

Revision History: Memorandum to File from Patricia Turney dated November 6, 2000 -
Subject: *2000 San Juan River Basin Acreage Inventory*

January 17, 2002: Revised Table 1 and Table 2.

October 8, 2004: Revised Table 2 to remove the "Wild Native Vegetation" category acres from the "Acreage Not Irrigated" column, which also affected the "Total Acreage" amounts in column 13. Also revised Table 2 to disaggregate "Dulce" acres from "Above Navajo Dam" acres.

December 7, 2004: Revised NIIP data in Table 2 to reflect NIIP acreage by block for the years 2000 through 2003 inclusive, requested of and provided by Ron Bliesner, BIA NIIP consultant and revised the Memorandum's reference to NIIP acreage data.

MEMORANDUM

November 6, 2000

TO: File
FROM: Patricia Turney, ISC Staff
SUBJECT: 2000 San Juan River Basin Acreage Inventory

This memorandum summarizes the subject inventory's methodology, collected field data, analysis and future inventory plans. NMISC gratefully acknowledges the assistance of the Navajo Nation and the Jicarilla Apache Tribe in the field data collection efforts on their respective lands.

Inventory Methodology:

The complete data set for the inventory is contained in five ArcInfo coverages that correspond to the following geographic areas:

The San Juan River mainstem below Navajo Dam, Animas River, La Plata River, and a portion of the Chaco River drainage

Field delineations for this area were developed by the US Bureau of Reclamation (USBR) from 1:24,000 scale aerial photos, 1:24,000 scale orthophotos, quad sheets, and Landsat TM data (August 1992) for use in the 1994 San Juan Basin Irrigated Acreage Inventory. These delineations were revised by NMISC from field data collected during the summer of 2000 and from 1:12,000 scale 1997 and 1998 U.S. Geological Survey digital orthophoto quarter quad (DOQQ) imagery where necessary. NMISC contractors Kirby Chacon and Lyn Kirkpatrick collected parcel boundary changes to the 1994 inventory delineation, and crop type and irrigation method information for each parcel. On Navajo tribal lands, the Navajo Nation Department of Water Resources also participated in the data collection field work. NMISC staff input all field-collected data into the ArcInfo database.

The Los Pinos River above Navajo Reservoir

Field delineations for this area were developed by NMISC from U.S. Geological Survey DOQQs from National Aerial Photography Program photography flown in October 1997. NMISC contractors Kirby Chacon and Lyn Kirkpatrick delineated parcels in the field on 1:12,000 scale plots of the DOQQ imagery and collected crop type and irrigation method information for each parcel. Parcels were delineated on screen using the same digital imagery and the field collected boundary information. NMISC staff input all field-collected data into the ArcInfo database.

Dulce

Field delineations for this area were developed by NMISC from U.S. Geological Survey DOQQS from National Aerial Photography Program photography flown in October 1997. NMISC contractors Kirby Chacon and Lyn Kirkpatrick, assisted by U.S. Bureau of Indian Affairs (BIA) Jicarilla Agency personnel, delineated parcels in the field on 1:12,000 scale plots of the DOQQ imagery and collected crop type and irrigation method information for each parcel. Parcels were delineated on screen using the same digital imagery and the field collected boundary information. NMISC staff input all field-collected data into the ArcInfo database.

Navajo Indian Irrigation Project (NIIP)

The BIA Soils Lab south of Farmington provided NMISC with NIIP spatial database coverage, which data was included in the inventory analysis of the basin. NMISC updated NIIP acreage data on December 7, 2004, with data requested of and provided by Ron Bliesner, BIA NIIP consultant, which data included information on double-cropped acres not available from the aforementioned spatial database.

Crystal, Toadlena, Sheep Springs, Two Grey Hills

Field delineations for this area were developed by NMISC staff from U.S. Geological Survey DOQQs from National Aerial Photography Program photography flown in October 1997 and May 1998. These parcels were not field-checked and were not included in the inventory analysis of the basin.

Inventory Acreage Status:

NMISC contractors found the following irrigated crops and other acreage during the summer of 2000.

