

REPORT

I. BACKGROUND.

The Verde Ditch Company obtained a U.S. Forest Service Grant, which was approved by Order entered December 12, 2012. Pursuant to the Orders of the Court, the Verde Ditch Commissioners submit the following Report regarding the results of the work and improvements made possible with the Grant funds.

The Verde Ditch Company mobilized to undertake the grant funded improvements during the 2012/2013 dry ditch maintenance period. The work contemplated to be undertaken through the grant funding was successfully completed and the water returned to the Verde Ditch in March, 2013.

The intent of the project was to further improvements which promote the ability to deliver irrigation water to the shareholders during peak demand; reduce losses resulting from existing inefficiencies; improve water quality and provide improved monitoring abilities along various points along the ditch. The goals of the project were to reduce wasted water, preserve ditch banks that have eroded over time, and implement technologically sophisticated management tools.

II. ACCOUNTING.

A copy of the Government Grant Account Profit and Loss Statement is attached hereto as Schedule A, reflecting the total proceeds received and expenses allocated. The Budget and Cost Analysis for this project is set forth in Schedule B, attached hereto.

Pursuant to the Order of the Court dated December 12, 2012, the Verde Ditch Company used a total of \$35,000 from the Special Adjudication Fund to provide temporary budget funding. The U.S. Forest Service cooperation in reimbursement of funds expended by the Verde Ditch Company was prompt, and the Verde Ditch Company was able to reimburse the \$35,000 to the Special Adjudication account shortly after the work was completed.

The Nature Conservancy has further agreed to reimburse the Verde Ditch Company in the amount of \$1,748.00 as a cash contribution towards the expenses incurred for the improvements made at the main headgate.

The Grant funds were originally budgeted to replace five obsolete and leaking turn-out gates to increase available water along the Ditch. As the project proceeded, the decision was made to replace four of the turn-out gates and use the funding for the fifth turn-out gate to make innovative and "state of the art" improvements to the main head gate of the Verde Ditch.

III. TELEMETRY UNITS.

The Verde Ditch Company, over the past decade, has installed a number of weirs and measuring devices to establish contemporaneous measurements regarding the relative flows in the Verde Ditch at various locations during the year. While helpful, the weir measurements required manual inspection and record logs. The telemetry system allows monitoring of water levels in the Verde Ditch from a remote location, accessible through a computer or smart phone. The system is designed to report current water levels in the Ditch in real time without the necessity of driving the entire eighteen (18) miles of the Ditch for a visual inspection. Once fully implemented, a Commissioner, from a remote location, can monitor flows at the main Ditch headgate and the other designated sites and direct adjustments at various turnouts to coincide with the variable demands created by users along the Ditch. The telemetry system is solar operated and should serve the Verde Ditch for an extended period of time. Installation costs were covered by in kind services from the Nature Conservancy staff and the Verde Ditch Company.

If the telemetry system functions as designed, future contemplated improvements to the system will likely include automatic electronically stored data systems and automatic or remote controlled gates and valves at other locations along the Ditch.

IV. BANK CONTROL.

An additional major component of the improvements derived from the Forest Service Grant was the installation of erosion control structures to reduce bank width created by years of erosion, improve water quality by reductions in turbidity and sedimentation, and improve water velocity. The unrelenting erosion of certain portions of the earthen banks has been reversed by the placement of the concrete blocks ("heavies") thereby reducing the width of the Ditch in four locations.

The result should be increased water in the Ditch, thereby inhibiting plant growth and moss build up. The net effect should be an increase in the total amount of water available to shareholders, reduce the time for water to move from the point of diversion to the places of use and reduce maintenance costs.

V. TURN OUT GATES.

The turnout gate improvements generally serve two purposes; allowing the Commissioners to establish and monitor maximum water levels at various locations along the Ditch during peak demand and provide emergency turnouts to reduce the flowing water in the event of adverse weather, ditch blockage, sheet flow intrusions, drainage impacts or other events that could lead to bank failure, excess water and flooding. The cost of the replacement gates averaged \$5,710.00 per gate using to a licensed contractor for the installation of the gates. The funds for the fifth turn out gate replacement were diverted to retrofit the main head gate from a manual screw wheel to an automated self adjusting gate which raises or lowers during the day to maintain a constant flow, even as the river flows fluctuate or user demands change the available water.

VI. IMPROVEMENTS COMPLETED.

The Verde Ditch Commissioners, using all of the funding from the U.S. Forest Service Grant,

completed the improvements and the telemetry system is now sending measurements of the water levels at various locations since the end of May.

The Verde Ditch Commissioners acknowledge the assistance of the Nature Conservancy with this project. While it may take some time to accurately gauge the net effect of the improvements completed, the Commissioners believe that the shareholders, wildlife and other Verde River water users will benefit from the increased efficiencies.

VII. SUMMARY

The Grant was instrumental in providing funding to implement improvements to the Ditch that customary budget limitations would otherwise prohibit. The Verde Ditch Commissioners will continue to explore additional grants or contributions that may provide a source of funding for additional improvements to increase safety, water efficiencies and improve monitoring capabilities.

SCHEDULE A

**Verde Ditch Company - Government Grant Account
Profit & Loss
January 1 through May 15, 2013**

	<u>Jan 1 - May 15, 13</u>
Income	
400 · US Forest Service Grant	71,286.00
Total Income	<u>71,286.00</u>
Expense	
601 · Administration	2,000.00
602 · Automated Head Gate	8,729.00
611 · Head Gates	22,842.00
612 · Heavies	2,814.00
613 · Installation of Head Gates	16,556.00
614 · Legal	2,250.00
615 · Telemetry	16,095.00
Total Expense	<u>71,286.00</u>
Net Income	<u><u>0.00</u></u>

SCHEDULE B

Summary of Budgeted items for Verde Ditch

Project	Item	Original			Adjusted		
		Units	Unit Cost	Total	Units	Unit Cost	Total
Telemetry	Custom Monitoring Units	5	2506	12530	5	2506	12555
	Monthly Cell Service and Web Hosting	24	105	2520	24	105	2520
	Shipping Costs	1	100	100	1	100	100
	Tax	1	920	920	1	920	920
		<i>Sub Total</i>		16070	<i>Sub Total</i>		16095
Turnout Gates	Gates (36 in by 36 in)	4	8000	32000	4	5710	22842
	Contract: Installation of Headwall	4	2250	9000	4	4139	16556
	Automation Equipment for headgate				1	8729	8729
		<i>Sub Total</i>		41000	<i>Sub Total</i>		48127
Erosion Control	Heavies	399	25	9966	120	23	2814
		<i>Sub Total</i>		9966	<i>Sub Total</i>		2814
Admin	Accountant	50	40	2000	50	40	2000
	Legal Council	15	150	2250	15	150	2250
		<i>Sub Total</i>		4250	<i>Sub Total</i>		4250
		Overall Budget		71286			71286