

Table 7A-3: Proposed MRGCD and Small Sandoval Irrigation Systems Metering Program - Proposed Costs

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.

Assumptions and Notes

1 Cost of Existing Planned MRGCD 2003 and 2004 Plan	
2003	6 meters and facilities \$ 20,000.00 each
2004	2 meters and facilities \$ 20,000.00 each
2 Proposed Metering and Control Program to include D-canal meters and controls in MRGCD lateral service areas and for each small system in Sandoval county.	
a Add one meter/control gate/RTU combo for each lateral service area >350 and < 1,000 acres: S.S. Papadopoulos & Assoc., Inc., <i>MRGCD Efficiency and Metering Program</i> , NM Interstate Stream Commission, December 2002, Table 3.1	
b. Facility Cost Estimates:	
	Site work \$ 3,500
	Equipment \$ 9,500
	Concrete work and flume \$ 6,500
Equipment	stage recorder \$ 6,500
	Control gate \$ 7,000
	soil moisture meter \$ 1,200
	Radio Trans. Unit (RTU) \$ 4,000
	datalogger \$ 1,800
	Power and Controls \$ 7,500
	\$ 9,500
	Fencing \$ 1,500
	Sub Tot. Construction \$ 39,500
	Design, survey @ 9% \$ 3,555
	Grand Total \$ 43,055
3 On-farm portable flow meters (12)	\$ 2,400 each
4 Cost estimates do not include any annual project financing costs. Costs do not include the positive value that might be realized from saved water used for other beneficial use.	

#	County	Existing Lateral Service Areas	Proposed Lateral Meter/Gate/RTU Facilities	New Lateral Program Cost	MRGCD 2003 Program	MRGCD 2004 Program	Existing and Proposed Programs Cost
1	2	3	4	5	6	7	8
		#	#	\$	\$	\$	\$
1	Sandoval	12	19	\$ 818,045			
2	Bernalillo	35	43	\$ 1,851,365			
	Valencia	50	63	\$ 2,712,465			
3	Small Systems - Sandoval County	21	21	\$ 904,155			
Totals			146	\$ 6,286,030	\$ 120,000.00	\$ 40,000.00	\$ 6,446,030

Capital Project Cost Estimate		Annual Recurring Expenditures	
Total of MRGCD Metering/Controls (construction only)	\$ 6,446,030	Add 6 new full time staff (10 year cost)	\$ 360,000
Provide 12 portable on-farm flow meters	\$ 28,800	Operation and Maintenance (10 years)	\$ 73,000
Initial Operations Training	\$ 75,000		\$ 433,000
MRGCD and Small Systems Operations Study and Plan	\$ 250,000		
Farmer Education Program	\$ 150,000		
Grand Total	\$ 6,949,830		
		Possible Diversion Water Reduced (acre-feet)	42,803
		Cost per acre foot of diverted water reduced \$	162
5 Years to Implement Program			