- Alfalfa
- Corn
- Garden
- High density single grass
- Low density mixed grass
- Wild native vegetation
- Lawn/turf
- Wheat, oats, barley
- Orchard
- Grapes
- Christmas Trees
- Fallow
- Plowed

NMISC staff aggregated the acres found irrigated based on original Blaney-Criddle seasonal crop coefficients.

<i>Crop-type</i>	<i>Aggregated-crops</i>
Alfalfa	Alfalfa
Lawn/turf	Sod
Corn	Corn/Sorghum
Garden	Misc. Vegetables
High-density single grass	Pasture
Low-density mixed grass	Pasture
Wild native vegetation	Pasture
Wild native vegetation	Orchard
Orchard	Orchard
Grapes	Orchard
Christmas Trees	Orchard
Wheat, oats, barley	Small Grains
Fallow/irrigated	Distributed across irrigated small grains, pasture, alfalfa
Plowed/irrigated	Distributed across irrigated small grains, pasture, alfalfa
Not marked	Blank (Distributed across all categories, including not irrigated)

NMISC contractor Kirby Chacon described irrigated wild native vegetation as primarily grass and brush, and in a few instances, brush, Salt Cedar, and/or Russian Olive. Irrigated wild native vegetation occurred infrequently. Occurrences were mainly in the Upper San Juan area with a few parcels in the Echo Ditch, Hammond and Animas River areas. Irrigated wild native vegetation parcels were further checked against 1997 and 1998 U.S. Geological Survey DOQQs to determine their general vegetative characteristics as grass or trees. Apparently grassy wild native vegetation parcels were aggregated to pasture. Apparently treed wild native vegetation parcels were aggregated to orchard.

Irrigated fallow parcels were generally sprinkler-irrigated, with ground conditions indicating no crop for at least a year and signs of a previous crop (such as corn husks) observed. These parcels were considered "diskable". Irrigated plowed parcels were found recently seeded and water applied.

All irrigated plowed parcels and all irrigated fallow parcels were distributed across the irrigated crop categories of small grains, pasture and alfalfa based on the overall cropping pattern for these categories in each irrigation area.

Of the 38,950 acres targeted for field data collection, 240 acres were not field-checked (approximately 0.6% of the total). For analysis purposes, NMISC staff distributed these 240 acres across all acreage categories, including not irrigated acreage, based on the overall cropping pattern for each irrigation area.

The NIIP spatial database coverage gives the following irrigated crops and other acreage during the summer of 2000.

- Alfalfa
- New Alfalfa
- Corn
- Hay Grazer
- Mint
- Pasture
- Potatoes
- Pumpkins
- Sod
- Winter Wheat
- Winter Wheat Graze Out
- Fallow
- Conservation Reserve Program

BIA Soils Lab personnel described all fallow acreage as not irrigated and all Conservation Reserve Program acreage as old side row irrigated fields planted back to native vegetation and initially irrigated to establish cover. All NIIP irrigated acreage is sprinkler irrigated.

NMISC staff aggregated the NIIP irrigated acres based on original Blaney-Criddle seasonal crop coefficients.

<i>Crop-type</i>	<i>% of aggregated category</i>	<i>Aggregated-crops</i>
Alfalfa	92%	Alfalfa
New Alfalfa	4%	Alfalfa
Mint	4%	Alfalfa
Sod	100%	Sod
Corn	90%	Corn/Sorghum
Haygrazer	10%	Corn/Sorghum
Potatoes	88%	Misc. Vegetables
Pumpkins	12%	Misc. Vegetables
Pasture	100%	Pasture
Winter Wheat	79%	Small Grains
Winter Wheat graze out	21%	Small Grains

Inventory Analysis

The following analysis of irrigated acreage is segregated by unit of location with hydrologic units being defined as drainage areas between streamflow gages. Specific irrigation areas within hydrologic units where it is deemed appropriate to distinguish between sources of irrigation water diversions further disaggregate the analysis. The data analysis is contained in the following tables and figure.

