MEMORANDUM

September 17, 2003

TO: File

FROM: Clare Bernero, Jay Groseclose, Pat Turney, and John Whipple, ISC Staff

SUBJECT: Upper Colorado River System Consumptive Uses and Losses Report (New Mexico), 1996-2000

Pursuant to the provisions of Title VI of Public Law 90-537, the Secretary of the Interior is directed to prepare reports on the annual consumptive uses and losses of water from the Colorado River system after each successive five-year period, beginning with the five-year period starting October 1, 1970. This office is requested to furnish data on consumptive uses in New Mexico in the Upper Basin of the Colorado River for the period 1996-2000.

The Interstate Stream Commission (ISC) staff compiled consumptive use data for the New Mexico portion of the Upper Colorado River Basin (New Mexico Upper Basin) for the years 1996-2000. Table 1 summarizes that compilation. Table 2 summarizes population estimates for 1996-2000, based on U.S. Census Bureau data for 1990 and 2000.

RESERVOIR EVAPORATION

Evaporation in all reservoirs except beeline Reservoir, Lake Morgan, Jackson, Berland, Big Gap, Holmburg, and Toadacheene are reported under the reservoir evaporation category. The named reservoirs are variously used for municipal water supply, power generation, fish and wildlife, and recreation. Evaporation is reported accordingly.

Navajo Reservoir evaporation was computed for each year using the average of daily reservoir gage heights, corresponding surface areas, and actual pan evaporation and precipitation data recorded at Navajo Dam.

Evaporation on all other reservoirs reported under this category was computed based on a long term average content for each month and long term net lake evaporation rates for individual areas. The same data were used in the 1991-95 Consumptive Uses and Losses Report.

AGRICULTURE

Agriculture accounts for about 42-56 percent of the consumptive water uses in the New Mexico Upper Basin during each of the years 1996-2000. Irrigated acreage determinations were made using the following references: (1) Navajo Indian Irrigation Project (NIIP) Operation and Maintenance Status Reports for 1996-99; and (2) ISC

staff's January 2003 draft memorandum to file on Irrigated Acreage of the San Juan River Basin, New Mexico.

Irrigated acreage for the New Mexico Upper Basin was segregated into several irrigation areas, including Rio Arriba County (near Dulce), Pine River, Upper San Juan, Hammond, Middle San Juan, Fruitland, Hogback and Cudei, Animas River, La Plata River, NIIP, Chaco/Chinle, McKinley County and Sandoval County. Included in agricultural use are estimates of unmetered residential yard watering for the Animas River, Upper San Juan, Middle San Juan, Fruitland and Hogback areas. Except for the NIIP, irrigated acreage thus obtained was multiplied by appropriate consumptive irrigation requirement factors (CIRs). The CIRs used were calculated using the Blaney-Criddle formula. Depletions for the NIIP for 1996-2000 were determined using the annual diversion from Navajo Operation and Maintenance Status Reports for 1996-98 and ISC staff communications with Ms. Elsie Reed, Navajo Agricultural Products Industry Operation and Maintenance Department, for 1999 and 2000; and Bureau of Reclamation data relating to the build-up of groundwater in the project area. Irrigation depletions for the La Plata and Chaco/Chinle areas were adjusted for shortage conditions. Other irrigated areas did not experience water supply shortages during the period.

Depletions for incidental losses during delivery to farms was estimated to be 15% of the CIR depletions for areas which had a full supply and 10% of the CIR depletions after supply factors were applied for areas with water supply shortages. Incidental losses were computed for all irrigated acreage except for the NIIP.

Stock pond evaporation data used in the 1991-95 Consumptive Uses and Losses Report were used in the computations for this report. An estimated 3,680 acre-feet was used for each year from 1996-2000.

Livestock uses were calculated from annual head counts for each county as published in the New Mexico Agricultural Statistics by the United States Department of Agriculture. Percentages of each type of livestock in the New Mexico Upper Basin portions of Rio Arriba, McKinley and Sandoval counties were obtained from New Mexico Office of the State Engineer Technical Report 51 (TR51) backup data. These same percentages were used in computations for this report. Per capita livestock water depletions from TR 51 were used to obtain total livestock depletions for 1996-2000 in the New Mexico Upper Basin.

MUNICIPAL/INDUSTRIAL

This category includes water use for the extraction of mineral resources, generation of thermal electric power, municipally supplied domestic and industrial uses, self-supplied industrial and commercial uses, and rural domestic uses. Mineral resource extraction and thermal electric power generation water uses are reported to the New Mexico Office of the State Engineer Water Rights Division, which reports, were used to compute corresponding depletions for 1996-2000. Evaporation from Lake Morgan is included in the industrial category.

Municipal and domestic water suppliers also report annual water withdrawals to the Water Rights Division. Where annual reports were not available, per-capita water demands listed in TR51 and U.S. Census population data were used to estimate water withdrawals. Depletions for municipal uses were calculated based on measured diversions and measured wastewater treatment plant returns where the data were available. Where such data were not available, domestic and municipal uses were assumed to have a depletion factor of 40-70%. Evaporation from Beeline Reservoir is included in the municipal category.

FISH AND WILDLIFE, RECREATION

Reservoir evaporation data for this category were developed for the 1986-90 Consumptive Uses and Losses Report and these data were included in this 1996-2000 report. Evaporation from Jackson, Berland, Big Gap, Holmburg and Toadacheene Reservoirs is included in this Fish and Wildlife, Recreation category. About 80% of the depletion attributed to this category is for fish and wildlife purposes, including reservoir evaporation and irrigated acreage at Jackson Wildlife Refuge for wildlife feeding. Also included in the Fish and Wildlife, Recreation category are depletions at National and State Parks in San Juan and Rio Arriba counties and self-supplied golf courses.

EXPORTS

The only exported water in the New Mexico Upper Basin in the 1996-2000 period occurred from the San Juan-Chama Project diversions. These diversions are considered fully depleted and are reported by the U.S. Geological Survey in annual water supply papers for New Mexico as the discharge of Azotea Tunnel at Outlet, near Chama, New Mexico.

12/8/2003

Table 1.

Consumptive Water Use in the Upper Colorado River Basin, New Mexico

Units: Thousand acre-feet

Year	Reservoir Evaporation	Irrigation	Stockpond Evap & Livestock	Mineral Resources	Thermal Electric Power	Municipal, Industrial, Rural/Domestic	Fish & Wildlife, Recreation	Export SJ-C Project	Estimated Total Water Use
1996	46.0	207.8	4.4	1.2	43.4	14.4	0.7	58.5	376.5
1997	35.6	183.1	4.4	0.6	45.9	13.3	0.7	142.3	425.9
1998	40.7	193.7	4.5	0.5	42.6	17.1	0.7	96.7	396.6
1999	35.0	155.2	4.5	0.6	45.0	16.1	0.7	118.9	376.1
2000	45.4	180.7	4.5	0.8	44.4	17.8	0.7	42.7	337.1

Table 2.

Population in the Upper Colorado River Basin, New Mexico

Year	McKinley	Rio Arriba	Sandoval	San Juan	UCRB-NM Total Population
1996	12,591	3,488	880	104,341	121,301
1997	12,832	3,546	893	106,630	123,901
1998	13,078	3,604	906	108,968	126,556
1999	13,329	3,663	919	111,359	129,269
2000	13,584	3,723	932	113,801	132,040

RESERVOIR EVAPORATION

Reservoir	Surface Area acres	Evap 1996 acre-feet	Evap 1997 acre-feet	Evap 1998 acre-feet	Evap 1999 acre-feet	Evap 2000 acre-feet	Net Evaporation per Year feet
Navajo		44,726	34,390	39,499	33,767	44,208	N/A
Bass	5	20	20	20	20	20	4.00
Chuska	40	113	113	113	113	113	2.83
Ferris	1	4	4	4	4	4	4.00
Mulholland	4	16	16	16	16	16	4.00
Whiskey	60	190	190	190	190	190	3.17
Crowley	6	5	5	5	5	5	0.83
Dulce	80	93	93	93	93	93	1.16
La Jara	50	58	58	58	58	58	1.16
Lower Mundo	60	50	50	50	50	50	0.83
Luna	20	17	17	17	17	17	0.85
Black	20	65	65	65	65	65	3.25
Bolack	36	110	110	110	110	110	3.06
Butler	10	43	43	43	43	43	4.30
Captain Toms	20	60	60	60	60	60	3.00
Deadman	20	40	40	40	40	40	2.00
El Paso	6	23	23	23	23	23	3.83
Juans (Vicente)	40	80	80	80	80	80	2.00
Little White Cone	20	60	60	60	60	60	3.00
Long	50	113	113	113	113	113	2.26
Lost	20	63	63	63	63	63	3.15
Southern Naschitti	3	5	5	5	5	5	1.67
Total Excluding Navajo		1,228	1,228	1,228	1,228	1,228	
Total All Reservoirs		45,954	35,618	40,727	34,995	45,436	

