law 107-366, enacted December 19, 2002, amended the CUPCA, among other things, and authorized the implementation of a pilot management

program whereby the Secretary of the Interior may delegate oversight for the Bonneville Unit to Reclamation. The pilot management program will exist for a period not to exceed five years and shall provide a mechanism for the Secretary and the Central Utah Water Conservancy District to create a mutually acceptable organization within Reclamation to assist the Secretary in his responsibilities for the long-term management of the Bonneville Unit. Such a pilot management program may be extended indefinitely by mutual agreement between the Secretary and the District.

There are five reservoirs that are part of the Bonneville Unit where Reclamation has built facilities for recreational use. The five areas are Jordanelle, Strawberry, Starvation, Currant Creek, and Upper Stillwater.

Jordanelle Reservoir is the newest reservoir and recreation development took place in the late 1980s and early 1990s. There are two main developed areas, Hailstone and Rock Cliff. Hailstone is a large campground and day-use area on the west side of the reservoir. This is the side that experiences the most intensive use including walk-in and RV camping, motorized boating, personal watercraft launch area, three group use pavilions, 41 family picnic sites, and a marina store and restaurant. It is the favored location for boaters and RV campers. Rock Cliff Nature Center, along the Upper Provo River, includes a wetlands boardwalk and interpretive walk, walk-in camping, picnicking, river fishing, and bird watching in the riparian corridor. It offers visitors a quieter experience than Hailstone.

Recreation and public use at Jordanelle Reservoir is managed by the Utah Division of Parks and Recreation under an agreement with Reclamation. The day use area and a portion of the campgrounds at Hailstone Recreation Area were evaluated in 2004 for compliance with laws and standards governing access for persons with disabilities. The data for those areas is being reviewed and determinations will be made as to what needs to be done to improve the facilities to meet the intent of the law. The campgrounds, marina area, and Keetley area are scheduled to be completed in 2005. Jordanelle offers ongoing interpretive programs for school-age children, nature hikes, and boating safety programs throughout the recreation season.

Utah State Parks re-constructed and expanded the boat ramp at Rock Cliff in 2004. Additional parking was also installed to accommodate the increasing numbers of visitors. The Rock Cliff Nature Center received a Conservation Assessment Program (CAP) grant from the Institute of Museum and Library Services and Heritage Preservation. The nature center will use funds and CAP expertise to identify conservation needs of its collection and recommend ways to correctly improve collection conditions.

Strawberry Reservoir was enlarged in the 1980s under authority of the Bonneville Unit legislation. As part of Reclamation's commitment to provide recreation opportunities, new facilities were built. There are four main developed areas, Strawberry Bay, Soldier Creek, Renegade Point, and Aspen Grove. Reservations for many of the camp loops at Strawberry can be made through the website www.ReserveUSA.com.

- Strawberry Bay features 345 campsites. The picnic areas have shelters and there are evening interpretive programs available in the summer. There's an interpretive trail from the visitor center. A fish-cleaning station is available near the reservoir. In the winter there are groomed snowmobile trails and ice fishing access. There's also a gas station, restaurant, and grocery store and an amphitheater.

- Renegade Point has 66 campsites and a trail from the campground leads to the eastern arm of the reservoir or south along Poison Ridge to Big Springs.
- Soldier Creek has 166 camp sites and 3 group picnic areas, some with shelters. Day use fishing is available on the northern and eastern sides of the lake, and there's a scenic overlook for those who wish to make a loop drive.
- Aspen Grove features 52 campsites and a trail follows the shoreline back to the main part of the reservoir and Renegade Point. There are day use areas nearby along the Strawberry River and at Soldier Creek near the dam. There's also a small marina store and fish cleaning station here.

Recreation management at Strawberry Reservoir is under the jurisdiction of the U.S. Forest Service, Uinta National Forest. The managed recreation season is May through October and there is high use on holidays and weekends. Ice fishing is very popular during the winter months. Available fish species include rainbow and cutthroat trout.

Starvation State Park was established in 1972, two years after construction of the dam. The Utah Division of Parks and Recreation manages recreation at the reservoir under agreement with Reclamation. Facilities include 54 recreational vehicle (RV) sites (without utilities), 20 tent sites, group camp sites, a group day use pavilion, RV waste disposal, showers, drinking water, modern restrooms, and vault toilets in more remote areas. There is an annual walleye fishing tournament that has become quite popular with trophy fish being caught each year. The park and reservoir offer numerous coves, remote beaches and unusually blue water. Off-road vehicle use is allowed in some areas; however, visitors should consult with State Park employees on areas that are open to use.

Currant Creek Reservoir is a high elevation lake within a timbered setting. Development began in 1977 with the construction of an earth-fill dam, and the reservoir finished filling in 1982. The reservoir shoreline is 85 percent under the jurisdiction of the U.S. Forest Service, with the remaining 15 percent private with restricted access. Recreation management at Currant Creek is also under the jurisdiction of the U.S. Forest Service, Uinta National Forest. There is a campground at the reservoir with 49 campsites, tent sites, picnic areas, swimming, toilets, and a boat ramp. Winter access is restricted as the canyon is not plowed. Some of the camp sites at Currant Creek are reservable under the www.ReserveUSA.com website.

Upper Stillwater is another high mountain reservoir that has one main campground, Rock Creek. The reservoir serves as a popular trailhead into the High Uintas Wilderness with the boundary only one mile north of the dam near the high water line for the reservoir. Recreation management is under the jurisdiction of the U.S. Forest Service, Ashley National Forest. The managed recreation season is from June through September with high use on holidays and weekends. Available fish species include rainbow, brown, and brook trout.

(ii). Jensen Unit

Recreation management at Red Fleet Reservoir is performed by the Utah Division of Parks and Recreation under an agreement with the Bureau of Reclamation. Facilities include a small sandy beach, boat launching ramp, two modern rest rooms, 29 campsites, 32 covered picnic tables, and fish cleaning and sewage disposal stations. Several years ago a dinosaur track way dating back 200 million years was discovered on the east side of the reservoir. Because there is only a primitive trail and steep terrain that leads to the track way, an interpretive exhibit about the dinosaur tracks was installed in the campground on the west side

almost directly across from the track way in order to provide visitors who have small children, elderly persons, and those who have mobility impairments some experience with these paleontological resources. An accessibility evaluation as well as recreation facilities upgrades have taken place at Red Fleet Reservoir. Determinations will be made in the near future on what (if anything) needs to be done to upgrade facilities to provide better access to persons with disabilities.

(iii). Vernal Unit

Recreation at Steinaker Reservoir is managed by the Utah Division of Parks and Recreation under an agreement with the Bureau of Reclamation. The park was opened to the public in 1964. Sandy beaches, swimming, boating, and waterskiing top the list of activities. Year-round fishing is for rainbow trout and largemouth bass. Facilities include a boat launching ramp, modern restrooms, sewage disposal station, 31 individual campsites, and two group-use pavilions. An accessibility evaluation has been completed at Steinaker Reservoir. Results from an evaluation resulted in a new and supplemental day use area being built that is accessible to persons with mobility impairments. Decisions on other upgrades needed for the park to improve access will be made within a couple of years.

b. Emery County Project

Recreation at Huntington North Reservoir is managed by the Utah Division of Parks and Recreation under an agreement with the Bureau of Reclamation. The State Park has 237 acres open to boating, swimming, and fishing. Facilities include 22 camping units, numerous picnic sites, modern rest rooms, showers, sewage disposal station, boat launching, and a large covered group-use pavilion. Some recreation facilities enhancement at Huntington North has taken place and will continue into the future as funding becomes available. Available fish species include largemouth bass and bluegill. Crawdads are numerous because of the warm water and catching them is a favorite activity for kids visiting the area. Many migratory birds, particularly waterfowl, are present.

6. Wyoming

a. Lyman Project

Recreation at Meeks Cabin Dam is the responsibility of the U.S. Forest Service, Wasatch-Cache National Forest, under authority of Public Law 89-72, as amended. The managed recreation season is from June through October with moderate use. Available fish species include cutthroat trout and whitefish. There are 24 campsites at the reservoir and drinking water and restrooms are provided. Preferred activities are camping, picnicking, and motorized boating. Reservations for the campsites are not needed.

Recreation at Stateline Dam and Reservoir is the responsibility of the U.S. Forest Service, Wasatch-Cache National Forest, under authority of Public Law 89-72, as amended. The managed recreation season is June through October with moderate use. There is a campground with 41 campsites available as well as drinking water, restrooms, a recreational vehicle dump station, and a boat ramp. Some of the facilities are accessible to persons with mobility impairments. The most common fish species are rainbow, brook, and cutthroat trout. To the north and to the east of the campground are a number of multi-use trails and roads which loop among the many lakes in the forest. Reservations for the campsites can be made through the www.ReserveUSA.com website.

b. Seedskadee Project

Recreation facilities at Fontenelle Reservoir have been managed by the Bureau of Land Management under an agreement with the Bureau of Reclamation for the past 9 years. Fontenelle Creek Campground is the only developed area on the reservoir and offers campsites with restrooms and running water. There is also a boat ramp, vault toilets, and a group picnic area. There are three other campgrounds (Tailrace, Weeping Rock, and Slate Creek) located below Fontenelle Dam that are more primitive, although vault toilets and some developed facilities are available. Recreation use is extensive along the river below the dam and upgrades are needed in all of the campgrounds in order to better serve the public and protect the riverine resources. An accessibility evaluation of the recreation facilities was conducted in 2001 and a determination will be made as to what improvements are needed to better serve the needs of visitors with disabilities.

Fishing is the primary recreation activity and species in the reservoir and river include rainbow, brown, and cutthroat trout. Slate Creek Campground has become quite popular for group gatherings and holiday weekends see a surge in visitors at the river campgrounds. In an effort to better control vehicular traffic in the Slate Creek Campground area and encourage revegetation of the riparian corridor, traffic barriers were put in between the established roadway and the river.

7. New Mexico

a. San Juan-Chama Project

A resource management plan initiated in 1995 for Heron Reservoir was completed in March 1998. The Environmental Assessment was completed in December 1997 and distributed to all interested parties. The resource management plan and environmental analysis provides a guide for future resource management decisions and identifies problems, issues, and opportunities at Heron Reservoir.

Through the resource management planning process Heron Lake State Park has been designated a "quiet lake" where boats operate at no-wake speeds only. An accessibility evaluation on the recreation facilities at Heron Reservoir was completed in 2002. An accessibility action plan has been completed identifying those improvements and the estimated costs necessary to meet the needs of visitors with disabilities. It is expected that the work will be cost-shared with New Mexico State Parks.

Recreation at Heron Reservoir is managed by the New Mexico State Parks under an agreement with the Bureau of Reclamation. Camping, fishing, sailing, and hiking are popular summer activities. Cross-country skiing and ice fishing are available during the winter. There are multiple campgrounds, picnic areas, and dispersed camping along the lake shore. There is also a trail that leads from near the dam at Heron to the north end of El Vado Reservoir, a hike of about 5.5 miles. The continuing low water elevation at the reservoir has severely hampered the launching of boats from the two main boat ramps and eliminated the only marina on the lake.

Recreation at Nambe Falls Reservoir is managed by the Nambe Pueblo under an agreement with Reclamation. Reclamation pays the Pueblo for some of the recreation operation and maintenance activities management although the recreation area is day-use only with operating hours between sunrise and sunset. The area is usually closed from mid-November to mid-March. Fishing is a popular activity on the lake and available species include rainbow and cutthroat trout and salmon. Anglers need to obtain a fishing permit from the Nambe Pueblo. Other activities include motorized boating (electric motors only), picnicking, and hiking.

Fontenelle Dam, Seedskadee Participating Project, Wyoming
–Bureau of Reclamation photo

Fishing downstream from the dam is not allowed, although there is a small day-use area located there. In 2003, an accessibility evaluation was conducted on the recreation facilities at the reservoir (not at the area below the dam) and a determination will be made to identify what upgrades are needed to meet the needs of visitors with disabilities and to expand recreational opportunities for them.

D. RECREATIONAL USE AT RESERVOIRS

Office of Management and Budget approval to continue to collect visitor use information was received July 3, 2003, and will expire July 31, 2006. A centralized data base has been developed and visitor use data has been entered for some areas, but not for others, because of competing priorities. Table 7 shows visitor use figures (where available) for CRSP and participating project reservoirs.

Table 7
Most Current Visitor Use Figures

Recreation Area	Estimated Visitation	Period of Data Collection
Crawford Reservoir	78,797	June 2003 through June 2004
Curecanti National Recreation Area	1,006,103	Calendar year 2003
Currant Creek Reservoir	10,001	Calendar year 2003
Flaming Gorge National Recreation Area	1,500,001	Fiscal year 2003
Fontenelle Reservoir	4,210	Fiscal year 2003
Fruitgrowers	12	October 2003 through September 2004
Glen Canyon National Recreation Area	1,861,772	Calendar year 2004
Heron Reservoir	138,743	July 2002 through June 2003
Huntington North Reservoir	46,958	July 2002 through June 2003
Joe's Valley Reservoir	85,001	October 2002 through September 2003
Jordanelle Reservoir	126,899	July 2002 through June 2003
Lemon Reservoir	0	Data not available
Mancos Reservoir	41,407	July 2003 through June 2004
McPhee Reservoir	0	Data not available
Meeks Cabin Reservoir	2,501	June 2003 through September 2003
Nambe Falls Reservoir	38,236	Calendar year 2003
Navajo Reservoir (New Mexico)	512,800	July 2003 through June 2004
Paonia Reservoir	21,364	July 2003 through June 2004
Red Fleet Reservoir	36,134	July 2002 through June 2003
Ridgway Reservoir	332,433	July 2003 through June 2004
Rifle Gap Reservoir	105,576	July 2003 through June 2004
Silver Jack Reservoir	0	Data not available
Starvation Reservoir	108,416	July 2002 through June 2003.
Stateline Reservoir	6,001	June 2003 through September 2003
Steinaker Reservoir	31,274	July 2002 through June 2003.
Strawberry Reservoir	459,037	Calendar year 2003
Taylor Park Reservoir	10,000	July 2003, through June 2004
Upper Stillwater Reservoir	4,101	April 2003 through September 2003
Total	**6,567,777**	

E. STATUS OF OTHER RECLAMATION PROJECTS IN THE UPPER COLORADO RIVER BASIN

1. Colorado

a. Fruitgrowers Dam Project

Reclamation manages the public use at Fruitgrowers Reservoir. The reservoir and surrounding area has been listed as an "important" bird site by the state of Colorado and it has been determined to be a "globally significant" area under the American Bird Conservancy criteria because of its importance to migrating sandhill cranes and white-faced ibis as well as the presence of some southwestern willow flycatchers. The International Birding Association has determined that the area is an important area for shorebirds as well. The reservoir also hosts the largest nesting colony of western grebes in Colorado and more than 200 species of birds have been sighted. Every March there is an Annual Crane Days Festival at Fruitgrowers Reservoir that is sponsored by the Black Canyon Audubon Society and Surface Creek Winery and Gallery. A watchable wildlife trail and viewing area, accessible to persons with disabilities, was constructed in 1993. However, water quality issues at Fruitgrowers Reservoir have prevented the public from utilizing the wildlife trail to its full potential.