- Table 1 lists and describes the hydrologic units and the irrigation areas within each unit. Irrigation areas were also cartographically delineated, in part, in NMISC staff's memo to file dated June 11, 1997.
- Table 2 lists the acreage tally for the 2000 inventory. This tabulation was revised on September 28, 2004, to remove the "Wild Native Vegetation" category from the "Acreage Not Irrigated" amounts in column 12 which also affected the "Total Acreage" amounts in column 13. This tabulation was further revised on December 7, 2004, as previously described in this memorandum to reflect NIIP acreage by block as provided by Ron Bliesner, BIA NIIP consultant, for the years 2000 through 2003 inclusive.
- Figure 1 shows the mapped extent of the 2000 inventory. The figure includes some lakes and ponds in addition to lands under irrigation.

In addition to the targeted field data collection areas, NMISC staff found scattered irrigation in areas bounded by USGS quadrangles Crystal, Sheep Springs, Toadlena, and Two Grey Hills. NMISC staff observed these parcels on U.S. Geological Survey digital orthophoto imagery while making boundary changes to field-checked areas in the Newcomb area. No field data was collected for these parcels as they were not found until mid-October 2000. The imagery indicated that these parcels probably have a limited and insufficient water supply. They are not included in this analysis.

Future Inventory Plan

NMISC will update the San Juan River Basin Acreage Inventory in 2005 or as its priorities allow. The 2005 inventory will be based on 1:12,000 scale U. S. Geological Survey DOQQs or an equivalent digital imagery source and will be contained in a single ArcInfo database.

**TABLE 1. IRRIGATION AREAS IN THE SAN JUAN RIVER BASIN IN NEW MEXICO
BY HYDROLOGIC UNIT**

UNIT	DESCRIPTION OF HYDROLOGIC DRAINAGE	IRRIGATION AREAS IN UNIT
1	NAVAJO RIVER, PINE RIVER, AND SAN JUAN RIVER ABOVE NAVAJO DAM	ABOVE NAVAJO DAM
2	ANIMAS RIVER ABOVE THE ANIMAS RIVER AT FARMINGTON GAGE	ANIMAS RIVER
3	SAN JUAN RIVER BELOW NAVAJO DAM AND ABOVE THE SAN JUAN RIVER AT FARMINGTON GAGE (EXCLUDING UNIT 2)	ABOVE ARCHULETA, CITIZEN'S DITCH, ARCHULETA DITCH, TURLEY DITCH, HAMMOND AREA (1), NIIP BLOCKS 1, 4, 5, & 6 (2%), ECHO (2)
4	LA PLATA RIVER ABOVE LA PLATA RIVER NEAR FARMINGTON GAGE	UPPER LA PLATA (3), LA PLATA RIVER
5	CHACO RIVER ABOVE MOUTH	CHACO RIVER, NIIP BLOCKS 3 (87%) & 7 (26%)
6	SAN JUAN RIVER BELOW THE SAN JUAN RIVER AT FARMINGTON GAGE AND ABOVE THE SAN JUAN RIVER AT SHIPROCK GAGE (EXCLUDING UNITS 4 AND 5)	FARMINGTON GLADE (4), FARMERS MUTUAL DITCH (5), JEWETT VALLEY, WESTWATER, FRUITLAND, HOGBACK-EAST (6), CAMBRIDGE, NIIP BLOCKS 2, 3 (13%), 6 (98%), & 7 (74%)
7	SAN JUAN RIVER BELOW THE SAN JUAN RIVER AT SHIPROCK GAGE (EXCLUDING UNIT 8)	HOGBACK-WEST (7), CUDEI
8	WHISKEY CREEK DRAINAGE, RED WASH	WHISKEY CREEK

NOTES:

