

Table 13. Depletions and Diversions Associated with Proposed Water Rights for Tributary Irrigation Projects on Navajo Lands in the San Juan River Basin

A. Tributary Irrigation Project Uses on Lands Held by the US in Trust for the Navajo Nation under Proposed Federal Reserved Rights:

Project	Irrigated Acreage		Depletions					Diversions	
	Proposed	Historic	Average	At-Site	Shorted	Depletion of		Average	Annual
	Water Right	Maximum	Annual	Irrigation	At-Site	San Juan River Flow ⁵		Annual	Annual
Acres ¹	Acres ²	Depletion Rate	Depletion Demand	Irrigation Depletion	(% of At-Site)	(acre-feet)	(af/ac/yr) ⁸	Diversion Demand	(acre-feet)
Chaco River Drainage									
<u>Tributaries Originating in Chuska Mountains:</u>									
Sanostee Project	1,286.9	581.0	1.93	1,121	561	25%	140	4.69	2,725
Tocito Project	231.4	148.0	1.92	284	142	25%	36	5.29	783
Tocito Springs Project ⁷	46.5	30.0	1.96	59	29	25%	7	3.51	105
Toh Al Sissy Project	276.2	197.0	1.97	388	194	50%	97	4.02	792
Tocito Lake Project ⁷	42.9	38.0	1.39	53	26	0%	0	3.76	143
Porcupine Canyon Project ⁷	4.3	3.3	1.72	6	3	0%	0	3.10	10
Stinking Water Project	43.8	40.0	1.89	76	38	25%	9	3.89	156
Sheep Dip Reservoir Project ⁷	70.2	40.0	1.90	76	38	25%	10	3.80	152
Red Rock Canyon Projects ⁷	229.5	158.0	1.90	300	150	25%	38	3.90	616
Toadlena/Toadlena NE Projects ⁸	222.6	222.6	1.85	412	206	25%	51	5.30	1,180
Sand Springs ⁷	6.4	4.6	1.92	9	4	0%	0	3.36	15
Upper/Lower Captain Tom Projects ⁸	2,008.8	1,184.0	1.90	2,250	1,125	45%	506	5.30	6,275
Grey Mesa/Two Grey Hills Projects ⁸	878.3	709.0	1.84	1,305	652	25%	163	5.30	3,758
Sheep Springs Project	216.3	216.3	1.83	396	198	25%	49	4.49	971
Naschitti Northern Project	136.3	136.3	1.78	243	121	0%	0	5.00	682
Naschitti Drolet Project	108.6	108.6	1.76	191	96	0%	0	3.70	402
Naschitti Southern Project	142.4	33.0	1.77	58	29	0%	0	3.74	123
Long Lake Project ⁷	43.0	30.0	1.75	53	26	0%	0	5.26	158
Choiska Project	965.6	750.0	1.89	1,418	709	0%	0	5.30	3,975
Subtotal	6,960.0	4,629.7		8,695	4,348		1,107		23,021
<u>Water Supply Not Associated with Chuska Mountains:</u>									
Well 14Mile	110.0	59.0	1.86	110	55	0%	0	3.57	211
Well 14A-79	79.9	34.0	1.81	62	31	0%	0	3.48	118
White Rock Project ⁷	41.5	20.0	1.80	36	18	0%	0	3.47	69
Lake Valley Project ⁷	75.0	40.0	1.74	70	35	0%	0	2.90	116
Standing Rock Project	36.4	15.0	1.81	27	14	0%	0	3.11	47
Crownpoint School	34.5	18.0	1.79	32	16	0%	0	2.97	53
Subtotal	377.3	186.0		336	168		0		614
Chaco River Drainage Total	7,337.3	4,815.7		9,032	4,516		1,107		23,635
<u>San Juan River Drainage below Chaco River</u>									
Beclabito Project	44.4	44.4	2.09	93	46	90%	42	4.16	185
Red Wash Project	39.9	30.0	2.13	64	32	100%	32	4.58	137
Drainage below Chaco River Total	84.3	74.4		157	78		74		322
<u>Chinle Wash Drainage</u>									
Whiskey Creek Project	36.9	36.9	1.39	51	26	0%	0	2.73	101
Crystal/Lower Crystal/Coyote Wash Projects ⁸	560.7	286.0	1.49	426	213	0%	0	2.83	809
Chinle Wash Drainage Total	597.6	322.9		477	239		0		910
San Juan Basin Total (Federal Reserved)	8,019.2	5,213.0		9,666	4,833		1,180		24,868

Table 13. Depletions and Diversions Associated with Proposed Water Rights for Tributary Irrigation Projects on Navajo Lands in the San Juan River Basin
(continued)

B. Tributary Irrigation Project Uses on Navajo Nation Trust Lands or Navajo Nation Fee Lands under Proposed State Law Rights:⁹

Project	Irrigated Acreage		Average Annual Depletion Rate (af/ac/yr) ³	At-Site Irrigation Demand (acre-feet)	Depletions			Diversions	
	Proposed Water Right Acres ¹	Historic Maximum Acres Irrigated ²			Shorted At-Site Irrigation Depletion (acre-feet) ⁴	Depletion of San Juan River Flow ⁵		Average Annual Diversion Rate (af/ac/yr) ⁶	Annual Diversion Demand (acre-feet)
						(% of At-Site)	(acre-feet)		
Chaco River Drainage									
<u>Lands Currently Held in Trust for the Navajo Nation:</u>									
J.B. Tanner	0.0	0.0	1.77	0	0	0%	0	3.19	0
I.K. Westbrook - Indian Creek ¹⁰	140.9	140.9	1.65	232	35	0%	0	2.74	386
I.K. Westbrook - Kin Klizhin Wash ¹⁰	40.5	40.5	1.69	68	10	0%	0	2.82	114
J.B. Farris Ranch	0.0	0.0	1.76	0	0	0%	0	2.97	0
Subtotal	181.4	181.4		301	45		0		500
<u>Lands Currently Held by the Navajo Nation in Fee:</u>									
R.L. Tanner ¹¹	0.0	0.0	1.75	0	0	0%	0	2.78	0
J.B. Tanner	0.0	0.0	1.77	0	0	0%	0	3.19	0
I.K. Westbrook - Indian Creek ¹⁰	575.2	575.2	1.65	949	144	0%	0	2.74	1,576
I.K. Westbrook - Kin Klizhin Wash ¹⁰	0.0	0.0	1.69	0	0	0%	0	2.82	0
Pitt Ranch	0.0	0.0	1.60	0	0	0%	0	2.54	0
Subtotal	575.2	575.2		949	144		0		1,576
San Juan Basin Total (State Law)	756.6	756.6		1,250	189		0		2,076

C. Summary for All Tributary Irrigation Project Uses Combined:

Drainage	Irrigated Acreage		Average Annual Depletion Rate (af/ac/yr) ³	At-Site Irrigation Demand (acre-feet)	Depletions			Diversions	
	Proposed Water Right Acres ¹	Historic Maximum Acres Irrigated ²			Shorted At-Site Irrigation Depletion (acre-feet) ⁴	Depletion of San Juan River Flow ⁵		Average Annual Diversion Rate (af/ac/yr) ⁶	Annual Diversion Demand (acre-feet)
						(% of At-Site)	(acre-feet)		
Chaco River Drainage	8,093.9	5,572.3		10,282	4,705		1,107		25,712
San Juan River Drainage below Chaco R.	84.3	74.4		157	78		74		322
Chinle Wash Drainage	597.6	322.9		477	239		0		910
San Juan River Basin Total	8,775.8	5,969.6		10,916	5,022		1,180		26,944

Notes:

- ¹ Proposed total water right acres for each Navajo tributary irrigation project based on the US Survey acreage claims (see tables 1 and 4), with acres claimed to receive water from channel interception or floodwater overflows not included within the total water right acres.
- ² Maximum acres irrigated in any year within each project based on historic use; except, that the maximum acres irrigated as shown in this table for some projects is limited to the proposed water right acres. Excludes any agricultural acres claimed by the US Survey to receive water via channel interception or floodwater overflows.
- ³ Average annual depletion rates per acre irrigated for each project based on the US Survey depletion claims (see tables 1 and 8); except, that the average annual depletion rates per acre for R.L. Tanner and Pitt Ranch are based on the 1938 State Engineer Hydrographic Survey (see table 8). These depletion rates are depletion demands assuming full water supply conditions.
- ⁴ Assumes an average annual water supply shortage of 50 percent for all projects (see table 11); except, that I.K. Westbrook and Pitt Ranch spreader dam uses are assumed to actually not exceed an average of about 0.25 acre-feet per acre per year assuming that annual water application rates by spreader dams average about 6 inches per year during years when floodwaters are available, floodwaters are available for effective irrigation during the irrigation season in about 50 percent of the years on average, and all of the floodwaters applied are depleted (see table 9, note 1). The depletion amounts derived in this table are based on the maximum acres irrigated in any one year, and include only irrigation depletions. Depletion amounts shown in this table exclude project depletions associated with evaporation losses from water supply reservoirs and on-farm irrigation ponds and with any stock water uses from irrigation facilities.
- ⁵ Based on the average percentage impact of at-site irrigation depletions on San Juan River flows for each project (see tables 11 and 12). The Sand Springs Project is assumed to have no impact on San Juan River flows due to both distance from the river and because it is supplied by ground water.