Reclamation is continuing its work to eliminate as much as possible the invasive tamarisk (salt cedar) that has spread throughout the reservoir area. The tamarisk is removed with machinery and then the cleared area treated with herbicides to keep regeneration from occurring. In addition, selective russian olive removal is being done with the older more mature trees being kept and the younger ones being removed.

b. Uncompahgre Project

The proposed AB Lateral Hydropower Facility has been withdrawn by the project sponsors. The facility would have generated electrical power, improved the Uncompahgre Project irrigation system, and enhanced revenues of the Uncompahgre Valley Water Users Association.

The recreation facilities at Taylor Park Reservoir are managed by the U.S. Forest Service under a management agreement with Reclamation. Since some of the recreation sites are very old, Reclamation decided to conduct some necessary accessibility improvements. During the fall of 2004, a walkway and parking areas for an existing vault toilet near the boat ramp were installed. The new facilities are completely accessible and complied with laws and standards governing access for persons with disabilities. The approximate cost was $15,000.

c. Dominguez Project (Whitewater)

As required by Section 204(l) of the Federal Land Policy and Management Act (P.L. 94-579), Reclamation completed a withdrawal review on lands withdrawn for the Dominguez Project. In December 1988, Reclamation submitted a report to the Bureau of Land Management recommending that its withdrawals for the project, totaling approximately 28,444 acres, be terminated in their entirety. That recommendation was not processed by the Bureau of Land Management. In September 1996, the Interior Department's Inspector General completed an audit report entitled, *Withdrawn Lands, Department of the Interior.* As a result of recommendations made in that audit report, it was anticipated that the Bureau of Land Management would soon begin to clear a large backlog of unprocessed recommendations. In April 2002, Reclamation sent a memorandum to the State Director of the Bureau of Land Management stating that the December 1988 withdrawal review is still valid and that we recommend that the 28,444 acres

withdrawn for the Dominguez project be revoked. That request has not yet been processed. Reclamation intends to send another withdrawal review to the State Director recommending that the acreage be revoked.

d. Mancos Project

At the request of the Mancos Water Conservancy District, Congress passed P.L. 106 549 (114 Stat. 2743) on December 19, 2000, which authorized the Secretary of the Interior to contract with the Mancos Water Conservancy District to use Mancos Project facilities for impounding, storage, diverting, and carriage of non-project water for irrigation, domestic, municipal, industrial, and any other beneficial purposes. Since the passage of P.L. 106 549, Reclamation has received requests for three contracts for the carriage of 30, 60, and 375 acre-feet of irrigation water annually. These requests have been approved and are currently in place. Modifications have been made to improve the efficiency and reliability of the domestic water line that supplies water to the Mesa Verde National Park, the town of Mancos, and outlying areas.

Recreation at Jackson Gulch Reservoir is managed by the Colorado Division of Parks and Outdoor Recreation under an agreement with the Bureau of Reclamation. Mancos State Park became part of the Colorado State Parks system in 1987. Camping, fishing, hiking, picnicking, wildlife viewing, and winter sports are all popular activities at the park. In partnership with Colorado State Parks, Reclamation recently approved a fuel reduction/elimination of dead trees project for the Jackson Gulch Reservoir Area. Implementation of the plan should occur in 2005.

An accessibility evaluation of the recreation facilities at the park was conducted and action plans have been put in place for an upgrade of the facilities to better serve persons with mobility impairments and other disabilities. Upgrades are awaiting funding and it is anticipated that needed improvements will be cost-shared with Colorado State Parks.

F. INVESTIGATIONS

The Upper Colorado Region Investigations budget for fiscal year 2004 was about $4.1 million, with approximately 55 percent being directed within the Upper Colorado River Basin. About 14 percent of the General Investigations funds spent in the basin during fiscal year 2004 were for salinity control activities including support of the Colorado River Storage System model, economic impact studies, salinity monitoring and verification studies, program coordination, other salinity control activities, and managing the basin-wide salinity control program.

Ongoing planning investigations include the Navajo-Gallup Water Supply Project, the Navajo Nation Investigations Program, the San Juan River Basin Investigations Program, the Uintah Basin Water Supply/Quality Optimization Study, and Coordinated Canal Operations – Southwestern Wyoming. Reclamation continues to provide assistance to states, as requested, through its Technical Assistance to States Program and continues to coordinate with other natural resource agencies on critical water resource related problems and issues with funds appropriated through the Environmental and Interagency Coordination account. Funds are also provided in the General Planning Activities account for Reclamation to conduct critical short-term investigation activities not funded by other programs.

1. New Mexico

a. Navajo-Gallup Water Supply Project

Reclamation is providing planning and technical assistance for this project. The project's purpose is to provide municipal and industrial water to the city of Gallup and the Jicarilla and Navajo Nations in New Mexico and the Window Rock area of the Navajo Nation in Arizona. Existing groundwater supplies will be augmented to meet current and future water demands. A preferred alternative has been identified and planning activities should be completed in 2005. A draft Planning Report/Environmental Impact Statement is scheduled for 2005.

b. Navajo Nation Investigations Program (New Mexico, Utah, and Arizona)

In 2000, Reclamation signed a Memorandum of Understanding with the Navajo Nation to establish the foundation for a long-term partnership to provide assistance to the Nation in resolving its water resource-related problems. The water resources of the Nation are severely limited and the lack of infrastructure and infrastructure deficiencies adversely impact the health, economy, and welfare of the Navajo people. The lack of adequate domestic, municipal, and industrial water is currently the Nation's greatest water resource problem. This program is focusing on identifying the domestic, municipal, and industrial water needs of each region of the reservation, evaluating the available resources, and developing appraisal-level alternatives to meet those needs. Specific studies to be conducted under this program are determined by the Navajo Nation and Reclamation in consultation with participating agencies.

c. San Juan River Basin Investigations Program (New Mexico, Colorado, Utah, and Arizona)

Reclamation is collecting data and conducting investigations, in cooperation with numerous other entities, necessary to resolve the many and complex water resource management issues in the San Juan River Basin. The demand for water in the basin exceeds the supply and until critical issues affecting current and future uses are resolved, existing uses are in jeopardy and new development is on hold. The major issues include: (1) settlement and implementation of settlements of water right claims of four Native American tribes, (2) providing instream flows for recovery of endangered fish in the San Juan River, and (3) providing water supplies to meet the needs of the rapid development and population growth that is occurring in the basin.. Reclamation is currently using a RiverWare framework hydrological model of the basin to evaluate the overall effects of proposed new depletions on existing uses and the instream flow required for the endangered fish. In 2004, Reclamation continued refinement and operation of the model to allow evaluation of individual water uses and to simulate operation of existing and proposed projects to evaluate alternatives to meet the current and future water supply needs in the basin. Reclamation continued appraisal studies for rural domestic water supply systems in cooperation with state, local, and tribal governments, and water conservancy districts.

2. Utah

a. Uintah Basin Water Supply/Quality Optimization Study

This study was initiated in fiscal year 2003 and is investigating the operation of projects on the Duchesne River and tributaries. The study is investigating the installation of remote operating and real-time monitoring systems on the Duchesne River Basin, the development of a basin-wide web site for displaying the collected data, and the development of an optimization plan to better

utilize the existing water supplies through coordinated regional operation. It will develop a pilot program of real-time monitoring of streams and canals, as well as canal automation, to better evaluate the effectiveness and efficiency of these types of installations of remote operating and monitoring systems in the Duchesne River Basin. The objective of this program is to optimize operation of the systems between reservoirs and canal diversions by deriving improved operating guidelines, and considering the potential benefits from increased yields by transfers of water between sub-basins.

b. Replacement of Spillway at Scofield Dam

Corrective action studies are underway for replacing the deteriorating spillway at Scofield Dam, operated by the Carbon Water Conservancy District. The spillway will need to be replaced to preserve the safety of the dam. These studies are being funded by the Safety of Dams Program.

c. Modification of Echo Dam

Corrective action studies are underway for modification of Echo Dam, operated by the Weber River Water Users Association. The foundation of Echo Dam and its emergency spillway will need to be modified to preserve the safety of the dam. These studies are being funded by the Safety of Dams Program.

3. Wyoming

a. Coordinated Canal Operations – Southwestern Wyoming

Reclamation has been working with the Bridger Valley Water Conservancy District on plans to automate the operation of Meeks Cabin and Stateline Reservoirs, thereby making both facilities more responsive to changing hydrologic and weather conditions. Additionally, Reclamation has been working with the Eden Valley Irrigation and Drainage District to provide recommendations for upgrading water measurement instrumentation. This work will be completed in fiscal year 2005.

G. RESERVOIR OPERATIONS

1. 2004 Operations Summary and Reservoir Status

Once again, drier than average hydrologic conditions were observed in the Colorado River Basin in 2004, marking the fifth consecutive year of drought in the basin. Basinwide precipitation was 89 percent of average during water year 2004 with snowpack accumulations also being below normal levels. Total unregulated[8] inflow into Lake Powell for water year 2004 was 6.13 million acre-feet (maf), only 51 percent of average.

Hydrologic conditions in the Colorado River Basin appeared to be more favorable in the winter of 2003-2004 than in the previous 4 years. During the winter period, basinwide snowpack was near average and at times above average. On March 1, 2004, basinwide snowpack in the Upper Colorado River Basin was 97 percent of average, with the forecasted April through July inflow to Lake Powell at 82 percent of average. However, March 2004 was an exceptionally warm and dry month throughout the basin. A significant deterioration of the snowpack occurred

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[1] Unregulated inflow adjusts for the effects of operations at upstream reservoirs. It is computed by adding the change in storage and the evaporation losses from upstream reservoirs to the observed inflow. Unregulated inflow is used because it provides an inflow time series that is not biased by upstream reservoir operations.

during the month. By April 1, 2004, basinwide snowpack had decreased to 66 percent of average, a reduction of 31 percentage points in only 1 month. At that time, inflow projections to Lake Powell were reduced to 50 percent of average. Further reductions of the inflow forecast occurred in May and June as the Upper Colorado River Basin experienced dry spring conditions for yet another year. Unregulated inflow into Lake Powell during the April through July runoff period in 2004 was 3.64 maf, or 46 percent of the 30-year average[9]. The volume of runoff in the basin in 2004 was reduced due to very dry antecedent soil moisture conditions resulting from four previous years of drought.

Water year 2004 marked the fifth consecutive year with below average inflow into Colorado River reservoirs. Unregulated inflow to Lake Powell was 62, 59, 25, and 51 percent of average in water years 2000, 2001, 2002, and 2003, respectively. Reservoir storage at Lake Powell and Lake Mead declined for the fifth straight year. During water year 2004, Lake Mead storage decreased by 1.681 maf and Lake Powell storage decreased by 2.941 maf. Storage in reservoirs upstream of Lake Powell increased by approximately 0.395 maf in water year 2004. At the beginning of water year 2004, Colorado River total system storage was 57 percent of capacity. As of September 30, 2004, total system storage was 50 percent of capacity, a decrease of approximately 4.238 maf.

Table 8 lists the October 1, 2004, reservoir vacant space, live storage, water elevation, percent of capacity, change in storage, and change in water elevation during water year 2004.

Table 8
Reservoir Conditions on October 1, 2004

Reservoir	Vacant Space	Live Storage	Water Elevation	Percent of Capacity	Change in Storage*	Change in Elevation*
	(maf)	(maf)	(ft)	(%)	(maf)	(ft)
Fontenelle	0.057	0.288	6,498.6	84	0.030	4.3
Flaming Gorge	1.070	2.679	6,011.2	71	0.044	1.3
Blue Mesa	0.322	0.507	7,480.2	61	0.120	17.8
Navajo	0.760	0.935	6,022.5	55	0.201	23.0
Lake Powell	15.153	9.169	3,570.8	38	-2.941	-33.0
Lake Mead	11.940	13.937	1,125.9	54	-1.681	-16.3
Lake Mohave	0.205	1.605	639.5	89	-0.038	-1.4
Lake Havasu	0.030	0.589	448.5	95	-0.027	1.4
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Totals	29.537	29.709		50	-4.238	

*From October 1, 2003, to September 30, 2004.

[2] Inflow statistics throughout this document will be compared to the 30-year average, 1971-2000.

2. 2005 Water Supply Assumptions

For 2005 operations, three reservoir unregulated inflow scenarios were developed and analyzed and are labeled as probable maximum, most probable, and probable minimum.

