

Revision History: Memorandum to File from Patricia Turney dated August 7, 2008

- Subject: *2007 San Juan River Basin Acreage Inventory*

September 4, 2008. Table 2 was revised to adjust acreage attributed to the Citizens Ditch, Turley Ditch, Hammond Area, Farmers Mutual Ditch and Jewett Valley.

MEMORANDUM

August 7, 2008

TO: File
FROM: Patricia Turney, NMISC Staff
SUBJECT: 2007 San Juan River Basin Acreage Inventory

This memorandum summarizes the subject inventory's methodology, collected field data, and analysis. NMISC gratefully acknowledges the assistance of the Navajo Nation in allowing the field data collection efforts to proceed on the Nation's lands.

Inventory Methodology and Collected Field Data

NMISC staff developed cultivated field delineations based on aerial photography flown in 2005 and 2006 that became available as a DOQQ product in January 2007, from the New Mexico Geospatial Data Acquisition Coordination Committee. NMISC contractors Garda Stock and Thelma Yazzie collected crop type and irrigation method information for each parcel and indicated boundary changes where appropriate. The ArcInfo database and its associated metadata are available from the author.

NMISC contractors and staff identified the following irrigated crops and other acreage in the Basin during the summer of 2007.

Alfalfa	High density single grass
New alfalfa	Low density mixed grass
Turfgrass	Trees, fruit
Grapes	Trees, other
Corn	Sorghum
Wheat	Oats
Garden	Chile
Potatoes	Fallow
Pumpkins	Plowed ground
Melons	Cleared land
Grapes	Wild native vegetation

NMISC staff aggregated the acres found irrigated as follows for purposes of comparing 2007 data with earlier years of inventory level data.

2007 Crop	Aggregated Crop
Alfalfa, New alfalfa	Alfalfa
Lawn, Turf grass	Sod
Corn, Sorghum	Corn/Sorghum
Garden, Pumpkins, Potatoes, Melons, Chile	Misc. Vegetables
High-density, single grass	Pasture
Low-density mixed grass	Pasture
Trees	Orchard
Grapes	Orchard
Wheat, Oats	Small Grains
Fallow/irrigated	Distributed across irrigated small grains, pasture, alfalfa
Plowed/irrigated	Distributed across irrigated small grains, pasture, alfalfa
Unmarked, cleared land, or plowed ground with no irrigation status	Distributed across all categories, including not irrigated

Inventory Data Analysis

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.
- Table 2 lists the acreage distribution for the 2007 inventory.
- Figure 1 shows the extent of the San Juan River Basin 2007 inventory.

For analysis purposes, 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 areas targeted for field data collection, 157 acres were not field-checked, 12 acres were classified as cleared land with no associated irrigation status (i.e., flood, sprinkler, drip or not irrigated) and 355 acres were classified as plowed ground with no associated irrigation status. For analysis purposes, NMISC staff distributed these 524 acres across all acreage categories, including not irrigated acreage, based on the overall cropping pattern for each irrigation area within which they were found. Parcels found not irrigated and categorized as “wild native vegetation” or “grass, mixed varieties, low density (including native grasses)” were not included in the categorical distribution and are not included in Table 2. These categories in a non-irrigated state represent natural vegetation that may include both native and introduced species, which grows without benefit of intentional cultivation.

Table 2 acreage data also includes golf courses and residential yards not supplied from municipal water supply systems and not field-checked during the inventory. Golf course acres are directly computed from DOQQ aerial photography and other information sources as described in Memorandum to File dated October 24, 2005, entitled *Golf Course Watering in the San Juan Basin*. Residential yard acres are estimated as described in Memorandum to File dated September 10, 1997, entitled *Residential Yard Watering in the San Juan Basin*.

**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, 8 (5%), Echo (2)
4	La Plata River above La Plata River near Farmington gage	Upper La Plata (3), La Plata River
5	Chaco River above the mouth	Chaco River, NIIP blocks 3 (89%), 7 (26%) & 8 (84%)
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, Fruitland, Hogback-East (6), Cambridge, NIIP Blocks 2, 6, 3 (11%), 7 (74%) & 8 (11%)
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, Red Wash

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 the 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 drainage includes the Crystal, New Mexico area that drains to Chinle Wash. Its confluence with the San Juan River is located below Bluff, Utah. The Red Wash confluence with the San Juan River is located in New Mexico just east of the Arizona-New Mexico state line.