Table 13. Depletions and Diversions Associated with Proposed Water Rights for Tributary Irrigation Projects on Navajo Lands in the San Juan River Basin
(continued)

Notes (continued):

- ⁶ Average annual diversion rates per acre irrigated for each project based on the US Survey diversion claims (see tables 1 and 8); except, that the average annual diversion rates for: (1) the Toadlena/Toadlena NE, Upper/Lower Captain Tom, Grey Mesa/Two Grey Hills, and Choiska projects are limited to 5.30 acre-feet per acre, which is consistent with the highest of the claimed diversion rates for other tributary Navajo irrigation projects and reflects a level of combined diversion and irrigation efficiency of approximately 35 percent roughly consistent with that assumed by the 1938 State Engineer Hydrographic Survey for non-Indian irrigation uses in the San Juan River Basin (63 percent irrigation efficiency times 60% canal delivery efficiency equals a combined efficiency of about 38 percent); (2) the Naschitti Northern Project is assumed to be 5.00 acre-feet per acre, which is revised from the US Survey data for changes to diversion amounts for field numbers 708-713 on the project claimed by the Ebert and Associates Report based on modified ditch conveyance efficiencies to these fields; and (3) R.L. Tanner and Pitt Ranch are based on the 1938 State Engineer Hydrographic Survey (see table 8). These diversion rates are diversion demands for irrigation uses assuming full water supply conditions. The diversion rates do not include additional amounts of diversion needed to fill and refill reservoir storage at Captain Tom Reservoir and Chuska Lake.
- ⁷ Historic use, in terms of maximum acres irrigated in any one year, for projects for which data on actual historic use are not available is assumed based on a review of the acres of historic tributary project agricultural lands identified by the US Survey for years of available aerial imagery provided by the United States. For the Lake Valley Project, it is assumed that the BIA irrigated acreage data for the Juan's Lake Project applies to the northern portion of the Lake Valley Project that is adjacent to Juan's Lake and is on Navajo allotments.
- ⁸ Water rights for the following projects identified by the US Survey are proposed to be combined for reasons of historic use data availability (see tables 4 and 5): (1) the Toadlena and Toadlena NE projects (historic use data appear to be available for the Toadlena Project as a whole); (2) the Upper and Lower Captain Tom projects (historic use data are available for the Captain Tom Project as a whole); (3) the Two Grey Hills and Grey Mesa projects (historic use data are available for the Two Grey Hills Project as a whole, and these two identified projects share the same point of diversion and one of two Grey Hills Project ditches); and (4) the Crystal, Lower Crystal and Coyote Wash projects identified by the Ebert and Associates Report, which projects were originally named by the US Survey as the Crystal, Sonsela and Lower Crystal projects, respectively (historic use data appear to be available for these three projects as a whole, and the projects are in very close proximity to each other).
- ⁹ Irrigation uses by R.L. Tanner Ranch, J.B. Tanner, I.K. Westbrook, Pitt Ranch and J.B. Farris Ranch were described by the 1938 State Engineer Hydrographic Survey. Of these irrigation uses, the 1948 Echo Ditch Decree included irrigation rights only for I.K. Westbrook spreader dam uses located along Indian Creek totaling 716.7 acres.
- ¹⁰ State law water rights are proposed for adjudicated spreader dam irrigation uses on Indian Creek totaling 716.7 acres, less 0.6 acres of which are on Navajo allotments, and for portions of spreader dam uses on Kin Klizhin Wash that are on Navajo Nation trust lands. No water rights are proposed for other tributary irrigation projects described by the 1938 State Engineer Hydrographic Survey. These irrigation uses by spreader dams are passive activities so long as the dams remain intact and the land is maintained for water spreading. Neither the United States or the Navajo Nation have provided documentation regarding any historic Navajo uses on the remainder of the irrigation uses described by the 1938 State Engineer Hydrographic Survey since 1938 or since acquisition of the project lands in fee.
- ¹¹ The uses by R.L. Tanner were made in association with Tanner Lake, which based on the 1938 State Engineer Hydrographic Survey was developed in 1935 for irrigation purposes. The dam forming Tanner Lake appeared to be breached as of 1998 based on aerial imagery dated 1998, and was claimed solely as a livestock reservoir by the US Survey. The 2003 ISC crop field survey indicated that the project lands were covered with wild native vegetation as of 2003.

Table 14. Depletions and Diversions Associated with Proposed Water Rights for Tributary Non-Project Irrigation Uses on Lands Held by the United States in Trust for the Navajo Nation in the San Juan River Basin

	<u>Irrigated Acreage</u>		Average Annual Depletion Rate (af/ac/yr) ³	At-Site Irrigation Demand (acre-feet)	<u>Depletions</u>			<u>Diversions</u>	
	Distributed	Distributed			Shorted At-Site Irrigation Depletion (acre-feet) ⁴	Depletion of San Juan River Flow ⁵ (% of At-Site Depletion)	Average Annual Diversion Rate (af/ac/yr) ⁶	Annual Diversion Demand (acre-feet)	
	Water Right Acres ¹	Maximum Acres Irrigated ²							0
A. Surface Water Use by Quadrangle:									
<u>Chaco River Drainage</u>									
Yellow Hill	0.0	0.0	1.98	0	0	75%	0	3.25	0
Roof Butte	0.0	0.0	1.52	0	0	0%	0	2.53	0
Sanostee West	18.9	6.9	1.82	13	6	25%	2	3.03	21
Sanostee East	0.0	0.0	1.93	0	0	25%	0	3.19	0
Little Water	0.0	0.0	1.98	0	0	50%	0	3.24	0
Newcomb NE	4.7	1.7	1.99	3	2	50%	1	3.34	6
Old Pine Spring	13.3	4.9	1.64	8	4	0%	0	2.73	13
Tsin-nas-kid	84.3	31.0	1.88	58	29	25%	7	3.14	97
Newcomb	29.3	10.8	1.89	20	10	25%	3	3.17	34
Newcomb SE	19.7	7.2	1.90	14	7	50%	3	3.18	23
Toadlena	22.9	8.4	1.38	12	6	0%	0	2.31	19
Two Grey Hills	21.9	8.1	1.73	14	7	25%	2	2.88	23
Sheep Springs	70.6	25.9	1.86	48	24	25%	6	3.11	81
Great Bend	0.0	0.0	1.74	0	0	25%	0	2.90	0
Washington (Narbonna) Pass	43.7	16.0	1.68	27	13	0%	0	2.81	45
Naschitti	8.1	3.0	1.72	5	3	0%	0	2.86	9
Grey Hill Spring	0.0	0.0	1.72	0	0	0%	0	2.86	0
The Pillar 3 SE (West of La Vida Mission) ⁷	23.8	8.7	1.72	15	7	0%	0	2.86	25
La Vida Mission	0.0	0.0	1.70	0	0	0%	0	2.83	0
Chuska Peak	8.0	2.9	1.63	5	2	0%	0	2.71	8
Coyote Canyon NW	11.5	4.2	1.66	7	4	0%	0	2.77	12
Seven Lakes NE	0.0	0.0	1.64	0	0	0%	0	2.73	0
Crevasse Canyon	0.0	0.0	1.69	0	0	0%	0	2.80	0
Tohatchi	144.1	52.9	1.81	96	48	0%	0	3.03	160
Chuska Lake	41.3	15.2	1.77	27	13	0%	0	2.96	45
Coyote Canyon	126.4	46.4	1.82	85	42	0%	0	3.04	141
Toyee	99.8	36.6	1.79	66	33	0%	0	2.99	109
Standing Rock	34.0	12.5	1.72	21	11	0%	0	2.87	36
Antelope Lookout Mesa	4.5	1.7	1.78	3	1	0%	0	2.98	5
Seven Lakes SE	0.0	0.0	1.71	0	0	0%	0	2.87	0
Twin Lakes	4.5	1.7	1.75	3	1	0%	0	2.91	5
Big Rock Hill	226.2	83.0	1.75	145	73	0%	0	2.92	242
Dalton Pass	237.5	87.2	1.70	148	74	0%	0	2.83	247
Crownpoint	0.0	0.0	1.70	0	0	0%	0	2.83	0
Chaco River Drainage Total	1,299.2	477.0		843	421		23		1,407
<u>San Juan River Drainage below Chaco River</u>									
Sallies Spring	0.0	0.0	2.03	0	0	100%	0	3.38	0
<u>Chinle Wash Drainage</u>									
Tsaile Butte	7.2	1.2	1.07	1	1	0%	0	1.79	2
Old Pine Spring	0.0	0.0	1.01	0	0	0%	0	1.68	0
Upper Wheatfields	0.0	0.0	1.41	0	0	0%	0	2.35	0
Toadlena	0.0	0.0	1.29	0	0	0%	0	2.15	0
Sonsela Buttes	0.0	0.0	1.47	0	0	0%	0	2.45	0
Crystal	23.4	3.8	1.39	5	3	0%	0	2.32	9
Todilto Park	0.0	0.0	1.34	0	0	0%	0	2.24	0
Chinle Wash Drainage Total	30.6	5.0		7	3		0		11
San Juan Basin Total (Surface Water)	1,329.8	482.0		849	425		23		1,418