Although there is considerable uncertainty associated with streamflow forecasts and reservoir operating plans made a year in advance, these projections are valuable in analyzing probable impacts on project uses and purposes. The magnitude of inflows in each of these three inflow scenarios for 2005 are below the historical upper decile, mean, and lower decile (10 percent exceedance, 50 percent exceedance, and 90 percent exceedance, respectively). The volume of inflow is reduced in each of the three scenarios due to dry antecedent conditions in the Colorado River Basin resulting from five consecutive years of below average precipitation. The National Weather Service's Ensemble Streamflow Prediction (ESP) model was used to develop inflows for the three scenarios for 2005. The ESP modeling showed that even with average temperatures and precipitation in 2005, runoff in the Colorado River Basin is likely to remain below average due to dry antecedent conditions. Most probable inflow for Lake Powell in water year 2005 is 9.23 maf, or 77 percent of average. Most probable inflow is 2.83 maf less than the 30-year average of 12.06 maf. Minimum probable inflow to Lake Powell in water year 2005 is 3.75 maf, or 31 percent of average (2.40 maf less than the statistical 90 percent exceedance level). Maximum probable inflow is 15.3 maf, or 127 percent of average (2.89 maf less than the statistical 10 percent exceedance level). The three inflow scenarios for Lake Powell are shown in Table 9.

The volume of inflow resulting from these assumptions was used as input into Reclamation's monthly reservoir simulation model. This model is used to plan reservoir operations for the upcoming 24-month period. Projected water year 2005 inflow and October 1, 2004, reservoir storage conditions were used as input to this model; and monthly releases were adjusted until release and storage levels best accomplished project purposes.

Table 9
Projected Unregulated Inflow
Into Lake Powell for Water Year 2005

Time Period	Probable Maximum	Most Probable	Probable Minimum
10/04–12/04	1.42	0.93	0.85
1/05 – 3/05	1.53	1.18	0.72
4/05 – 7/05	10.88	6.26	1.89
8/05 – 9/05	1.44	0.86	0.29
10/05 – 2/05	1.37	1.37	1.37
WY 2005	15.27	9.23	3.75
CY 2005	15.22	9.67	4.27

3. 2004 Reservoir Operations

The regulation of the Colorado River has had effects on downstream aquatic and riparian resources. Controlled releases from dams have modified temperature, sediment load, and flow patterns, resulting in increased productivity of some introduced aquatic resources and the development of economically significant sport fisheries. However, these same releases have detrimental effects on endangered and other native species. Operating strategies designed to protect and enhance downstream aquatic and riparian resources have been established at several locations in the Colorado River Basin.

In the Upper Basin, public stakeholder work groups have been established at Fontenelle Dam, Flaming Gorge Dam, the Aspinall Unit, Navajo Dam, and Glen Canyon Dam.[10] These work groups provide a public forum for information dissemination on ongoing and projected reservoir operations throughout the year. These work groups allow stakeholders the opportunity to provide information and feedback on ongoing reservoir operations.

Modifications to planned operations may be made based on changes in forecast conditions or other relevant factors. Due to the Upper Colorado River Endangered Fish Recovery Program, Section 7 consultations under the Endangered Species Act (ESA), and other downstream concerns, modification to the monthly operation plans may be based on other factors in addition to changes in streamflow forecasts. Decisions on spring peak releases and downstream habitat target flows may be made midway through the runoff season. Reclamation will initiate meetings with the U.S. Fish and Wildlife Service, representatives of the Basin States, and with public stakeholder work groups to facilitate the discussions necessary to finalize site-specific operations plans.

Reclamation completed Section 7 consultation with the U.S. Fish and Wildlife Service in April 2002 on current and projected discretionary routine lower Colorado River operations and maintenance activities for a period of up to 3 years. On an annual basis, Reclamation's compliance with environmental commitments related to the April 1997 and 2002 Biological Opinions is reported to the U.S. Fish and Wildlife Service. Reclamation's compliance with additional environmental commitments, related to adoption of the Interim Surplus Guidelines, will continue to be addressed in future annual reports, as appropriate. Reclamation and the U.S. Fish and Wildlife Service have also formed a partnership with other Federal, State, and private agencies to develop the Lower Colorado River Multi-Species Conservation Program (MSCP). This program permits both non-Federal and Federal parties to participate and address ESA compliance requirements under Sections 7 and 10 of the ESA. A draft Environmental Impact Statement (EIS) on the Lower Colorado River MSCP was published on June 18, 2004. The Secretary and representatives from Arizona, California, and Nevada signed a Memorandum of Agreement on September 14, 2004, committing their best efforts, staff, and resources to complete the final EIS/Environmental Impact Report by December 2004.

The following paragraphs discuss the operation of each of the reservoirs with respect to compact, decree, statutory water delivery obligations, and instream flow needs for maintaining or improving aquatic resources, where appropriate.

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[10] At Glen Canyon Dam, the Adaptive Management Work Group (AMWG), a Federal Advisory Committee, was established in 1997. Additional information on the AMWG can be found at www.usbr.gov/uc/envprog/amp.

a. Fontenelle Reservoir

Drought conditions persisted during water year 2004 in the Upper Green River Basin for a fifth consecutive year. The April through July inflow to Fontenelle Reservoir during water year 2004 was 0.482 maf, which was 56 percent of normal. Even with lower than average inflow, Fontenelle Reservoir filled in 2004. The inflow peaked at 5,700 cubic feet per second (cfs) on June 12, 2004. Releases from Fontenelle Reservoir reached a maximum of 3,000 cfs between July 3, 2004, and July 5, 2004. These maximum releases were a combination of bypass releases and powerplant releases. The powerplant releases during this period were approximately powerplant capacity of 1,500 cfs. The peak elevation of Fontenelle Reservoir during water year 2004 was 6505.2 feet above sea level which occurred on July 20, 2004. This elevation is only 0.8 feet below the spillway crest elevation.

The most probable April through July inflow to Fontenelle Reservoir during water year 2005 is 0.677 maf. This volume far exceeds 0.345 maf which is the storage capacity of Fontenelle Reservoir. For this reason, the most probable and maximum probable inflow scenarios require releases during the spring that exceed the capacity of the powerplant to avoid uncontrolled spills from the reservoir. It is very likely that Fontenelle Reservoir will fill during water year 2005. In order to minimize high spring releases and to maximize downstream water resources and power production, the reservoir will most likely be drawn down to the minimum pool elevation of 6,463 feet above sea level by early April 2005, which corresponds to a volume of 0.093 maf of live storage.

b. Flaming Gorge Reservoir

Inflows into Flaming Gorge Reservoir during water year 2004 were well below normal for a fifth consecutive year. The annual unregulated inflow volume for water year 2004 was 0.874 maf, which was 51 percent of normal. The annual unregulated inflow volumes during this drought period (water year 2000 through water year 2003) were 56, 43, 31, and 44 percent of normal, respectively. Flaming Gorge Reservoir did not fill during water year 2004. On October 1, 2003 (the beginning of water year 2004), the reservoir elevation was 6,009.8 feet above sea level. The reservoir elevation remained relatively steady throughout water year 2004 and ended water year 2004 (on September 30, 2004) at an elevation of 6,011.2 feet. The water year ending reservoir elevation was 28.8 feet below the full pool elevation of 6,040 feet, which amounts to an available storage space of 1.070 maf.

A spring peak release of approximately 4,400 cfs was made for a period of 2 days between May 10, 2004, and May 12, 2004. This release was made through the powerplant and was closely matched to peak flows on the Yampa River. The Yampa River peaked at approximately 7,300 cfs on May 9, 2004. Flows on the Green River near Jensen, Utah, an important segment of the Green River for endangered fish, peaked at about 11,200 cfs on May 13, 2004. The 2-day spring peak release for 2004 was a test release. The 1992 Flaming Gorge Biological Opinion (1992 Biological Opinion) recommends at least 1 week of powerplant capacity releases during the spring. By reducing the peak to 2 days, approximately 35,000 acre-feet of water was conserved. This conserved water was released during the months of June, July, and August. Releases were increased from 800 cfs to 1,000 cfs during these months to provide higher base flows for endangered fish in the Green River below Flaming Gorge Dam. The release regime was considered a test release under the 1992 Biological Opinion. Reclamation, the U.S. Fish and Wildlife Service, and Western Area Power Administration conducted informal consultations in setting up the parameters of the test release.

In September 2000, a final report entitled, *Flow and Temperature Recommendations for Endangered Fishes in the Green River Downstream of*

Flaming Gorge Dam (Flaming Gorge Flow Recommendations) was published by the Upper Colorado River Endangered Fish Recovery Program (Recovery Program). The report compiled and summarized research conducted on endangered fish in the Green River under the Recovery Program and presented flow recommendations for three segments of the Green River. Reclamation is in the process of conducting a National Environmental Policy Act (NEPA) process to determine the best operational alternative for Flaming Gorge Dam to meet these flow recommendations. A Notice of Intent to prepare an EIS was published in the *Federal Register* on June 6, 2000. The draft EIS was published in August 2004. The final EIS is scheduled for release in April 2005 with a ROD scheduled for completion in May 2005.

During water year 2005, Flaming Gorge Dam will be operated under the 1992 Biological Opinion until a ROD is executed for the Flaming Gorge EIS. At that time, operations will adopt the findings of the ROD, which could impact how Flaming Gorge Dam will be operated in the future. High spring releases will likely continue to occur each year, timed with the Yampa River's spring runoff peak flow, followed by low summer and autumn base flows. Under the most probable scenario, releases in the winter and early spring during 2005 will be relatively low (approximately 800 cfs) in order to conserve reservoir storage.

c. Blue Mesa, Morrow Point, and Crystal Reservoirs (Aspinall Unit)

Drought conditions prevailed again in the Gunnison River Basin during water year 2004. The April through July unregulated runoff into Blue Mesa Reservoir in 2004 was 0.421 maf, or 59 percent of average. Water year 2004 unregulated inflow into Blue Mesa Reservoir was 0.629 maf, or 63 percent of average. Even though this marks the fifth consecutive year of drought, water year 2004 had considerably more runoff volume than the record low water year of 2002. The net effect of the 2004 runoff and the water conservation practices by water users in the basin during the year resulted in Blue Mesa Reservoir increasing in storage during water year 2004 by 0.120 maf. Storage in Blue Mesa Reservoir on September 30, 2004, was 0.507 maf, or 61 percent of capacity.

Releases from Aspinall Unit reservoirs in 2004 were at lower than normal levels, in part to conserve reservoir storage. Releases from the Aspinall Unit were reduced on November 6, 2003, to provide for a flow of 300 cfs in the Gunnison River through the Black Canyon (below the Gunnison Tunnel). This flow was maintained until early May 2004 at which time flows in the Black Canyon were increased to 350 cfs. Water year 2004 powerplant bypasses were approximately 0.604 maf at Crystal Dam. These bypass releases occurred because the powerplant was shut down from mid-October 2003 through October 2004 for generator rewind and turbine repair.

On August 16, 1995, Memorandum of Agreement (MOA) No. 95-07-40-R1760 was signed by the Bureau of Reclamation, U.S. Fish and Wildlife Service, and Colorado Water Conservation Board. The purpose of the MOA was to provide water to the Redlands Fish Ladder and assure at least 300 cfs of flow in the 2-mile reach of the Gunnison River between the Redlands Fish Ladder and the confluence of the Gunnison and Colorado Rivers (2-mile reach). This MOA was extended for an additional 5 years on June 30, 2000. A key provision of the MOA requires that the parties adopt a plan to share water shortages in dry years, when total storage at Blue Mesa Reservoir is projected to drop below 0.4 maf by the end of the calendar year. In 2004 it was not necessary to operate under a shared shortage arrangement because there was sufficient runoff.

In July 2003, a final report entitled, *Flow Recommendations to Benefit Endangered Fishes in the Colorado and Gunnison Rivers* was published by the Upper Colorado River Endangered Fish Recovery Program. The report compiles

and summarizes the results of research conducted on endangered fish in the Gunnison and Upper Colorado Rivers under the Recovery Program. The report presents flow recommendations for two different river reaches: one for the lower Gunnison River between Delta and Grand Junction, Colorado, as measured at Grand Junction, and the other for the Colorado River downstream of the Gunnison River confluence as measured at the Colorado-Utah State line. In January 2004, Reclamation published a Notice of Intent to prepare an EIS on operations to assist with meeting the flow recommendations or a reasonable alternative to them. Public scoping meetings were held in February 2004. A draft EIS is likely to be released in 2006.

On January 17, 2001, the United States filed an application to quantify the Federal reserved water right decreed to the Black Canyon of the Gunnison National Monument. The water right is for flows in the Gunnison River through the Black Canyon of the Gunnison National Park downstream of the Gunnison Tunnel. On April 2, 2003, the Department of the Interior and the State of Colorado reached agreement regarding water for the park. Under this agreement, the reserved water right filed for by the National Park Service will be quantified for 300 cfs, with a 1933 priority date. The Colorado Water Conservation Board will file under the State of Colorado instream flow program for additional flows in excess of those required to fulfill the purposes of the Aspinall Unit (with a 2003 priority date) to provide additional water resources for the park. However, this agreement is currently being challenged in United States District Court in Colorado.

The Colorado Water Court for Water Division 4 has stayed proceedings on the amended Federal claim for the 300 cfs flow pending the outcome of the case before the District Court. The State of Colorado and others have challenged the Colorado Water Court stay in the Colorado Supreme Court. No action has been pursued on the Colorado Water Conservation Board's filing for the peak flows (flows in excess of those required to fulfill the purposes of the Aspinall Unit) in the Colorado Water Court for Water Division 4, and no action is anticipated until the amended Federal claim is settled. In short, the reserved water right claim for the Black Canyon of the Gunnison National Park has not yet been quantified.