Table 2

9/5/2008

IRRIGATION AREA ANIMAS 2007 Hydrologic Unit 2	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod
	Alfalfa hay	Flood	1157.8							1157.8
	Alfalfa, new	Flood	77.9							77.9
	Corn, grain	Flood		22.9						22.9
	Chile	Flood			2.8					2.8
	Misc. vegetables	Flood			84.8					84.8
	Pasture, native	Flood						2140.9		2140.9
	Pasture, improved	Flood						116.3		116.3
	Turfgrass, cool season	Flood							184.0	184.0
	Misc. fruit orchards	Flood				29.7				29.7
	Vineyards	Flood				0.0				0.0
	Christmas trees	Flood				0.0				0.0
	Misc. field crops	Flood				0.0				0.0
	Spring small grain	Flood						0.0	3.4	3.4
	Winter small grain	Flood							0.0	0.0
	Total Flood-irrigated		1235.7	22.9	87.6	29.7	2257.3	3.4	184.0	3820.5
	Alfalfa hay	Sprinkler	508.9							508.9
	Alfalfa, new	Sprinkler	2.8							2.8
	Misc. vegetables	Sprinkler			10.3					10.3
	Pasture, native	Sprinkler					591.4			591.4
	Pasture, improved	Sprinkler					164.7			164.7
	Turfgrass, cool season	Sprinkler						0.0	294.4	294.4
	Spring small grain	Sprinkler						0.0	39.3	39.3
	Winter small grain	Sprinkler							0.0	0.0
	Misc. fruit orchards	Sprinkler							2.3	2.3
	Total Sprinkler-irrigated		511.7	0.0	10.3	2.3	756.1	39.3	294.4	1614.0
	Misc. fruit orchards	Drip							1.2	1.2
	Vineyards	Drip							0.0	0.0
	Total Drip-irrigated		0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2
	Alfalfa hay	Not irrigated								0.0
	Fallow	Not irrigated					0.0			0.0
	Spring small grain	Not irrigated								278.3
	Winter small grain	Not irrigated								0.0
	Turfgrass, cool season	Not irrigated								0.0
	Misc. fruit orchards	Not irrigated								0.0
	Plowed	Not irrigated								0.0
	Total Not Irrigated									281.8
	Total Irrigated Acres		1747.4	22.9	97.9	33.1	3013.3	42.7	478.4	5435.7
	Percentage of total irrigated acres		32.1%	0.4%	1.8%	0.6%	55.4%	0.8%	8.8%	
	Total Acres									5717.5

Includes golf course watering

Table 2

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IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total											
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod										
ECHO AREA 2007																				
Hydrologic Unit 3																				
	Alfalfa hay	Flood	62.5																	62.5
	Corn, grain	Flood		0.0																0.0
	Misc. vegetables	Flood				17.9														17.9
	Pasture, native	Flood						71.4												71.4
	Pasture, improved	Flood						0.0												0.0
	Misc. field crops	Flood																		0.0
	Turfgrass, cool season	Flood																		0.0
	Misc. fruit orchards	Flood					19.7													19.7
	Christmas trees	Flood					4.2													4.2
	Spring small grain	Flood																		0.0
	Winter small grain	Flood																		0.0
	Vineyards	Flood					0.0													0.0
	Total Flood-Irrigated		62.5	0.0	0.0	17.9	23.9	71.4	0.0	4.7	3.1	183.5								
	Alfalfa hay	Sprinkler	68.1																	68.1
	Alfalfa (new, 1st year)	Sprinkler	38.6			0.0														38.6
	Misc. vegetables	Sprinkler																		0.0
	Pasture, native	Sprinkler						49.6												49.6
	Pasture, improved	Sprinkler						0.0												0.0
	Turfgrass, cool season	Sprinkler																		0.0
	Misc. fruit orchards	Sprinkler									20.2									20.2
	Spring small grain	Sprinkler						0.4												0.4
	Winter small grain	Sprinkler																		0.0
	Total Sprinkler-irrigated		106.7	0.0	0.0	0.0	0.0	50.0	0.0	0.0	20.2	176.9								
	Misc. fruit orchards	Drip					0.0													0.0
	Vineyards	Drip					0.0													0.0
	Total Drip-irrigated						0.0													0.0
	Alfalfa hay	Not irrigated																		0.0
	Fallow	Not irrigated																		0.0
	Spring small grain	Not irrigated																		2.7
	Plowed	Not irrigated																		0.0
	Total Not Irrigated																			2.7
	Total Irrigated Acres		169.2	0.0	0.0	17.9	23.9	121.4	0.0	4.7	23.3	360.4								
	Percentage of total irrigated acres		46.9%	0.0%	0.0%	5.0%	6.6%	33.7%	0.0%	1.3%	6.5%									
	Total Acres											398.5								