Table 14. Depletions and Diversions Associated with Proposed Water Rights for Tributary Non-Project Irrigation Uses on Lands Held by the United States in Trust for the Navajo Nation in the San Juan River Basin
(continued)

	<u>Irrigated Acreage</u>		<u>Depletions</u>					<u>Diversions</u>	
	Distributed	Distributed	Average Annual	At-Site Irrigation	Shorted At-Site	Depletion of San Juan River Flow ⁵		Average Annual	Annual
	Water Right Acres ¹	Maximum Irrigated ²	Depletion Rate (eff/ac/yr) ³	Depletion Demand (acre-feet)	Irrigation Depletion (acre-feet) ⁴	(% of At-Site Depletion)	(acre-feet)	Diversion Rate (eff/ac/yr) ⁶	Diversion Demand (acre-feet)
<u>B. Ground Water Use by Quadrangle:</u>									
<u>Chaco River Drainage</u>									
Yellow Hill	1.3	0.8	1.98	2	2	0%	0	3.25	3
Roof Butte	0.0	0.0	1.52	0	0	0%	0	2.53	0
Sanostee West	0.0	0.0	1.82	0	0	0%	0	3.03	0
Sanostee East	20.0	12.4	1.93	24	24	0%	0	3.19	40
Little Water	0.8	0.5	1.98	1	1	0%	0	3.24	2
Newcomb NE	0.0	0.0	1.99	0	0	0%	0	3.34	0
Old Pine Spring	0.0	0.0	1.64	0	0	0%	0	2.73	0
Tsin-nas-kid	0.0	0.0	1.88	0	0	0%	0	3.14	0
Newcomb	0.0	0.0	1.89	0	0	0%	0	3.17	0
Newcomb SE	0.0	0.0	1.90	0	0	0%	0	3.18	0
Toadlena	0.0	0.0	1.38	0	0	0%	0	2.31	0
Two Grey Hills	0.0	0.0	1.73	0	0	0%	0	2.88	0
Sheep Springs	0.0	0.0	1.86	0	0	0%	0	3.11	0
Great Bend	0.0	0.0	1.74	0	0	0%	0	2.90	0
Washington (Narbonne) Pass	0.0	0.0	1.68	0	0	0%	0	2.81	0
Naschitti	0.7	0.4	1.72	1	1	0%	0	2.86	1
Grey Hill Spring	0.0	0.0	1.72	0	0	0%	0	2.86	0
The Pillar 3 SE (West of La Vida Mission)	0.0	0.0	1.72	0	0	0%	0	2.86	0
La Vida Mission	0.0	0.0	1.70	0	0	0%	0	2.83	0
Chuska Peak	0.0	0.0	1.63	0	0	0%	0	2.71	0
Coyote Canyon NW	0.0	0.0	1.66	0	0	0%	0	2.77	0
Seven Lakes NE	0.0	0.0	1.64	0	0	0%	0	2.73	0
Crevasse Canyon	0.0	0.0	1.69	0	0	0%	0	2.80	0
Tohatchi	0.0	0.0	1.81	0	0	0%	0	3.03	0
Chuska Lake	0.0	0.0	1.77	0	0	0%	0	2.96	0
Coyote Canyon	27.4	17.1	1.82	31	31	0%	0	3.04	52
Toyee	4.5	2.8	1.79	5	5	0%	0	2.99	8
Standing Rock	0.0	0.0	1.72	0	0	0%	0	2.87	0
Antelope Lookout Mesa	0.0	0.0	1.78	0	0	0%	0	2.98	0
Seven Lakes SE	0.0	0.0	1.71	0	0	0%	0	2.87	0
Twin Lakes	0.0	0.0	1.75	0	0	0%	0	2.91	0
Big Rock Hill	0.0	0.0	1.75	0	0	0%	0	2.92	0
Dalton Pass	0.0	0.0	1.70	0	0	0%	0	2.83	0
Crownpoint	0.0	0.0	1.70	0	0	0%	0	2.83	0
Chaco River Drainage Total (Ground Water)	54.8	34.0		64	64		0		105

Notes:

- ¹ Proposed total water right acres for all Navajo tributary non-project surface water and ground water irrigation uses combined are based on the US Survey acreage claims (see table 2), with acres claimed to receive water from channel interception or floodwater overflows not included within the total water right acres. For purposes of computing depletions and diversions associated with these tributary non-project irrigation uses, it was assumed that the proposed total water right acres for all non-project irrigation uses combined are distributed by diversion source and quadrangle based on the distributions of claimed irrigation types shown in table 7 (with irrigation uses made by diversion of surface water to include irrigation types diversion, diversion with reservoir, diversion with structure, spring and spring with reservoir, and with irrigation uses made by diversion of ground water to include irrigation types well and well with reservoir. The distributions of non-project water right acres shown in this table are made only for the purpose of computing total combined depletions and diversions associated with proposed water rights for tributary non-project irrigation uses, and the distributions of proposed total water right acres and maximum irrigated acres by quadrangle shown in this table should not be construed to represent irrigation rights for non-project irrigation uses in each quadrangle individually. Scattered tributary non-project irrigation uses supplied from ground water are assumed to not result in depletions of San Juan River flow.
- ² The total maximum acres irrigated in any year by all tributary non-project irrigation uses combined is assumed based on a review of the acres of historic non-project agricultural lands identified by the US Survey for years of available aerial imagery provided by the United States. For the years 1935, 1997 and 2005-2009 for which the aerial imagery fully covers the US Survey study area, the average distribution of identified agricultural acres by claimed water source and drainage was: about 92.4% surface water claims in the Chaco River drainage, about 1.0% surface water claims in the Chinle Wash drainage, and about 6.6% ground water claims in the Chaco River drainage. The combined maximum acres irrigated in any year was distributed by water source accordingly. The distributions of maximum acres irrigated by quadrangle were then made based on the distributions of water right acres.
- ³ Average annual depletion rates per acre irrigated for scattered non-project irrigation uses in each quadrangle area based on the US Survey depletion claims (see table 2). These depletion rates are depletion demands assuming full water supply conditions.
- ⁴ Assumes an average annual water supply shortage of 50 percent for surface water irrigation uses (see table 10), and no shortage for ground water irrigation uses. The depletion amounts derived in this table are based on the maximum acres irrigated in any one year, and include only irrigation depletions. Depletion amounts shown in this table exclude any depletions associated with evaporation losses from irrigation water supply reservoirs.
- ⁵ For surface water non-project irrigation uses, the average percentage impact of at-site depletions on San Juan River flows within each quadrangle is assumed from figure 1. Non-project irrigation uses made from ground water generally do not impact the flow of the river.
- ⁶ Average annual diversion rates per acre irrigated for scattered non-project irrigation uses in each quadrangle area based on the US Survey diversion claims (see table 2). These diversion rates are diversion demands for irrigation uses assuming full water supply conditions.
- ⁷ No adjustments were made to acreage, depletion rates or diversion rates for non-project irrigation lands in the Pillar 3 SE (West of La Vida Mission) quadrangle for revised claims for field number 569 described in the Ebert and Associates Report at table D-2 (see notes at end of table 2). Fields claimed by the US Survey but omitted from the Ebert and Associates Report (field numbers 232 and 381) were channel interception type claims.