For water year 2005, the Aspinall Unit will be operated in accordance with the Colorado River Storage Project Act to conserve storage while meeting downstream delivery requirements. Under normal conditions, the minimum release objectives of the Aspinall Unit are to meet the delivery requirements of the Uncompahgre Valley Project to maintain a year-round minimum flow of 300 cfs in the Gunnison River through the Black Canyon and to maintain a minimum flow of 300 cfs in the 2-mile reach below the Redlands Diversion Dam during the months of July through October. In dry years, the 300 cfs flow through the canyon and the 2-mile reach can be reduced pursuant to the appropriate decree or MOA. In 2005, under the most probable inflow conditions, flows through the Black Canyon of the Gunnison National Park will be above the minimum release objective during the summer months. To protect both the blue ribbon trout fishery in the Black Canyon and recreational interests, releases during 2005 will be planned to minimize large fluctuations in the daily and monthly flows in the Gunnison River below the Gunnison Tunnel diversion.

Under the minimum probable inflow scenario, Blue Mesa Reservoir is not expected to fill in 2005. Under the most probable and maximum probable inflow scenarios, Blue Mesa Reservoir is expected to fill in 2005.

d. Navajo Reservoir

Drought conditions continued to persist in the San Juan River Basin during 2004 which resulted in less than average runoff volumes into the basin. The April through July unregulated inflow into Navajo Reservoir in water year 2004 was

0.529 maf, or 67 percent of average. Water year 2004 unregulated inflow was 0.806 maf, or 72 percent of average. The San Juan River Basin is continuing to experience an extended dry cycle. Unregulated inflow to Navajo Reservoir in water years 2000, 2001, 2002, and 2003 was 40, 93, 10, and 43 percent of average, respectively. Storage in Navajo Reservoir has been significantly reduced due to these protracted drought conditions. On September 30, 2004, reservoir live storage was 55 percent of capacity, but only 27 percent of active capacity. The water surface elevation at Navajo Reservoir on September 30, 2004, was 6,022.5 feet.

The final report entitled, *Flow Recommendations for the San Juan River* (Flow Recommendations), which outlines flow recommendations for the San Juan River below Navajo Dam, was completed by the San Juan River Basin Recovery Implementation Program (SJRIP) in May 1999. The report synthesizes research conducted on endangered fish in the San Juan River over a 7-year period. The purpose of the report is to provide flow recommendations for the San Juan River that promote the recovery of the endangered Colorado pikeminnow and razorback sucker, maintain important habitat for these two species as well as the other native species, and provide information for the evaluation of continued water development potential in the basin. In June 2004, the U.S. Fish and Wildlife Service issued a non-jeopardy draft biological opinion for the operations of Navajo Dam to meet the Flow Recommendations, or a reasonable alternative to them.

The Flow Recommendations did not provide for making a spring peak release from Navajo Reservoir in 2004 due to the severity of the drought and the hydrologic conditions in the San Juan River Basin. Although there was no peak release, at times higher than normal base flows were released from Navajo Reservoir during the spring and summer months during water year 2004. Releases from Navajo Reservoir from June through August 2004 averaged 548 cfs and were as high as 806 cfs in mid-August. These releases were necessary due to decreasing flows in the San Juan River endangered fish critical habitat area (Farmington to Lake Powell). The Flow Recommendations call for an average weekly flow of between 500 cfs and 1,000 cfs in this reach of the river. However, because of the poor water supply conditions at Navajo Reservoir, the SJRIP and U.S. Fish and Wildlife Service concurred in providing a lesser base flow of 400 cfs through the critical habitat reach during the 2004 irrigation season only, which flow is deemed sufficient to maintain endangered fish populations and habitat in the San Juan River through the critical habitat reach for the designated time period. With minimal tributary inflow to the San Juan River below Navajo Dam (primarily the Animas River) in 2004, this flow, as well as the flow required to meet downstream demands and natural losses, had to be made up almost entirely of releases from Navajo Reservoir.

In response to the extremely low storage level in Navajo Reservoir, coupled with a less-than-average predicted inflow in 2004, a shortage sharing agreement was developed among water users in 2004. The 2004 shortage sharing recommendations were similar to the agreement that was developed in 2003. Ten major water users, including the Jicarilla Apache and Navajo Nations, Hammond Conservancy District, Public Service Company of New Mexico, City of Farmington, Arizona Public Service Company, BHP-Billiton, Bloomfield Irrigation District, Farmers Mutual Ditch, and Jewett Valley Ditch, endorsed the recommendations which included limitations on diversions for 2004, criteria for determining a shortage, and shortage-sharing requirements in the event of a water supply shortfall, including sharing of shortages between the water users and the flow demands for endangered fish habitat. In addition to the ten major water users, the New Mexico Interstate Stream Commission, Bureau of Indian Affairs, U.S. Fish and Wildlife Service, and SJRIP all provided input to the recommendations, and the recommendations were accepted for reservoir operation and river administration purposes by Reclamation and the New Mexico State Engineer.

The criteria used for determining a water shortage in 2004 at Navajo Reservoir was based on protecting an elevation of 5,990 feet (the top of the inactive pool), with future inflows assumed to be at minimum probable levels (90 percent exceedance). When the water surface elevation at Navajo Reservoir was projected to fall below 5,990 feet, with projected inflows at the minimum probable level, a water supply shortfall was determined. The shortage calculations were updated frequently as runoff forecasts changed and actual runoff materialized. Because of sufficient inflow into Navajo Reservoir in 2004, no shortages were required during the 2004 water year.

Reclamation is proceeding through a NEPA process on the implementation of operations at Navajo Dam that meet the Flow Recommendations, or a reasonable alternative to them. A Notice of Intent to prepare an EIS was filed on October 1, 1999, in the *Federal Register*. A draft EIS was released on September 4, 2002. The completion of the final EIS is scheduled to occur in March 2005 with the ROD to follow a minimum of 30 days later.

In March 2004, a contract was awarded to Gracon Corporation for the repair of the 4' x 4' tandem outlet gates at Navajo Dam. The work is expected to be completed in November 2004.

Navajo Reservoir is not expected to fill in 2005 under the minimum probable, most probable or maximum probable inflow scenario. Releases from the reservoir will likely be 250 cfs (7 cms) through the fall and winter, subject to NEPA compliance. Under most probable inflow conditions in 2005, a large spring release as provided for in the Flow Recommendations is likely in 2005.

e. Lake Powell

Five years of drought in the Colorado River Basin has significantly reduced water storage in Lake Powell. When drought conditions began in the autumn of 1999, Lake Powell was nearly full (95 percent of capacity on September 30, 1999).

Lake Powell began water year 2004 with 12.1 maf of water in storage (50 percent of capacity), 3.51 maf lower than that of Lake Mead. As water year 2004 ended on September 30, 2004, Lake Powell storage had been reduced to 9.169 maf, or 38 percent of capacity. Because of reduced storage, and Lake Powell storage being less than Lake Mead storage at the beginning of water year 2004, releases from Glen Canyon Dam were scheduled to maintain the minimum release objective from Lake Powell of 8.23 maf in accordance with Article II(2) of the Operating Criteria. Forecasted inflow to Lake Powell was below average throughout water year 2004, and storage equalization releases between Lake Mead and Lake Powell were not required. The total release from Lake Powell in water year 2004 was 8.23 maf.

April through July unregulated inflow into Lake Powell in water year 2004 was 3.64 maf, or 46 percent of average. Water year 2004 unregulated inflow was 6.13 maf, or 51 percent of average. Lake Powell reached a seasonal peak elevation of 3,587.4 feet, 112.6 feet from full, on June 14, 2004. The elevation of Lake Powell on September 30, 2004, was 3,570.8 feet, 129.2 feet from full. The water surface of Lake Powell had not been that low since 1970, prior to the reservoir's first filling in 1980.

In 2003 and 2004, Reclamation conducted a NEPA process to study the effects of implementing an interim 602(a) storage guideline to assist in the determination of the quantity of water considered necessary to be in storage as of September 30 of each year as required by Section 602(a) of the Colorado River

Basin Project Act. The guideline was originally proposed by the Colorado River Basin States (65 Fed. Reg. 48537, August 8, 2000). A Final Environmental Assessment entitled, *Adoption of an Interim 602(a) Storage Guideline* was completed in March 2004. A Finding of No Significant Impact was approved by the Regional Directors of Reclamation's Upper and Lower Colorado Regions in March 2004. Under the Interim 602(a) Guideline, 602(a) storage requirements determined in accordance with Article II(1) of the Operating Criteria will utilize a value of not less than 14.85 maf (elevation 3,630 feet) for Lake Powell through the year 2016.

On April 24, 2002, members of the Glen Canyon Adaptive Management Work Group (AMWG) recommended to the Secretary of the Interior that a 2-year experimental flow test be made from Glen Canyon Dam beginning in water year 2003. The recommendation addressed the decline of two key resources in the Grand Canyon: sediment and population viability of endangered humpback chub. To document the proposed experimental flows, Reclamation, the National Park Service, and the United States Geological Survey jointly prepared the Proposed Experimental Releases from Glen Canyon Dam and Removal of Non-Native Fish Environmental Assessment (September 2002). The Environmental Assessment incorporates a Biological Assessment for the U.S. Fish and Wildlife Service under the Endangered Species Act. A Finding of No Significant Impact on the experimental releases was signed by the three agencies on December 6, 2002.

Daily high fluctuating releases from Glen Canyon Dam, as part of these experimental flows, were carried out from January through March 2003 and January through March 2004. Releases during these three-month periods ranged between a high of 20,000 cfs to a low of 5,000 cfs (142 cms) each day under revised ramping rates as described in the Environmental Assessment. These high fluctuating releases were intended to benefit the endangered humpback chub by reducing the spawning and recruitment of non-native fish.

On August 11, 2004, members of the AMWG recommended to the Secretary of the Interior that replication of the daily high fluctuating releases (5,000 to 20,000 cfs) continue adaptively from January through April 2005. The AMWG also proposed that if the Secretary proceeds to implement a high-flow release to mobilize sediment in water year 2005, that such release take place in November 2004 rather than January 2005. In making these recommendations, the AMWG expressed a desire to formulate a water year 2005 flow regime from Glen Canyon Dam that was effective at testing the hypotheses of sediment conservation and humpback chub protection in a way that considers the financial condition of the Upper Colorado River Basin Fund. A Supplemental Environmental Assessment for Proposed Experimental Actions for Water Years 2005-2006 was jointly prepared by Reclamation, the National Park Service, and the U.S. Geological Survey and released to the public on November 5, 2004. A Finding of No Significant Impact was signed by the three agencies on November 19, 2004, to cover the proposed actions in the AMWG recommendations.

From November 21, 2004, until November 25, 2004, a high-flow experiment was carried out at Glen Canyon Dam. Peak releases of 41,000 cfs were maintained for a period of 60 hours during the experiment. High-flow events on the Paria River in September, October, and November 2004 resulted in sufficient sediment inputs to Marble Canyon to trigger the high-flow test. A total of 93,000 acre-feet of water was bypassed through the river bypass tubes during the experiment. Data collection of sediment conditions in Marble Canyon and Grand Canyon was carried out before and after the high flow. Data collection will continue in 2005 to determine the effects of the high-flow test on sediment retention in Marble and Grand Canyons.

In 2005, scheduled maintenance activities at Glen Canyon Dam powerplant will require that one or more of the eight generating units at Glen

Canyon Dam periodically be offline. Coordination between Reclamation offices in Salt Lake City, Utah, and Page, Arizona, will take place in the scheduling of maintenance activities to minimize impacts, including those on experimental releases.

During water year 2005, the minimum release objective of 8.23 maf will be made under the most probable, minimum probable, and maximum probable inflow conditions. If inflow to Lake Powell is greater than the maximum probable inflow volume, releases greater than 8.23 maf will be made in 2005 to equalize storage between Lakes Powell and Mead, if storage in Lake Powell is projected to be greater than 14.85 maf (elevation 3,630 feet) on September 30, 2005, and active storage in Lake Powell is greater than active storage in Lake Mead. Under the most probable inflow in 2005, the projected water surface elevation at Lake Powell on September 30, 2005, will be 3,569 feet with 9.01 maf of storage (37 percent of capacity).

Daily high fluctuating releases from Glen Canyon Dam, as proposed by the AMWG in August 2004, are scheduled to occur in January and continue through the first week of April 2005. Releases during this time period will range between a high of 20,000 cfs to a low of 5,000 cfs each day (except for Sundays) under the ramping rates described in the November 2004 Supplemental Environmental Assessment.

Because of less than full storage conditions in Lake Powell resulting from five consecutive years of below normal runoff, releases for dam safety purposes are highly unlikely in 2005. If implemented, releases greater than powerplant capacity would be made consistent with the 1956 Colorado River Storage Project Act, the 1968 Colorado River Basin Project Act, and the 1992 Grand Canyon Protection Act. Reservoir releases in excess of powerplant capacity required for dam safety purposes during high reservoir conditions may be used to accomplish the objectives of a beach/habitat-building flow according to terms contained in the Record of Decision for the Operation of Glen Canyon Dam and as published in the Glen Canyon Dam Operating Criteria (62 Fed. Reg. 9447, March 3, 1997).

Daily and hourly releases in 2005 will be made according to the parameters of the preferred alternative described in the Record of Decision for the Operation of Glen Canyon Dam and the Glen Canyon Dam Operating Criteria, as shown in Table 10. Exceptions to these parameters may be made during power system emergencies or for purposes of humanitarian search and rescue. Experimental flows implemented in 2005 may also require that releases exceed the parameters of the Glen Canyon Dam Operating Criteria during the winter months of 2005.