NAVAJO RESERVOIR EVAPORATION

Year	Month	Mean Content acre-feet	Mean Gage Height feet	Mean Surface Area (ac)	Pan Evap inches	Pan Evap feet	Gross Evap Rate/Factor feet	Gross Lake Surface Evap(ac-ft)	Precip inches	Precip feet	Net Evap feet	Net Lake Surface Evap (ac-ft)	Notes
2000	Jan	1,490,068	6,070.69	13,928	2.00	0.17	0.12	1,624.93	1.02	0.09	0.03	441.05	
	Feb	1,472,676	6,069.43	13,784	2.00	0.17	0.12	1,608.13	0.23	0.02	0.10	1,343.94	
	Mar	1,460,526	6,068.50	13,678	4.10	0.34	0.24	3,271.32	3.13	0.26	(0.02)	(296.36)	
	Apr	1,493,817	6,070.95	13,959	7.30	0.61	0.43	5,944.21	1.51	0.13	0.30	4,187.70	
	May	1,560,277	6,075.63	14,497	11.30	0.94	0.66	9,555.94	0.11	0.01	0.65	9,423.05	
	Jun	1,523,803	6,073.08	14,205	12.22	1.02	0.71	10,125.80	**0.03**	0.00	0.71	10,090.29	1
	Jul	1,474,716	6,069.58	13,801	12.65	1.05	0.74	10,183.99	0.73	0.06	0.68	9,344.43	
	Aug	1,415,332	6,065.20	13,298	8.80	0.73	0.51	6,826.31	1.77	0.15	0.37	4,864.85	
	Sep	1,379,533	6,062.47	12,985	6.31	0.53	0.37	4,779.56	0.93	0.08	0.29	3,773.22	
	Oct	1,334,977	6,058.99	12,604	4.20	0.35	0.25	3,087.98	2.25	0.19	0.06	724.73	
	Nov	1,314,937	6,057.39	12,452	1.90	0.16	0.11	1,380.10	1.02	0.09	0.03	321.68	
	Dec	1,298,348	6,056.05	12,325	0.70	0.06	0.04	503.27	0.50	0.04	(0.00)	(10.27)	
												44,208.31	
1999	Jan	1,403,094	6,064.27	13,191	2.00	0.17	0.12	1,538.95	**0.33**	0.03	0.09	1,176.20	2
	Feb	1,387,132	6,063.05	13,051	2.00	0.17	0.12	1,522.62	0.22	0.02	0.10	1,283.35	
	Mar	1,377,374	6,062.30	12,965	4.10	0.34	0.24	3,100.80	0.05	0.00	0.24	3,046.78	
	Apr	1,394,037	6,063.58	13,112	7.30	0.61	0.43	5,583.53	3.18	0.27	0.16	2,108.85	
	May	1,484,048	6,070.25	13,879	9.10	0.76	0.53	7,367.44	0.92	0.08	0.45	6,303.38	
	Jun	1,516,720	6,072.58	14,147	8.06	0.67	0.47	6,651.45	0.38	0.03	0.44	6,203.46	
	Jul	1,580,771	6,077.03	14,659	9.28	0.77	0.54	7,935.41	4.46	0.37	0.17	2,487.14	
	Aug	1,650,845	6,081.72	15,206	7.50	0.63	0.44	6,652.63	3.64	0.30	0.13	2,040.14	
	Sep	1,593,730	6,077.91	14,759	6.60	0.55	0.39	5,682.22	1.65	0.14	0.25	3,652.85	
	Oct	1,549,848	6,074.90	14,413	4.20	0.35	0.25	3,531.19	0.00	0.00	0.25	3,531.19	
	Nov	1,534,217	6,073.81	14,288	1.90	0.16	0.11	1,583.59	0.19	0.02	0.10	1,357.36	
	Dec	1,512,081	6,072.26	14,110	0.70	0.06	0.04	576.16	0.00	0.00	0.04	576.16	
												33,766.84	
1998	Jan	1,542,158	6,074.37	14,353	2.00	0.17	0.12	1,674.52	0.29	0.02	0.09	1,327.65	
	Feb	1,513,086	6,072.33	14,118	2.00	0.17	0.12	1,647.10	1.01	0.08	0.03	458.84	
	Mar	1,503,310	6,071.63	14,038	4.10	0.34	0.24	3,357.42	1.25	0.10	0.14	1,895.13	
	Apr	1,558,447	6,075.50	14,482	7.30	0.61	0.43	6,166.92	0.37	0.03	0.40	5,720.39	
	May	1,548,587	6,074.82	14,404	10.08	0.84	0.59	8,469.55	0.00	0.00	0.59	8,469.55	
	Jun	1,450,380	6,067.80	13,597	12.00	1.00	0.70	9,517.90	0.00	0.00	0.70	9,517.90	
	Jul	1,436,071	6,066.75	13,475	10.23	0.85	0.60	8,041.21	2.61	0.22	0.38	5,110.39	
	Aug	1,421,694	6,065.67	13,352	8.24	0.69	0.48	6,417.86	2.22	0.19	0.30	3,947.74	
	Sep	1,392,417	6,063.46	13,097	6.96	0.58	0.41	5,317.38	0.43	0.04	0.37	4,848.07	
	Oct	1,381,136	6,062.59	12,998	4.20	0.35	0.25	3,184.51	3.13	0.26	(0.02)	(205.80)	
	Nov	1,410,840	6,064.86	13,258	1.90	0.16	0.11	1,469.43	2.86	0.24	(0.13)	(1,690.40)	
	Dec	1,416,252	6,065.26	13,306	0.70	0.06	0.04	543.33	0.40	0.03	0.01	99.80	
												39,499.27	
1997	Jan	1,189,707	6,040.73	11,425	2.00	0.17	0.12	1,332.92	1.41	0.12	(0.00)	(9.52)	
	Feb	1,194,536	6,040.77	11,469	2.00	0.17	0.12	1,338.05	0.73	0.06	0.06	640.35	
	Mar	1,232,813	6,050.10	11,790	4.10	0.34	0.24	2,819.78	0.01	0.00	0.24	2,809.95	
	Apr	1,308,503	6,050.72	12,413	7.30	0.61	0.43	5,285.87	2.42	0.20	0.22	2,782.58	
	May	1,406,507	6,060.49	12,998	9.27	0.77	0.54	7,028.67	0.88	0.07	0.47	6,075.48	
	Jun	1,453,247	6,060.83	13,596	9.33	0.78	0.54	7,399.62	1.27	0.11	0.44	5,960.71	
	Jul	1,444,887	6,060.77	13,528	11.72	0.98	0.68	9,248.64	2.84	0.24	0.45	6,047.02	
	Aug	1,474,036	6,060.99	13,773	7.41	0.62	0.43	5,953.38	1.34	0.11	0.32	4,415.39	
	Sep	1,492,973	6,070.22	14,033	7.28	0.61	0.42	5,959.35	**2.70**	0.23	0.20	2,801.92	3
	Oct	1,565,581	6,075.99	14,539	4.20	0.35	0.25	3,562.06	**0.81**	0.07	0.18	2,580.67	4
	Nov	1,582,220	6,077.13	14,670	1.90	0.16	0.11	1,625.93	0.47	0.04	0.07	1,051.35	
	Dec	1,571,339	6,076.39	14,584	0.70	0.06	0.04	595.51	1.12	0.09	(0.05)	(765.66)	
												34,390.25	
1996	Jan	1,455,390	6,060.85	13,614	2.00	0.17	0.12	1,588.30	0.31	0.03	0.09	1,236.61	
	Feb	1,444,252	6,060.77	13,527	2.00	0.17	0.12	1,578.15	0.62	0.05	0.07	879.26	
	Mar	1,435,129	6,060.70	13,450	4.10	0.34	0.24	3,216.79	0.29	0.02	0.22	2,891.75	
	Apr	1,429,050	6,060.65	14,305	7.30	0.61	0.43	6,091.55	0.35	0.03	0.40	5,674.32	
	May	1,459,942	6,060.88	14,599	9.10	0.76	0.53	7,749.64	0.00	0.00	0.53	7,749.64	
	Jun	1,390,303	6,060.36	13,076	11.01	0.92	0.64	8,398.06	0.95	0.08	0.56	7,362.88	
	Jul	1,317,561	6,050.80	13,180	13.14	1.10	0.77	10,102.47	1.19	0.10	0.67	8,795.45	
	Aug	1,259,423	6,050.32	12,010	9.86	0.82	0.58	6,907.75	0.77	0.06	0.51	6,137.11	
	Sep	1,215,227	6,040.94	11,640	6.58	0.55	0.38	4,467.82	1.68	0.14	0.24	2,838.22	
	Oct	1,189,790	6,040.73	11,425	4.20	0.35	0.25	2,799.13	1.54	0.13	0.12	1,332.92	
	Nov	1,181,607	6,040.65	11,350	1.90	0.16	0.11	1,257.96	1.14	0.10	0.02	179.71	
	Dec	1,187,410	6,040.74	11,404	0.70	0.06	0.04	465.66	0.86	0.07	(0.03)	(351.62)	
												44,726.23	

Jan 1996 - Sep 1997 Reservoir Evaporation computations based on U.S.B.R. area/capacity table dated 03/19/1969

Oct 1997 - Dec 2000 Reservoir Evaporation computations based on U.S.B.R. area/capacity table dated 12/11/1981

Note 1: Monthly precipitation value estimated with 8 missing daily values; no precipitation was recorded at Aztec or Bloomfield on those days

Note 2: Monthly precipitation value estimated with 1 missing daily value; 0.10 inch precipitation was recorded at Aztec on that day

Note 3: Monthly precipitation value estimated with 4 missing daily values; no precipitation was recorded at Aztec or Bloomfield on those days

Note 4: Monthly precipitation value estimated with 2 missing daily values; no precipitation was recorded at Aztec or Bloomfield on those days

AGRICULTURE: IRRIGATION SUPPLY

Mean Flow La Plata River at Colorado-New Mexico State Line (cfs)
San Juan County

YEAR	April	May	June	July	August	September	Seasonal Average	Supply Factor	Irrigated Acres	Average Flow Requirement @ (1 cfs per 70 ac)
1996	21.1	40.0	11.9	2.6	3.5	4.6	14	0.3	2,832	40
1997	39.0	39.0	39.0	27.9	30.4	29.8	34	0.9	2,722	39
1998	37.0	37.0	37.0	14.3	4.5	3.2	22	0.6	2,611	37
1999	21.0	36.0	36.0	24.0	36.0	22.9	29	0.8	2,501	36
2000	34.0	34.0	22.1	3.5	3.9	4.2	17	0.5	2,391	34

Lesser of average flow requirement or mean monthly flow was used to compute supply factor
Irrigated acres exclude 154 acres irrigated from Jackson Lake.
Irrigated acres exclude about 120 acres irrigated under Pioneer and Enterprise ditches.