Table 2

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IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total												
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod											
FARMINGTON GLADE 2007	Hydrologic Unit 6																				
	Alfalfa hay	Flood	1.0																	1.0	
	Corn, grain	Flood			22.2															22.2	
	Misc. vegetables	Flood				0.2														0.2	
	Pasture, native	Flood																		25.8	
	Pasture, improved	Flood																		0.0	
	Turfgrass, cool season	Flood																		0.0	
	Misc. fruit orchards	Flood						9.9												9.9	
	Corn, grain	Flood						0.0												0.0	
	Christmas trees	Flood																		0.0	
	Spring small grains	Flood																		0.0	
	Winter small grains	Flood																		0.0	
	Total Flood-irrigated			1.0	22.2	0.2	9.9	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.2	
	Alfalfa hay	Sprinkler																			0.0
	Corn, grain	Sprinkler																			0.0
Misc. vegetables	Sprinkler				0.3															0.3	
Pasture, native	Sprinkler																			14.8	
Pasture, improved	Sprinkler																			0.0	
Turfgrass, cool season	Sprinkler																			7.8	
Misc. fruit orchards	Sprinkler																			0.0	
Spring small grains	Sprinkler																			0.0	
Winter small grains	Sprinkler																			0.0	
Total Sprinkler-irrigated			0.0	0.0	0.3	0.0	14.8	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.9		
Misc. fruit orchards	Drip																			0.0	
Vineyards	Drip																			0.0	
Total Drip-irrigated			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Corn, grain	Not irrigated																			0.0	
Fallow	Not irrigated																			28.5	
Misc. fruit orchards	Not irrigated																			0.0	
Plowed	Not irrigated																			0.0	
Total Not irrigated																				28.5	
Total Irrigated Acres			1.0	22.2	0.5	9.9	40.6	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.1		
Percentage of total irrigated acres			1.2%	27.1%	0.6%	12.1%	49.4%	0.0%	9.5%												
Total Acres																				110.6	

Table 2

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IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS							Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains	Sod		
UPPER LA PLATA 2007	Hydrologic Unit 4										
	Alfalfa hay	Flood	1.8								1.8
	Corn, grain	Flood		0.0							0.0
	Misc. vegetables	Flood			0.0						0.0
	Pasture, native	Flood					37.7				37.7
	Pasture, improved	Flood					0.0				0.0
	Turfgrass, cool season	Flood							2.7		2.7
	Misc. fruit orchards	Flood				0.0					0.0
	Christmas Trees	Flood				0.0					0.0
	Spring small grains	Flood							0.0		0.0
	Winter small grains	Flood							0.0		0.0
	Total Flood-irrigated			1.8	0.0	0.0	0.0	37.7	0.0	2.7	42.2
	Alfalfa hay	Sprinkler	48.3								48.3
	Alfalfa hay	Sprinkler	2.2								2.2
	Misc. vegetables	Sprinkler			0.0						0.0
Pasture, native	Sprinkler					0.0				0.0	
Pasture, improved	Sprinkler					0.0				0.0	
Turfgrass, cool season	Sprinkler							0.9		0.9	
Spring small grains	Sprinkler							0.0		0.0	
Winter small grains	Sprinkler							0.0		0.0	
Misc. fruit orchards	Sprinkler				0.0					0.0	
Total Sprinkler-irrigated			50.5	0.0	0.0	0.0	0.0	0.0	0.9	51.5	
Misc. fruit orchards	Drip									0.0	
Vineyards	Drip									0.0	
Misc. vegetables	Drip									0.0	
Total Drip-irrigated										0.0	
Alfalfa hay	Not irrigated									0.0	
Corn, grain	Not irrigated									0.0	
Fallow	Not irrigated									0.0	
Spring small grains	Not irrigated									0.0	
Winter small grains	Not irrigated									0.0	
Total Not irrigated										0.0	
Total Irrigated Acres			52.3	0.0	0.0	0.0	37.7	0.0	3.7	93.7	
Percentage of total irrigated acres			55.8%	0.0%	0.0%	0.0%	40.2%	0.0%	3.9%		
Total Acres										99.9	

Table 2

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IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains	Sod	Total	
LA PLATA 2007 Hydrologic Unit 4	Alfalfa hay	Flood	763.7							763.7	
	Alfalfa, new	Flood	12.5							12.5	
	Misc. Field Crops	Flood					0.0			0.0	
	Sorghum, grain	Flood			0.0					0.0	
	Misc. vegetables	Flood					3.0			3.0	
	Pasture, native	Flood					1095.9			1095.9	
	Pasture, improved	Flood					87.3			87.3	
	Turfgrass, cool season	Flood							7.0	7.0	
	Misc. fruit orchards	Flood				1.0				1.0	
	Spring small grains	Flood						101.9		101.9	
	Winter small grains	Flood						0.0		0.0	
	Vineyards	Flood				0.0				0.0	
	Total Flood-irrigated			776.2	0.0	3.0	1.0	1183.2	101.9	7.0	2072.4
	Alfalfa hay	Sprinkler	65.8								65.8
	Alfalfa, new	Sprinkler	0.0								0.0
Corn, grain	Sprinkler		0.0							0.0	
Misc. vegetables	Sprinkler					1.3				1.3	
Pasture, native	Sprinkler					261.0				261.0	
Pasture, improved	Sprinkler					0.0				0.0	
Turfgrass, cool season	Sprinkler							37.7	0.3	37.7	
Spring small grains	Sprinkler							0.0		0.0	
Winter small grains	Sprinkler							0.0		0.0	
Misc. fruit orchards	Sprinkler							0.3		0.3	
Total Sprinkler-irrigated			65.8	0.0	1.3	0.0	261.0	37.7	0.3	366.1	
Misc. fruit orchards	Drip									0.0	
Vineyards	Drip									0.0	
Misc. vegetables	Drip									0.0	
Total Drip-irrigated										0.0	
Alfalfa hay	Not irrigated									15.5	
Corn, grain	Not irrigated									0.0	
Fallow	Not irrigated									468.8	
Spring small grains	Not irrigated									0.0	
Winter small grains	Not irrigated									0.0	
Plowed	Not irrigated									0.0	
Total Not Irrigated										484.3	
Total Irrigated Acres			842.0	0.0	4.3	1.0	1444.2	139.6	7.4	2438.5	
Percentage of total irrigated acres			34.5%	0.0%	0.2%	0.0%	59.2%	5.7%	0.3%		
Total Acres										2922.8	