Table10
Glen Canyon Dam Release Restrictions
(Glen Canyon Dam Operating Criteria)

Parameter	(cfs)	Conditions
Maximum flow [11]	25,000	
Minimum flow	5,000	Nighttime
	8,000	7:00 am to 7:00 pm
Ramp rates		
Ascending	4,000	per hour
Descending	1,500	per hour
Daily fluctuations [12]	5,000 / 8,000	

Releases from Lake Powell in water year 2005 will continue to reflect consideration of the uses and purposes identified in the authorizing legislation for Glen Canyon Dam. Powerplant releases and beach/habitat-building flows will reflect criteria based on the findings, conclusions, and recommendations made in the Record of Decision for the Operation of Glen Canyon Dam pursuant to the Grand Canyon Protection Act of 1992 and NEPA documentation regarding the April 24, 2002, AMWG experimental flow proposal.

The Secretary of the Interior will conduct a mid-year review of the 2005 Annual Operating Plan (AOP). Due to the severe drought and the reduction in available reservoir storage in the Colorado River Basin, pursuant to Article I(2) of the Coordinated Long-Range Operating Criteria for Colorado River Reservoirs, the Secretary will review the 2005 annual release amount from Lake Powell in April 2005 to determine if the 2005 runoff forecast warrants an adjustment to the release amount for water year 2005. Any revision to the AOP may occur only through the AOP consultation process as required by applicable Federal law. The mid-year review will involve consultation meetings with the Colorado River Management Work Group (CRMWG) and will focus on releases from Glen Canyon Dam for the remainder of water year 2005.

H. FISH AND WILDLIFE

The Upper Colorado River Endangered Fish Recovery Program (Recovery Program) is in its 17th year of implementation. The Recovery Program is a cooperative effort among the states of Colorado, Utah, and Wyoming; representatives from the environmental and water user communities; the Colorado River Energy Distributors Association, Western Area Power Administration, Service, National Park Service, and Bureau of Reclamation. The intent of the

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[11] May be exceeded during beach/habitat-building flows, habitat maintenance flows, or when necessary to manage above average hydrologic conditions.

[12] Daily fluctuations limit is 5,000 cfs for months with release volumes less than 0.600 maf; 6,000 cfs for monthly release volumes of 0.600 to 0.800 maf; and 8,000 cfs for monthly volumes over 0.800 maf.

program is to recover the endangered Colorado River fish species while the states continue to develop their Colorado River Compact entitlements. The U.S. Fish and Wildlife Service relies upon Recovery Program accomplishments to serve as the "reasonable and prudent alternative" (RPA) for depletion impacts when issuing biological opinions on existing and new water projects requiring Endangered Species Act consultations. Since its inception in 1988, the Recovery Program has served as the RPA in the issuance of biological opinions covering projects depleting over 1.7 million acre-feet of water.

The Recovery Program is one of the oldest basinwide recovery efforts and exemplifies successful cooperation among diverse stakeholders to recover endangered species while developing water and power projects. The Recovery Program provides for collaborative problem solving and proactive efforts that reduce costly litigation. Due to its success, the program has served as a model for other similar programs in the West including the San Juan River Basin Recovery Implementation Program (SJRBRIP) on the San Juan River in Colorado, New Mexico, and Utah, the Middle Rio Grande Endangered Species Collaborative Program on the Rio Grande in New Mexico, and the soon to be formalized June Sucker Recovery Implementation Program on the Provo River/Utah Lake system in Utah. The Recovery Program also served as a model for the Multi-Species Conservation Program for the lower Colorado River.

In fiscal year 2004, research projects and operation and maintenance activities funded for the Recovery Program totaled almost $4.4 million. Also in fiscal year 2004, capital projects totaling almost $9 million were initiated to accomplish physical habitat improvements. Major Recovery Program accomplishments include: (1) construction of canal system improvements to the Grand Valley Project in order to increase irrigation system efficiency and conserve water to improve river flows for the benefit of endangered fish species, (2) construction of a fish passage at the Grand Valley Project diversion dam, (3) renewed emphasis on non-native fish control, and (4) re-operation of Reclamation dams to more closely resemble the natural hydrograph.

The SJRBRIP is ongoing in the San Juan River Basin with participation from the states of Colorado and New Mexico, four Indian tribes, the Bureau of Land Management, Reclamation, the U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs. The goal of the SJRBRIP is to protect and recover the native fish communities in the San Juan River while providing for continued water development consistent with state and federal laws. In fiscal year 2004, research projects funded for the SJRBRIP totaled $1.9 million and capital project construction funding totaled about $265,000.

To date, capital project construction and acquisition of land for both the Upper Colorado and San Juan River Basin Recovery Implementation Programs have been funded primarily through appropriated non-reimbursable construction dollars. In October 2000, Congress passed legislation (P.L. 106-392) that established a cost ceiling of $80 million. The legislation authorizes expenditures of up to $46 million of appropriated non-reimbursable construction funds, $17 million of state cost-share contributions, and $17 million of CRSP reimbursable hydropower revenues for capital projects. The legislation also authorizes expenditures of up to $6 million of non-reimbursable CRSP hydropower revenues annually to support ongoing research, monitoring, and operation and maintenance activities for capital projects.

I. APPROPRIATIONS OF FUNDS BY THE UNITED STATES CONGRESS

The funds appropriated for fiscal year 2004 for construction of the CRSP, participating projects, and recreational and fish and wildlife activities totaled $59,771,000. Recreational and fish and wildlife activities received a total of $3,821,000.

In fiscal year 2004, construction appropriations for the Colorado River Basin Salinity Control Program totaled $9.2 million.

Table 11, page 75, is a summary of action by the 109th Congress pertaining to appropriations of funds for the construction program of the CRSP and participating projects.

Table 12, page 76, shows the total funds approved by the United States Congress for the CRSP and participating projects and chargeable against the limitations of various authorizing Acts (P.L. 485, 84th Congress, CRSP Act, as amended in 1972 by P.L. 32-370 and in 1988 by P.L. 100-563; P.L. 87-485, San Juan-Chama and Navajo Indian Irrigation Projects Act; P.L. 88-568, Savery-Pot Hook, Bostwick Park, and Fruitland Mesa Projects Act; and P.L. 90-537, Colorado River Basin Project Act).

Table 11
Colorado River Storage Project
Fiscal Year 2005 Program

Project and State	Budget Request	House Allowance	Senate Allowance	P.L. 108-447 Dec. 8, 2004
Construction Program				
CRSP Participating Projects:				
Animas-La Plata - Colorado	$52,000,000	$52,000,000	$52,000,000	$52,000,000
Bonneville Unit, CRSP	5,112,000	5,112,000	5,112,000	5,112,000
Initial Units, CRSP	400,000	400,000	400,000	400,000
TOTAL - Upper Colorado River Basin Fund	$57,512,000	$57,512,000	$57,512,000	$57,512,000
Recreational and Fish and Wildlife Facilities:				
Recreational Facilities	144,000	144,000	144,000	144,000
Fish and Wildlife Facilities	1,851,000	1,851,000	1,851,000	1,851,000
	$1,995,000	$1,995,000	$1,995,000	$1,995,000
TOTAL - Colorado River Storage Project	$59,507,000	$59,507,000	$59,507,000	$59,507,000

Table 12
Appropriations Approved by Congress for the
Colorado River Storage Project and Participating Projects

Fiscal Year	Amount
1957	$ 13,000,000
1958	35,142,000
1959	68,033,335
1960	74,459,775
1961	58,700,000
1962	52,534,500
1963	108,576,000
1964	94,036,700
1965	55,800,000
1966	45,328,000
1967	46,648,000
1968	39,600,000
1969	27,700,000
1970	25,740,000
1971	24,230,000
1972	27,284,000
1973	45,770,000
1974	24,426,000
1975	22,967,000
1976	53,722,000
1977	55,200,000
1978	67,051,000
1979	76,799,000
1980	81,502,000
1981	125,686,000
1982	130,063,000
1983	132,942,000
1984	161,104,000
1985	163,503,000
1986	97,412,000
1987	110,929,000
1988	143,143,000
1989	174,005,000
1990	163,653,000
1991	145,063,000
1992	92,093,000
1993	69,333,000
1994	46,507,000
1995	23,272,000
1996	27,049,000
1997	22,410,000
1998	17,565,000
1999	4,655,000
2000	2,000,000
2001	2,000,000
2002	16,000,000
2003	35,000,000
2004	55,640,000
2005	57,512,000
TOTAL	**$3,242,788,310**
Plus: Navajo Indian Irrigation Project Appropriations (funds transferred to Reclamation only)	540,170,404
TOTAL APPROPRIATIONS	**$3,782,958,714**

Exclusive of non-reimbursable funds for fish and wildlife, recreation, etc., under Section 8 of Public Law 485, 84th Congress, and all underfinancing and rescission actions.

COLORADO RIVER BASIN
SALINITY CONTROL PROGRAM

(Information relative to the Colorado River Basin Salinity Control Program in the Colorado River Basin has been obtained from the United States Department of the Interior, Bureaus of Reclamation and Land Management, and the United States Department of Agriculture (USDA), Natural Resources Conservation Service. Additional information may be obtained at www.uc.usbr.gov/progact/salinity/index.html.

Title II of the Colorado River Basin Salinity Control Act, P.L. 93-320 (approved June 24, 1974), directs the Secretary of the Interior to expedite the investigation, planning, and implementation of the salinity control program. The program objective is to treat salinity as a basinwide problem in order to maintain salinity concentrations at or below 1972 levels in the lower mainstem of the river while the Basin States continue to develop their compact apportioned waters. Specifically, the Act authorizes the construction, operation, and maintenance of four salinity control projects (Paradox Valley, Grand Valley, Las Vegas Wash, and Crystal Geyser Units) and the expeditious completion of planning reports for 12 other projects. It also requires cost sharing by non-federal entities. The Secretary of the Interior, Secretary of Agriculture, and Administrator of the Environmental Protection Agency are directed to cooperate and coordinate their activities to meet the program objectives.

P.L. 98-569, signed into law on October 30, 1984, amends P.L. 93-320. This law amends the original salinity control program by authorizing construction of additional units by Reclamation and deauthorizing Crystal Geyser because of poor cost effectiveness. The Secretary of Agriculture is directed to establish a major voluntary on-farm cooperative salinity control program. The authorizing legislation provides for cost sharing and technical assistance to participants for planning and installing needed salinity reduction practices, including voluntary replacement of incidental fish and wildlife values foregone. Participants pay at least 30 percent of the costs to install salinity reduction and wildlife habitat practices. P.L. 98-569 also directs the Bureau of Land Management (BLM) to develop a comprehensive program for minimizing salt contributions from the 48 million acres of basin lands that it administers.

P.L. 104-20 was signed into law on July 28, 1995. This law amends the Salinity Control Act to authorize a new approach to salinity control for Reclamation. Past authorities were unit specific. This amendment authorized Reclamation to pursue salinity control anywhere in the basin. The amendment increased Reclamation's appropriation ceiling by $75,000,000 to continue its ongoing efforts to control salinity.

The Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127) was signed into law April 4, 1996. This Act combines the USDA's salinity control program and other programs into the Environmental Quality Incentives Program. The Act further amends the Salinity Control Act to authorize the Secretary of the Interior the option to expend funds available in the Basin Funds to carry out cost-shared salinity measures consistent with the 30 percent allocation authorized by P.L. 98-569. This cost sharing option is available for both the USDA and Reclamation programs.

P.L. 106-459 was signed into law on November 7, 2000. This law amended the Colorado River Basin Salinity Control Act to increase the appropriation ceiling for Reclamation's Basinwide Salinity Program by $100 million, bringing the total to $175 million. With 30 percent cost sharing from the Colorado River Basin Funds, the total amount of funds available for the Basin Wide Salinity Program is $250 million. This appropriation authority has allowed Reclamation to

request new proposals in 1996, 1997, 1998, 2001, and 2004 under its Basinwide Salinity Control Program. Reclamation is planning to solicit new proposals in 2005.

P.L. 106-459 also requires the Bureau of Land Management to prepare a report to Congress on the status of implementation of its comprehensive program for minimizing salt contributions to the Colorado River from lands administered by the Bureau of Land Management as directed by section 203(b)(3) of P.L. 98-569 (1984).

J. PROGRAM STATUS

1. Bureau of Reclamation and U. S. Department of Agriculture Salinity Control Program

Reclamation's Basinwide Salinity Program is currently being implemented under the authorities provided in 1995 by PL 104-20. This program typically awards projects to various non-federal entities through a competitive Request for Proposal process. Projects are ranked based on cost effectiveness and performance risk factors by a committee chaired by the program manager along with representatives from the Salinity Forum and Reclamation area offices. Individual projects are constructed by local entities thru construction cooperative agreements with Reclamation area offices in Provo and Grand Junction. Solicitations and awards completed by Reclamation in 1996, 1997, and 1998 consumed the available appropriation ceiling of $75 million authorized by Congress in P.L. 104-20 to test the new program. Investigation, operation, and maintenance funding levels remain at nearly $5 million per year. The increase in appropriation authority provided by P.L. 106-459 allowed Reclamation to request new proposals in 2001 and 2004. To date, a total of 31 project contracts have been awarded totaling over $150 million. Reclamation solicited new proposals during the winter of 2003-2004 and awarded six new project contracts during the summer of 2004.