Mean Flow Animas River near Cedar Hill, NM (cfs)
San Juan County

YEAR	April	May	June	July	August	September	Seasonal Average	Supply Factor	Irrigated Acres	Average Flow Requirement @ (1 cfs per 70 ac)
1996	619	2,139	1,193	490	222	369	839	7	8,043	115
1997	1,297	3,569	4,884	1,799	1,354	1,327	2,372	21	7,798	111
1998	783	2,405	2,230	1,304	577	437	1,289	12	7,551	108
1999	773	2,291	3,723	2,086	2,372	1,393	2,106	20	7,308	104
2000	1,172	2,379	1,266	379	315	350	977	10	7,061	101

Irrigated acres include acres under the Farmers Mutual Ditch.
Irrigated acres exclude an unknown amount of residential yard and garden acreage irrigated under ditches.

Mean Flow Navajo River below Oso Diversion Dam near Chromo, CO (cfs)
Available to Rio Arriba County acreage

YEAR	April	May	June	July	August	September	Seasonal Average	Supply Factor	Irrigated Acres	Average Flow Requirement @ (1 cfs per 70 ac)
1996	39.5	86.9	57.9	50.2	33.5	40.3	51	51	14	1
1997	40.9	96.7	103	61.9	62	113	80	80	14	1
1998	43	91.4	62.3	57.8	59.6	47.8	60	60	14	1
1999	41.8	92.9	56.2	35.9	32.9	30.5	48	48	14	1
2000	39.8	131	60.3	57.5	67.3	39.1	66	66	14	1

IRRIGATION DEPLETIONS COMPUTED BY AREA

RIO ARRIBA COUNTY (Near Dulce)	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	14	1.00	1.00	14	0.15	2.10	16.10
1997	14	1.00	1.00	14	0.15	2.10	16.10
1998	14	1.00	1.00	14	0.15	2.10	16.10
1999	14	1.00	1.00	14	0.15	2.10	16.10
2000	14	1.00	1.00	14	0.15	2.10	16.10

SANDOVAL COUNTY	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	0	0.00	0.00	0.00	0.00	0.00	0.00
1997	0	0.00	0.00	0.00	0.00	0.00	0.00
1998	0	0.00	0.00	0.00	0.00	0.00	0.00
1999	0	0.00	0.00	0.00	0.00	0.00	0.00
2000	0	0.00	0.00	0.00	0.00	0.00	0.00

NOTE: No irrigated acreage in Upper Colorado River Basin reported for Sandoval County.

MCKINLEY COUNTY	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	0	2.30	0.00	0.00	0.10	0.00	0.00
1997	0	2.30	0.00	0.00	0.10	0.00	0.00
1998	0	2.30	0.00	0.00	0.10	0.00	0.00
1999	0	2.30	0.00	0.00	0.10	0.00	0.00
2000	0	2.30	0.00	0.00	0.10	0.00	0.00

NOTE: No irrigated acreage in Upper Colorado River Basin reported for McKinley County

IRRIGATION DEPLETIONS COMPUTED BY AREA

SAN JUAN COUNTY NIIP	Irrigated Acres	Total Diversion (acre-feet)	Waste (acre-feet)	Operational Spill (acre-feet)	Releases under SJ RIP (acre-feet)	Net Irrigation Diversion (acre-feet)	Total Irrigation Depletion (acre-feet)
1996	52,076	193,100	0	6,206	11,037	175,857	140,686
1997	50,378	156,800	0	6,775	8,921	141,104	112,883
1998	47,329	165,400	0	8,051	310	157,039	125,631
1999	46,651	113,700	0	6,243	114	107,343	85,874
2000	45,634	147,900	0	5,958	108	141,834	113,467

Irrigated acres for NIIP exclude double-cropped acres.
Irrigation depletion for NIIP assumed as 80% of net diversion based on USBR groundwater storage table.
Total irrigation depletion for NIIP is depletion from San Juan River, not consumptive use by farm.

SAN JUAN COUNTY Animas River	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	5,174	2.10	1.00	10,865	0.15	1,630	12,495
1997	4,992	2.10	1.00	10,483	0.15	1,572	12,056
1998	4,810	2.10	1.00	10,101	0.15	1,515	11,616
1999	4,629	2.10	1.00	9,721	0.15	1,458	11,179
2000	4,447	2.10	1.00	9,339	0.15	1,401	10,740

Excludes irrigated acreage under Echo Ditch, Farmington Glade and Farmers Mutual Ditches

SAN JUAN COUNTY La Plata River	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	2,954	2.20	0.3	2,239	0.10	224	2,463
1997	2,844	2.20	0.9	5,500	0.10	550	6,050
1998	2,733	2.20	0.6	3,574	0.10	357	3,931
1999	2,623	2.20	0.8	4,735	0.10	473	5,208
2000	2,513	2.20	0.5	2,743	0.10	274	3,018

Excludes 154 acres at Jackson Lake Wildlife Refuge assumed irrigated by Jackson Lake for wildlife purposes

IRRIGATION DEPLETIONS COMPUTED BY AREA

SAN JUAN COUNTY Pine River	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	263	1.50	1.00	394.5	0.15	59	454
1997	239	1.50	1.00	358.5	0.15	54	412
1998	214	1.50	1.00	321.0	0.15	48	369
1999	189	1.50	1.00	283.5	0.15	43	326
2000	164	1.50	1.00	246.0	0.15	37	283

SAN JUAN COUNTY Upper San Juan: Citizens, Archuleta Turley & Echo Ditches	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	3,037	2.20	1.00	6,681	0.15	1,002	7,684
1997	3,097	2.20	1.00	6,813	0.15	1,022	7,835
1998	3,156	2.20	1.00	6,943	0.15	1,041	7,985
1999	3,216	2.20	1.00	7,075	0.15	1,061	8,136
2000	3,276	2.20	1.00	7,207	0.15	1,081	8,288

SAN JUAN COUNTY Hammond Area	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	2,600	2.10	1.00	5,460	0.15	819	6,279
1997	2,600	2.10	1.00	5,460	0.15	819	6,279
1998	2,800	2.10	1.00	5,880	0.15	882	6,762
1999	3,000	2.10	1.00	6,300	0.15	945	7,245
2000	3,242	2.10	1.00	6,808	0.15	1,021	7,829

IRRIGATION DEPLETIONS COMPUTED BY AREA

SAN JUAN COUNTY Middle San Juan: Farmers Mutual, Jewett Valley, Westwater	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	3,354	2.10	1.00	7,043.4	0.15	1,057	8,100
1997	3,269	2.10	1.00	6,864.9	0.15	1,030	7,895
1998	3,182	2.10	1.00	6,682.2	0.15	1,002	7,685
1999	3,096	2.10	1.00	6,501.6	0.15	975	7,477
2000	3,009	2.10	1.00	6,318.9	0.15	948	7,267

SAN JUAN COUNTY Fruitland Project	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	2,226	2.10	1.00	4,674.6	0.15	701	5,376
1997	2,191	2.10	1.00	4,601.1	0.15	690	5,291
1998	2,155	2.10	1.00	4,525.5	0.15	679	5,204
1999	2,119	2.10	1.00	4,449.9	0.15	667	5,117
2000	2,083	2.10	1.00	4,374.3	0.15	656	5,030
SAN JUAN COUNTY **Hogback & Cudei**							
1996	3,310	2.10	1.00	6,951.0	0.15	1,043	7,994
1997	3,269	2.10	1.00	6,864.9	0.15	1,030	7,895
1998	3,227	2.10	1.00	6,776.7	0.15	1,017	7,793
1999	3,186	2.10	1.00	6,690.6	0.15	1,004	7,694
2000	3,144	2.10	1.00	6,602.4	0.15	990	7,593

SAN JUAN COUNTY Chaco River, Chinle Wash	Irrigated Acres	Crop Irrigation Requirement (CIR) (acre-feet/acre)	Supply Factor	Consumptive Use (CU) (acre-feet)	Incidental Depletion (% of CU)	Incidental Depletion (acre-feet)	Total Depletion (acre-feet)
1996	1152	2.00	0.20	461	0.10	46	507
1997	1044	2.00	0.20	418	0.10	42	459
1998	936	2.00	0.20	374	0.10	37	412
1999	828	2.00	0.20	331	0.10	33	364
2000	720	2.00	0.20	288	0.10	29	317

TOTAL IRRIGATION DEPLETION

SAN JUAN COUNTY TOTAL	Irrigated Acres	Total Irrigation Depletion	SAN JUAN BASIN TOTAL	Irrigated Acres	Total Irrigation Depletion
1996	76,146	191530	**1996**	76,160	192053
1997	73,923	166596	**1997**	73,937	167072
1998	70,542	176977	**1998**	70,556	177405
1999	69,537	138258	**1999**	69,551	138638
2000	68,232	163515	**2000**	68,246	163848

Unmetered Resident Yard Watering: Irrigation (San Ju County)							
Source	Irrigated Acres	CIR	Supply Factor	Cons. Use	Percent Incid. Depl.	Incidental Depletion	Total Irrigation Depletion
Animas River							
1996	4,913	2.20	1.00	10,809	0.10	1081	11,889
1997	5,004	2.20	1.00	11,009	0.10	1101	12,110
1998	5,095	2.20	1.00	11,209	0.10	1121	12,330
1999	5,186	2.20	1.00	11,409	0.10	1141	12,550
2000	5,277	2.20	1.00	11,609	0.10	1161	12,770
Upper San Juan							
1996	482	2.20	1.00	1060	0.10	106	1166
1997	452	2.20	1.00	994	0.10	99	1094
1998	422	2.20	1.00	928	0.10	93	1021
1999	392	2.20	1.00	862	0.10	86	949
2000	362	2.20	1.00	796	0.10	80	876
Middle San Juan							
1996	824	2.30	1.00	1,895	0.10	190	2,085
1997	868	2.30	1.00	1,996	0.10	200	2,196
1998	913	2.30	1.00	2,100	0.10	210	2,310
1999	957	2.30	1.00	2,201	0.10	220	2,421
2000	1002	2.30	1.00	2,305	0.10	230	2,535
Fruitland							
1996	97	1.70	1.00	165	0.10	16	181
1997	101	1.70	1.00	172	0.10	17	189
1998	105	1.70	1.00	179	0.10	18	196
1999	108	1.70	1.00	184	0.10	18	202
2000	112	1.70	1.00	190	0.10	19	209
Hogback							
1996	226	1.80	1.00	407	0.10	41	447
1997	230	1.80	1.00	414	0.10	41	455
1998	233	1.80	1.00	419	0.10	42	461
1999	237	1.80	1.00	427	0.10	43	469
2000	241	1.80	1.00	434	0.10	43	477
Total							
1996	6,542			14,336		1,434	15,769
1997	6,655			14,585		1,459	16,044
1998	6,768			14,835		1,484	16,319
1999	6,880			15,083		1,508	16,591
2000	6,994			15,335		1,533	16,868

UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:
LIVESTOCK CONSUMPTION, CATTLE

YEAR	COUNTY	TOTAL HEAD OF CATTLE IN COUNTY ON JAN 1 (1)	PERCENT OF CATTLE IN COUNTY WHICH IS IN UPPER COLORADO DRAINAGE (2)	TOTAL HEAD OF CATTLE IN UPPER COLORADO DRAINAGE ON JAN 1 (3)	AVERAGE HEAD OF CATTLE IN UPPER COLORADO DRAINAGE FOR YEAR (4)	ACRE-FEET OF WATER CONSUMED BY CATTLE IN UPPER COLORADO DRAINAGE (5)
1996	McKinley	31,000	26.50	8,215	8,083	91
	Rio Arriba	33,000	30.50	10,065	9,455	106
	Sandoval	16,900	6.40	1,082	1,046	12
	San Juan	28,700	100.00	28,700	26,700	299
	TOTAL	109,600		48,062	45,284	507
1997	McKinley	30,000	26.50	7,950	9,408	105
	Rio Arriba	29,000	30.50	8,845	8,998	101
	Sandoval	15,800	6.40	1,011	1,203	13
	San Juan	24,700	100.00	24,700	29,850	334
	TOTAL	99,500		42,506	49,458	554
1998	McKinley	41,000	26.50	10,865	10,600	119
	Rio Arriba	30,000	30.50	9,150	8,998	101
	Sandoval	21,800	6.40	1,395	1,402	16
	San Juan	35,000	100.00	35,000	37,000	414
	TOTAL	127,800		56,410	57,999	650
1999	McKinley	39,000	26.50	10,335	10,335	116
	Rio Arriba	29,000	30.50	8,845	8,845	99
	Sandoval	22,000	6.40	1,408	1,408	16
	San Juan	39,000	100.00	39,000	40,000	448
	TOTAL	129,000		59,588	60,588	679
2000	McKinley	39,000	26.50	10,335	9,673	108
	Rio Arriba	29,000	30.50	8,845	8,235	92
	Sandoval	22,000	6.40	1,408	1,408	16
	San Juan	41,000	100.00	41,000	39,500	442
	TOTAL	131,000		61,588	58,816	659
2001	McKinley	34,000	26.50	9,010	-----	-----
	Rio Arriba	25,000	30.50	7,625	-----	-----
	Sandoval	22,000	6.40	1,408	-----	-----
	San Juan	38,000	100.00	38,000	-----	-----
	TOTAL	119,000		56,043		

(1): NMSU AGRICULTURAL STATISTICS

(3): (1)x(2)/100

(4): AVERAGE OF (3) FOR CURRENT AND FOLLOWING YEAR

(5): (4)x10.0x365/325850; 10.0 GALLONS PER HEAD PER DAY CONSUMPTIVE USE FOR CATTLE FROM SEO TECHNICAL REPORTS 47 AND 49

UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:
LIVESTOCK CONSUMPTION, MILK COWS

YEAR	COUNTY	TOTAL HEAD OF MILK COWS IN COUNTY ON JAN 1 (1)	PERCENT OF MILK COWS IN COUNTY WHICH IS IN UPPER COLORADO DRAINAGE (2)	TOTAL HEAD OF MILK COWS IN UPPER COLORADO DRAINAGE ON JAN 1 (3)	AVERAGE HEAD OF MILK COWS IN UPPER COLORADO DRAINAGE FOR YEAR (4)	ACRE-FEET OF WATER CONSUMED BY MILK COWS IN UPPER COLORADO DRAINAGE (5)
1996	McKinley	0	100.00	0	0	0
	Rio Arriba	0	100.00	0	0	0
	Sandoval	2,100	6.40	134	138	15
	San Juan	300	100.00	300	300	34
	TOTAL	2,400		434		49
1997	McKinley	0	100.00	0	0	0
	Rio Arriba	0	100.00	0	0	0
	Sandoval	2,200	6.40	141	141	16
	San Juan	300	100.00	300	150	17
	TOTAL	2,500		441	291	33
1998	McKinley	0	100.00	0	0	0
	Rio Arriba	0	100.00	0	0	0
	Sandoval	2,200	6.40	141	70	8
	San Juan	0	100.00	0	0	0
	TOTAL	2,200		141	70	8
1999	McKinley	0	100.00	0	0	0
	Rio Arriba	0	100.00	0	0	0
	Sandoval	0	6.40	0	0	0
	San Juan	0	100.00	0	0	0
	TOTAL	0		0	0	0
2000	McKinley	0	100.00	0	0	0
	Rio Arriba	0	100.00	0	0	0
	Sandoval	0	6.40	0	0	0
	San Juan	0	100.00	0	0	0
	TOTAL	0		0	0	0
2001	McKinley	0	100.00	0	-----	-----
	Rio Arriba	0	100.00	0	-----	-----
	Sandoval	0	6.40	0	-----	-----
	San Juan	0	100.00	0	-----	-----
	TOTAL	0		0		

(1): NMSU AGRICULTURAL STATISTICS

(3): (1)x(2)/100

(4): AVERAGE OF (3) FOR CURRENT AND FOLLOWING YEAR

(5): (4)x100.0x365/325850; 100.0 GALLONS PER HEAD PER DAY CONSUMPTIVE USE FOR MILK COWS FROM SEO TECHNICAL REPORTS 47 AND 49

		UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:				
			LIVESTOCK CONSUMPTION, SHEEP			
YEAR	COUNTY	TOTAL HEAD OF SHEEP IN COUNTY ON JAN 1 (1)	PERCENT OF SHEEP IN COUNTY WHICH IS IN UPPER COLORADO DRAINAGE (2)	TOTAL HEAD OF SHEEP IN UPPER COLORADO DRAINAGE ON JAN 1 (3)	AVERAGE HEAD OF SHEEP IN UPPER COLORADO DRAINAGE FOR YEAR (4)	ACRE-FEET OF WATER CONSUMED BY SHEEP IN UPPER COLORADO DRAINAGE (5)
1996	McKinley	53,000	40.60	21,518	20,300	50.03
	Rio Arriba	2,200	39.00	858	839	2.07
	Sandoval	3,000	6.40	192	166	0.41
	San Juan	31,000	100.00	31,000	26,000	64.07
	TOTAL	89,200		53,568	47,305	116.57
1997	McKinley	47,000	40.60	19,082	16,849	41.52
	Rio Arriba	2,100	39.00	819	1,073	2.64
	Sandoval	2,200	6.40	141	93	0.23
	San Juan	21,000	100.00	21,000	20,000	49.29
	TOTAL	72,300		41,042	38,014	93.68
1998	McKinley	36,000	40.60	14,616	14,007	34.52
	Rio Arriba	3,400	39.00	1,326	1,346	3.32
	Sandoval	700	6.40	45	42	0.10
	San Juan	19,000	100.00	19,000	19,100	47.07
	TOTAL	59,100		34,987	34,494	85.00
1999	McKinley	33,000	40.60	13,398	14,210	35.02
	Rio Arriba	3,500	39.00	1,365	1,424	3.51
	Sandoval	600	6.40	38	40	0.10
	San Juan	19,200	100.00	19,200	20,100	49.53
	TOTAL	56,300		34,001	35,774	88.16
2000	McKinley	37,000	40.60	15,022	13,297	32.77
	Rio Arriba	3,800	39.00	1,482	1,443	3.56
	Sandoval	650	6.40	42	40	0.10
	San Juan	21,000	100.00	21,000	19,500	48.05
	TOTAL	62,450		37,546	34,280	84.48
2001	McKinley	28,500	40.60	11,571	-------	-------
	Rio Arriba	3,600	39.00	1,404	-------	-------
	Sandoval	600	6.40	38	-------	-------
	San Juan	18,000	100.00	18,000	-------	-------
	TOTAL	50,700		31,013	-------	-------

(1): NMSU AGRICULTURAL STATISTICS

(3): (1)x(2)/100

(4): AVERAGE OF (3) FOR CURRENT AND FOLLOWING YEAR

(5): (4)x2.2x365/325850; 2.2 GALLONS PER HEAD PER DAY CONSUMPTIVE USE FOR SHEEP FROM SEO TECHNICAL REPORTS 47 AND 49

UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:
LIVESTOCK CONSUMPTION, HORSES

YEAR	COUNTY	TOTAL HEAD OF HORSES IN COUNTY ON JAN 1 (1)	PERCENT OF HORSES IN COUNTY WHICH IS IN UPPER COLORADO DRAINAGE (2)	TOTAL HEAD OF HORSES IN UPPER COLORADO DRAINAGE ON JAN 1 (3)	AVERAGE HEAD OF HORSES IN UPPER COLORADO DRAINAGE FOR YEAR (4)	ACRE-FEET OF WATER CONSUMED BY HORSES IN UPPER COLORADO DRAINAGE (5)
1996	McKinley			200	200	3
	Rio Arriba			300	300	4
	Sandoval			200	200	3
	San Juan			1,800	1,800	26
	TOTAL			2,500	2,500	36
1997	McKinley			200	200	3
	Rio Arriba			300	300	4
	Sandoval			200	200	3
	San Juan			1,800	1,800	26
	TOTAL			2,500	2,500	36
1998	McKinley			200	200	3
	Rio Arriba			300	300	4
	Sandoval			200	200	3
	San Juan			1,800	1,800	26
	TOTAL			2,500	2,500	36
1999	McKinley			200	200	3
	Rio Arriba			300	300	4
	Sandoval			200	200	3
	San Juan			1,800	1,800	26
	TOTAL			2,500	2,500	36
2000	McKinley			200	200	3
	Rio Arriba			300	300	4
	Sandoval			200	200	3
	San Juan			1,800	1,800	26
	TOTAL			2,500	2,500	36
2001	McKinley			200	-------	-------
	Rio Arriba			300	-------	-------
	Sandoval			200	-------	-------
	San Juan			1,800	-------	-------
	TOTAL			2,500	-------	-------