Table 2

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IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS							Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains	Sod		
ARCHULETA DITCH											
2007											
Hydrologic Unit 3											
	Alfalfa hay	Flood	0.0								0.0
	Alfalfa, new	Flood									0.0
	Misc. vegetables	Flood									0.0
	Pasture, native	Flood									0.0
	Pasture, improved	Flood									0.0
	Turfgrass, cool season	Flood									0.0
	Spring small grain	Flood									0.0
	Winter small grain	Flood									0.0
	Corn, grain	Flood									0.0
	Total Flood-irrigated		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Alfalfa hay	Sprinkler	12.8								12.8
	Corn, grain	Sprinkler		0.0							0.0
	Misc. vegetables	Sprinkler			0.0						0.0
	Pasture, native	Sprinkler									0.0
	Pasture, improved	Sprinkler					0.0				0.0
	Turfgrass, cool season	Sprinkler						0.0			0.0
	Spring small grain	Sprinkler						0.0			0.0
	Winter small grain	Sprinkler						0.0			0.0
	Total Sprinkler-irrigated		12.8	0	0	0	0	0	0	0	12.8
	Misc. fruit orchards	Drip									0.0
	Misc. vegetables	Drip									0.0
	Total Drip-irrigated										0.0
	Alfalfa hay	Not irrigated									0.0
	Fallow	Not irrigated									0.0
	Misc. fruit orchards	Not irrigated									0.0
	Total Not Irrigated										0.0
	Total Irrigated Acres		12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8
	Percentage of total irrigated acres		100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	Total Acres										26.3

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total		
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod	
CITIZENS DITCH 2007 Hydrologic Unit 3	Alfalfa hay	Flood	268.0							268.0	
	Alfalfa, new	Flood	0.0							0.0	
	Corn, grain	Flood		0.7						0.7	
	Misc. vegetables	Flood			10.9					10.9	
	Pasture, native	Flood					904.4			904.4	
	Pasture, improved	Flood					20.3			20.3	
	Turfgrass, cool season	Flood							95.7	95.7	
	Spring small grain	Flood							0.0	0.0	
	Winter small grain	Flood							0.0	0.0	
	Misc. fruit orchards	Flood				5.6				5.6	
	Vineyards	Flood				0.0				0.0	
	Total Flood-irrigated			268.0	0.7	10.9	5.6	924.7	0.0	95.7	1305.7
	Alfalfa	Sprinkler	584.8								584.8
	Alfalfa, new	Sprinkler	1.7								1.7
	Corn, grain	Sprinkler		0.0							0.0
	Misc. vegetables	Sprinkler			3.2						3.2
	Pasture, native	Sprinkler					925.8				925.8
	Pasture, improved	Sprinkler					16.8				16.8
Spring small grain	Sprinkler							0.0		0.0	
Winter small grain	Sprinkler							0.0		0.0	
Turfgrass, cool season	Sprinkler							78.4		78.4	
Misc. fruit orchards	Sprinkler				21.4					21.4	
Christmas trees	Sprinkler				0.0					0.0	
Total Sprinkler-irrigated			586.5	0.0	3.2	21.4	942.6	0.0	78.4	1632.1	
Vineyards	Drip					0.2				0.2	
Misc. vegetables	Drip				0.5					0.5	
Misc. fruit orchards	Drip					0.0				0.0	
Total Drip-irrigated			0.0	0.0	0.5	0.2	0.0	0.0	0.0	0.7	
Misc. fruit orchards	Not irrigated									0.0	
Fallow	Not irrigated									0.0	
Alfalfa hay	Not irrigated		0.0							0.0	
Plowed	Not irrigated									0.0	
Total Not Irrigated										71.4	
Total Irrigated Acres			854.6	0.7	14.6	27.2	1867.3	0.0	174.1	2938.5	
Percentage of total irrigated acres			29.1%	0.0%	0.5%	0.9%	63.5%	0.0%	5.9%		
Total Acres										3009.9	