- (1) INCLUDES HAMMOND PROJECT AND ACREAGE WITH PRIVATE WATER RIGHTS EXCLUSIVE FROM THE HAMMOND PROJECT.
- (2) INCLUDES ONLY THAT PORTION OF ACREAGE SERVED BY ANY DITCH DIVERSION FROM ANIMAS RIVER FOR WHICH RETURN FLOW OCCURS BELOW THE ANIMAS RIVER AT FARMINGTON GAGE OR TO THE SAN JUAN RIVER ABOVE THE MOUTH OF THE ANIMAS RIVER
- (3) INCLUDES ONLY ACREAGE SERVED BY DIVERSIONS FROM THE LA PLATA RIVER ABOVE THE LA PLATA RIVER AT STATELINE GAGE. THE ENTERPRISE DITCH SERVES LANDS IN THIS AREA AND IN COLORADO.
- (4) INCLUDES ONLY ACREAGE SERVED BY DIVERSION FROM ANIMAS RIVER FOR WHICH RETURN FLOW OCCURS TO THE SAN JUAN RIVER BELOW THE SAN JUAN RIVER AT FARMINGTON GAGE.
- (5) DIVERSION SERVING THIS AREA IS FROM ANIMAS RIVER BELOW THE ANIMAS RIVER AT FARMINGTON GAGE AND IS SUPPLEMENTED BY DIVERSION FROM THE SAN JUAN RIVER BELOW THE SAN JUAN RIVER AT FARMINGTON GAGE.
- (6) INCLUDES ONLY THAT PORTION OF THE HOGBACK PROJECT ABOVE SHIPROCK.
- (7) INCLUDES ONLY THAT PORTION OF THE HOGBACK PROJECT BELOW SHIPROCK, INCLUDING THE HOGBACK EXTENSION, WHICH IS SERVED BY DIVERSION FROM THE SAN JUAN RIVER ABOVE THE SAN JUAN RIVER AT SHIPROCK GAGE.
- (8) THE WHISKEY CREEK AREA WAS NOT FIELD-CHECKED AND IS NOT INCLUDED IN THIS ANALYSIS

TABLE 2. 2000 CROP ACREAGE DATA FOR THE SAN JUAN RIVER BASIN IN NEW MEXICO BY AREA

HYDROLOGIC UNIT	IRRIGATION AREA	ITEM	CROP CATEGORY				PASTURE	SOD	SMALL GRAINS	TOTAL ACREAGE IRRIGATED	ACREAGE NOT IRRIGATED	TOTAL ACREAGE
			ALFALFA	CORN/ SORGHUM	MISC. VEGET.	ORCHARD						
1	ABOVE NAVAJO DAM	TOTAL ACRES	61	0	0	0	99	0	0	161	331	492
		% DISTRIB.	38	0	0	0	62	0	0			
		Flood-irrigated	56	0	0	0	82	0	0	137		
		Sprinkler-irrigated	6	0	0	0	18	0	23			
		Drip-irrigated	0	0	0	0	0	0	0			
1	DULCE	TOTAL ACRES	7	0	0	0	8	0	0	14	1,260	1,274
		% DISTRIB.	46	0	0	0	54	0	0			
		Flood-irrigated	7	0	0	0	8	0	0	14		
		Sprinkler-irrigated	0	0	0	0	0	0	0			
		Drip-irrigated	0	0	0	0	0	0	0			
2	ANIMAS RIVER	TOTAL ACRES	1,058	126	38	78	2,913	152	82	4,447	1,417	5,864
		% DISTRIB.	24	3	1	2	66	3	2			
		Flood-irrigated	637	126	9	78	2,644	74	82	3,650		
		Sprinkler-irrigated	421	0	29	0	269	78	0	797		
		Drip-irrigated	0	0	0	0	0	0	0	0		
3	ECHO	TOTAL ACRES	160	2	18	41	207	14	0	442	129	571
		% DISTRIB.	36	0	4	9	47	3	0			
		Flood-irrigated	53	2	14	39	172	0	0	280		
		Sprinkler-irrigated	106	0	4	2	35	14	0	161		
		Drip-irrigated	0	0	0	0	0	0	0	0		
3	ARCHULETA DITCH	TOTAL ACRES	10	0	0	3	7	0	0	20	34	54
		% DISTRIB.	49	0	0	16	34	0	0			
		Flood-irrigated	0	0	0	3	7	0	0	10		
		Sprinkler-irrigated	10	0	0	0	0	0	0	0	10	
		Drip-irrigated	0	0	0	0	0	0	0	0	0	

Revised 10/08/2004, to remove "Wild Native Vegetation" acres from "Acreage Not Irrigated" column and to disaggregate "Dulce" area from "Above Navajo Dam" area