(4): AVERAGE OF (3) FOR CURRENT AND FOLLOWING YEAR

(5): (4)x13.0x365/325850; 13.0 GALLONS PER HEAD PER DAY CONSUMPTIVE USE FOR HORSES FROM SEO TECHNICAL REPORTS 47 AND 49

UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:
LIVESTOCK CONSUMPTION, CHICKENS

YEAR	COUNTY	TOTAL HEAD OF CHICKENS IN COUNTY ON JAN 1 (1)	PERCENT OF CHICKENS IN COUNTY WHICH IS IN UPPER COLORADO DRAINAGE (2)	TOTAL HEAD OF CHICKENS IN UPPER COLORADO DRAINAGE ON JAN 1 (3)	AVERAGE HEAD OF CHICKENS IN UPPER COLORADO DRAINAGE FOR YEAR (4)	ACRE-FEET OF WATER CONSUMED BY CHICKENS IN UPPER COLORADO DRAINAGE (5)
1996	McKinley	500	100.00	500	500	0.04
	Rio Arriba	2,300	22.20	511	511	0.05
	Sandoval	700	6.40	45	45	0.00
	San Juan	1,800	100.00	1,800	1,800	0.16
	TOTAL	5,300		2,855	2,855	0.26
1997	McKinley	500	100.00	500	500	0.04
	Rio Arriba	2,300	22.20	511	511	0.05
	Sandoval	700	6.40	45	45	0.00
	San Juan	1,800	100.00	1,800	1,800	0.16
	TOTAL	5,300		2,855	2,855	0.26
1998	McKinley	500	100.00	500	500	0.04
	Rio Arriba	2,300	22.20	511	511	0.05
	Sandoval	700	6.40	45	45	0.00
	San Juan	1,800	100.00	1,800	1,800	0.16
	TOTAL	5,300		2,855	2,855	0.26
1999	McKinley	500	100.00	500	500	0.04
	Rio Arriba	2,300	22.20	511	511	0.05
	Sandoval	700	6.40	45	45	0.00
	San Juan	1,800	100.00	1,800	1,800	0.16
	TOTAL	5,300		2,855	2,855	0.26
2000	McKinley	500	100.00	500	500	0.04
	Rio Arriba	2,300	22.20	511	511	0.05
	Sandoval	700	6.40	45	45	0.00
	San Juan	1,800	100.00	1,800	1,800	0.16
	TOTAL	5,300		2,855	2,855	0.26
2001	McKinley	500	100.00	500	-------	-------
	Rio Arriba	2,300	22.20	511	-------	-------
	Sandoval	700	6.40	45	-------	-------
	San Juan	1,800	100.00	1,800	-------	-------
	TOTAL	5,300		2,855	-------	-------

(3): (1)x(2)/100

(4): AVERAGE OF (3) FOR CURRENT AND FOLLOWING YEAR

(5): (4)x0.08x365/325850; 0.08 GALLONS PER HEAD PER DAY CONSUMPTIVE USE FOR CHICKENS FROM SEO TECHNICAL REPORTS 47 AND 49

UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:
LIVESTOCK CONSUMPTION, HOGS

YEAR	COUNTY	TOTAL HEAD OF HOGS IN COUNTY ON JAN 1 (1)	PERCENT OF HOGS IN COUNTY WHICH IS IN UPPER COLORADO DRAINAGE (2)	TOTAL HEAD OF HOGS IN UPPER COLORADO DRAINAGE ON JAN 1 (3)	AVERAGE HEAD OF HOGS IN UPPER COLORADO DRAINAGE FOR YEAR (4)	ACRE-FEET OF WATER CONSUMED BY HOGS IN UPPER COLORADO DRAINAGE (5)
1996	McKinley	450	25.00	113	113	0.38
	Rio Arriba	300	100.00	300	300	1.01
	Sandoval	300	6.40	19	19	0.06
	San Juan	200	100.00	200	200	0.67
	TOTAL	1,250		632	632	2.12
1997	McKinley	450	25.00	113	113	0.38
	Rio Arriba	300	100.00	300	300	1.01
	Sandoval	300	6.40	19	19	0.06
	San Juan	200	100.00	200	200	0.67
	TOTAL	1,250		632	632	2.12
1998	McKinley	450	25.00	113	113	0.38
	Rio Arriba	300	100.00	300	300	1.01
	Sandoval	300	6.40	19	19	0.06
	San Juan	200	100.00	200	200	0.67
	TOTAL	1,250		632	632	2.12
1999	McKinley	450	25.00	113	113	0.38
	Rio Arriba	300	100.00	300	300	1.01
	Sandoval	300	6.40	19	19	0.06
	San Juan	200	100.00	200	200	0.67
	TOTAL	1,250		632	632	2.12
2000	McKinley	450	25.00	113	113	0.38
	Rio Arriba	300	100.00	300	300	1.01
	Sandoval	300	6.40	19	19	0.06
	San Juan	200	100.00	200	200	0.67
	TOTAL	1,250		632	632	2.12
2001	McKinley	450	25.00	113	-------	-------
	Rio Arriba	300	100.00	300	-------	-------
	Sandoval	300	6.40	19	-------	-------
	San Juan	200	100.00	200	-------	-------
	TOTAL	1,250		632	-------	-------

(3): (1)x(2)/100

(4): AVERAGE OF (3) FOR CURRENT AND FOLLOWING YEAR

(5): (4)x3.0x365/325850; 3.0 GALLONS PER HEAD PER DAY CONSUMPTIVE USE FOR HOGS FROM SEO TECHNICAL REPORTS 47 AND 49

UPPER COLORADO RIVER BASIN WATER USES IN NEW MEXICO:
LIVESTOCK CONSUMPTION, SUMMARY
UNITS: ACRE-FEET

YEAR	COUNTY	CATTLE (1)	MILK COWS (2)	SHEEP (3)	HORSES (4)	CHICKENS (5)	HOGS (6)	TOTAL ALL LIVESTOCK (7)
1996	McKinley	91	0	50	3	0.04	0	144
	Rio Arriba	106	0	2	4	0.05	1	113
	Sandoval	12	15	0	3	0.00	0	31
	San Juan	299	34	64	26	0.16	1	424
	TOTAL	507	49	117	36	0.26	2	712
1997	McKinley	105	0	42	3	0.04	0	150
	Rio Arriba	101	0	3	4	0.05	1	109
	Sandoval	13	16	0	3	0.00	0	32
	San Juan	334	17	49	26	0.16	1	427
	TOTAL	554	33	94	36	0.26	2	719
1998	McKinley	119	0	35	3	0.04	0	157
	Rio Arriba	101	0	3	4	0.05	1	110
	Sandoval	16	8	0	3	0.00	0	27
	San Juan	414	0	47	26	0.16	1	489
	TOTAL	650	8	85	36	0.26	2	781
1999	McKinley	116	0	35	3	0.04	0	154
	Rio Arriba	99	0	4	4	0.05	1	108
	Sandoval	16	0	0	3	0.00	0	19
	San Juan	448	0	50	26	0.16	1	525
	TOTAL	679	0	88	36	0.26	2	806
2000	McKinley	108	0	33	3	0.04	0	144
	Rio Arriba	92	0	4	4	0.05	1	101
	Sandoval	16	0	0	3	0.00	0	19
	San Juan	442	0	48	26	0.16	1	518
	TOTAL	659	0	84	36	0.26	2	782

STOCKPOND EVAPORATION & LIVESTOCK

Year	Stockpond Depletion acre-feet	Livestock Consumption acre-feet	Total acre-feet
1996	3,680	711.62	4,392
1997	3,680	719.04	4,399
1998	3,680	781.35	4,461
1999	3,680	805.62	4,486
2000	3,680	782.08	4,462

