TABLE 9A-7: MRGCD Irrigation System, Proposed Off-Farm Canal and Conveyance Improvements

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 Canal Lengths (acres per mile of canal) — S.S. Papadopulos & Assoc., Inc., *MRGCD Efficiency and Metering Program*, NM Interstate Stream Commission, December 2002

County	Total (acres served per mile of canal)	Total footage	Main Canal -ft (assume 40% of total)	D-Canal -ft (assume 60% of total)
Sandoval	**39**	911,545	364,618	546,927
Bernalillo	**64**	1,061,775	424,710	637,065
Valencia	**106**	1,541,063	616,425	924,638

2 Percentage of canals to be lined — 25%

3 Cost estimates include no project financing costs

4 It is assumed that irrigated areas include fallow but not idle lands

#	County	Source	Approximate Irrigated Area	Off-Farm Main Canal Length	Off-Farm D-Canal Length	Cost to Line Main Canals	Cost to Line D-Canals	Total Cost to Line Canals
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
			acres	feet	feet	$	$	$
1	Sandoval	Rio Grande	6,733	364,618	546,927	$ 15,424,816	$ 8,084,090	**$ 23,508,907**
2	Bernalillo	Rio Grande	12,870	424,710	637,065	$ 17,966,958	$ 9,416,418	**$ 27,383,376**
3	Valencia	Rio Grande	30,938	616,425	924,638	$ 26,077,284	$ 13,667,010	**$ 39,744,294**
			50,541					**$ 90,636,577**

Capital Project Cost Estimate

Total of MRGCD Lining (construction only)	$ 90,636,577		
Add cost of new diversions/structures	$ 13,595,487	15.0%	(includes other activities to reduce diversions [vegetation removal, retirement of canals])
Add Contingencies	$ 4,531,829	5.0%	
Add Feasibility Studies	$ 906,366	1.0%	
Add Environmental Studies (CWA, NEPA, ESA, e.g.)	$ 453,183	0.5%	
Add Engineering, Surveying, other services	$ 10,876,389	12.0%	
Grand Total	**$ 120,999,831**		
Possible Diverted Water Savings (acre-feet)	**67,813**		
Cost per acre foot of diverted water reduced	**$ 1,784**		
15 Years to Implement Program	**$ 8,066,655**	per year	