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS					Total			
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture		Small Grains	Sod	
TURLEY DITCH 2007 Hydrologic Unit 3	Alfalfa hay	Flood	66.1							66.1	
	Corn, grain	Flood		0.0						0.0	
	Misc. vegetables	Flood			0.0					0.0	
	Pasture, native	Flood					46.1			46.1	
	Pasture, improved	Flood					0.0			0.0	
	Turfgrass, cool season	Flood							1.0	1.0	
	Misc. field crops	Flood								0.0	
	Misc. fruit orchards	Flood				0.0				0.0	
	Spring small grains	Flood							0.0	0.0	
	Winter small grains	Flood							0.0	0.0	
	Total Flood-irrigated			66.1	0.0	0.0	0.0	46.1	0.0	1.0	113.2
	Alfalfa hay		Sprinkler	55.3							55.3
	Corn, grain		Sprinkler		0.0						0.0
	Misc. vegetables		Sprinkler			0.0					0.0
	Pasture, native		Sprinkler					18.4			18.4
Pasture, improved		Sprinkler					0.0			0.0	
Turfgrass, cool season		Sprinkler							0.0	0.0	
Spring small grains		Sprinkler							0.0	0.0	
Winter small grains		Sprinkler							0.0	0.0	
Misc. fruit orchards		Sprinkler							0.0	0.0	
Total Sprinkler-irrigated			55.3	0.0	0.0	0.0	18.4	0.0	0.0	73.7	
Misc. fruit orchards		Drip				0.0				0.0	
Vineyards		Drip				0.0				0.0	
Total Drip-irrigated						0.0	5.1			5.1	
Alfalfa hay		Not irrigated								0.0	
Fallow		Not irrigated								0.0	
Misc. fruit orchards		Not irrigated								0.0	
Plowed		Not irrigated								0.0	
Total Not Irrigated										0.0	
Total Irrigated Acres			121.4	0.0	0.0	5.1	64.5	0.0	1.0	192.0	
Percentage of total irrigated acres			63.2%	0.0%	0.0%	2.7%	33.6%	0.0%	0.5%		
Total Acres										194.7	

Table 2

9/5/2008

IRRIGATION AREA HAMMOND AREA 2007	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS					Total			
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture		Small Grains	Sod	
Hydrologic Unit 3	Alfalfa hay	Flood	69.9							69.9	
	Alfalfa, new	Flood	0.0							0.0	
	Misc. vegetables	Flood								1.8	
	Pasture, native	Flood			1.8					2.2	
	Pasture, improved	Flood					2.2			0.0	
	Turfgrass, cool season	Flood					0.0			65.9	
	Misc. fruit orchards	Flood								0.0	
	Spring small grains	Flood								0.0	
	Winter small grains	Flood								0.0	
	Total Flood-irrigated			69.9	0.0	1.8	0.0	2.2	0.0	65.9	139.9
	Alfalfa hay	Sprinkler		2081.7							2081.7
	Alfalfa, new	Sprinkler		78.6							78.6
Turfgrass, cool season	Sprinkler									27.3	
Corn, silage	Sprinkler			0.6						0.6	
Misc. vegetables	Sprinkler				4.1					4.1	
Pasture, native	Sprinkler									909.1	
Pasture, improved	Sprinkler									65.8	
Misc. field crops	Sprinkler									0.0	
Misc. fruit orchards	Sprinkler				7.9					7.9	
Christmas trees	Sprinkler				0.0					0.0	
Spring small grains	Sprinkler									72.8	
Winter small grains	Sprinkler									0.0	
Total Sprinkler-irrigated			2160.3	0.6	4.1	7.9	974.9	72.8	27.3	3247.9	
Misc. fruit orchards	Drip					0.0				0.0	
Vineyards	Drip					0.0				0.0	
Total Drip-irrigated						0.0				0.0	
Alfalfa hay	Not irrigated									20.1	
Fallow	Not irrigated									198.9	
Plowed	Not irrigated									0.0	
Total Not Irrigated										219.1	
Total Irrigated Acres			2230.2	0.6	5.9	7.9	977.1	72.8	93.2	3387.8	
Percentage of total irrigated acres			65.8%	0.0%	0.2%	0.2%	28.8%	2.2%	2.8%		
Total Acres										3606.9	