TABLE 2. 2000 CROP ACREAGE DATA FOR THE SAN JUAN RIVER BASIN IN NEW MEXICO BY AREA

HYDROLOGIC UNIT	IRRIGATION AREA	ITEM	ALFALFA	CORN/ SORGHUM	CROP CATEGORY		PASTURE	SOD	SMALL GRAINS	TOTAL ACREAGE IRRIGATED	ACREAGE NOT IRRIGATED	TOTAL ACREAGE
					VEGET.	MISC.						
3	CITIZENS DITCH	TOTAL ACRES	650	22	3	18	1,701	72	179	2,645	225	2,870
		% DISTRIB.	25	1	0	1	64	3	7			
		Flood-irrigated	169	18	3	12	1,166	0	12	1,379		
		Sprinkler-irrigated	482	4	0	5	536	72	167	1,265		
		Drip-irrigated	0	0	0	1	0	0	0	1		
3	TURLEY DITCH	TOTAL ACRES	0	0	0	0	163	3	3	169	14	183
		% DISTRIB.	0	0	0	0	97	1	2			
		Flood-irrigated	0	0	0	0	158	3	2	162		
		Sprinkler-irrigated	0	0	0	0	5	0	2	7		
		Drip-irrigated	0	0	0	0	0	0	0	0		
3	HAMMOND	TOTAL ACRES	1,910	39	1	3	1,151	78	61	3,242	227	3,469
		% DISTRIB.	59	1	0	0	36	2	2			
		Flood-irrigated	76	0	0	0	73	0	0	149		
		Sprinkler-irrigated	1,834	39	1	3	1,078	78	61	3,093		
		Drip-irrigated	0	0	0	0	0	0	0	0		
3	NIIP	TOTAL ACRES	829	4,258	8,266	0	0	681	3,785	17,819	7,885	25,703
		% DISTRIB.	5	24	46	0	0	0	4	21		
		TOTAL ACRES	0	0	0	0	114	7	0	122	67	189
4	UPPER LA PLATA	% DISTRIB.	0	0	0	0	94	6	0			
		Flood-irrigated	0	0	0	0	18	0	0	18		
		Sprinkler-irrigated	0	0	0	0	97	7	0	104		
		Drip-irrigated	0	0	0	0	0	0	0			
4	LA PLATA RIVER	TOTAL ACRES	565	2	0	0	1,909	0	69	2,545	1,531	4,076
		% DISTRIB.	22	0	0	0	75	0	3			
		Flood-irrigated	512	2	0	0	1,486	0	37	2,037		
		Sprinkler-irrigated	53	0	0	423	0	32	508			
		Drip-irrigated	0	0	0	0	0	0	0			

Revised 10/08/2004, to remove "Wild Native Vegetation" acres from "Acreage Not Irrigated" column and to disaggregate "Dulce" area from "Above Navajo Dam" area

TABLE 2. 2000 CROP ACREAGE DATA FOR THE SAN JUAN RIVER BASIN IN NEW MEXICO BY AREA

HYDROLOGIC UNIT	IRRIGATION AREA	ITEM	ALFALFA	SORGHUM	CROP CATEGORY		PASTURE	SOD	SMALL GRAINS	TOTAL ACREAGE IRRIGATED	ACREAGE NOT IRRIGATED	TOTAL ACREAGE
					CORN/	MISC.						
						VEGET.						
5	CHACO RIVER	TOTAL ACRES	140	31	16	1	118	0	0	306	547	852
		% DISTRIB.	46	10	5	0	39	0	0			
			140	31	16	1	118	0	0	306		
		<i>Flood-irrigated</i>										
		<i>Sprinkler-irrigated</i>	0	0	0	0	0	0	0	0	0	
		<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0	0	
5	NIIP	TOTAL ACRES	1,848	2,712	498	0	0	0	1,261	6,319	2,111	8,430
		% DISTRIB.	29	43	8	0	0	0	20			
6	FARMERS MUTUAL DITCH	TOTAL ACRES	1,556	82	1	31	406	8	0	2,085	523	2,607
		% DISTRIB.	75	4	0	1	19	0	0			
		<i>Flood-irrigated</i>	1,455	82	0	31	406	0	0	1,974		
		<i>Sprinkler-irrigated</i>	101	0	0	0	0	8	0	110		
		<i>Drip-irrigated</i>	0	0	1	0	0	0	0	1		
6	JEWETT VALLEY DITCH	TOTAL ACRES	718	19	1	0	98	0	26	862	189	1,051
		% DISTRIB.	83	2	0	0	11	0	3			
		<i>Flood-irrigated</i>	636	19	1	0	98	0	26	780		
		<i>Sprinkler-irrigated</i>	82	0	0	0	0	0	0	82		
		<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0		
6	WESTWATER	TOTAL ACRES	62	0	0	0	0	0	0	62	0	62
		% DISTRIB.	100	0	0	0	0	0	0	100		
		<i>Flood-irrigated</i>	62	0	0	0	0	0	0	62		
		<i>Sprinkler-irrigated</i>	0	0	0	0	0	0	0	0		
		<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0		
6	CAMBRIDGE	TOTAL ACRES	5	7	5	1	35	0	3	55	7	62
		% DISTRIB.	9	12	9	1	64	0	5			
		<i>Flood-irrigated</i>	5	7	5	1	35	0	3	55		
		<i>Sprinkler-irrigated</i>	0	0	0	0	0	0	0	0		
		<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0		

