75% Completion Report

for

2011 Water Efficiency Grant – St. Charles Mesa Water District – Meter Replacement Program

September 26, 2011

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75% Completion Report for 2011 Water Efficiency Grant – St. Charles Mesa Water District – Meter Replacement Program

On July 19, 2011, The St. Charles Mesa Water District received approval for a Water Conservation Implementation Grant, in the amount of $49,915.00, for the replacement of existing individual water meters. During the preparation of the Water Conservation Plan, the replacement of the existing individual meters was identified as a Water Conservation Program/Measure. Also, the intent is to target the customers with new meters for the Demand Side Measures identified in the report. They are as follows:

1. Efficient Irrigation
2. Low Water Use Landscapes and Drought Resistant Vegetation
3. Low Flow Plumbing Fixtures and Water Efficient Appliances
4. Education
5. Institutional Irrigation Audits

The meter replacement began on August 29, 2011. In total, 400 new meters were installed.

The first half of the project was completed on September 16, 2011. At that point approximately 200 of the 400 meters had been installed and located with the GPS unit. The data was then entered into the District's GIS system. As of September 23, 2011, 300 of the new meters had been installed. The installation process has increased due to the substitution of the fiberglass meter lids, and the installation crew's ability to increase production through repetition and familiarity with the process. Map sheet MR-2 indicates the area of the new meter installations, at the 75% completion stage, and is attached at the end of this report.

The key staff members who participated are as follows:

David K. Simpson, District Manager –Project Manager, coordinated all transactions between the Water District and the Colorado Water Conservation Board (CWCB).

Don Williams, Distribution System Manager – Mr. Williams has worked for the District for over 38 years, holds a Class A Treatment Plant Operator's License and Class 3 Water Distribution System License. He oversaw all field installations and performed the GPS locates after the installations were complete.

Susan Long, Office Manager – Mrs. Long has worked for the District for 15 years and performs numerous duties related to billing, accounting and information systems. She performed the data entry for the GPS locations of the new meters.

Rudy Vigil, Water Distribution Technician – Mr. Vigil has worked for the District for 25 years, and is the senior equipment operator. He performed all machine excavations.

Travis Orcutt, Water Distribution Technician – Mr. Orcutt has worked for the District for 1 year. He maintains a Class A Operator's License and Class 1 Distribution System License. He assisted in the physical replacement of the meters.

Doug Martin, Water Distribution Technician – Mr. Martin has worked for the District for 2 years. He maintains a Class 1 Water Distribution System License, and also assisted in the physical replacement of the meters.

Table 1 is a summary of the Project goals, obstacles and findings:

Success of meeting previously identified goals and objectives	The first 3/4ths of the installations proceeded on schedule with the exception of one day lost due to weather
Obstacles Encountered	The procedure of drilling a hole in each of the meter lids was too time consuming
Preliminary findings or Accomplishments	The old brass meter lids will need to be replaced with fiberglass lids so the radio signal can transmit
Potential need for revision to the scope of work and timeline	The scope of work shall be reduced by 3 days

As of September 23, the goals and objectives of this project have been met. The only obstacles to this process have been a one day delay due to weather. Most of the existing meter pits were in relatively good condition, however, during the first portion of the installation process, it was determined that the process of drilling holes in the existing brass meter lids was to labor intensive. Therefore, 400 new fiberglass meter lids were ordered. This was done to ensure that the radio signal transmission would not be blocked by the brass lids.

Table 2 is the revised cost estimate for the replacement of 400 meters, with the fiberglass meter lids included. This cost was entirely borne by the District:

50% Report Revised Costs for the installation of 400 new radio read water Meters			
for			
St. Charles Mesa Water District, Pueblo County, Colorado			
Description	**Unit Cost**	**Units**	**Total Cost**
Material Costs			
Badger BR 25 Radio Read Meter w/Orion Data Profile	$186.95	400	$ 74,780.00
Badger IHD Water Meter Monitor (Incl. 50% Rebate)	$37.50	10	$ 375.00
Fiberglass Meter Lids	$22.50	400	$ 9,000.00
Installation (Labor) Costs	**Rate**	**Time**	**Total Cost**
Senior Water Distribution Technician	$19.91	160.0	$3,185.60
Junior Water Distribution Technician	$16.49	160.0	$2,638.40
Water Distribution Technician	$12.75	160.0	$2,040.00
Sub-Total	-	-	$7,864.00
GPS Locate Costs	**Rate**	**Time**	**Total Cost**
Distribution System Manager	$31.97	80.0	$2,557.60
Data Entry Costs	**Rate**	**Time**	**Total Cost**
Office Manager	$20.11	24.0	$482.64
Consultant Fees	**Rate**	**Time**	**Total Cost**
Young Technology Group (Engineer)	-	-	$1,875.00
GRAND TOTAL	-	-	**$96,934.24**
Summary of In-Kind Contributions			
Material Costs			
Badger BR 25 Radio Read Meter w/Orion Data Profile	$186.95	133	$ 24,864.35

Badger IHD Water Meter Monitor (Incl. 50% Rebate)	$37.50	10	$ 375.00
Fiberglass Meter Lids	$22.50	400	$ 9,000.00
Installation (Labor) Costs	-	-	$7,864.00
GPS Locate Costs	-	-	$2,557.60
Data Entry Costs	-	-	$482.64
Consultant Fees	-	-	$ 1,875.00
Sub-Total	-	-	**$ 47,018.59**
% of Total Budget	-	-	**48.51%**
Summary of Grant Request Costs			
Material Costs			
Badger BR 25 Radio Read Meter w/Orion Data Profile	$186.95	267	$ 49,915.65
Sub-Total	-	-	**$ 49,915.65**
% of Total Budget	-	-	**51.49%**