Table 15. Summary of Total Depletions and Diversions Associated with Proposed Water Rights for Tributary Non-Project Irrigation Uses on Lands Held by the United States in Trust for the Navajo Nation in the San Juan River Basin

Drainage	Irrigated Acreage		Depletions					Diversions	
	Proposed Water Right Acres ¹	Historic Maximum Acres Irrigated ²	Average Annual Depletion Rate (af/ac/yr) ³	At-Site Irrigation Demand (acre-feet)	Shorted At-Site Irrigation Depletion (acre-feet) ⁴	Depletion of San Juan River Flow ⁵		Average Annual Diversion Rate (af/ac/yr) ⁶	Annual Diversion Demand (acre-feet)
						(% of At-Site Depletion)	(acre-feet)		
Chaco River Drainage:									
Surface Water ⁷	1,299.2	477.0	1.77	843	421	6%	23	2.95	1,407
Ground Water ⁸	54.8	34.0	1.87	64	64	0%	0	3.10	105
Chaco River Drainage Subtotal	1,353.9	511.0		906	485		23		1,512
Chinle Wash Drainage:									
Surface Water ⁷	30.6	5.0	1.32	7	3	0%	0	2.20	11
San Juan Basin Total (Federal Reserved)	1,384.6	516.0		913	488		23		1,523

Notes:

- ¹ Proposed total water right acres for all Navajo tributary non-project irrigation uses combined are based on the US Survey acreage claims (see table 2), with acres claimed to receive water from channel interception or floodwater overflows not included within the total water right acres.
- ² The total maximum acres irrigated in any year by all tributary non-project irrigation uses combined is assumed based on a review of the acres of historic non-project agricultural lands identified by the US Survey for years of available aerial imagery provided by the United States. Data on actual historic use are not available for claimed non-project irrigation uses.
- ³ Weighted average annual depletion rates per acre irrigated for scattered non-project irrigation uses based on the at-site irrigation depletion demands and the maximum acres irrigated. These depletion rates are depletion demands assuming full water supply conditions.
- ⁴ Assumes an average annual water supply shortage of 50 percent for surface water irrigation uses and no shortage for ground water irrigation uses (see table 14). The depletion amounts derived in this table are based on the maximum acres irrigated in any one year, and include only irrigation depletions. Depletion amounts shown in this table exclude any depletions associated with evaporation losses from irrigation water supply reservoirs or with any livestock watering from irrigation facilities.
- ⁵ Based on the computations of San Juan River flow depletions resulting from the maximum acres irrigated under proposed tributary non-project irrigation rights as estimated in table 14. The weighted average of the estimated San Juan River flow depletions resulting from the maximum acres irrigated under tributary non-project irrigation uses, expressed in percent of the at-site irrigation depletions, are also shown.
- ⁶ Weighted average annual diversion rates per acre irrigated for scattered non-project irrigation uses based on the irrigation diversion demands and the maximum acres irrigated. These diversion rates are diversion demands for irrigation uses assuming full water supply conditions.
- ⁷ Irrigation uses made by diversion of surface water, including irrigation types diversion, diversion with reservoir, diversion with structure, spring and spring with reservoir.
- ⁸ Irrigation uses made from wells, including irrigation types well and well with reservoir.

Table 16. Summary of Livestock Reservoirs on Navajo Nation Lands Held in Trust in the San Juan River Basin in New Mexico that are Claimed by the US Survey by Reservoir Type or Source, Drainage and Quadrangle

Quadrangle	Division	Improved Storage			In-Channel			In-Channel, Well			NIP, In-Channel			NIP, Off-Channel			Off-Channel			Well			Total							
		Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)					
Chaco River Drainage (Continued)	McGuire County:																													
	Washington Pass	1	300.48	1,200.00																			1	300.48	1,200.00					
	Naschitti			1.21			2.27																					1.21		
	Grey Hill Spring	3	9.69	30.85																								2.27		
	The Pillar 2 SW	1	25.46	140.28																								30.85		
	Todillo Park	6	18.72	58.49																								140.28		
	Chuska Peak	1	0.20	0.41																								58.49		
	Coyote Canyon NW	10	24.58	84.59	1	2.71	14.89																4	0.92	1.87			0.41		
	Ear Rock	22	71.26	187.48																			6	2.22	6.48			84.59		
	Standing Rock NW	13	36.87	123.95																			3	2.04	6.32			187.48		
	Red Lava Well	12	83.03	278.72																			3	2.67	5.27			123.95		
	Milk Lake	7	10.92	38.33																			4	1.22	4.09			38.33		
	Rose Rock	3	5.37	22.42																			4	0.54	0.89			22.42		
	Serra Lake NW	1	0.25	0.66																			3	0.21	0.27			0.66		
	Serra Lake NE	1	0.53	0.69																			3	0.21	0.27			0.69		
	Pueblo Pintado	1	14.18	25.13																			1	0.28	0.56			25.13		
	Crews Canyon	4	6.08	18.06																			1	0.16	1.48			18.06		
	Tohatchi	27	50.19	215.81																			3	1.10	3.37			215.81		
	Chuska Lake	10	49.39	87.02																			4	2.70	3.18			87.02		
	Coyote Canyon	6	14.87	56.12																			2	0.31	0.52			56.12		
	Toyee	14	48.41	164.21																			2	0.31	0.81			164.21		
	Standing Rock	7	15.31	39.16																			5	0.87	2.22			39.16		
	Antelope Lookout Mesa	5	7.44	28.77																			5	0.87	2.22			28.77		
Beardt Lake	3	4.89	16.10																			2	0.32	0.89			16.10			
Whitehorse	5	3.89	6.79																			7	3.98	10.35			6.79			
Twin Lakes	9	20.95	87.27																			10	21.78	90.43			87.27			
Big Rock Hill	4	53.39	107.37																			6	12.96	21.43			107.37			
Big Rock and Flats	1	0.73	4.78																			3	1.35	1.63			4.78			
Oak Spring	4	0.73	3.78																			2	0.31	1.45			3.78			
Debon Pass	8	14.38	54.85																			2	0.31	1.45			54.85			
Crowpoint	1	1.81	4.43																			2	0.78	3.94			4.43			
Heart Rock	4	7.74	28.86																			5	8.49	30.70			28.86			
County Subtotal	0	0.00	0.00	189	888.52	3,144.86	1	2.71	14.89	1	0.39	0.43	0	0.00	0.00	5	2.86	6.43	0	0.00	0.00	66	35.03	80.79	272	929.51	3,247.20			
Sandoval County:																														
Lynbrook SE																														1.04
Mule Dam	7	43.89	133.85																			7	43.89	133.85						
County Subtotal	0	0.00	0.00	8	44.92	135.89	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	8	44.92	135.89			
Chaco River Drainage Total	16	22.69	73.80	3	0.67	1.40	619	2,358.25	9,038.87	6	83.83	139.57	19	34.70	78.86	8	4.88	19.59	0	0.00	0.00	136	58.29	147.21	808	2,643.72	9,569.98			
San Juan River Drainage below Chaco River																														
San Juan County:																														
Teac Nos Pie	2	2.51	14.14																			2	0.13	0.22						
Cenil Creek	16	30.30	113.29																			1	0.14	0.33						
Sidney Creek	14	15.87	44.89																			14	16.97	44.89						
Palmer Mesa	18	14.58	70.88																			1	0.85	2.04						
Rocky Point	5	9.28	65.28																			5	9.28	65.28						
Rattlesnake	6	2.83	11.12																			1	0.15	0.43						
Shiprock	1	0.06	0.11																			1	0.14	0.33						
Chimney Rock	1	0.06	0.11																			1	0.14	0.33						
Shiprock	6	10.11	29.81																			7	11.26	31.58						
Shiprock	3	87.41	584.78																			1	1.24	1.54						
Red Valley	1	1.52	20.94																			2	0.21	0.33						
Mitten Rock	6	14.13	63.85																			2	0.31	0.65						
Roof Butte	1	0.79	8.35																			8	14.44	64.50						
Drainage below Chaco R. Total	1	0.12	0.22	86	182.73	1,064.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	11	2.97	5.87	88	186.52	1,068.89			
Chile Wash Drainage																														
San Juan County:																														
Tails Butte	1	1.02	6.29																			1	1.02	6.29						
Old Pine Spring	3	12.42	49.14																			3	12.42	49.14						
Shiprock	2	4.17	147.74																			2	4.17	147.74						
Shiprock	2	0.47	1.21																			2	0.47	1.21						
Sonala Buttes	7	149.76	518.47																			7	149.76	518.47						
Crystal	19	27.68	82.80																			19	27.68	82.80						
County Subtotal	0	0.00	0.00	34	232.52	812.79	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	34	232.52	812.79			
McInley County:																														
Buel Park	2	1.40	7.39																			2	1.40	7.39						
Todillo Park	1	1.63	6.42																			1	1.63	6.42						
County Subtotal	0	0.00	0.00	3	3.03	13.81	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	3	3.03	13.81			
Chinle Wash Drainage Total	0	0.00	0.00	37	235.55	828.60	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	37	235.55	828.60			
San Juan River Basin Total	18	38.40	138.05	4	0.86	2.75	867	2,977.08	11,712.88	7	87.68	161.78	77	108.92	387.87	2	8.41	63.31	2	0.00	0.00	152	92.52	170.51	1,138	3,270.90	12,882.69			

