TABLE 9A-5: Non MRGCD Irrigation Systems, Off-Farm Conveyance Efficiency Estimates, Sandoval County, New Mexico

All land, water, crop and cost numbers presented in this table are based on published documents or data from agencies, many of which use estimates or placeholder assumptions to assign values. These values are based in part on empirical data (measurements, studies) however, they should not be considered as measured data. Therefore, the results of this analysis should be viewed as conceptual only and not as factual. Specific, more accurate data needs include, cropped acreages, crop irrigation requirements, on- and off-farm efficiency coefficients. References for all source documents have been provided.

Notes and Assumptions

1 Total system main-canal length estimated at 89 ft per acre of irrigated land [1]
2 Total system D-canal length estimated at 54 ft per acre of irrigated land [1]
3 Off-farm conveyance efficiency (E_c) 70% Ref [2]
4 On-farm irrigation efficiency (E_f) 50% Ref [2]
5 Estimated consumptive irrigation use 1.13 acre-feet Ref [2]
6 In column 11 incidental off-farm depletions (ID) are subtracted from possible diversion water reduction. ID coefficient from Wilson, B. (1999)
7 % of canals proposed to be lined 35% to reduce seepage by 60% (estimate)
8 Concrete lining 75% efficient

[1] McGovern, M; Marez, J., *Assessment Report for the Santa Cruz Irrigation District Acequias*, DB Stephens & Assoc., July 2002 (Adjusted est. of acequia canal lengths measured from aerial photos for 15 acequias.

[2] Wilson, B., *Water Use by Categories in NM Counties and River Basins and Irrigated Acreage,* 1999

							Existing		Proposed	
#	Name of Community Ditch or Acequia	Reported Irrigated Area	Off-Farm Canal Length	Consumptive Irrigation Use	Farm Delivery Requirement	Losses in Off-Farm Canals	System Diversion Requirement	Losses in Off-Farm Canals	System Diversion Requirement	Possible Diversion Water Reduction
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
		acres	feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet	acre-feet
1	Upper West Ditch	53	7,636	60	121	52	172	16	136	**35**
2	East Lateral	11	1,516	12	24	10	34	3	27	**7**
3	Jemez Spring Ditch	44	6,278	50	99	43	142	13	112	**29**
4	West Side Ditch	9	1,304	10	21	9	29	3	23	**6**
5	West Ditch	10	1,401	11	22	9	32	3	25	**6**
6	South Upper Ditch	16	2,231	18	35	15	50	5	40	**10**
7	San Ysidro Ditch	485	69,284	547	1,095	469	1,564	141	1,236	**319**
8	East and West Sandoval Ditch	31	4,362	34	69	30	98	9	78	**20**
9	La Jara Ditch	1,400	200,200	1,582	3,164	1,356	4,520	407	3,571	**921**
10	Placitas Community Ditch	150	21,450	170	339	145	484	44	383	**99**
11	Lagunitas Community Ditch	92	13,156	104	208	89	297	27	235	**61**
12	Nacimiento Comm. Ditch Assoc.	714	102,031	806	1,613	691	2,304	207	1,820	**469**
13	Ponderosa Community Ditch	319	45,631	361	721	309	1,030	93	814	**210**
14	Canon Community Ditch	193	27,528	218	435	186	622	56	491	**127**
15	Vallecitos Ditch	117	16,731	132	264	113	378	34	298	**77**
16	Rio Puerco Ditch	100	14,300	113	226	97	323	29	255	**66**
17	Ortiz Ditch	7	1,001	8	16	7	23	2	18	**5**
18	Garcia Lucero Ditch	400	57,200	452	904	387	1,291	116	1,020	**263**
19	Acequia De Los Utes	40	5,720	45	90	39	129	12	102	**26**
20	Los Pinos Ditch	397	56,771	449	897	385	1,282	115	1,013	**261**
21	La Cueva Ditch	53	7,636	60	121	52	172	16	136	**35**
	Totals	**4,639**	663,366	5,242	10,484	4,493	14,977	1,348	11,832	**3,051**

Est. Existing Diversion (acre-foot per acre)	3.2
Est. New Diversion (acre-foot per acre)	2.6

	Before	After
Total System Irrigation Efficiency (E_i)	35.0%	44.3%
Off-farm conveyance efficiency (E_c)	**70.0%**	**88.6%**
On-farm irrigation efficiency (E_f)	50.0%	50.0%