The USDA's Environmental Quality Incentives Program, that currently provides the vehicle for Colorado River Basin salinity control activities, is administered by the Natural Resources Conservation Service. In fiscal year 2004, a total appropriation of about $19.8 million was allocated to salinity control activities under the Environmental Quality Incentives Program. These funds were used for cost sharing, technical assistance, and education assistance activities.

a. Grand Valley Unit, Colorado – Implementation has been underway on this unit since 1979. The application of salinity control and wildlife habitat replacement practices continues. Reclamation has completed its planned project to line and pipe major portions of the irrigation delivery system. Under the USDA program, farmers continue to install underground pipelines, gated pipe, concrete-lined ditches, land leveling, and a variety of other practices.

b. Lower Gunnison Basin Unit, Colorado – This is the largest of the USDA salinity control units and is located in Delta and Montrose counties. Implementation was initiated in 1988 on this unit. The application of salinity reduction and wildlife habitat replacement practices continues to be an integral part of implementation of the Lower Gunnison Unit. The major practices are underground pipelines, ditch lining, land leveling, irrigation water control structures, gated pipe, and sprinkler and surge irrigation systems. Reclamation has installed livestock watering systems to eliminate canal and lateral use during the winter months. Under its new basinwide salinity control authorities and the National Irrigation Water Quality Program, Reclamation has lined a small portion of the irrigation delivery system to test its effectiveness in concurrently controlling salinity and selenium. Test results show that salinity improvements also control selenium loading. The first center pivot sprinkler has been installed to serve as a demonstration for future systems in the Gunnison Basin.

c. McElmo Creek Unit, Colorado – Implementation was initiated on this unit in 1990. Application of salinity reduction and wildlife habitat replacement practices continues to be implemented in this area with sprinkler systems, underground pipelines, and gated pipe being installed. Development and use of automatic shutoff valves for sprinkler systems continue to be widely implemented in the project to achieve water management goals. Reclamation's salinity control activities were combined into the construction of the Dolores Project that is complete.

d. Uinta Basin Unit, Utah – Implementation of the USDA on-farm portion of this unit started in1980. The major practices installed are sprinkler irrigation systems, improved surface systems, underground pipelines, and gated pipe. USDA demonstration plot activities continued on Ute Indian tribal land to illustrate the benefits of sprinkler irrigation; teach principles of irrigation scheduling; and provide data on crop variations, yields, and costs to determine fair market lease agreements. Starting in 1997, Reclamation's Basinwide Program has been replacing earthen canals and laterals with pipelines to provide gravity pressure for on-farm sprinkler systems. Landowner participation has exceeded expectations.

e. Big Sandy River Unit, Wyoming – USDA implementation has been underway on this unit since 1988. The application of salinity reduction and wildlife habitat replacement practices is nearing completion. In this area, farmers are converting from surface flood irrigation to primarily low-pressure center pivot irrigation systems for salinity control. Studies in 2003 and beyond will investigate bringing the entire project under gravity-powered sprinkler systems.

f. Price-San Rafael Unit, Utah – The Record of Decision was issued in April 1997 for this project. Reclamation and the USDA began work in the project area in fiscal year 1998. In this area, a large number of groups have replaced earthen laterals with pipelines to provide gravity pressure for on-farm sprinkler systems. Reclamation has also installed livestock watering systems to eliminate canal and lateral seepage during the winter months.

g. San Juan River Unit, New Mexico – The USDA has completed salinity investigations on irrigated lands along the San Juan River in New Mexico from the vicinity of Fruitland, westward to Cudei. This area consists of approximately 8,400 irrigated acres within the boundaries of the Navajo Nation. Findings from the investigation were published in a verification report in July 1993. The findings indicated that irrigation on the unit is contributing to increased salt loading in the San Juan River that ultimately flows into the Colorado River. No further progress was made on any USDA planning activities in this potential project area due to the functions of the Colorado River Salinity Control Program being combined into the Environmental Quality Incentives Program.

h. Hammond Project, New Mexico – The Hammond Project was authorized as one of the initial participating projects of the CRSP and was constructed in the early 1960s. The project is located in northwestern New Mexico along the southern banks of the San Juan River opposite the towns of Blanco, Bloomfield, and Farmington, New Mexico. The Hammond Conservancy District, under a cooperative agreement with the Bureau of Reclamation, has constructed the Hammond Salinity Project under the authority of the Basinwide Program. This project has concrete lined and piped approximately 26 miles of the irrigation delivery system in the project area. The majority of the work has been completed. It is estimated that the lining will help remove at least 27,700 tons to as much as 68,560 tons of salt from the San Juan River.

i. Mancos Valley Unit, Colorado – In 2004, the USDA authorized and initiated a salinity control project on irrigated lands in the Mancos River Valley that

lies adjacent to and just east of the McElmo Creek Project. This project will reduce salt loading by 15,500 tons by increasing the irrigation application efficiency on 5,400 acres and by reducing seepage in 27 ditches. Implementation will not significantly reduce the amount of irrigation water diverted annually. The total estimated project cost is $12,500,000. In 2004, contracts totaling $1.4 million were signed using Environmental Quality Incentives Program allocations.

j. Muddy Creek Unit, Utah – In 2003-2004, the Natural Resources Conservation Service conducted planning activities for salt control in the crop land areas irrigated from Muddy Creek near the town of Emery. The preferred alternative, if fully implemented, would reduce salt loading to Muddy Creek by 11,677 tons annually. The alternative would replace 6 miles of the earthen Muddy Creek Canal and 46 miles of off-farm irrigation laterals with buried pipelines. Some 6,000 acres of unimproved surface irrigation systems would be converted to sprinkler irrigation systems. The total estimated project cost would be approximately $11.6 million. A Finding of No Significant Impact was issued in January 2005. It is anticipated that the USDA will authorize and initiate the planned project in 2005.

2. Bureau of Land Management Salinity Control Program

The Bureau of Land Management remains committed to its role in reducing the contribution of salts to the Colorado River system from public lands. As in past years, the agency has undertaken this responsibility through the multitude of individual management decisions that are made within each Bureau of Land Management jurisdiction. While salinity is not segregated as a specific program, it is affected by almost all other land management decisions that are made. Progress in salt reduction is therefore achieved through efforts to minimize the impacts of grazing, protect riparian areas, reduce off-road vehicle impacts, conduct prescribed burns, and generally manage vegetative cover and reduce erosion on public lands.

The natural salt load from the Colorado River at Lees Ferry, Arizona, is estimated to be about 5.2 million tons per year. Contributions from BLM lands are included in this estimate. Surface runoff from BLM-administered lands above Lees Ferry is estimated to contribute about 700,000 tons per year, or about 14 percent. The remaining 4.5 million tons are contributed primarily by groundwater inflow and saline springs as well as runoff from other federal, tribal, state, and private land.

It is difficult to estimate the actual reduction in the salinity of the Colorado River that may be attributed to BLM management activities. There are many physical, chemical, and biological processes that affect the movement of salt from an upland project area to the Colorado River or a perennial tributary to the Colorado River. As the distance between a project and the nearest perennial flow increases, it quickly becomes difficult to quantify the amount of salt that would reach the perennial flow and the amount of time required for the salt to arrive at the perennial flow. For these reasons, BLM estimates the amount of salt that is retained on the project site by management actions. It is assumed that the salt retained would have been moved off-site by surface runoff if the project had not been implemented.

Projects to better understand salt movement on public lands are currently ongoing. The San Rafael River study in central Utah will provide BLM with a methodology that determines the primary mode of salt movement, either surface-water runoff to a stream or groundwater inflow to a stream. The Muddy Creek study, which is a multi-year project to quantify salt loading from public lands in the Muddy Creek watershed, is also in central Utah. Funding for these projects is provided by BLM and the Colorado River Basin Salinity Control Forum's Basin States fund. In Colorado, two multi-year projects are also ongoing. The Badger

Wash project is assessing vegetation characteristics and sediment /salt runoff from grazed versus ungrazed areas. BLM's Gunnison Gorge Natural Resources Conservation Area has been cooperating with the U.S. Geological Survey to study impacts from different activities such as off-highway-vehicle use on the Mancos shale-derived soils.

In 2004, BLM created and filled a Salinity Coordinator position located in Reclamation's Upper Colorado Regional Office with Reclamation's Salinity Control Program Manager and the USDA's Salinity Coordinator. A high priority is to finish or update all soil surveys in the Upper Colorado River Basin. These soil surveys will help to determine where saline soils are, the types of salts, and the quantity of salt in the soils. Budget planning is on pace to allocate Congressional salinity funds through a more accountable tracking method for the 2006 fiscal year. Longer-term writing and compiling of salinity control proposals for future projects (fiscal year 2007-2009) is also occurring.

APPENDICES

APPENDIX A
UPPER COLORADO RIVER COMMISSION
Annual Financial Report
June 30, 2004

Appendix B
Budget
Fiscal Year Ending June 30, 2006

Appendix C
Resolution

Appendix D
Transmountain Diversions

Ulrich & Associates, PC
Certified Public Accountants

INDEPENDENT AUDITORS' REPORT

The Commissioners of the
Upper Colorado River Commission
Salt Lake City, Utah

We have audited the accompanying financial statements of the governmental activities of Upper Colorado River Commission as of and for the year ended June 30, 2004, which comprise the Commission's basic financial statements as listed in the table of contents. These financial statements are the responsibility of Upper Colorado River Commission's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities of Upper Colorado River Commission as of June 30, 2004, and the respective changes in financial position thereof for the year then ended in conformity with accounting principles generally accepted in the United States of America.

The Management's Discussion and Analysis on pages 4-6, is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

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Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of cash receipts and disbursements, and the supplemental schedule of expenses – budget to actual, are presented for purposes of additional analysis and are not a required part of the basic financial statements of Upper Colorado River Commission. Such information has been subjected to the auditing procedures applied in the audit of the general purpose financial statements and, in our opinion, is fairly presented in all material respects in relation to the general purpose financial statements taken as a whole.

Ulrich & Associates, PC

August 10, 2004

UPPER COLORADO RIVER COMMISSION

Annual Financial Report

June 30, 2004

Table of Contents

Management Discussion and Analysis

This discussion and analysis is intended to be an easily readable analysis of the Upper Colorado River Commission (the Commission) financial activities based on currently known facts, decisions or conditions. This analysis focuses on current year activities and should be read in conjunction with the financial statements that follow.

Report Layout

This report is significantly different from prior years. Besides this Management's Discussion and Analysis (MD&A), the report consists of government-wide statements, fund financial statements, and the notes to the financial statements. The first two statements are condensed and present a government-wide view of the Commission's finances. Within this view, all Commission operations are categorized and reported as governmental activities. Governmental activities include basic services and administration. The Commission does not have any business-type activities. These government-wide statements are designed to be more corporate-like in that all activities are consolidated into a total for the Commission.

Basic Financial Statements

The Statement of Net Assets focuses on resources available for future operations. In simple terms, this statement presents a snap-shot view of the assets the Commission, the liabilities it owes and the net difference. The net difference is further separated into amounts restricted for specific purposes and unrestricted amounts. For the first time, governmental activities are reported on the accrual basis of accounting.

The Statement of Activities focuses gross and net costs of the Commission's programs and the extent to which such programs rely upon general revenues. This statement summarizes and simplifies the user's analysis to determine the extent to which programs are self-supporting and/or subsidized by general revenues.

The notes to the financial statements provide additional disclosures required by governmental accounting standards and provide information to assist the reader in understanding the Commission's financial condition

The MD&A is intended to explain the significant changes in financial position and differences in operation between the current and prior years. To be an accurate presentation, the prior year would have to be restated to the new reporting format. The Commission has chosen to not restate the prior year. Nevertheless when possible, significant changes from the prior year are explained in the following paragraphs.

Commission as a Whole

Government-wide Financial Statements

Because this is the first year to report governmental activities on the new standard, comparison to the prior year is not possible. In subsequent years, this section will discuss and analyze significant differences. A condensed version of the Statement of Net Assets at June 30, 2004 follows:

Net Assets at Year-end

	Governmental Activities
Cash & investments	$ 329,031
Capital assets	30,355
Total assets	359,386
Other liabilities	14,860
Deferred revenue	34,840
Total liabilities	49,700
Net assets:	
Invested in capital assets	30,355
Unrestricted	267,369
Total net assets	$ 297,724

During the year ended June 30, 2004 there was only one significant change in net assets. The Commission received an assessment payment which is for the next fiscal year. This payment has been classified as a deferred revenue.

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A condensed version of the Statement Activities follows:

Governmental Activities
For the year ended June 30, 2004

Revenues	2004
Program Revenues	
Charges for Services	$ 1,350
Assessments	309,700
General Revenues	
Interest	4,922
Total Revenues	315,972
Expenses	
Administration	285,054
Change in net assets	30,918
Beginning net assets	266,786
Ending net assets	$ 297,704

The Commissions expenditures remained similar to prior year with the exception of wages paid. During the year the executive director retired and as a result the wages paid were lower because a new director was not chosen until two months later. The commission also paid out the accumulated leave to the former director.

Capital Assets

At June 30, 2004 the Commission had $30,355 invested in capital assets, consisting primarily of a building and furniture. There was little change in capital assets during the year.

Capital Assets at Year-end

	2003	2004
Land	$ 24,159	24,159
Building	61,633	66,019
Improvements	2,207	2,207
Furniture & equipment	46,124	46,124
Subtotal	134,123	138,509
Accumulated Depreciation	107,567	108,174
Capital assets, net	$ 26,556	30,335

Financial Contact

The Commission's financial statements are designed to present users (citizens, taxpayers, state governments) with a general overview of the Commission's finances and to demonstrate the Commission's accountability. If you have questions about the report or need additional financial information, please contact the Commission's secretary at 355 South 400 East, Salt Lake City, UT 84111.