Table 18. Summary of Livestock Reservoirs on Lands Allotted to Members of the Navajo Nation in the San Juan River Basin in New Mexico that are Claimed by the US Survey by Reservoir Type or Source, Drainage and Quadrangle

San Juan River Drainage above Chaco River	Ditch			Improved Station			In Channel			In Channel Spring			In Channel Well			NIP, In Channel			NIP, Off Channel			Off Channel			Well			Total				
	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)	Number	Area (acres)	Capacity (acre-feet)		
San Juan County:																																
Farmington South																																
Hugh Lake																																
Gallupoa Trading Post																																
Fresno Canyon																																
Monduloo Wash																																
Canon Trading Post																																
Huerfano Trading Post NW																																
Huerfano Trading Post																																
Thompson Mesa																																
Huerfano Trading Post SW																																
Bianco Trading Post																																
Crow Mesa West																																
Drainage above Chaco R. Total	0	0.00	0.00	1	0.02	0.03	51	87.78	348.85	0	0.00	0.00	1	0.22	0.13	8	13.89	80.72	0	0.00	0.00	2	1.27	4.94	6	2.60	4.59	68	105.88	430.28		
Chaco River Drainage																																
San Juan County:																																
Alamo Mesa East																																
Huerfano Trading Post SW																																
Bianco Trading Post																																
Crow Mesa West																																
Tanner Lake																																
Pretty Rock																																
Pueblo Bonito NW																																
Kimbeo																																
Lynbrook NW																																
Alamo Mesa																																
Kim Wilson Ruins																																
Pueblo Bonito																																
Seapest Ranch																																
Fire Rock Well																																
County Subtotal	0	0.00	0.00	0	0.00	0.00	61	875.24	3,693.07	0	0.00	0.00	1	74.89	529.26	0	0.00	0.00	0	0.00	0.00	2	2.64	18.10	3	0.37	0.59	68	578.25	3,712.78		
McKinley County:																																
Milk Lake																																
Nose Rock																																
Pueblo Pintado																																
Pueblo Alto Trading Post																																
Star Lake																																
Star Lake																																
Antelope Rock																																
Antelope Lookout Mesa																																
Bacetti Lake																																
Seven Lakes																																
Seven Lakes SE																																
Whitehorse																																
Dalton Pass																																
Crownpoint																																
Heart Rock																																
Lepuna Castillo																																
Casamero Lake																																
Borrego Pass																																
County Subtotal	0	0.00	0.00	0	0.00	0.00	131	577.89	1,772.48	0	0.00	0.00	1	74.89	529.26	0	0.00	0.00	0	0.00	0.00	2	0.31	0.94	7	4.64	23.53	141	857.67	2,325.92		
Sandoval County:																																
Lynbrook																																
Lynbrook SE																																
Mule Dam																																
County Subtotal	0	0.00	0.00	0	0.00	0.00	17	41.34	118.44	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00		
Chaco River Drainage Total	0	0.00	0.00	0	0.00	0.00	209	1,194.51	5,662.00	0	0.00	0.00	1	74.89	529.26	0	0.00	0.00	0	0.00	0.00	4	2.95	19.74	10	5.01	24.12	224	1,277.18	8,155.12		
San Juan River Basin Total	0	0.00	0.00	1	0.02	0.03	260	1,282.29	5,950.95	0	0.00	0.00	2	74.91	529.39	0	0.00	0.00	0	0.00	0.00	6	4.22	24.98	15	7.51	28.71	290	1,362.94	6,694.38		

Table 19. Adjusted Maximum Areas and Storage Volumes for Stock Ponds on Lands Held by the United States in Trust for the Navajo Nation in the San Juan River Basin in New Mexico

Quadrangle	Surface Water Reservoirs ¹		Ground Water Reservoirs ²		Combined Source Reservoirs ³		NIP reservoirs ⁴		All Stock Reservoirs	
	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ¹	Adjusted Storage Volume (acre-feet) ²	Adjusted Surface Area (acres) ³	Adjusted Storage Volume (acre-feet) ³	Adjusted Surface Area (acres) ⁴	Adjusted Storage Volume (acre-feet) ⁴	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶
San Juan River Drainage above Chaco River										
San Juan County:										
Chimney Rock	13.9	28.7	0.0	0.0	0.0	0.0	0.0	0.0	13.9	28.7
Fruitland	5.1	10.0	0.0	0.0	0.0	0.0	3.2	4.7	8.3	14.7
Kirtland	17.7	59.0	0.0	0.0	0.0	0.0	2.5	7.5	20.2	66.5
Farmington South	0.0	0.0	0.0	0.0	0.0	0.0	3.4	8.8	3.4	8.8
Horn Canyon	7.3	9.4	0.0	0.0	0.0	0.0	0.0	0.0	7.3	9.4
Bloomfield	2.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.9
Kirtland SE	0.0	0.0	0.2	0.4	0.0	0.0	10.9	26.2	11.1	26.5
Hugh Lake	12.5	25.5	0.2	0.4	3.9	7.5	10.1	33.3	26.6	66.7
Gallegos Trading Post	17.7	68.1	2.8	15.6	0.0	0.0	31.7	99.3	52.0	183.0
East Fork Kutz Canyon	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.5	1.1	2.5
Moncisco Wash	68.6	130.7	0.2	0.4	0.0	0.0	0.7	2.1	69.5	133.2
Carson Trading Post	2.7	5.3	0.0	0.0	0.0	0.0	6.9	23.8	9.6	29.1
Huerfano Trading Post NW	2.3	4.4	0.0	0.0	0.0	0.0	0.4	0.0	2.3	4.4
Huerfano Trading Post	7.9	15.4	0.0	0.0	0.0	0.0	0.0	0.0	7.9	15.4
Thompson Mesa	3.2	6.2	0.0	0.0	0.0	0.0	0.0	0.0	3.2	6.2
Blanco Trading Post	13.2	25.8	0.0	0.0	0.0	0.0	0.0	0.0	13.2	25.8
Crow Mesa West	0.8	1.5	0.2	0.4	0.0	0.0	0.0	0.0	1.0	2.0
County Subtotal	174.9	394.0	3.2	17.1	3.9	7.5	70.5	207.8	252.5	626.5
Rio Arriba County:										
Lybrook	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3
Sandoval County:										
Counselor	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8
Deer Mesa	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7
County Subtotal	0.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.2
Drainage above Chaco R. Total	175.8	395.6	3.2	17.1	3.9	7.5	70.5	207.8	253.4	628.0
Chaco River Drainage										
San Juan County:										
Ship Rock	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Sulfur Spring	38.8	93.2	0.0	0.0	0.0	0.0	0.0	0.0	38.8	93.2
The Hogback North	5.4	12.8	0.2	0.4	0.0	0.0	0.0	0.0	5.6	13.2
Fruitland	4.2	3.4	0.0	0.0	0.0	0.0	7.8	19.1	12.0	22.5
Mitten Rock	3.6	7.1	0.3	0.7	0.0	0.0	0.0	0.0	3.9	7.8
Yellow Hill										
Big Gap Reservoir (P-0040)	18.4	36.1							18.4	36.1
Other	41.1	79.7	0.7	1.6	0.0	0.0	0.0	0.0	41.8	81.3
Table Mesa	18.2	34.7	5.0	28.1	4.7	9.2	0.0	0.0	27.9	72.0
The Hogback South	9.6	14.1	0.0	0.0	0.0	0.0	0.0	0.0	9.6	14.1
Kirtland SW	8.2	14.4	0.0	0.0	0.0	0.0	25.2	46.2	33.4	60.5
Kirtland SE	8.2	16.0	0.0	0.0	0.0	0.0	0.9	2.0	9.0	18.0
Sanostee West	15.4	41.2	0.0	0.0	0.0	0.0	0.0	0.0	15.4	41.2
Sanostee East	17.1	46.9	1.4	2.8	0.0	0.0	0.0	0.0	18.5	49.7
Little Water	10.9	17.2	0.4	0.7	0.0	0.0	0.0	0.0	11.2	17.9
Newcomb NE	38.1	97.4	2.7	4.9	0.0	0.0	0.0	0.0	40.8	102.3
The Pillar NW	48.7	120.8	0.0	0.0	0.0	0.0	0.0	0.0	48.7	120.8
The Pillar	52.9	121.2	0.0	0.0	0.0	0.0	0.0	0.0	52.9	121.2
Moncisco Wash	16.6	32.6	0.1	0.1	0.0	0.0	0.0	0.0	16.7	32.6
Old Pine Spring	2.6	5.1	0.0	0.0	0.0	0.0	0.0	0.0	2.6	5.1
Tsin-nas-ki										
Sheep Dip Reservoir (P-0039)										
Other	9.2	21.2	0.9	2.8	0.0	0.0	0.0	0.0	10.1	24.0
Newcomb	7.7	13.2	1.8	4.3	0.0	0.0	0.0	0.0	9.6	17.5
Newcomb SE	26.5	48.5	0.1	0.1	0.0	0.0	0.0	0.0	26.6	48.6
Burnham Trading Post	51.0	93.8	0.0	0.0	0.0	0.0	0.0	0.0	51.0	93.8
Bisti Trading Post	74.3	144.9	0.2	0.4	0.0	0.0	0.0	0.0	74.4	145.3
Alamo Mesa West	13.6	26.7	0.1	0.4	0.0	0.0	0.0	0.0	13.7	27.0
Alamo Mesa East	5.8	11.4	0.0	0.0	0.0	0.0	0.0	0.0	5.8	11.4
Huerfano Trading Post SW	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4
Toadlena	7.0	13.7	1.0	5.5	0.0	0.0	0.0	0.0	7.9	19.2
Two Grey Hills	21.4	71.9	0.9	1.4	0.0	0.0	0.0	0.0	22.3	73.3
Sheep Springs	73.4	140.2	0.3	0.6	0.4	0.2	0.0	0.0	74.0	141.1
Great Bend	46.1	92.3	0.9	2.0	0.0	0.0	0.0	0.0	47.0	94.2
The Pillar 3 NW	3.5	6.8	0.1	0.3	0.0	0.0	0.0	0.0	3.6	7.0
The Pillar 3 NE	14.2	32.0	0.2	0.4	0.0	0.0	0.0	0.0	14.4	32.4
Tanner Lake	5.4	7.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	7.0
Pretty Rock	3.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	3.1	5.9
Pueblo Bonito NW	1.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.9
Lybrook NW	1.4	2.8	0.2	0.4	0.0	0.0	0.0	0.0	1.6	3.3
Crystal										
Lost/Berland Lakes (P-5088/5092)	49.7	82.8							49.7	82.8
Other	7.4	14.6	0.0	0.0	0.0	0.0	0.0	0.0	7.4	14.6
Washington Pass	45.0	86.1	0.0	0.0	0.0	0.0	0.0	0.0	45.0	86.1
Naschitti										
Naschitti Reservoir (P-0257)										
Other	39.2	98.9	1.2	3.5	0.0	0.0	0.0	0.0	40.4	102.4
Grey Hill Spring	117.0	232.1	0.9	1.9	0.0	0.0	0.0	0.0	117.9	234.0
The Pillar 2 SW	17.9	34.9	0.0	0.0	0.0	0.0	0.0	0.0	17.9	34.9
The Pillar 3 SE	58.2	114.6	1.0	2.4	0.0	0.0	0.0	0.0	59.1	117.0
La Vida Mission	37.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0	37.6	100.0
Kin Kizhin Ruins	3.1	6.0	0.3	0.6	0.0	0.0	0.0	0.0	3.3	6.6
Pueblo Bonito	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
County Subtotal	1,099.7	2,300.9	20.6	66.2	5.1	9.5	33.9	67.3	1,159.3	2,443.8