POWER, MINING, INDUSTRIAL and COMMERCIAL DIVERSIONS

UNITS: Acre-feet

Uses and Users	1996 Diversion	1996 Depletion Factor OR Return Flow	1996 Depletion	1997 Diversion	1997 Depletion Factor OR Return Flow	1997 Depletion		1998 Diversion	1998 Depletion Factor OR Return Flow	1998 Depletion	1999 Diversion	1999 Depletion Factor OR Return Flow	1999 Depletion		2000 Diversion	2000 Depletion Factor OR Return Flow	2000 Depletion	Notes
THERMAL ELECTRIC POWER																		
Four Corners Power Plant / Navajo Mine - 2838	25635.80	4612.60	22406.98	26716.80	4510.00	23559.80		29222.00	6047.40	24988.82	27741.70	5423.90	23944.97		29518.80	6209.80	25171.94	1,2
PNM - SJ Generating Sta / SJ & LP mines - 2838	725.90	1.00	725.90	663.10	1.00	663.10		869.10	1.00	869.10	791.70	1.00	791.70		707.40	1.00	707.40	2
PNM - SJ Generating Sta / SJ & LP mines - 3258	20,297.00	1.00	20,297.00	21634.00	1.00	21,634.00		16,753.00	1.00	16,753.00	20,217.40	1.00	20,217.40		18,556.60	1.00	18,556.60	2
Subtotals	**46,658.70**		**43,429.88**	**49,013.90**		**45,856.90**		**46,844.10**		**42,610.92**	**48,750.80**		**44,954.07**		**48,782.80**		**44,435.94**	
MINERAL RESOURCES																		
El Paso Natural Gas (EPNG)																		
Citizen's Ditch - 01675 et al.	443.00	1.00	443.00	-----	-----	-----		-----	-----	-----	-----	-----	-----		-----	-----	-----	3
EPNG - Blanco Plant - 2718 & 2865	191.62	121.09	70.53	369.30	232.66	136.64	e	292.11	184.03	108.08	360.05	226.83	133.22	e	507.44	319.69	187.75	4
EPNG - Chaco Plant - 2718 & 2865	695.91	1.00	695.91	468.96	1.00	468.96		327.66	1.00	327.66	478.77	1.00	478.77		545.20	1.00	545.20	
EPNG - Kutz Plant - 2718 & 2865	0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	5
San Juan Basin Water Haulers - 3453	20.79	1.00	20.79	25.29	1.00	25.29		17.78	1.00	17.78	19.89	1.00	19.89		42.90	1.00	42.90	
San Juan Sand & Gravel (Concrete) - 2837	64.85	0.20	12.97	50.43	0.20	10.086		50.43	0.20	10.09	50.43	0.20	10.09		36.00	0.20	7.20	6
Subtotals	**1,416.17**		**1,243.20**	**913.98**		**640.98**		**687.98**		**463.61**	**909.14**		**641.96**		**1,131.54**		**783.05**	
INDUSTRIAL																		
City of Bloomfield - 2800																		
Blanco Plant	0.36	1.00	0.36	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	
El Paso - Rio Vista	0.09	1.00	0.09	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	
Giant Refinery - Gary Energy	2.98	1.00	2.98	3.00	1.00	3.00		3.00	1.00	3.00	3.00	1.00	3.00		3.00	1.00	3.00	
Transwestern Conoco	0.03	1.00	0.03	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	
Williams Oilfield (Milagro)	69.16	1.00	69.16	70.00	1.00	70.00		70.00	1.00	70.00	70.00	1.00	70.00		70.00	1.00	70.00	7
Conoco Inc.- SJ-1111	5.80	1.00	5.80	5.80	1.00	5.80		5.80	1.00	5.80	5.80	1.00	5.80		5.80	1.00	5.80	8
Conoco Inc.- SJ-2146	3.80	1.00	3.80	3.80	1.00	3.80		3.80	1.00	3.80	3.80	1.00	3.80		3.80	1.00	3.80	
Conoco Inc. (San Juan Gas Plant) - 01675	341.54	1.00	341.54	279.41	1.00	279.41		280.56	NR	280.56	295.09	(48.00)	247.09		300.86	(19.00)	281.86	9
Dugan Production Co.- SJ-1255	1.25	1.00	1.25	1.26	1.00	1.26		1.19	1.00	1.19	1.00	1.00	1.00		0.30	1.00	0.30	
El Paso Natural Gas - Angel Pk.	0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	8
El Paso Natural Gas - Ballard	0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	8
El Paso Natural Gas - Largo	0.10	1.00	0.10	0.10	1.00	0.10		0.10	1.00	0.10	0.10	1.00	0.10		0.10	1.00	0.10	8
El Paso Naural Gas - Lindrith	4.40	1.00	4.40	4.40	1.00	4.40		4.40	1.00	4.40	4.40	1.00	4.40		4.40	1.00	4.40	8
El Paso Natural Gas - White Rock	0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	8
Giant Refining-San Juan - 3385 & 2593	413.96	1.00	413.96	398.84	1.00	398.84		499.46	1.00	499.46	473.35	1.00	473.35		412.00	1.00	412.00	
Hydro Resources Inc.- SJ-1624	0.02	0.50	0.01	e 0.03	0.50	0.02		0.01	0.50	0.01	0.13	0.50	0.07		0.00	0.50	0.00	
Meridian - 2865 (delivered by EPNG)	27.73	1.00	27.73	25.06	1.00	25.06		29.70	1.00	29.70	30.19	1.00	30.19		36.00	1.00	36.00	
Meridian / Burlington/ Triple 5 - 3480	2.74	1.00	2.74	0.38	1.00	0.38		4.17	1.00	4.17	4.17	1.00	4.17		4.17	1.00	4.17	10
Merrion Oil & Gas - SJ-2847& S-Temp (to BHP)	0.00	1.00	0.00	0.00	1.00	0.00		0.00	1.00	0.00	11.10	1.00	11.10		0.00	1.00	0.00	
Neilsons - 4749-T & 02033-Temp (Aztec Ditch)	0.00	1.00	0.00	0.00	1.00	0.00		0.10	1.00	0.10	18.19	1.00	18.19		0.00	1.00	0.00	
Phelps Dodge-Gavilan GP	0.05	1.00	0.05	0.05	1.00	0.05		0.05	1.00	0.05	0.05	1.00	0.05		0.05	1.00	0.05	8
PNM Gas Services - Star Lake (RG-26911?)	0.24	1.00	0.24	0.24	1.00	0.24		0.24	1.00	0.24	0.24	1.00	0.24		0.24	1.00	0.24	8
San Juan PWD (County) - 2553-8	16.80	1.00	16.80	8.66	1.00	8.66		9.65	1.00	9.65	18.46	1.00	18.46		10.80	1.00	10.80	
Thriftway Petrol. Refinery - SJ-103	2.39	1.00	2.39	1.68	1.00	1.68		1.68	1.00	1.68	1.68	1.00	1.68		1.68	1.00	1.68	11
Thrifty Marketing (BLM)	0.12	0.80	0.10	0.12	0.80	0.10		0.12	0.80	0.10	0.12	0.80	0.10		0.12	0.80	0.10	12
TX-NM Pipeline- Bisti; SJ-59 et al.	0.03	1.00	0.03	0.03	1.00	0.03		0.03	1.00	0.03	0.03	1.00	0.03		0.00	1.00	0.00	13
Warren Field Svc (Sunterra-Lybrook) - 3024	0.00	0.80	0.00	0.00	0.80	0.00		0.00	0.80	0.00	0.00	0.80	0.00		0.00	0.80	0.00	
Western Gas Proc (SJGP) - 2718	18.96	1.00	18.96	18.96	1.00	18.96		18.96	1.00	18.96	18.96	1.00	18.96		18.96	1.00	18.96	12
Williams Field Service (Sunterra-Kutz) - 2648	66.14	1.00	66.14	59.97	1.00	59.97		37.45	1.00	37.45	44.23	1.00	44.23		51.00	1.00	51.00	
Subtotals	**978.33**		**978.30**	**881.79**		**881.75**		**970.47**		**970.44**	**1,004.09**		**956.00**		**923.28**		**904.26**	
COMMERCIAL																		
Berean Mission	6.00	0.50	3.00	6.00	0.50	3.00		6.00	0.50	3.00	6.00	0.50	3.00		6.00	0.50	3.00	8
Blanco Trading Post	0.50	1.00	0.50	0.50	1.00	0.50		0.50	1.00	0.50	0.50	1.00	0.50		0.50	1.00	0.50	8
Brethren-in-Christ	6.00	0.50	3.00	6.00	0.50	3.00		6.00	0.50	3.00	6.00	0.50	3.00		6.00	0.50	3.00	8
Canyon 56 Diner, Crownpoint	2.00	1.00	2.00	2.00	1.00	2.00		2.00	1.00	2.00	2.00	1.00	2.00		2.00	1.00	2.00	8
Dzilth-Na-O-Dith-Hle Health Ctr.	15.00	0.50	7.50	15.00	0.50	7.50		15.00	0.50	7.50	15.00	0.50	7.50		15.00	0.50	7.50	8
El Huerfano Trading Post	0.50	1.00	0.50	0.50	1.00	0.50		0.50	1.00	0.50	0.50	1.00	0.50		0.50	1.00	0.50	8
Huerfano Boarding School	5.00	0.50	2.50	5.00	0.50	2.50		6.00	0.50	3.00	6.00	0.50	3.00		6.00	0.50	3.00	8
Miscellaneous Businesses	10.00	1.00	10.00	10.00	1.00	10.00		10.00	1.00	10.00	10.00	1.00	10.00		10.00	1.00	10.00	8
NM Highway Dept. Rest Areas	2.00	1.00	2.00	2.00	1.00	2.00		2.00	1.00	2.00	2.00	1.00	2.00		2.00	1.00	2.00	8
Thriftway Store - Nageezi	0.50	1.00	0.50	0.50	1.00	0.50		0.50	1.00	0.50	0.50	1.00	0.50		0.50	1.00	0.50	8
Subtotals	**47.50**		**31.50**	**47.50**		**31.50**		**48.50**		**32.00**	**48.50**		**32.00**		**48.50**		**32.00**	
TOTALS	**49,100.70**		**45,682.88**	**50,857.17**		**47,411.13**		**48,551.05**		**44,076.97**	**50,712.53**		**46,584.04**		**50,886.12**		**46,155.25**	

Diversions tabulated from water use records submitted to the Office of the State Engineer, Water Rights Division, whenever available.
Depletion factors from NM State Engineer Office Technical Report 51, "Water Use by Categories in NM Counties and River Basins, and Irrigated Acreage in 2000", prepared by B.C.Wilson PE, et al, 2003.