Basic Financial Statements

UPPER COLORADO RIVER COMMISSION

Statement of Net Assets

June 30, 2004

	Governmental Activities	Business-type Activities	Total
ASSETS			
Cash & cash equivalents	$ 329,031	-	329,031
Capital assets:			
Land	24,159	-	24,159
Building	66,019	-	66,019
Improvements other than building	2,207	-	2,207
Furniture & equipment	46,124	-	46,124
Less: accumulated depreciation	(108,174)	-	(108,174)
Total Assets	359,366	-	359,366
LIABILITIES			
Accounts payable	10,610	-	10,610
Retirement payable	4,250	-	4,250
Deferred revenue	34,840	-	34,840
Total current liabilities	49,700	-	49,700
Noncurrent Liabilities:			
Accrued compensated absences	11,962	-	11,962
Total noncurrent liabilities	11,962	-	11,962
Total Liabilities	61,662	-	61,662
NET ASSETS			
Invested in capital assets	30,335	-	30,335
Unrestricted	267,369	-	267,369
Total Net Assets	297,704	-	297,704
Total Liabilities and Net Assets	$ 359,366	-	359,366

See accompanying notes to the basic financial statements

UPPER COLORADO RIVER COMMISSION

Statement of Activities

For the year ended June 30, 2004

	Expenses	Program Revenues: Charges for services	Program Revenues: Operating Grants and Contributions	Net Revenue and Changes in Net Assets: Total
Governmental Activities:				
General Administration	$ 285,054	1,350	309,700	25,996
Total Governmental Activities	$ 285,054	1,350	309,700	25,996
General Revenues:				
Interest				4,922
Total General Revenues				4,922
Change in Net Assets				30,918
Net Assets - Beginning of Year				266,786
Net Assets - Ending of Year				$ 297,704

See accompanying notes to the basic financial statements

UPPER COLORADO RIVER COMMISSION
Balance Sheet
Governmental Funds
June 30, 2004

	General Fund
Assets	
Petty cash	$ 25
Cash in Bank	28,842
Utah public treasurers' investment pool	300,164
Total Assets	329,031
Liabilities	
Accounts payable	10,610
Accrued Liabilities	4,250
Accrued benefits	1,492
Deferred revenue	34,840
Total Liabilities	51,192
Fund Balance	
Unreserved	277,839
Total Liabilities and Fund Balance	$ 329,031

Reconciliation of the Statement of Net Assets to the Balance Sheet

Amounts reported for governmental activities in the statement of net assets are different because:

Total fund balance reported above	$ 277,839
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds	30,335
Compensated absences are not due and payable in in the current period and therefore, are not reported in the funds	(10,470)
Net assets of governmental activities	$ 297,704

See accompanying notes to the basic financial statements

UPPER COLORADO RIVER COMMISSION

Statement of Revenues, Expenditures and Changes in Fund Balance
Governmental Funds
June 30, 2004

	Budget	General Fund	Variance Favorable (Unfavorable)
Revenues:			
Assessments	$ 309,700	309,700	-
Interest	-	4,922	4,922
Waternews Subscriptions	-	1,350	1,350
Total Revenues	309,700	315,972	6,272
Expenditures:			
Personal services	263,100	229,705	33,395
Travel	18,000	17,025	975
Current operating	21,600	24,811	(3,211)
Capital Outlay	5,500	4,624	876
Contingencies	5,000	12,668	(7,668)
Total Expenditures	313,200	288,833	24,367
Excess of revenues over expenditures	(3,500)	27,139	30,639
Fund Balance - June 30, 2003	248,712	248,712	-
Fund Balance - June 30, 2004	$ 245,212	275,851	30,639

Reconciliation of the statement of Revenues, Expenditures and Changes in Fund Balances of Governmental Funds to the Statement of Activities

Net change in fund balance (as reported above)	$	27,139
Governmental funds report capital outlays as expenditures However, in the statement of activities, the cost of those assets is allocated over their estimated useful lives as depreciation expense. This is the amount by which capital outlays exceeded depreciation in the current period.		3,779
Change in net assets of governmental activities	$	30,918

See accompanying notes to the basic financial statements

UPPER COLORADO RIVER COMMISSION

Notes to Basic Financial Statements
June 30, 2004

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Reporting entity

The Commission was formed pursuant to the terms of the Upper Colorado River Basin Compact on October 11, 1948, and consented to by the Congress of the Unites States of America by Act on April 6, 1949, as an administrative agency representing the Upper Division States of the Colorado Basin, namely Colorado, New Mexico, Utah, and Wyoming. The Commission consists of one commissioner representing each of the four states and one representing the United States of America. The activities of the commission are conducted for the purpose of promoting and securing agricultural and industrial development of the Upper Basin's water resources.

The commission has no component units that are included with this report.

B. Basis of Presentation - Fund Accounting

The accounting system is organized and operated on a fund basis. A fund is defined as a fiscal and accounting entity with a self balancing set of accounts, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions or limitations.

The Commission's funds are grouped into two broad categories and one generic fund type for financial statement presentation purposes. The general fund is the only governmental fund. The Commission has no proprietary funds or fiduciary funds.

C. Basis of Accounting

GOVERNMENT WIDE FINANCIAL STATEMENTS

The statement of net assets and the statement of activities display information about the Commission. These statements distinguish between activities that governmental and that that are considered business-type activities.

The government-wide statements are prepared using the economic resources measurement focus and the accrual basis of accounting. This is the same approach used in the preparation of the proprietary fund financial statements but differs from the manner in which governmental fund financial statements are prepared. Therefore, governmental fund financial statements include a reconciliation with brief explanations to better identify the relationship between the government-wide statements and the statements for governmental funds.

The government-wide statement of activities presents a comparison between expenses and program revenues for the governmental activity. Direct expenses are those that are specifically associated with the service provided by the Commission. Program revenues include charges paid by recipients of the goods or services offered by the Commission and contributions that are restricted to meeting the operational or capital requirements of the Commission. Revenues which are not classified as program revenues are presented as general revenues. The comparison of program revenues and expenses identifies the extent to which the Commission is self financing.

FUND FINANCIAL STATEMENTS

Fund financial statements report detailed information about the Commission. The focus of governmental financial statements is on major funds rather than reporting funds by type. Each major fund is presented in a separate column. The only major fund is the general fund with no other nonmajor funds.

GOVERNMENTAL FUNDS

The Commission accounts its general fund using the modified accrual basis of accounting and the current financial resources measurement focus. Under this basis revenues are recognized in the accounting period in which they become measurable and available. Expenditures are recognized in the accounting period in which the fund liability is incurred, if measurable.

Revenue Recognition

In applying the susceptible to accrual concept under the modified accrual basis, the following revenue sources are deemed both measurable and available (I.e., collectible within the current year or within two months of year-end and available to pay obligations of the current period). This includes interest earnings and waternews subscriptions. Assessments from the four states are recorded as revenue in the year assessed to pay for operations or if received in advance, deferred until the year assessed.

Expenditure Recognition

The measurement focus of governmental fund accounting is on decreases in net financial resources (expenditures) rather than expenses. Most expenditures are measurable and are recorded when the related fund liability is incurred. Allocations of costs, such as depreciation, are not recognized in the governmental funds.

Capital Assets and Depreciation

All assets of the Commission are considered general capital assets. When purchased, such assets are recorded as expenditures in the governmental funds and capitalized (recorded and accounted for) in the General Capital Asset Account Group. The valuation basis for general capital assets are historical cost.

Depreciation of capital assets is computed and recorded by the straight-line method. Estimated useful lives of the various classes of depreciable capital assets are as follows: buildings, 30 years; improvements, 10 to 15 years; furniture and equipment, 5 to 15 years.

Unpaid Compensated Absences

According to Commission policy each employee accrues annual leave based on years of service with the commission. Employees may accumulate a maximum of 30 days of unused annual leave, which is paid in cash upon termination of employment. The Commission's secretary may grant additional carryover to employees provided that: (1) the employee requests the carryover in writing prior to June 30, and (2) the employee uses the additional carrvover within 90 davs of the start of the fiscal year.

The Obligation for Compensated Absences has been broken down into two components; current and non-current. The current portion is classified as part of the general fund and is an estimate of the amounts that will be paid within the next operating year. The non-current portion is maintained separately and represents a reconciling item between the fund and government-wide presentations.

Net Assets

Net assets is the difference between assets and liabilities. Net assets invested in capital assets, are capital assets less accumulated depreciation. The commission has no debt related to the acquisition of capital assets.

COMPLIANCE AND ACCOUNTABILITY

Budgets

Annual budgets are prepared on the modified accrual basis of accounting and adopted as required by the compact. The Commission approves the annual budget in total and by major sub-items as identified in the statement of revenues, expenditures and changes in fund balance - budget and actual. The Executive Director has authority to transfer budget accounts within the sub-items with Commissioner approval required to transfer monies between expenditure categories.

Accounting and Reporting

The commission is not required to report to any individual state or federal agency. Financial reports are given to each commissioner and is review by them. The commission is exempt from federal income tax reporting under 501(c) (1) of the internal revenue code.

NOTE 3 DETAIL NOTES ON TRANSACTION ACCOUNTS

Cash and Cash Equivalents

The Commissioners have authorized the Commission to deposit funds in demand accounts at First Security Bank and deposit funds with the Utah Public Treasurers' Investment Pool.

Cash in bank consisted of the following at June 30, 2004:

Checking	$ 19,896
Payroll	3,196
Retirement	5,750
	$ 28,842

Utah Public Treasurers' Investment Pool	$ 300,164

At year end, the carrying amount of the Commission's cash deposits was $28,842 and the balance per the bank statements was $39,248. All deposits are fully insured.

The public treasurers fund is a state pooled investment account and bears market risk like any investment. Amounts in the fund are carried at fair value which approximates the cost of the investments.

Capital Assets

Capital asset activity for the year ended June 30, 2004, is as follows:

	Balance at June 30, 2003	Additions	Disposals	Balance at June 30, 2004
Land	$ 24,159	-	-	24,159
Building	61,633	4,386	-	66,019
Improvements	2,207			2,207
Furniture & Equipment	46,124	-	-	46,124
Totals at historical costs	134,123	4,386	-	138,509
Less accumulated depreciation				
Building	59,236	607	-	59,843
Improvements	2,207	-	-	2,207
Furniture & Equipment	46,124	-	-	46,124
Total accumulated depreciation	107,567	607	-	108,174
Capital assets, net	$ 26,556	3,779	-	30,335

NOTE 4 OTHER NOTES

Employee Retirement Plan

The Commission's employee pension plan is a 401(K) defined contribution plan which covers all of the present employees. The Commission contributes 7% of the employees' gross salaries. In addition, the Commission will match contributions made by employees up to a maximum of 3%. Accordingly, the maximum allowable contribution by the Commission is 10%. The employees are allowed to contribute up to the maximum allowed by law. The employer's share of the pension plan contribution for the year ended June 30, 2004 was $17,741, which includes $450 of administrative costs.

Risk Management

The commission is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; and natural disasters for which the government carries commercial insurance.

Prior Period Adjustment

The beginning fund balance was adjusted to record deferred revenues received in a prior year that were incorrectly recorded.

Supplemental Schedules

UPPER COLORADO RIVER COMMISSION

Supplemental Schedule of Cash Receipts and Disbursements

Year ended June 30, 2004

Cash at June 30, 2003		$ 254,030
Cash Receipts:		
Assessments	344,540	
Interest	4,922	
Waternews Subscriptions	1,350	
		350,812
Cash Disbursements:		
Personal Services	220,991	
Travel	14,474	
Current Operating	23,052	
Capital Outlay	4,624	
Contingency	12,670	
		275,811
Cash at June 30, 2004		$ 329,031

UPPER COLORADO RIVER COMMISSION

Detail of Personal Services and Current Operating Expenditures - Budget to Actual

Year ended June 30, 2004

	Budget	Actual	Favorable (Unfavorable) Variance
Summary of Personal Services with Budget Comparisons			
Executive director	$ 97,000	93,393	3,607
Administrative secretary	26,600	16,764	9,836
Legal salary	67,300	67,300	0
Engineering salary	25,000	4,464	20,536
Clerical salary		4,420	(4,420)
Social security	14,700	13,927	773
Pension fund contributions	19,500	17,741	1,759
Employee medical Insurance	12,000	10,796	1,204
Janitorial	1,000	900	100
	$ 263,100	229,705	33,395
Summary of Current Operating Expenditures with Budget Total Comparison			
Audit and accounting		2,300	
Building repair & maintenance		1,521	
Insurance		3,125	
Library		4,108	
Meetings, including reporter		1,302	
Memberships and registrations		1,375	
Office supplies, postage, and printing		2,647	
Printing		1,633	
Telephone		2,126	
Training		824	
Utilities		3,850	
	$ 21,600	24,811	(3,211)

Current operating expenses are budgeted in total, thus onlt total compared

APPENDIX B

BUDGET

Fiscal Year Ending June 30, 2006

BUDGET
UPPER COLORADO RIVER COMMISSION
Fiscal Year Ending June 30, 2006 (FY06)

PERSONAL SERVICES	**As Approved 6/17/04**
Administrative Salaries	
Executive Director	87,600
Administrative Secretary	27,900
Professional Services	
Legal Counsel	71,600
Consulting Services	35,000
Janitor	1,175
Pension Trust	19,200
Social Security	14,350
Health Insurance	17,800
	274,625
TRAVEL	18,000
CURRENT EXPENSE	25,000
CAPITAL OUTLAY	3,000
CONTINGENCIES	7,000
TOTAL	$327,625

2006 STATES ASSESSMENTS FY06 $319,000 (+3%)

Colorado	**51.75%**	**165,080**
New Mexico	**11.25%**	**35,890**
Utah	**23.00%**	**73,370**
Wyoming	**14.00%**	**44,660**

Fmsw/dao/Approved FY06 Budget/A

APPENDIX C

RESOLUTIONS

RESOLUTION
of the
UPPER COLORADO RIVER COMMISSION
Honoring Ronald A. Schulthies

WHEREAS, Ronald A. Schulthies has worked as an executive in the banking industry in Utah for many years; and

WHEREAS, Ronald A. Schulthies was appointed Assistant Treasurer of the Upper Colorado River Commission in 1978; and

WHEREAS, Ronald A. Schulthies was elected Treasurer of the Upper Colorado River Commission in 1985 and served in that capacity until 2004; and

WHEREAS, Ronald A. Schulthies honorably performed his duties as first Assistant Treasurer and then Treasurer of the Commission:

NOW, THEREFORE, BE IT RESOLVED that the Upper Colorado River Commission, at its Meeting held in Salt Lake City, Utah on June 17, 2004 does hereby express the gratitude and appreciation of the Commission and its staff for the untiring service rendered by Ronald A. Schulthies in dealing with the many financial issues facing the Commission during his tenure as Assistant Treasurer and Treasurer and that the Upper Colorado River Commission, its advisers and staff sincerely wish Ronald A. Schulthies and his wife the best of health, happiness and prosperity in all their future endeavors.