Revised 10/08/2004, to remove "Wild Native Vegetation" acres from "Acreage Not Irrigated" column and to disaggregate "Dulce" area from "Above Navajo Dam" area

TABLE 2. 2000 CROP ACREAGE DATA FOR THE SAN JUAN RIVER BASIN IN NEW MEXICO BY AREA												
HYDROLOGIC UNIT	IRRIGATION AREA	ITEM	ALFALFA	SORGHUM	CROP CATEGORY		PASTURE	SOD	SMALL GRAINS	TOTAL ACREAGE IRRIGATED	ACREAGE NOT IRRIGATED	TOTAL ACREAGE
					VEGET.	ORCHARD						
6	FRUITLAND	TOTAL ACRES	1,353	316	123	4	240	1	48	2,083	1,113	3,197
		% DISTRIB.	65	15	6	0	12	0	2			
		Flood-irrigated	1,334	316	123	4	240	0	48	2,064		
		Sprinkler-irrigated	19	0	0	0	0	0	19			
		Drip-irrigated	0	0	0	0	0	0	0			
6	HOGBACK-EAST	TOTAL ACRES	535	198	73	5	129	2	49	990	913	1,903
		% DISTRIB.	54	20	7	0	13	0	5			
		Flood-irrigated	535	198	73	5	129	2	49	990		
		Sprinkler-irrigated	0	0	0	0	0	0	0			
		Drip-irrigated	0	0	0	0	0	0	0			
6	FARMINGTON GLADE	TOTAL ACRES	0	0	1	0	66	20	0	87	98	184
		% DISTRIB.	0	0	1	0	76	23	0			
		Flood-irrigated	0	0	1	0	66	0	0	66		
		Sprinkler-irrigated	0	0	0	0	0	20	20			
		Drip-irrigated	0	0	0	0	0	0	0			
6	NIIP	TOTAL ACRES	6,680	4,231	3,479	224	0	0	3,900	18,513	4,473	22,987
		% DISTRIB.	36	23	19	1	0	0	21			
		Flood-irrigated	6,680	4,231	3,479	224	0	0	3,900	18,513	4,473	22,987
7	HOGBACK-WEST	TOTAL ACRES	1,113	277	113	6	298	3	33	1,842	1,807	3,649
		% DISTRIB.	60	15	6	0	16	0	2			
		Flood-irrigated	1,103	277	113	6	298	3	33	1,832		
		Sprinkler-irrigated	10	0	0	0	0	0	10			
		Drip-irrigated	0	0	0	0	0	0	0			
7	CUDEI	TOTAL ACRES	146	59	11	0	75	0	22	312	228	541
		% DISTRIB.	47	19	3	0	24	0	7			
		Flood-irrigated	146	59	11	0	75	0	22	312		
		Sprinkler-irrigated	0	0	0	0	0	0	0			
		Drip-irrigated	0	0	0	0	0	0	0			