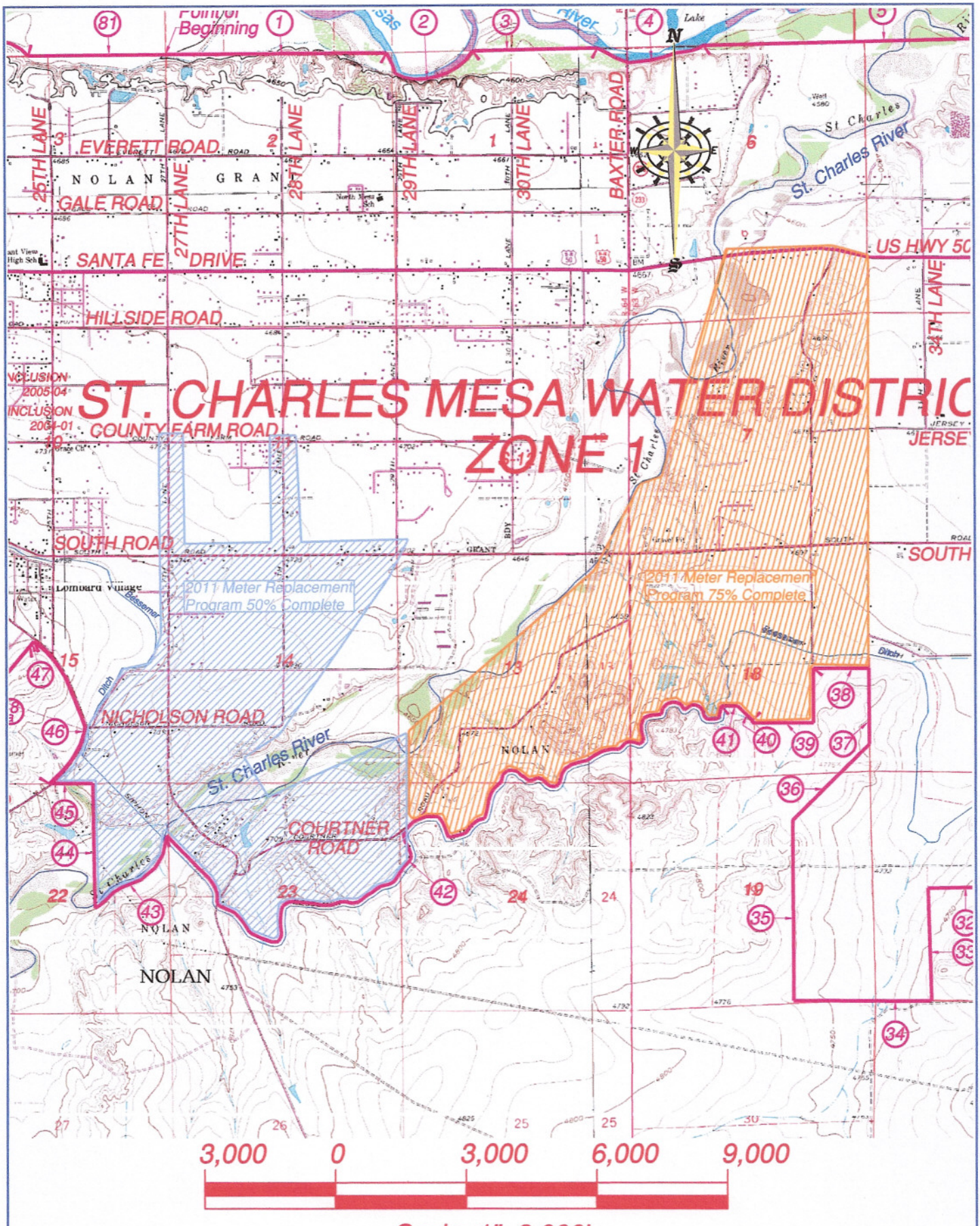
The timeline for this project is ahead of schedule as of this report. A revised timeline is included at the end of this report. A small sample of the existing meters shall be retained for testing, as part of the final report.

The total area in the first half and 75% completion of the 2011 Meter Replacement Project was 4.1 square miles.

Kenneth Alan Young

Kenneth Alan Young, Colorado Registered Professional Engineer # 33405

9/26/11
Date



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Drawing File Name:			Plot1a
Acad Version: 2004	Scale: 1"=3,000'	Units:	ft.

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2011 Meter Replacement Area Map

Drawn By:	KAY		
Checked By:	DRS		
Sheet Subset:	--	Subset Sheets:	--

Job No. SCM-1
St. Charles Mesa Water District
Sheet No. MR-2

Project Timeline for Meter Replacement Program - St. Charles Mesa Water District, Pueblo County, Colorado September 26, 2011							
Description	**Personnel**	**Aug 29 - Sept 2**	**Sept 5 -9**	**Sept 12 -16**	**Sept 19- 23**	**Sept 26 - 30**	**Oct 3 - 7**
1. Identify area and individual meters to be replaced	David Simpson, Don Williams						
2. Order 400 New meters (and 10 Water Meter	Don Williams						
Monitors) from supplier	Don Williams						
3. Commence Installation Procedure	Rudy Vigil, Travis Orcutt, Doug Martin						
4. Locate new meter installations with GPS Unit	Don Williams						
5. Enter data into GIS database	Don Williams						
6. Enter data into Billing Software	Susann Long						
7. 50% Progress Report	Ken Young						
8. 75% Progress Report	Ken Young						
9. Final Report	Ken Young						
10. Meter Installation Complete	David Simpson, Ken Young						
	This portion of the project is part of the 50% Completion Report						
	This portion of the project is part of the 75% Completion Report						
	This portion of the project is part of the Final Project Report						