Table 19. Adjusted Maximum Areas and Storage Volumes for Stock Ponds on Lands Held by the United States in Trust for the Navajo Nation in the San Juan River Basin in New Mexico
(continued)

Quadrangle	Surface Water Reservoirs ¹		Ground Water Reservoirs ²		Combined Source Reservoirs ³		NIP Reservoirs ⁴		All Stock Reservoirs	
	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶
Chaco River Drainage (continued)										
McKinley County:										
Washington Pass-Long Lake (P-0042)	-	-							-	-
Naschitti	1.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.3
Grey Hill Spring	1.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.7
The Pillar 2 SW	1.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.5
Todito Park	9.5	18.6	0.0	0.0	0.0	0.0	0.0	0.0	9.5	18.6
Chuska Peak	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5
Coyote Canyon NW	28.4	51.7	0.9	2.1	0.0	0.0	0.0	0.0	27.3	53.8
Ear Rock	36.2	70.9	2.1	4.7	0.0	0.0	0.0	0.0	38.3	75.6
Standing Rock NW	26.7	54.8	2.0	4.4	0.0	0.0	0.0	0.0	28.6	59.2
Red Lake Well	46.9	74.3	2.5	5.9	0.0	0.0	0.0	0.0	49.4	80.2
Milk Lake	10.4	20.5	1.2	2.7	0.0	0.0	0.0	0.0	11.6	23.2
Nose Rock	5.1	10.0	0.5	1.1	0.0	0.0	0.0	0.0	5.6	11.1
Seven Lakes NW	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5
Seven Lakes NE	0.0	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.2	0.5
Pueblo Pintado	0.5	1.0	0.3	0.8	0.0	0.0	0.0	0.0	0.8	1.6
Pueblo Alto Trading Post	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7
Crevasse Canyon	5.8	11.3	0.0	0.0	0.0	0.0	0.0	0.0	5.8	11.3
Tohatchi	32.3	66.2	1.1	2.4	0.0	0.0	0.0	0.0	33.4	68.6
Chuska Lake	31.1	62.5	2.6	6.0	0.0	0.0	0.0	0.0	33.6	68.5
Coyote Canyon	14.1	27.7	0.3	0.7	0.4	0.7	0.0	0.0	14.8	29.1
Toyee	48.5	89.1	0.3	0.8	0.0	0.0	0.0	0.0	48.8	89.9
Standing Rock	14.5	28.5	3.0	7.2	0.0	0.0	0.0	0.0	17.5	35.7
Antelope Lookout Mesa	7.1	13.9	0.8	1.9	0.0	0.0	0.0	0.0	7.9	15.8
Becenti Lake	4.5	8.7	0.0	0.0	0.0	0.0	0.0	0.0	4.5	8.7
Whitehorse	3.5	6.8	0.3	0.7	0.0	0.0	0.0	0.0	3.8	7.5
Twin Lakes	20.0	40.8	0.8	1.9	0.0	0.0	0.0	0.0	20.8	42.7
Big Rock Hill										
Bass Lake (P-1823)			-	-					-	-
Other	27.9	56.6	7.7	18.1	0.0	0.0	0.0	0.0	35.6	74.7
Hard Ground Flats	6.2	12.1	0.0	0.0	0.0	0.0	0.0	0.0	6.2	12.1
Oak Spring	0.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5
Dalton Pass	14.1	28.1	1.3	3.0	0.0	0.0	0.0	0.0	15.4	31.1
Crownpoint	1.5	3.0	0.3	0.7	0.0	0.0	0.0	0.0	1.8	3.7
Heart Rock	7.4	14.4	0.7	1.7	0.0	0.0	0.0	0.0	8.1	16.1
County Subtotal	405.4	782.1	28.8	67.0	0.4	0.7	0.0	0.0	434.5	849.9
Sandoval County:										
Lybrook SE	1.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9
Mule Dam	41.7	82.2	0.0	0.0	0.0	0.0	0.0	0.0	41.7	82.2
County Subtotal	42.7	84.1	0.0	0.0	0.0	0.0	0.0	0.0	42.7	84.1
Chaco River Drainage Total	1,547.8	3,167.2	49.4	133.2	5.4	10.2	33.9	67.3	1,636.5	3,377.8
San Juan River Drainage below Chaco River										
San Juan County:										
Teec Nos Pos	2.4	4.5	0.1	0.3	0.0	0.0	0.0	0.0	2.5	4.8
Canal Creek	29.9	72.9	0.1	0.3	0.0	0.0	0.0	0.0	30.0	73.2
Skinney Rock	15.8	28.1	0.0	0.0	0.0	0.0	0.0	0.0	15.8	28.1
Palmer Mesa	13.9	27.5	0.7	2.1	0.0	0.0	0.0	0.0	14.5	29.6
Rocky Point	9.2	42.8	0.0	0.0	0.0	0.0	0.0	0.0	9.2	42.8
Rattlesnake	2.7	5.1	0.2	0.4	0.0	0.0	0.0	0.0	2.9	5.6
Shiprock	3.2	6.7	0.0	0.0	0.0	0.0	0.0	0.0	3.2	6.7
Chimney Rock	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Horse Mesa	0.1	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.2	0.5
Sand Spring	9.8	17.8	1.2	1.3	0.0	0.0	0.0	0.0	11.0	19.2
Ship Rock	9.5	18.7	0.0	0.0	0.0	0.0	0.0	0.0	9.5	18.7
Red Valley	1.4	2.8	0.2	0.4	0.0	0.0	0.0	0.0	1.7	3.2
Mitten Rock	13.4	26.3	0.3	0.7	0.0	0.0	0.0	0.0	13.7	27.0
Roof Butte	0.8	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.2
Drainage below Chaco R. Total	112.0	257.7	2.9	5.9	0.0	0.0	0.0	0.0	115.0	263.5
Chinle Wash Drainage										
San Juan County:										
Tsaile Butte	1.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9
Old Pine Spring	12.4	31.1	0.0	0.0	0.0	0.0	0.0	0.0	12.4	31.1
Upper Wheatfields										
Little White Cone Lake (P-1092)	-	-							-	-
Other	0.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
Toadlena	0.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8
Sonsela Buttes										
Black Lake (P-1108)	118.6	232.4							118.6	232.4
Other	17.0	33.2	0.0	0.0	0.0	0.0	0.0	0.0	17.0	33.2
Crystal										
Todacheene Lake (P-5081)	5.3	21.5							5.3	21.5
Other	21.8	36.8	0.0	0.0	0.0	0.0	0.0	0.0	21.8	36.8
County Subtotal	177.4	359.2	0.0	0.0	0.0	0.0	0.0	0.0	177.4	359.2
McKinley County:										
Buell Park	1.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.6
Todito Park	1.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.0
County Subtotal	2.9	5.7	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.7
Chinle Wash Drainage Total	180.2	364.9	0.0	0.0	0.0	0.0	0.0	0.0	180.2	364.9
San Juan River Basin Total	2,015.9	4,165.3	55.5	156.2	9.3	17.7	104.4	275.1	2,185.1	4,634.2