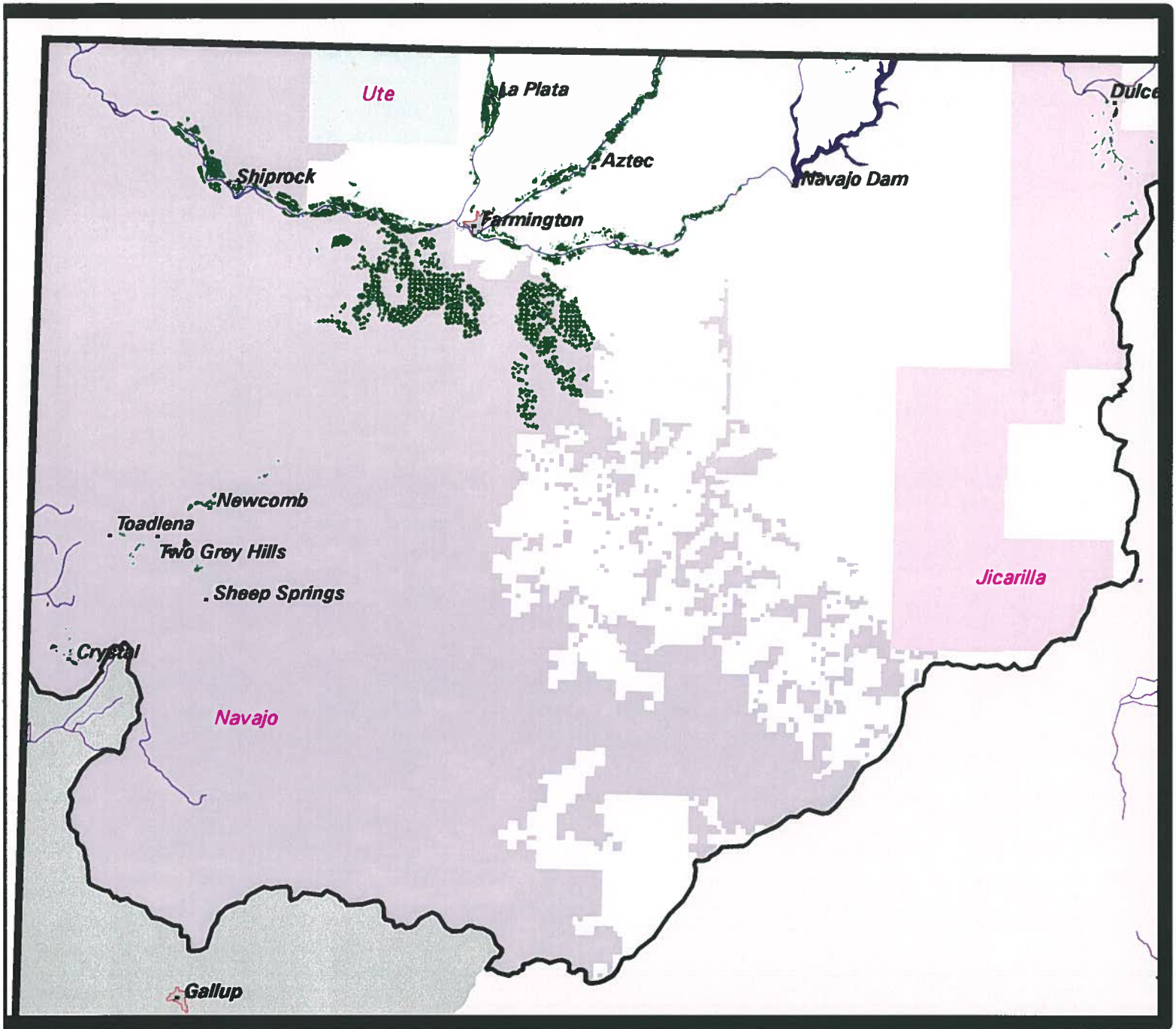
Revised 10/08/2004, to remove "Wild Native Vegetation" acres from "Acreage Not Irrigated" column and to disaggregate "Dulce" area from "Above Navajo Dam" area