NOTES:

Note 1: Four Corners Power Plant Depletion = Diversion - [70% (Morgan Lake blowdown)]
Note 2: Amounts used for power generation and related coal mining in-situ not differentiated in this report
Note 3: Change in EPNG reporting format after 1996
Note 4: Return flow estimated based on Bloomfield waste water treatment plant 1996 data
Note 5: EPNG Kutz plant inactive 1996 - 2000
Note 6: Average of values for 1996 and 2000 used to estimate 1997 -- 1999 diversions due to lack of data for 1997 - 1999
Note 7: 1997-2000 diversions estimated based on diversion reported for 1996.
Note 8: 2000 data used for 1996 - 1999 due to unavailability of records '96 - 1999
Note 9: Return flow through City of Bloomfield wastewater treatment plant as reported
Note 10: 1998 data value used for 1999 and 2000 due to unavaillbility of records '99 - 2000
Note 11: 1997 data value used for 1998 - 2000 due to unavailibility of records '98 - 2000
Note 12: 1995 data used for 1996 - 2000 due to unavailibility of records '96 - 2000
Note 13: 1995 data used for 1996 - 1999 due to unavailibility of records '96 - 1999

MUNICIPAL DIVERSIONS
Units: Acre Feet

COUNTY / PERMIT		1996 DIVERSION	1996 RETURN FLOW	1996 CONSUMPTIVE USE	1997 DIVERSION	1997 RETURN FLOW	1997 CONSUMPTIVE USE	1998 DIVERSION	1998 RETURN FLOW	1998 CONSUMPTIVE USE	1999 DIVERSION	1999 RETURN FLOW	1999 CONSUMPTIVE USE	2000 DIVERSION	2000 RETURN FLOW	2000 CONSUMPTIVE USE	Notes
San Juan																	
01901 & 01902	**CITY OF AZTEC**																
2801 & SJ-1006	Measured Diversion	1,579.00			1,437.00			1,363.00			1,826.00			2,114.00			
	TO: Aztec	1,453.00	679.00	774.00	1,312.00	715.00	597.00	1,259.00	758.00	501.00	1,682.00	690.00	992.00	1,991.00	703.00	1,288.00	1,2
	Southside WUA	85.00	42.50	42.50	83.00	41.50	41.50	90.00	45.00	45.00	110.00	55.00	55.00	100.00	50.00	50.00	3
	Flora Vista WUA	41.00	20.50	20.50	42.00	21.00	21.00	14.00	7.00	7.00	34.00	17.00	17.00	23.00	11.50	11.50	3
	Subtotal	**1,579.00**	**742.00**	**837.00**	**1,437.00**	**777.50**	**659.50**	**1,363.00**	**810.00**	**553.00**	**1,826.00**	**762.00**	**1,064.00**	**2,114.00**	**764.50**	**1,349.50**	
2800	**CITY OF BLOOMFIELD**																
	Measured or estimated diversion total diversion including to industial uses previously tabulated	1,808.00			m 1,800.00		e	1,800.00		e	1,800.00		e	1,800.00		e	4
	TO: Bloomfield	1,203.00	446.91	756.09	1,195.00	335.34	859.66	1,195.00	383.97	811.03	1,195.00	341.17	853.83	1,195.00	248.31	946.69	1,2,6
	Hammond (Ea & We)	229.00	137.40	91.60	229.00	137.40	91.60	229.00	137.40	91.60	229.00	137.40	91.60	229.00	137.40	91.60	5
	Lee Acres	376.00	225.60	150.40	376.00	225.60	150.40	376.00	225.60	150.40	376.00	225.60	150.40	376.00	225.60	150.40	5
	City of Bloomfield less EPNG diverion/return	**1,735.38**	**809.91**	**998.09**	**1,727.00**	**698.34**	**1,101.66**	**1,727.00**	**746.97**	**1,053.03**	**1,727.00**	**704.17**	**1,095.83**	**1,727.00**	**611.31**	**1,188.69**	
2995	**CITY OF FARMINGTON**																
	Measured Diversion	13,738.00			12,407.00			16,234.00			15,244.00			15,805.00			
	TO: Farmington	12,002.00	5,503.00	6,499.00	11,519.00	5,462.00	6,057.00	15,073.19	5,527.33	9,545.86	12,870.00	5,514.00	7,356.00	14,378.00	5,590.00	8,788.00	1,2
	NTUA Shiprock	1,051.00	399.38	651.62	378.00	143.64	234.36	445.00	169.10	275.90	1,496.00	568.48	927.52	505.00	191.90	313.10	7
	Lower Valley WUA	2.00	1.00	1.00	1.00	0.50	0.50	0.44	0.22	0.22	1.00	0.50	0.50	1.00	0.50	0.50	3
	Upper La Plata WUA	131.00	65.50	65.50	39.00	19.50	19.50	44.00	22.00	22.00	109.00	54.50	54.50	146.00	73.00	73.00	3
	Flora Vista WUA	36.00	18.00	18.00	12.00	6.00	6.00	10.37	5.19	5.19	47.00	23.50	23.50	25.00	12.50	12.50	3
	Cedar Ridge WUA	1.00	0.55	0.45	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8
	Outdoor - Private & Civic	515.00	154.50	360.50	458.00	137.40	320.60	661.00	198.30	462.70	721.00	216.30	504.70	750.00	225.00	525.00	9
	Beeline Reservoir Evap			487.50			487.50			487.50			487.50			487.50	
	Subtotal	**13,738.00**	**6,141.93**	**8,083.57**	**12,407.00**	**5,769.04**	**7,125.46**	**16,234.00**	**5,922.14**	**10,799.37**	**15,244.00**	**6,377.28**	**9,354.22**	**15,805.00**	**6,092.90**	**10,199.60**	
McKinley																	
SJ-113	**CITY OF GALLUP**	774.00	0.00	774.00	683.00	0.00	683.00	701.00	0.00	701.00	495.00	0.00	495.00	791.00	0.00	791.00	
	Subtotal	**774.00**	**0.00**	**774.00**	**683.00**	**0.00**	**683.00**	**701.00**	**0.00**	**701.00**	**700.00**	**0.00**	**495.00**	**791.00**	**0.00**	**791.00**	
SAN JUAN	**BASIN TOTAL**	**17,826.38**	**7,693.84**	**10,692.66**	**16,254.00**	**7,244.88**	**9,569.62**	**20,025.00**	**7,479.11**	**13,106.39**	**19,497.00**	**7,843.45**	**12,009.05**	**20,437.00**	**7,468.71**	**13,528.79**	

Note 1: Diversion to municipality computed as difference between measured diversion and amounts charged to other users.
Note 2: Metered return flow
Note 3: Depletion estimated at 0.50 * (diversion); Wilson, et al., in press (2002).
Note 4: 1997, 1998, 1999, 2000 diversions based on reported diversion in 1996.
Note 5: Depletion estimated at 0.4 * (diversion); Wilson, et al., in press (2002).
Note 6: Return flow discharge credited to EPNG not included
Note 7: Depletion estimated at 0.62 * (diversion); Wilson, et al., in press (2002).
Note 8: Depletion estimated at 0.45 * (diversion); Wilson, et al., in press (2002).
Note 9: Depletion estimated at 0.7 * (diversion); OSE Aztec

DOMESTIC/RURAL DIVERSIONS
Units: acre-feet

COUNTY / PERMIT		Population with Service (2000 data)	1996 DIVERSION acre-feet	1996 DEPLETION FACTOR	1996 DEPLETION acre-feet	1997 DIVERSION acre-feet	1997 DEPLETION FACTOR	1997 DEPLETION acre-feet	1998 DIVERSION acre-feet	1998 DEPLETION FACTOR	1998 DEPLETION acre-feet	1999 DIVERSION acre-feet	1999 DEPLETION FACTOR	1999 DEPLETION acre-feet	2000 DIVERSION acre-feet	2000 DEPLETION FACTOR	2000 DEPLETION acre-feet	NOTES
Rio Arriba																		
	Dulce, BIA Jicarilla Agency	3,280	500.00	0.50	250.00	500.00	0.50	250.00	500.00	0.50	250.00	500.00	0.50	250.00	500.00	0.50	250.00	1
	Lindrith Water Coop	70	4.05	0.50	2.03	4.09	0.50	2.05	4.13	0.50	2.07	4.17	0.50	2.09	4.22	0.50	2.11	1
	Total population served	3,350																
	Self-supplied Homes		12.41	0.45	5.58	17.53	0.45	7.89	22.74	0.45	10.23	28.04	0.45	12.62	33.43	0.45	15.04	2,3
		Subtotals	**516.46**		**257.61**	**521.62**		**259.93**	**526.87**		**262.30**	**532.21**		**264.70**	**537.65**	**1.45**	**267.15**	
San Juan																		
SJ-785	**Blanco Water Users Assoc**	952	59.88	0.50	29.94	59.88	0.50	29.94	59.88	0.50	29.94	59.88	0.50	29.94	59.88	0.50	29.94	4
SJ-588	**Flora Vista WUA (self supply)**	2,300	278.00	0.50	139.00	287.00	0.50	143.50	323.00	0.50	161.50	246.00	0.50	123.00	203.00	0.50	101.50	
01675	**Harvest Gold (Morningstar)**	350	29.00	0.50	14.50	26.00	0.50	13.00	27.00	0.50	13.50	27.00	0.50	13.50	43.85	0.50	21.93	
	Kirtland WUA	8,666	1,021.36	0.50	510.68	1,021.36	0.50	510.68	1,021.36	0.50	510.68	1,021.36	0.50	510.68	1,021.36	0.50	510.68	4
	La Plata WUA	1,890	146.15	0.50	73.08	146.15	0.50	73.08	146.15	0.50	73.08	146.15	0.50	73.08	146.15	0.50	73.08	4
	Lee Acres WUA	3,400	400.00	0.40	160.00	370.00	0.40	148.00	401.00	0.40	160.40	397.00	0.40	158.80	416.00	0.40	166.40	7
3509	**Lower Valley WUA (Kirtland)**	8,700	1,020.00	0.50	510.00	1,039.00	0.50	519.50	1,107.00	0.50	553.50	1,111.00	0.50	555.50	1,087.80	0.50	543.90	
	Lybrook Water Users Assoc	155	25.59	0.50	12.80	25.59	0.50	12.80	25.59	0.50	12.80	25.59	0.50	12.80	25.59	0.50	12.80	4
2554-A	**Morningstar WUA**	4,200	196.00	0.50	98.00	237.00	0.50	118.50	280.00	0.50	140.00	298.00	0.50	149.00	423.00	0.50	211.50	
SJ-556	**Navajo Dam MDWCA**	578	31.99	0.00	0.00	31.99	0.00	0.00	31.99	0.00	0.00	31.99	0.00	0.00	31.99	0.00	0.00	4
3843	**North Star/Riverside WUA**	1,800	152.00	0.50	76.00	147.00	0.50	73.50	184.00	0.50	92.00	146.00	0.50	73.00	147.00	0.50	73.50	
	NTUA-Lake Valley	260	22.00	0.50	11.00	21.00	0.50	10.50	22.00	0.50	11.00	20.00	0.50	10.00	20.00	0.50	10.00	5,6
	NTUA-Little Water	1,250	114.00	0.50	57.00	128.00	0.50	64.00	111.00	0.50	55.50	70.00	0.50	35.00	70.00	0.50	35.00	5,6
	Rosa Joint Venture	180	62.64	0.50	31.32	62.64	0.50	31.32	62.64	0.50	31.32	62.64	0.50	31.32	62.64	0.50	31.32	4
2593(3)	**West Hammond WUA**	3,427	0.00	0.40	0.00	0.00	0.40	0.00	112.00	0.40	44.80	257.00	0.40	102.80	292.43	0.40	116.97	
	Aztec	5,217																
	Southside WUA	1,200																
	Bloomfield	6,417																
	Farmington	37,844																
	NTUA-Shiprock	8,156																
	Upper La Plata WUA	1,710																
	Total population served	98,652																
	Self-supplied Homes		446.08	0.45	200.74	625.53	0.45	281.49	808.91	0.45	364.01	996.32	0.45	448.34	1,187.83	0.45	534.53	2,3
		Subtotals	**4,004.69**		**1,924.05**	**4,228.14**		**2,029.80**	**4,723.52**		**2,254.02**	**4,915.93**		**2,326.75**	**5,238.52**		**2,473.03**	
McKinley																		
	NTUA-Crownpoint	1,910	154.00	0.50	77.00	131.00	0.50	65.50	152.00	0.50	76.00	190.00	0.50	95.00	190.00	0.50	95.00	5,6
	NTUA-Ojo Encino	250	8.00	0.50	4.00	13.00	0.50	6.50	18.00	0.50	9.00	36.00	0.50	18.00	35.00	0.50	17.50	5,6
	NTUA-Standing Rock	360	26.00	0.50	13.00	34.00	0.50	17.00	34.00	0.50	17.00	36.00	0.50	18.00	36.00	0.50	18.00	5,6
	Total population served	2,520																
	Self-supplied Homes		789.68	0.45	355.36	808.60	0.45	363.87	827.88	0.45	372.55	847.53	0.45	381.39	867.55	0.45	390.40	2,3
		Subtotals	**977.68**		**449.36**	**986.60**		**452.87**	**1,031.88**		**474.55**	**1,109.53**		**512.39**	**1,128.55**		**520.90**	
Sandoval																		
	Total population served	0																
	Self-supplied Homes		78.88	0.45	35.50	70.01	0.45	31.51	71.02	0.45	31.96	72.04	0.45	32.42	73.08	0.45	32.89	2,3
		Subtotals	**78.88**		**35.50**	**70.01**		**31.51**	**71.02**		**31.96**	**72.04**		**32.42**	**73.08**		**32.89**	
		TOTALS	**5,577.71**		**2,666.51**	**5,806.38**		**2,774.11**	**6,353.30**		**3,022.83**	**6,629.71**		**3,136.26**	**6,977.80**		**3,293.97**	