Table 19. Adjusted Maximum Areas and Storage Volumes for Stock Ponds on Lands Held by the United States in Trust for the Navajo Nation in the San Juan River Basin in New Mexico
(continued)

Notes:

- ¹ Includes reservoirs classified by the US Survey as the following types: diversion, improved spring, in-channel, in-channel/spring, and off-channel. These types of reservoirs are assumed to have variable supplies from surface water sources, including any spring discharges. Excludes two NIIP off-channel livestock reservoirs that are assumed to be supplied water solely from the NIIP canal. Also excludes Naschitti Reservoir, Little White Cone Lake and Long Lake, all of which were included in the evaluation of irrigation reservoir storage.
- ² Includes reservoirs classified by the US Survey as being associated with the storage of ground water withdrawn from a well. Excludes Bass Lake and Impoundment No. 5072 on the White Rock Project, both of which were included in the evaluation of irrigation reservoir storage.
- ³ Includes reservoirs classified by the US Survey as in-channel/well reservoirs. This type of reservoir is assumed to be supplied water from combined surface water and ground water sources. Excludes Sheep Dip Reservoir, which was included in the evaluation of irrigation reservoir storage.
- ⁴ Includes reservoirs classified by the US Survey as NIIP in-channel reservoirs. NIIP off-channel reservoirs are assumed to be supplied from the San Juan River via the NIIP canal, and thus the Navajo Nation's rights for storage and evaporation of water from NIIP off-channel reservoirs are included within the diversion and depletion rights for the NIIP provided by the Partial Final Decree that is Appendix 1 to the Settlement Agreement (see section 2(c)(2) of Public Law 87-483, as amended by section 10402(a) of Public Law 111-11) and are not to be included in the Supplemental Decree. NIIP in-channel reservoirs are assumed to be supplied from natural runoff above the reservoirs, though some might also receive water from the NIIP supply either directly or by capture of irrigation drainage before it can return to the river.
- ⁵ Total maximum surface areas for livestock reservoirs on Navajo Nation trust lands in the drainage within each quadrangle based on adjustments to the total areas claimed by the US Survey as described in Appendix E, table E-2.
- ⁶ Total storage volumes for livestock reservoirs on Navajo Nation trust lands in the drainage within each quadrangle based on adjustments to the total capacities claimed by the US Survey as described in Appendix E, table E-2.

Table 20. Adjusted Maximum Areas and Storage Volumes for Stock Ponds on Lands Held in Fee by the Navajo Nation in the San Juan River Basin in New Mexico

Quadrangle	Surface Water Reservoirs ¹		Ground Water Reservoirs ²		Combined Source Reservoirs ³		NIP Reservoirs ⁴		All Stock Reservoirs	
	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶	Adjusted Surface Area (acres) ⁵	Adjusted Storage Volume (acre-feet) ⁶
San Juan River Drainage above Chaco River										
San Juan County:										
Horn Canyon	1.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.4
Hugh Lake	0.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0
Gallegos Trading Post	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5
East Fork Kutz Canyon	1.5	2.9	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.9
Huerfano Peak	2.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.8
Thompson Mesa	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8
Crow Mesa West	3.6	7.1	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
County Subtotal	9.7	18.5	0.0	0.0	0.0	0.0	0.0	0.0	9.7	18.5
Rio Arriba County:										
Smouse Mesa	6.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	6.0	11.8
Gonzales Mesa	0.0	0.0	0.8	2.0	0.0	0.0	0.0	0.0	0.8	2.0
Crow Mesa East	2.8	5.0	1.5	3.4	0.0	0.0	0.0	0.0	4.0	8.4
Tafoya Canyon	12.5	24.5	0.5	1.1	0.0	0.0	0.0	0.0	13.0	25.6
Lybrook	8.9	17.4	0.0	0.0	0.0	0.0	0.0	0.0	8.9	17.4
Counselor	13.9	27.2	0.3	0.7	0.0	0.0	0.0	0.0	14.2	28.0
County Subtotal	43.8	85.8	3.1	7.2	0.0	0.0	0.0	0.0	46.9	93.0
Sandoval County:										
Counselor	15.8	31.0	0.3	0.6	0.0	0.0	0.0	0.0	16.1	31.6
Drainage above Chaco R. Total	69.3	135.3	3.3	7.8	0.0	0.0	0.0	0.0	72.7	143.1
Chaco River Drainage										
San Juan County:										
Tanner Lake										
Tanner Lake (P-1456)	24.7	48.4							24.7	48.4
Other	0.0	0.0	0.4	0.9	0.0	0.0	0.0	0.0	0.4	0.9
The Pillar 3 SE	0.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
La Vida Mission	0.6	1.1	0.3	0.8	0.0	0.0	0.0	0.0	0.9	1.9
Kin Klizhin Ruins	5.1	9.8	0.0	0.0	0.0	0.0	0.0	0.0	5.1	9.8
Pueblo Bonito	3.9	7.7	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.7
Sargent Ranch	37.7	72.3	0.3	0.6	0.0	0.0	0.0	0.0	37.9	72.9
Fire Rock Well	5.7	11.1	0.0	0.0	0.0	0.0	0.0	0.0	5.7	11.1
County Subtotal	78.5	152.0	1.0	2.3	0.0	0.0	0.0	0.0	79.5	154.2
McKinley County:										
Red Lake Well	5.5	10.7	0.0	0.0	0.0	0.0	0.0	0.0	5.5	10.7
Milk Lake	15.3	30.1	3.7	8.6	0.0	0.0	0.0	0.0	19.1	38.7
Nose Rock	32.0	62.7	0.8	1.9	0.0	0.0	0.0	0.0	32.8	64.6
Seven Lakes NW	19.9	39.1	1.9	4.5	0.0	0.0	0.0	0.0	21.8	43.5
Seven Lakes NE	8.7	17.1	1.6	3.8	0.0	0.0	0.0	0.0	10.4	20.9
Pueblo Pintado	4.0	7.8	0.1	0.2	0.0	0.0	0.0	0.0	4.1	8.0
Pueblo Alto Trading Post	4.7	9.2	0.1	0.2	0.0	0.0	0.0	0.0	4.8	9.5
Star Lake	1.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.5
Becenti Lake	74.2	145.4	0.0	0.0	0.0	0.0	0.0	0.0	74.2	145.4
Seven Lakes	20.3	39.9	0.4	1.0	0.0	0.0	0.0	0.0	20.8	40.8
Seven Lakes SE	22.7	44.4	1.6	3.7	0.0	0.0	0.0	0.0	24.2	48.1
Whitehorse Rincon	2.0	3.8	0.1	0.1	0.0	0.0	0.0	0.0	2.0	4.0
Heart Rock	2.4	4.8	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.8
Orphan Annie Rock	2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	5.0
County Subtotal	216.0	423.3	10.3	24.0	0.0	0.0	0.0	0.0	226.3	447.2
Chaco River Drainage Total	294.5	575.2	11.3	26.2	0.0	0.0	0.0	0.0	305.8	601.4
San Juan River Basin Total	363.8	710.5	14.6	34.0	0.0	0.0	0.0	0.0	378.4	744.6

Notes:

¹ Includes reservoirs classified by the US Survey as the following types: diversion, improved spring, in channel, in channel/spring, and off channel. These types of reservoirs are assumed to have variable supplies from surface water sources, including any spring discharges.

² Includes reservoirs classified by the US Survey as being associated with the storage of ground water withdrawn from a well.

³ Includes reservoirs classified by the US Survey as in channel/well reservoirs. This type of reservoir is assumed to be supplied water from combined surface water and ground water sources.