TABLE 2. 2000 CROP ACREAGE DATA FOR THE SAN JUAN RIVER BASIN IN NEW MEXICO BY AREA

HYDROLOGIC UNIT	IRRIGATION AREA	ITEM	ALFALFA	CORN/ SORGHUM	CROP CATEGORY		PASTURE	SOD	SMALL GRAINS	TOTAL ACREAGE IRRIGATED	ACREAGE NOT IRRIGATED	TOTAL ACREAGE	
					VEGET.	ORCHARD							
ARCHULETA DITCH, CITIZENS DITCH TURLEY DITCH, HAMMOND FARMERS MUTUAL DITCH	TOTAL ACRES % DISTRIB.		4,906	161	6	55	3,527	160	269	9,084	1,212	49,548	
			54	2	0	1	39	2	3				
		<i>Flood-irrigated</i>	2,397	118	4	47	1,908	3	39	4,516			
JEWETT VALLEY AND WESTWATER COMBINED	TOTAL ACRES % DISTRIB.	<i>Sprinkler-irrigated</i>	2,509	43	1	8	1,619	158	229	4,567			
		<i>Drip-irrigated</i>	0	0	1	1	0	0	0	2			
ANIMAS RIVER, ECHO, AND FARMINGTON GLADE COMBINED	TOTAL ACRES % DISTRIB.		1,218	128	57	120	3,186	186	82	4,975	1,644	61,330	
			24	3	1	2	64	4	2				
		<i>Flood-irrigated</i>	690	128	24	117	2,882	74	82	3,997			
UPPER LA PLATA AND LA PLATA RIVER COMBINED	TOTAL ACRES % DISTRIB.	<i>Sprinkler-irrigated</i>	527	0	33	2	304	112	0	979			
		<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0			
			565	2	0	0	2,024	7	69	2,667	1,599	4,266	
FRUITLAND, CAMBRIDGE AND HOGBACK-EAST COMBINED	TOTAL ACRES % DISTRIB.		1,888	514	196	9	368	3	96	3,074	2,034	5,107	
			61	17	6	0	12	0	3				
		<i>Flood-irrigated</i>	1,869	514	196	9	368	2	96	3,054			
HOGBACK-WEST AND CUDEI COMBINED	TOTAL ACRES % DISTRIB.	<i>Sprinkler-irrigated</i>	19	0	0	0	520	7	32	612			
		<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0			
			1,258	336	124	6	372	3	56	2,154	2,035	4,190	
NAVAJO INDIAN IRRIGATION PROJECT	TOTAL ACRES % DISTRIB.		58	16	6	0	17	0	3				
		<i>Flood-irrigated</i>	1,248	336	124	6	372	3	56	2,144			
		<i>Sprinkler-irrigated</i>	10	0	0	0	0	0	0	10			
NAVAJO INDIAN IRRIGATION PROJECT	TOTAL ACRES % DISTRIB.	<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0			
			9,356	11,201	12,243	224	0	681	8,946	42,651	14,469	57,120	
			22	26	29	1	0	2	21				
NAVAJO INDIAN IRRIGATION PROJECT	TOTAL ACRES % DISTRIB.		0	0	0	0	0	0	0	0			
		<i>Flood-irrigated</i>	0	0	0	0	0	0	0	0			
		<i>Sprinkler-irrigated</i>	9,356	11,201	12,243	224	0	681	8,946	42,651			
NAVAJO INDIAN IRRIGATION PROJECT	TOTAL ACRES % DISTRIB.	<i>Drip-irrigated</i>	0	0	0	0	0	0	0	0			
			0	0	0	0	0	0	0	0			
			0	0	0	0	0	0	0	0			

Revised 10/08/2004, to remove "Wild Native Vegetation" acres from "Acreage Not Irrigated" column and to disaggregate "Dulce" area from "Above Navajo Dam" area

Figure 1

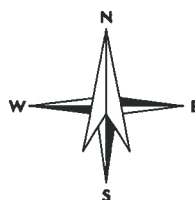


San Juan Basin 2000 Acreage Inventory Extent

SCALE 1:970000



MILES



Projection ALBERS
 Datum NAD27
 Zunits NO
 Units FEET
 Spheroid CLARKE1866
 Xshift 0.000000000
 Yshift 0.000000000
 Generalize 0.000000000
 Parameters
 32 25 0.000 /* 1st standard parallel
 36 5 0.000 /* 2nd standard parallel
 -106 0 0.000 /* central meridian
 35 0 0.000 /* latitude of projection's origin
 0.00000 /* false easting (meters)
 0.00000 /* false northing (meters)