Diversions tabulated from water use records submitted to the Office of the State Engineer, Water Rights Division, whenever available.
Depletion factors from NM OSE Technical Report 51, "Water Use by Categories in NM Counties and River Basins, and Irrigated Acreage in 2000", prepared by B.C.Wilson PE, et al, 2003.

NOTES:
Note 1: Regular water use records not available; annual diversions estimated by interpolating between values published for 1995 and 2000 in NM OSE Technical Reports 49 and 51 respectively.
Note 2: Diversions for rural self-supplied homes were estimated based on population not served by a municipal or community system; number of users under various systems, NM State Engineer Office Technical Report No. 51 backup data.
Note 3: For self-supplied domestic, a per-capita useage of 70 gals/day for San Juan and McKinley counties, and 80 gals/day for Rio Arriba and Sandoval counties, from NM OSE Tech. Rep. 51.
Note 4: Diversion for 2000 used for 1996-1999 because no data available for 1996-1999.
Note 5: Diversion for 1999 used for 2000 because no data available for 2000.
Note 6: Diversion data provided by Navajo Tribal Utility Authority (NTUA), Ft. Defiance Az
Note 7: Average of 1997-2000 diversions used for 1996

RECREATION, FISH & WILDLIFE, 1996-2000

Units: Acre-feet

COUNTY		1996 Diversion	1996 Depletion Factor	1996 Depletion	1997 Diversion	1997 Depletion Factor	1997 Depletion	1998 Diversion	1998 Depletion Factor	1998 Depletion	1999 Diversion	1999 Depletion Factor	1999 Depletion	2000 Diversion	2000 Depletion Factor	2000 Depletion	Notes
Rio Arriba																	
	Navajo Lake State Park (Sims)	0.64	0.45	0.29	0.64	0.45	0.29	0.64	0.45	0.29	0.64	0.45	0.29	0.64	0.45	0.29	3
	Navajo Lake State Park (Pine)	8.23	0.45	3.70	8.23	0.45	3.70	8.23	0.45	3.70	8.23	0.45	3.70	8.23	0.45	3.70	3
San Juan																	
	Berland Lake			11.00			11.00			11.00			11.00			11.00	1
	Big Gap Lake			43.00			43.00			43.00			43.00			43.00	1
	Chaco Culture NH Park	1.11	0.45	0.50	1.11	0.45	0.50	1.11	0.45	0.50	1.11	0.45	0.50	1.11	0.45	0.50	
3364	Elks Club	19.85	0.45	8.93	19.85	0.45	8.93	19.85	0.45	8.93	19.85	0.45	8.93	19.85	0.45	8.93	2
02523 & SJ-284	Hidden Valley Country Club	64.26	0.92	59.12	64.26	0.92	59.12	64.26	0.92	59.12	64.26	0.92	59.12	64.26	0.92	59.12	3
	Holmberg Lake			7.00			7.00			7.00			7.00			7.00	1
	Jackson Lake Evaporation			157.00			157.00			157.00			157.00			157.00	1
	Jackson Lake Irrig (154 ac)			372.68			372.68			372.68			372.68			372.68	4
	Navajo Lake State Park (San Juan)	1.76	0.45	0.79	1.76	0.45	0.79	1.76	0.45	0.79	1.76	0.45	0.79	1.76	0.45	0.79	3
	San Juan Country Club	74.00	0.92	68.08	74.00	0.92	68.08	74.00	0.92	68.08	74.00	0.92	68.08	74.00	0.92	68.08	3
	Toadacheene Lake			16.00			16.00			16.00			16.00			16.00	1
	Totals	**170**		**748**	**170**		**748**	**170**		**748**	**170**		**748**	**170**		**748**	

Note 1: 1995 data used for each year due to unavailibility of records.
Note 2: 1996 data used for each year due unavailibility of records.
Note 3: 2000 data used for each year due to unavailibility of records.
Note 4: CIR of 2.20 with 10% incidental depletion was used.

Population- Upper Colorado River Basin, New Mexico
United States Census 2000

COUNTY	Census Tract	Block Group	Population	Percent of Population within Upper Colorado Basin	Total Population within Upper Colorado Basin
McKinley					
	9434	1	1,399	60	839
	9434	2	2,187	40	875
	9434	4	627	50	314
	9435	1	99	100	99
	9435	2	543	100	543
	9435	3	3,096	100	3,096
	9435	4	154	100	154
	9437	1	993	92	914
	9437	2	1,119	100	1,119
	9437	3	1,097	88	965
	9437	4	1,207	100	1,207
	9438	1	1,176	100	1,176
	9438	2	1,504	60	902
	9438	4	795	67	533
	9439	1	2,328	33	768
	9453	1	1,606	5	80
					13,584
Rio Arriba					
	0005	1	2,987	17	508
	0005	3	794	33	262
	0006	1	126	100	126
	9409	1	2,604	100	2,604
	9409	2	7	100	7
	9409	3	118	60	71
	9433	1	145	100	145
					3,723
Sandoval					
	102	3	547	5	27
	9409	2	11	88	10
	9433	1	1,193	75	895
					932
San Juan					
	all	all	113,801	100	**113,801**

	Year	McKinley	Rio Arriba	Sandoval	San Juan	Total Population
Census 1990	**1990**	11,236	3,164	808	91,605	106,813
	1991	11,451	3,216	820	93,614	109,101
	1992	11,671	3,269	831	95,668	111,438
	1993	11,894	3,322	843	97,766	113,826
	1994	12,122	3,377	855	99,910	116,265
	1995	12,354	3,432	868	102,102	118,756
	1996	12,591	3,488	880	104,341	121,301
	1997	12,832	3,546	893	106,630	123,901
	1998	13,078	3,604	906	108,968	126,556
	1999	13,329	3,663	919	111,359	129,269
Census 2000	**2000**	13,584	3,723	932	113,801	132,040
Approximate Rate of Change per Year		0.0192	0.0164	0.0143	0.0219	0.0214

Summary of Estimated Water Uses											
Units: Acre-feet											
Year	Reservoir Evaporation	Irrigation	Yard Watering	Stockpond Evap & Livestock	Mineral Resources	Thermal Electric Power	Commercial	Municipal	Domestic & Rural	Fish Wildlife Recreation	Export SJ-C Project
1996	45,954	192,053	15,769	4,392	1,243	43,430	1,010	10,693	2,667	748	58,530
1997	35,618	167,072	16,044	4,399	641	45,857	913	9,570	2,774	748	142,300
1998	40,727	177,405	16,319	4,461	464	42,611	1,002	13,106	3,023	748	96,700
1999	34,995	138,638	16,591	4,486	642	44,954	988	12,009	3,136	748	118,900
2000	45,436	163,848	16,868	4,462	783	44,436	936	13,529	3,294	748	42,740