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total												
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod											
FARMERS MUTUAL DITCH 2007	Hydrologic Unit 6																				
		Alfalfa hay	Flood	1194.2																	1194.2
		Alfalfa, new	Flood	1.9																	1.9
		Corn, grain	Flood		63.6																63.6
		Corn, silage	Flood		0.0																0.0
		Misc. vegetables	Flood																		21.2
		Pasture, native	Flood																		669.7
		Pasture, improved	Flood																		20.1
		Corn, grain	Flood																		0.0
		Turfgrass, cool season	Flood																		55.3
		Misc. fruit orchards	Flood					14.1													55.3
		Vineyards	Flood					0.0													14.1
		Christmas Trees	Flood					0.0													0.0
		Spring small grains	Flood																		0.0
		Winter small grains	Flood																		0.0
	Total Flood-irrigated		1196.1	63.6	21.2	14.1	689.8	0.0	55.3	2040.2											
	Alfalfa hay	Sprinkler	35.7																	35.7	
	Alfalfa, new	Sprinkler	0.0																	0.0	
	Corn, grain	Sprinkler		0.0																0.0	
	Misc. vegetables	Sprinkler																		4.6	
	Pasture, native	Sprinkler																		4.6	
	Pasture, improved	Sprinkler																		2.2	
	Turfgrass, cool season	Sprinkler																		113.7	
	Misc. fruit orchards	Sprinkler																		0.0	
	Spring small grains	Sprinkler																		0.0	
	Winter small grains	Sprinkler																		0.0	
	Total Sprinkler-irrigated		35.7	0.0	0.0	0.0	6.8	0.0	113.7	156.2											
	Misc. fruit orchards	Drip																		0.0	
	Vineyards	Drip																		0.0	
	Misc. vegetables	Drip																		0.0	
	Total Drip-irrigated				0.0																
	Alfalfa hay	Not irrigated																		0.0	
	Winter small grain	Not irrigated																		0.0	
	Fallow	Not irrigated																		153.6	
	Misc. fruit orchards	Not irrigated																		1.6	
	Plowed	Not irrigated																		0.0	
	Total Not Irrigated																			155.2	
	Total Irrigated Acres		1231.8	63.6	21.2	14.1	696.6	0.0	169.0	2196.4											
	Percentage of total irrigated acres		56.1%	2.9%	1.0%	0.6%	31.7%	0.0%	7.7%												
	Total Acres									2351.6											

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total		
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod	
JEWETT VALLEY 2007 Hydrologic Unit 6	Alfalfa hay	Flood	570.9							570.9	
	Alfalfa, new	Flood	1.2							1.2	
	Corn, grain	Flood		52.9						52.9	
	Corn, silage	Flood		0.0						0.0	
	Misc. vegetables	Flood			0.4					0.4	
	Pasture, native	Flood					158.6			158.6	
	Pasture, improved	Flood					0.0			0.0	
	Misc. field crops	Flood					0.0			0.0	
	Turfgrass, cool season	Flood					0.0			0.0	
	Misc. fruit orchards	Flood				0.2				0.2	
	Christmas Trees	Flood				0.0				0.0	
	Spring small grains	Flood								0.0	
	Winter small grains	Flood								0.0	
		Total Flood-irrigated		572.1	52.9	0.4	0.2	158.6	0.0	5.1	789.4
		Alfalfa hay	Sprinkler	40.0							40.0
		Alfalfa, new	Sprinkler	0.0							0.0
		Corn, grain	Sprinkler		0.0						0.0
		Misc. vegetables	Sprinkler			0.0					0.0
		Pasture, native	Sprinkler					0.0			0.0
		Pasture, improved	Sprinkler					0.0			0.0
		Turfgrass, cool season	Sprinkler								0.0
		Misc. fruit orchards	Sprinkler				0.0				0.0
		Winter small grains	Sprinkler								0.0
	Total Sprinkler-irrigated		40.0	0.0	0.0	0.0	0.0	0.0	108.7	108.7	
	Misc. fruit orchards	Drip								0.0	
	Vineyards	Drip								0.0	
	Misc. vegetables	Drip								0.0	
	Total Drip-irrigated									0.0	
	Alfalfa hay	Not irrigated								0.0	
	Corn, grain	Not irrigated								0.0	
	Fallow	Not irrigated								0.0	
	Winter small grains	Not irrigated								0.0	
	Spring small grains	Not irrigated								0.0	
	Plowed	Not irrigated								0.0	
	Total Not irrigated									0.0	
	Total Irrigated Acres		612.1	52.9	0.4	0.2	158.6	0.0	113.8	938.0	
	Percentage of total irrigated acres		65.3%	5.6%	0.0%	0.0%	16.9%	0.0%	12.1%		
	Total Acres									948.3	