L. RICHARD BRATTON, Chairman
United States of America

SCOTT M. BALCOMB
State of Colorado

PHILIP B. MUTZ
State of New Mexico

D. LARRY ANDERSON
State of Utah

PATRICK T. TYRRELL
State of Wyoming

UPPER COLORADO
RIVER COMMISSION
355 South 400 East • Salt Lake City • Utah 84111 • 801-531-1150 • FAX 801-531-9705

RESOLUTION
of
UPPER COLORADO RIVER COMMISSION

In Memoriam
Frank E. (Sam) Maynes

WHEREAS, through the death of Frank E. (Sam) Maynes on July 25, 2004, the State of Colorado and the other States in the Upper Basin of the Colorado River have lost an outstanding lawyer, distinguished friend and devoted citizen; and

WHEREAS, Frank E. (Sam) Maynes had a long and outstanding career in the development and conservation of the water and other resources of the State of Colorado and the Upper Colorado River Basin States; and

WHEREAS, Frank E. (Sam) Maynes, as an attorney in private practice in Durango, Colorado for 45 years, worked on behalf of the Southwestern and Animas-La Plata Water Districts and the Southern Ute Indian Tribe to develop waters allocated to the State of Colorado and the Tribe; and

WHEREAS, since the mid-1960's, Frank E. (Sam) Maynes has worked tirelessly to secure construction of the Animas-La Plata water project to benefit non-Indian and Indian water users in the States of Colorado and New Mexico; and

WHEREAS, Frank E. (Sam) Maynes served as a Legal Advisor to the Upper Colorado River Commissioner for Colorado on the Legal Committee for many years, also serving as Legal Committee Chairman; and

WHEREAS, Frank E. (Sam) Maynes was appointed Upper Colorado River Commissioner for the United States in 1995 by President Clinton and served as Chairman of the Commission during his tenure as United States Commissioner until 2002:

NOW, THEREFORE, BE IT RESOLVED that the Upper Colorado River Commission, at its Meeting in Durango, Colorado on October 7, 2004, expresses its appreciation for the unrelenting efforts of Frank E. (Sam) Maynes in the development and protection of the water and other resources of the Upper Colorado River Basin States and extends its sympathy and understanding of his family's deep loss at his death;

BE IT FURTHER RESOLVED that the Executive Director of the Commission is directed to transmit copies of this unanimously adopted resolution to the members of the family of Frank E. (Sam) Maynes and cause it to be published in the Fifty-Sixth Annual Report of the Upper Colorado River Commission.

L. RICHARD BRATTON, Chairman
United States of America

SCOTT M. BALCOMB
State of Colorado

PHILIP B. MUTZ
State of New Mexico

for
D. LARRY ANDERSON
State of Utah

PATRICK T. TYRRELL
State of Wyoming

RESOLUTION
of the
UPPER COLORADO RIVER COMMISSION
Honoring Wayne E. Cook

WHEREAS, Wayne E. Cook was appointed Executive Director and Secretary of the Upper Colorado River Commission in September 1990, which position he held until his retirement in March 2004; and

WHEREAS, the responsibilities and successes of Wayne E. Cook with the Upper Colorado River Commission have included close involvement with the Glen Canyon environmental impact process, annual planning for Colorado River system operations, projection of future Upper Basin States uses and negotiation and fruition of the Interim Surplus Guidelines for deliveries in the Lower Basin as well as participation in international discussions with Mexico on delivery and salinity issues in the Colorado River Delta below Yuma, Arizona; and

WHEREAS, Wayne E. Cook, during his 14 years as Executive Director of the Commission, has successfully utilized for the benefit of the Commission and the States of the Upper Colorado River Basin his previous 30 years experience in the Colorado River Basin while he was employed by the United States Department of the Interior, Bureau of Reclamation in planning and operations of the Colorado River reservoirs in the Upper Colorado River Basin and Federal projects in the closed basin (Wasatch Front) and Rio Grande and Pecos River Basins in the United States; and

WHEREAS, Wayne E. Cook energetically rendered over 40 years of public service in matters relating to the conservation, utilization and development of the water and related land resources of the Upper Colorado River Basin, including 30 years with the United States Bureau of Reclamation and 14 years with the Upper Colorado River Commission; and

WHEREAS, Wayne E. Cook executed his duties professionally, with a deep respect for the integrity and ability of colleagues from other States, the Commission and other interested parties with whom he was associated:

NOW, THEREFORE, BE IT RESOLVED that the Upper Colorado River Commission, at its Meeting held in Salt Lake City, Utah on June 17, 2004, does hereby express the gratitude and appreciation of the Commission for the service and counsel rendered by Wayne E. Cook in addressing the many engineering and political water resource issues that have confronted the Commission during his tenure as Executive Director and Secretary of the Upper Colorado River Commission;

BE IT FURTHER RESOLVED that the Upper Colorado River Commission, its advisors and staff sincerely wish Wayne E. Cook, his wife, Jeanne and their family the best of health and happiness in their future endeavors;

BE IT FURTHER RESOLVED that the Executive Director of the Upper Colorado River Commission is directed to present a copy of this Resolution to Mr. and Mrs. Wayne E. Cook.

L. RICHARD BRATTON, Chairman
United States of America

SCOTT M. BALCOMB
State of Colorado

PHILIP B. MUTZ
State of New Mexico

D. LARRY ANDERSON
State of Utah

PATRICK T. TYRRELL
State of Wyoming

APPENDIX D

TRANSMOUNTAIN DIVERSIONS

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO
1991-2004

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	10 YEAR AVERAGE
TO PLATTE RIVER BASIN															
Grand River Ditch	18,410	21,360	24,770	17,870	19,808	23,260	17,948	21,140	19,440	9,363	8,326	9,390	2,541	7,376	13,859
Eureka Ditch	60	212	95	0	180	0	0	0	0	0	0	0	0	0	18
Alva B. Adams Tunnel	199,200	198,300	206,400	233,200	238,500	207,300	229,000	203,800	165,840	118,960	131,931	268,000	88,571	122,770	177,467
Berthoud Pass Ditch	624	1,010	1,260	874	815	1,530	2,610	1,570	0	0	268	244	298	202	754
Moffat Water Tunnel	64,900	49,890	34,470	43,310	24,220	51,050	50,860	35,620	38,530	27,454	34,353	35,070	36,510	30,862	36,453
Boreas Pass Ditch	82	175	334	83	0	209	282	178	249	62	95	29	86	21	121
Vidler Tunnel	1,240	1,150	1,150	465	760	268	420	425	580	167	186	320	220	194	354
Harold D. Roberts Tunnel	65,850	85,530	124,100	73,890	52,176	36,920	53,480	30,550	40,380	47,377	53,263	130,500	36,027	45,699	52,637
Straight Creek Tunnel	269	363	408	330	320	399	393	295	386	190	163	225	183	164	272
TO ARKANSAS RIVER BASIN															
Hoosier Pass Tunnel	12,400	11,570	11,186	9,188	4,532	12,306	8,312	10,400	10,115	5,226	5,294	3,400	3,671	3,266	6,652
Columbine Ditch	1,602	1,610	2,478	1,470	2,390	2,500	1,730	1,669	933	1,740	1,790	780	1,940	1,210	1,668
Ewing Ditch	869	934	1,622	796	1,410	1,440	1,350	759	618	1,020	936	192	1,030	499	925
Wurtz Ditch	2,260	2,173	4,031	2,073	4,241	4,210	4,180	2,183	1,230	2,600	2,230	647	2,400	1,550	2,547
Homestake Tunnel	638	26,910	28,110	24,230	23,505	38,690	37,130	23,316	31,420	24,140	35,770	26,510	9,930	23,150	27,356
Twin Lakes Tunnel	42,980	41,970	62,664	42,850	33,120	34,850	34,190	47,441	16,580	42,060	45,650	20,570	45,240	35,550	35,525
Charles H. Boustead Tunnel	61,130	57,060	88,740	55,040	91,300	38,540	79,380	53,986	43,140	50,690	50,530	15,780	57,999	28,590	50,994
Busk-Ivanhoe Tunnel	5,660	5,210	4,980	4,100	5,817	2,450	4,640	4,174	5,070	5,240	5,330	2,680	5,090	5,270	4,576
Larkspur Ditch	95	205	334	146	116	60	185	67	6	7	63	0	0	76	58
TO RIO GRANDE BASIN															
Tarbell Ditch	0	344	109	207	68	368	753	830	1,700	750	532	0	330	693	602
Tabor Ditch	997	684	1,060	639	1,240	375	1,340	1,010	1,430	495	254	87	323	250	680
Treasure Pass Ditch	9	63	113	94	0	15	245	223	367	70	29	0	185	150	128
Don La Font Ditches No. 1 & 2	473	480	0	364	50	112	64	0	0	10	0	0	0	0	24
Williams Creek-Squaw Pass Ditch	235	475	441	279	374	124	421	289	746	230	199	91	226	200	290
Pine River-Weminuche Pass Ditch	257	520	246	172	672	42	1,050	396	1,100	203	212	0	103	100	388
Weminuche Pass Ditch	685	2,630	0	0	0	0	1,090	459	3,400	0	0	0	64	50	506
TOTAL	480,925	510,828	599,101	511,670	505,614	457,018	531,053	440,780	383,260	338,054	377,404	514,515	292,967	307,892	414,856

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO TO RIO GRANDE BASIN IN NEW MEXICO
1991-2004

San Juan-Chama Diversions	119,440	87,090	98,800	82,300	85,100	57,239	141,174	96,701	118,901	42,741	110,582	6,310	62,707	84,884	80,634

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN UTAH
1991-2004

TO GREAT BASIN	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	10 YEAR AVERAGE
Broadbent Supply Ditch (Woming)												2,892	1,101	1,250	1,748
Fairview Tunnel	3,460	1,525	4,474	2,049	2,445	2,830	2,009	1,985	1,617	1,844	1,959	1,182	2,459	1,571	1,990
Ephraim Tunnel	2,751	1,808	4,007	1,004	2,629	2,132	3,399	2,395	2,444	1,648	3,049	2,804	2,862	3,691	2,705
Spring City Tunnel	2,149	1,632	3,391	1,334	2,670	2,824	2,571	1,519	798	1,066	1,819	1,487	3,013	1,737	1,950
Central Utah Project, Bonneville Uni	30,590	63,975	49,243	18,587	11,933	11,891	12,385	5,006	16,863	3,707	3,954	46,889	42,715	33,861	18,920
Hobble Creek Ditch	552	369	1,051	694	825	590	972	800	740	0	194	0	0	0	412
Strawberry-Willow Creek Ditch	1,342	2,041	2,171	962	953	1,379	1,706	1,554	667	1,239	0	0	0	0	750
Strawberry Water Users Association	58,329	72,872	51,484	74,190	36,768	51,934	41,576	52,821	61,297	76,636	80,873	69,419	58,570	62,962	59,286
Duchesne Tunnel	21,062	15,678	35,648	22,817	39,859	31,895	39,446	30,746	33,429	28,452	28,739	20,767	28,857	27,278	30,947
TOTAL	120,235	159,900	151,469	121,637	98,082	105,475	104,064	96,826	117,855	114,592	120,587	145,440	139,577	132,350	118,708

TRANSMOUNTAIN DIVERSIONS FROM GREAT BASIN IN UTAH TO COLORADO RIVER BASIN IN UTAH
1991-2004

Tropic and East Fork Canal	3,612	5,325	6,509	4,801	7,022	4,542	5,442	6,922	6,699	3,413	6,153	2,333	2,712	2,431	4,767

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN TO NORTH PLATTE BASIN IN WYOMING
1991-2004

	16,462	12,450	23,422	14,405	12,144	17,014	14,119	14,870	13,252	15,327	12,563	6,668	16,745	15,000	13,770

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN
1991-2004

TOTAL	736,550	768,043	869,383	728,312	697,018	635,304	788,068	645,355	629,669	510,401	618,083	673,700	512,384	540,795	625,078

Based on preliminary streamflow records obtained from U. S. Bureau of Reclamation, U. S. Geological Survey, Central Utah Water Conservancy District, Colorado Division of Water Resources, New Mexico Interstate Stream Commission, and Wyoming State Engineer's Office - subject to revision.

Streamgaging of the following small transmountain diversions in Utah were dis in 1959. Flows are estimated as and adde to total on line 93: Candland Ditch - 200 acre-feet, Horseshoe Tunnel - 600 acre-feet, Larsen Tunnel - 690 acre-feet, Coal Fork Ditch - 260 acre-feet, Twin Creek Tunnel - 220 acre-feet, Cedar Creek Tunnel - 340 acre-feet, Black Canyon Ditch -290 acre-feet, Reeder Ditch - 250 acre-feet, Madsen Ditch - 40 acre-feet, and John August Ditch - 200 acre-feet. These diversions are from the San Rafael River in the Colorado River Basin to the Great Basin in Utah and total about 3,100 acre-feet annually.

Does not include diversions for enlargement Continental Divide Ditch which services 437 acres or Ranger Ditch which services 391 acres. Neither ditch is gaged, and suitable estimates of diversion amounts are currently unavailable.

The total diversion is the sum of all diversions except Tropic and East Fork Canal which imports water to the Colorado River Basin. This import is subtracted from the sum of exports.

* Part of the Strawberry Reservoir to Bonneville Basin trans-mountain diversions