

Navajo-Gallup Water Supply Project

APPENDIX C

NAVAJO NATION GROUNDWATER PRODUCTION IN THE SERVICE AREA

Navajo-Gallup Groundwater Production and Use (page 1 of 2)

17-Jan-01

Service Area	Chapter	Point of Use [1]	1998 GW production (gal/yr) [2]	1998 G.W. production (ac-ft/yr)	est. sustain. 2040 G.W. production (gal/yr) [3]	est. sustain. 2040 G.W. production (ac-ft/ft)	2000 G.W. use (ac-ft/yr) [4]	2010 G.W. use (ac-ft/yr) [5]	2020 G.W. use (ac-ft/yr) [5]	2030 G.W. use (ac-ft/yr) [5]	2040 G.W. use (ac-ft/yr) [3]	2050 G.W. use (ac-ft/yr) [6]	2060 G.W. use (ac-ft/yr) [6]
City of Gallup, NM [7]	City of Gallup	L.C.	1,412,550,000	4,335	0	0	4,335	0	0	0	1,439	3,947	6,951
Central Area, NM	Burnham	U.C.	8,000	0	0	0	0	0	0	0	0	0	0
	Lake Valley	U.C.	7,224,924	22	15,000,000	46	22	28	34	40	46	46	46
	White Rock	U.C.	0	0	see Lk Vly	see Lk Vly	see Lk Vly	see Lk Vly	see Lk Vly	see Lk Vly	see Lk Vly	see Lk Vly	see Lk Vly
	White Horse Lake	U.C.	1,678,712	5	10,000,000	31	5	12	18	24	31	31	31
	SUBTOTAL		8,911,636	27	25,000,000	77	27	40	52	64	77	77	77
Crown Point, NM	Bacenti	U.C.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.
	Coyote Canyon	U.C.	10,553,160	32	20,000,000	61	32	40	47	54	61	61	61
	Crownpoint	U.C.	85,695,314	263	200,000,000	614	263	351	438	526	614	614	614
	Dalton Pass	U.C.	58,700	0	100,000	0	0	0	0	0	0	0	0
	Little Water	U.C.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.	see Crwn Pt.
	Standing Rock	U.C.	11,109,089	34	25,000,000	77	34	45	55	66	77	77	77
	SUBTOTAL		107,416,263	330	245,100,000	752	330	435	541	647	752	752	752
Gallup Area, NM	Bread Springs	L.C.	13,948,780	43	25,000,000	77	43	51	60	68	77	77	77
	Chichiltah	L.C.	unknown	unknown	see Brd spr.	see Brd spr.	unknown	see Brd spr.	see Brd spr.	see Brd spr.	see Brd spr.	see Brd spr.	see Brd spr.
	Church Rock	L.C.	18,852,450	58	40,000,000	123	58	74	90	107	123	123	123
	Iyanbito	L.C.	unknown	unknown	50,000,000	153	unknown	38	77	115	153	153	153
	Mariano Lake	L.C.	39,804,005	122	30,000,000	92	122	115	107	100	92	92	92
	Pinedale	L.C.	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk	see Mrno Lk
	Red Rock	L.C.	11,565,569	35	20,000,000	61	35	42	48	55	61	61	61
	SUBTOTAL		84,170,804	258	165,000,000	506	258	320	382	444	506	506	506
Huerfano, NM	Huerfano	U.C.	19,305,279	59	10,000,000	31	59	52	45	38	31	31	31
	Nageezi	U.C.	10,121,491	31	5,000,000	15	31	27	23	19	15	15	15
	SUBTOTAL		29,426,770	90	15,000,000	46	90	79	68	57	46	46	46
Rock Springs, NM	Manuelito	L.C.	unknown	unknown	15,000,000	46	unknown	12	23	35	46	46	46
	Rock Springs	L.C.	12,995,250	40	25,000,000	77	40	49	58	68	77	77	77
	Tsayaloh	L.C.	5,771,955	18	15,000,000	46	18	25	32	39	46	46	46
	SUBTOTAL		18,767,205	58	55,000,000	169	58	85	113	141	169	169	169
Route 666, NM	Mexican Springs	U.C.	13,765,359	42	see Tohatchi	see Tohatchi	42	see Tohatchi	see Tohatchi	see Tohatchi	see Tohatchi	see Tohatchi	see Tohatchi
	Naschitti	U.C.	26,702,440	82	25,000,000	77	82	81	79	78	77	77	77
	Newcomb	U.C.	4,110,826	13	4,000,000	12	13	13	12	12	12	12	12
	Sanostee	U.C.	29,001,234	89	50,000,000	153	89	105	121	137	153	153	153
	Sheep Springs	U.C.	4,000,000	12	5,000,000	15	12	13	14	15	15	15	15
	Tohatchi	U.C.	44,794,400	137	100,000,000	307	137	180	222	265	307	307	307
	Twin Lakes	U.C.	28,419,760	87	50,000,000	153	87	104	120	137	153	153	153
	Two Grey Hills	U.C.	18,036,128	55	25,000,000	77	55	61	66	71	77	77	77
	SUBTOTAL		168,830,147	518	259,000,000	795	518	556	635	715	795	795	795
Torreón, NM	Counselor	U.C.	see Pbl Pndo	see Pbl Pndo	0	0	0	0	0	0	0	0	0
	Ojo Encino	R.G.	6,839,565	21	5,000,000	15	21	20	18	17	15	15	15
	Pueblo Pintado	U.C.	23,000	0	0	0	0	0	0	0	0	0	0
	Torreón	R.G.	29,920,434	92	20,000,000	61	92	84	77	69	61	61	61
	SUBTOTAL		36,782,999	113	25,000,000	77	113	104	95	86	77	77	77
San Juan River, NM [8]	Beclabito	U.C.	0	0	0	0	0	0	0	0	0	0	0
	Cudei	U.C.	0	0	0	0	0	0	0	0	0	0	0
	Hogback	U.C.	0	0	0	0	0	0	0	0	0	0	0
	Nenahnezad	U.C.	0	0	0	0	0	0	0	0	0	0	0
	San Juan	U.C.	0	0	0	0	0	0	0	0	0	0	0
	Shlprock	U.C.	0	0	0	0	0	0	0	0	0	0	0
	Upper Fruitland	U.C.	0	0	0	0	0	0	0	0	0	0	0
	SUBTOTAL		0	0	0	4,680	0	4,680	4,680	4,680	4,680	4,680	4,680
NAPI Industrial, NM [9]		U.C.	0	0	0	700	0	400	500	600	700	700	700
NEW MEXICO UPPER BASIN		U.C.	351,367,815	1,078	569,100,000	7,127	1,078	6,294	6,571	6,849	7,127	7,127	7,127
NEW MEXICO LOWER BASIN		L.C.	1,515,488,009	4,651	220,000,000	675	4,651	406	498	585	2,114	4,622	7,626
TOTAL NEW MEXICO			1,866,855,824	5,730	789,100,000	7,802	5,730	6,700	7,067	7,434	9,241	11,749	14,753