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total		
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod	
CAMBRIDGE 2007 Hydrologic Unit 6	Alfalfa hay	Flood	12.6							12.6	
	Corn, grain	Flood		10.2						10.2	
	Misc. vegetables	Flood			0.6					0.6	
	Pasture, native	Flood					22.4			22.4	
	Pasture, improved	Flood					0.0			0.0	
	Turfgrass, cool season	Flood								0.0	
	Spring small grains	Flood								0.0	
	Winter small grains	Flood								0.0	
	Orchard/Grapes	Flood								0.0	
	Total Flood-irrigated			12.6	10.2	0.6	0.0	22.4	0.0	0.0	45.8
	Alfalfa hay	Sprinkler									0.0
	Corn, grain	Sprinkler									0.0
	Misc. vegetables	Sprinkler									0.0
	Pasture, native	Sprinkler									0.0
	Pasture, improved	Sprinkler									0.0
Turfgrass, cool season	Sprinkler									0.0	
Spring small grains	Sprinkler									0.0	
Winter small grains	Sprinkler									0.0	
Total Sprinkler-irrigated										0.0	
Orchard/Grapes	Drip									0.0	
Misc. vegetables	Drip									0.0	
Total Drip-irrigated										0.0	
Alfalfa hay	Not irrigated						0.0			0.0	
Corn, grain	Not irrigated									0.0	
Fallow	Not irrigated									5.0	
Spring small grain	Not irrigated									0.0	
Winter small grain	Not irrigated									0.0	
Plowed	Not irrigated									0.0	
Total Not Irrigated										5.0	
Total Irrigated Acres										45.8	
Percentage of total irrigated acres			12.6	10.2	0.6	0.0	22.4	0.0	0.0	50.8	
Total Acres			27.5%	22.3%	1.3%	0.0%	48.9%	0.0%	0.0%	50.8	

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS							Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains	Sod		
FRUITLAND 2007 Hydrologic Unit 6	Alfalfa hay	Flood	1226.3								1226.3
	Alfalfa, new	Flood	19.8								19.8
	Corn, grain	Flood		368.7							368.7
	Sorghum, grain	Flood		0.0							0.0
	Misc. vegetables	Flood			51.2						51.2
	Pasture, native	Flood					292.4				292.4
	Pasture, improved	Flood					21.6				21.6
	Misc. field crops	Flood					0.0				0.0
	Turfgrass, cool season	Flood									0.0
	Misc. fruit orchards	Flood				1.8					1.8
	Christmas Trees	Flood				0.0					0.0
	Spring small grains	Flood									0.0
	Winter small grains	Flood									0.0
	Total Flood-irrigated			1246.0	368.7	51.2	1.8	314.0	3.3	0.0	1985.1
	Alfalfa hay		Sprinkler	0.0							0.0
	Corn, grain		Sprinkler								0.0
	Misc. vegetables		Sprinkler								0.0
Pasture, native		Sprinkler								0.0	
Pasture, improved		Sprinkler								0.0	
Turfgrass, cool season		Sprinkler								0.0	
Misc. fruit orchards		Sprinkler								0.0	
Spring small grains		Sprinkler								0.0	
Winter small grains		Sprinkler								0.0	
Total Sprinkler-irrigated			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Misc. fruit trees		Drip								0.0	
Vineyards		Drip								0.0	
Misc. vegetables		Drip								0.0	
Total Drip-irrigated										0.0	
Alfalfa hay		Not irrigated								0.0	
Corn, grain		Not irrigated								0.0	
Fallow		Not irrigated								0.0	
Spring small grain		Not irrigated								0.0	
Misc. fruit orchards		Not irrigated								0.0	
Plowed		Not irrigated								0.0	
Total Not Irrigated										0.0	
Total Irrigated Acres			1246.0	368.7	51.2	1.8	314.0	3.3	0.0	1985.1	
Percentage of total irrigated acres			62.8%	18.6%	2.6%	0.1%	15.8%	0.2%	0.0%		
Total Acres										2375.5	

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS							Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains	Sod		
HOGBACK EAST 2007 Hydrologic Unit 6	Alfalfa hay	Flood	569.1								569.1
	Alfalfa, new	Flood	25.9								25.9
	Corn, grain	Flood		306.6							306.6
	Sorghum, grain	Flood		0.0							0.0
	Misc. vegetables	Flood			29.3						29.3
	Pasture, native	Flood					94.6				94.6
	Pasture, improved	Flood					2.4				2.4
	Turfgrass, cool season	Flood									0.9
	Misc. fruit orchards	Flood				0.5					0.5
	Corn, grain	Flood		0.0							0.0
	Spring small grains	Flood									0.0
	Winter small grains	Flood									0.0
	Total Flood-irrigated			595.0	306.6	29.3	0.5	97.0	0.0	0.9	1029.4
	Alfalfa hay		Sprinkler	0.0							0.0
	Corn, grain		Sprinkler		0.0						0.0
	Misc. vegetables		Sprinkler			0.0					0.0
	Pasture, native		Sprinkler					0.0			0.0
	Pasture, improved		Sprinkler					0.0			0.0
	Turfgrass, cool season		Sprinkler							2.9	2.9
	Spring small grains		Sprinkler						0.0		0.0
Winter small grains		Sprinkler						0.0		0.0	
Misc. fruit orchards		Sprinkler				0.0				0.0	
Total Sprinkler-irrigated			0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	
Misc. fruit orchards		Drip								0.0	
Vineyards		Drip								0.0	
Misc. vegetables		Drip								0.0	
Total Drip-irrigated										0.0	
Alfalfa hay		Not irrigated								0.0	
Corn, grain		Not irrigated								0.0	
Fallow		Not irrigated								218.6	
Winter small grains		Not irrigated								0.0	
Plowed		Not irrigated								0.0	
Total Not irrigated										218.6	
Total Irrigated Acres			595.0	306.6	29.3	0.5	97.0	0.0	3.8	1032.3	
Percentage of total irrigated acres			57.6%	29.7%	2.8%	0.1%	9.4%	0.0%	0.4%		
Total Acres										1250.9	