⁴ Includes reservoirs classified by the US Survey as NIP in channel reservoirs.

⁵ Total maximum surface areas for livestock reservoirs on Navajo Nation fee lands in the drainage within each quadrangle based on adjustments to the total areas claimed by the US Survey as described in Appendix E, table E-2.

⁶ Total storage volumes for livestock reservoirs on Navajo Nation fee lands in the drainage within each quadrangle based on adjustments to the total capacities claimed by the US Survey as described in Appendix E, table E-2.

Table 21. Comparison of Claimed and Adjusted Stock Pond Total Surface Areas to Total Stock Pond Areas Reported by Federal Agencies and Used by the Office of the State Engineer to Account Stock Pond Evaporation

	San Juan County	McKinley County	Rio Arriba County	Sandoval County	San Juan Basin Total
<u>A. Stock Water Reservoir Total Areas Claimed by the US Survey</u>					
Number of Livestock Reservoirs Claimed by the US Survey by Land Ownership Status:					
Stock ponds or reservoirs on Navajo Nation trust lands	851	275	2	10	1,138
Stock ponds or reservoirs on Navajo Nation fee lands	69	189	33	10	301
Stock ponds or reservoirs on Navajo allotments	132	141	0	17	290
Navajo Lands in San Juan River Basin Total	1,052	605	35	37	1,729
Amount of Total Area at Spillway Crest Claimed by the US Survey for Stock Water Reservoirs:					
Acres of stock ponds or reservoirs on Navajo Nation trust lands	2,292.5	932.5	0.2	45.7	3,270.9
Acres of stock ponds or reservoirs on Navajo Nation fee lands	144.2	303.8	49.3	16.9	514.2
Acres of stock ponds or reservoirs on Navajo allotments	683.9	657.6	0.0	41.3	1,382.8
Navajo Lands in San Juan River Basin Total Acres	3,120.6	1,893.9	49.5	103.9	5,167.9
Amount of Claimed Total Area for Stock Water Reservoirs, Excluding Certain Lakes: ¹					
Acres of stock ponds or reservoirs on Navajo Nation trust lands	2,040.8	627.2	0.2	45.7	2,713.9
Acres of stock ponds or reservoirs on Navajo Nation fee lands	90.4	303.8	49.3	16.9	460.4
Acres of stock ponds or reservoirs on Navajo allotments	295.5	657.6	0.0	41.3	994.4
Navajo Lands in San Juan River Basin Total Acres	2,426.7	1,588.6	49.5	103.9	4,168.6
Average Surface Area at Spillway Crest Claimed for Stock Water Reservoirs, Excluding Certain Lakes:					
Average area of reservoirs on Navajo Nation trust lands (ac/pond)	2.42	2.30	0.10	4.57	2.38
Average area of reservoirs on Navajo Nation fee lands (ac/pond)	1.33	1.61	1.49	1.69	1.53
Average area of reservoirs on Navajo allotments (ac/pond)	2.26	4.66	—	2.43	3.43
Weighted Average Area (ac/pond)	2.32	2.63	1.41	2.81	2.41
<u>B. Adjusted Stock Pond Maximum Areas²</u>					
Number of Stock Ponds by Land Ownership Status:					
Stock ponds or reservoirs on Navajo Nation trust lands	845	273	2	10	1,130
Stock ponds or reservoirs on Navajo Nation fee lands	69	189	33	10	301
Stock ponds or reservoirs on Navajo allotments	132	141	0	17	290
Navajo Lands in San Juan River Basin Total	1,046	603	35	37	1,721
Amount of Adjusted Maximum Surface Area for Stock Ponds:					
Acres of stock ponds or reservoirs on Navajo Nation trust lands	1,704.2	437.4	0.2	43.5	2,185.3
Acres of stock ponds or reservoirs on Navajo Nation fee lands	89.2	226.3	46.9	16.1	378.5
Acres of stock ponds or reservoirs on Navajo allotments	610.3	360.5	0.0	30.8	1,001.6
Navajo Lands in San Juan River Basin Total Acres	2,403.7	1,024.2	47.1	90.4	3,565.4
Amount of Adjusted Maximum Surface Area for Stock Ponds, Excluding Certain Lakes: ¹					
Acres of stock ponds or reservoirs on Navajo Nation trust lands	1,512.1	437.4	0.2	43.5	1,993.2
Acres of stock ponds or reservoirs on Navajo Nation fee lands	64.5	226.3	46.9	16.1	353.8
Acres of stock ponds or reservoirs on Navajo allotments	234.3	360.5	0.0	30.8	625.6
Navajo Lands in San Juan River Basin Total Acres	1,810.9	1,024.2	47.1	90.4	2,972.6
Adjusted Average Maximum Surface Area for Stock Ponds, Excluding Certain Lakes:					
Average area of reservoirs on Navajo Nation trust lands (ac/pond)	1.80	1.60	0.10	4.35	1.76
Average area of reservoirs on Navajo Nation fee lands (ac/pond)	0.95	1.20	1.42	1.61	1.18
Average area of reservoirs on Navajo allotments (ac/pond)	1.79	2.56	—	1.81	2.16
Weighted Average Area (ac/pond)	1.74	1.70	1.35	2.44	1.73

Table 21. Comparison of Claimed and Adjusted Stock Pond Total Surface Areas to Total Stock Pond Areas Reported by Federal Agencies and Used by the Office of the State Engineer to Account Stock Pond Evaporation (continued)

	San Juan County	McKinley County	Rio Arriba County	Sandoval County	San Juan Basin Total
C. Average Total Areas for Active Stock Ponds Reported by Federal Agencies:³					
Average area of stock ponds on Navajo land reported by BIA (ac/pond)	0.50	0.50	0.50	0.50	0.50
Average area of stock ponds on private land reported by SCS (ac/pond)	1.00	1.00	1.00	1.00	1.00
Weighted Average Area from Federal Agency Reports (ac/pond)	0.60	0.77	0.97	0.86	0.67

Notes:

¹ The OSE for water use accounting has included the following livestock reservoirs claimed by the US Survey under the accounting of evaporation from small lakes in the San Juan River Basin in New Mexico, as opposed to under the accounting of stock pond evaporation:

Impoundment Number	Reservoir	County	Quadrangle	Land Status	Total Area Claimed (acres)	NNDWR Surface Area (acres)	Adjusted Maximum Area (acres)
P-5088	Lost Lake	San Juan	Crystal	Trust Land	40.52		40.52
P-5092	Berland Lake	San Juan	Crystal	Trust Land	9.22	8.00	9.22
P-5081	Todacheene Lake	San Juan	Crystal	Trust Land	5.32	8.00	5.32
P-1092	Little White Cone Lake	San Juan	Upper Wheatfields	Trust Land	40.29		34.39
P-1108	Black Lake	San Juan	Sonsela Buttes	Trust Land	131.92		118.58
P-0040	Big Gap Reservoir	San Juan	Yellow Hill	Trust Land	24.47		18.44
P-1456	Tanner Lake	San Juan	Tanner Lake	Fee Land	53.80		24.67
P-0017	Juan's Lake	San Juan	La Vida Mission	Allotment	388.41	343.00	376.06
P-1823	Bass Lake	McKinley	Big Rock Hill	Trust Land	4.83		4.59
P-0042	Long Lake	McKinley	Washington Pass	Trust Land	300.48	397.00	258.42

Navajo Nation Department of Water Resources (NNDWR) reservoir statistics for certain reservoirs are from Draft Water Resource Development Strategy for the Navajo Nation, prepared by the NNDWR, and dated April 6, 2008 (table 3.2).

² Adjusted maximum surface areas for livestock reservoirs on Navajo lands based on adjustments to the total areas claimed by the US Survey as described in Appendix E, table E-2.

³ Average total areas for active (not silted or breached) stock ponds as of June 30, 1963, were reported for Navajo lands by BIA-Gallup and for private lands statewide by the SCS (see OSE Memorandum dated February 27, 1964, from E.F. Sorensen to J.C. Yates on Active Stock Ponds in New Mexico as of June 30, 1963). These pond areas, in addition to average total areas for active stock ponds statewide reported by the BLM (1.00 acre) and the US Forest Service (0.25 acre), were used by the OSE with pond count data by agency, county and basin to estimate the following average total stock pond areas by county for the San Juan River Basin: 0.68 acre for San Juan County, 0.80 acre for McKinley County, 0.82 acre for Rio Arriba County and 0.91 acre for Sandoval County (See spreadsheet entitled "1980 Stockpond Evaporation," prepared by Brian Wilson and dated August 31, 1981). Excludes the surface areas for certain lakes identified in note 1. Weighted average areas from federal agency reports assume that BIA data may apply to Navajo Nation trust lands and SCS data might apply to lands now claimed as Navajo Nation fee lands or Navajo allotments.