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17-Jan-01

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Window Rock, AZ	Fort Defiance	L.C.	339,701,688	1,043	250,000,000	767	1,043	974	905	836	767	767	767
	Saint Michaels	L.C.	65,000	0	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.	see Ft. Dfnc.
TOTAL ARIZONA			339,766,688	1,043	250,000,000	767	1,043	974	905	836	767	767	767
PROJECT TOTAL			2,206,622,512	6,772	1,039,100,000	8,589	6,772	7,673	7,972	8,270	10,008	12,516	15,520
GROUNDWATER ONLY TOTAL [10]			2,206,622,512	6,772	1,039,100,000	3,189	6,772	2,593	2,792	2,990	4,628	7,136	10,140

Notes: Rounding error may cause subtotals to be off by 1

1 U.C.=Upper Colorado River Basin, L.C.=Lower Colorado River Basin, R.G.=Rio Grande River Basin

2 Compiled from NTUA, NDWR, BIA, and other records

3 Estimates consider current groundwater production and hydrogeologic properties of source aquifers

4 Assumed equal to 1998 production

5 Assumed linear change from year 2000 production to year 2040 production levels

6 Production limited to estimated sustainable levels

7 City of Gallup plans to recharge aquifer and use groundwater for summer daily peaking

8 Groundwater production effectively zero. Ignores any potential alluvial production directly from SJR. 4680 ac-ft/yr diversions from ALP assumed to be fully available beginning in

9 400 Ac-ft/yr of depletions from the Navajo-Gallup project assumed available in 2010 and ramping up to 700 ac-ft/yr by 2040.

10 Shows solely groundwater production. Omits NAPI industrial water and additional diversions from ALP.