Table 2

9/5/2008

IRRIGATION AREA	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS							Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains	Sod		
HOGBACK WEST 2007 Hydrologic Unit 7	Alfalfa hay	Flood	1203.9								1203.9
	Alfalfa, new	Flood	123.3								123.3
	Corn, grain	Flood		525.8							525.8
	Sorghum, grain	Flood		0.0							0.0
	Misc. vegetables	Flood			88.4						88.4
	Pasture, native	Flood									0.0
	Pasture, improved	Flood					504.8				504.8
	Turfglass, cool season	Flood					19.6				19.6
	Misc. fruit orchards	Flood				1.5					1.5
	Christmas Trees	Flood				0.0					0.0
	Spring small grains	Flood									0.0
	Winter small grains	Flood									0.0
	Total Flood-irrigated			1327.2	525.8	88.4	1.5	524.4	0.0	0.6	2467.9
	Alfalfa hay	Sprinkler		0.0							0.0
	Corn, grain	Sprinkler			0.0						0.0
	Misc. vegetables	Sprinkler				0.0					0.0
	Pasture, native	Sprinkler									0.0
	Pasture, improved	Sprinkler					0.0				0.0
	Turfglass, cool season	Sprinkler									0.0
	Spring small grains	Sprinkler									0.0
Winter small grains	Sprinkler									0.0	
Misc. fruit orchards	Sprinkler									0.0	
Total Sprinkler-irrigated			0.0	0.0	0.0	0.0	0.0	0.0	14.2	14.2	
Misc. fruit orchards	Drip						2.6			2.6	
Vineyards	Drip						0.0			0.0	
Misc. vegetables	Drip						0.0			0.0	
Total Drip-irrigated					0.0		2.6			2.6	
Alfalfa hay	Not irrigated									0.0	
Corn, grain	Not irrigated									0.0	
Fallow	Not irrigated									0.0	
Winter small grains	Not irrigated									263.0	
Misc. fruit orchards	Not irrigated									0.0	
Plowed	Not irrigated									0.0	
Total Not Irrigated										263.0	
Total Irrigated Acres			1327.2	525.8	88.4	4.1	524.4	0.0	14.9	2484.8	
Percentage of total irrigated acres			53.4%	21.2%	3.6%	0.2%	21.1%	0.0%	0.6%	2748.1	
Total Acres										2748.1	

Table 2

9/5/2008

IRRIGATION AREA CUDEI 2007 Hydrologic Unit 7	CIR CROP	IRRIGATION METHOD	AGGREGATED CROPS						Total	
			Alfalfa	Corn/Sorghum	Misc. Vegetables	Orchard	Pasture	Small Grains		Sod
	Alfalfa hay	Flood	102.5							102.5
	Corn, grain	Flood		76.3						76.3
	Misc. vegetables	Flood			35.3					35.3
	Pasture, native	Flood						125.6		125.6
	Pasture, improved	Flood						0.0		0.0
	Alfalfa (new, 1st year)	Flood	35.4							35.4
	Misc. fruit trees	Flood				0.0				0.0
	Christmas Trees	Flood				0.0				0.0
	Spring small grains	Flood							0.0	0.0
	Winter small grains	Flood							0.0	0.0
	Total Flood-irrigated		137.8	76.3	35.3	0.0	125.6	0.0	0.0	375.0
	Alfalfa hay	Sprinkler								0.0
	Corn, grain	Sprinkler								0.0
	Misc. vegetables	Sprinkler								0.0
	Pasture, native	Sprinkler								0.0
	Pasture, improved	Sprinkler								0.0
	Turgrass, cool season	Sprinkler								0.0
	Misc. fruit trees	Sprinkler								0.0
	Spring small grains	Sprinkler								0.0
	Total Sprinkler-irrigated									0.0
	Misc. fruit trees	Drip								0.0
	Vineyards	Drip								0.0
	Misc. vegetables	Drip								0.0
	Total Drip-irrigated									0.0
	Fallow	Not irrigated								0.0
		Not irrigated								27.0
		Not irrigated								0.0
		Not irrigated								0.0
		Not irrigated								0.0
	Total Not Irrigated									27.0
	Total Irrigated Acres		137.8	76.3	35.3	0.0	125.6	0.0	0.0	375.0
	Percentage of total irrigated acres		36.7%	20.4%	9.4%	0.0%	33.5%	0.0%	0.0%	
	Total Acres									402.0