

# RECLAMATION

*Managing Water in the West*

August 2004  
Lower Colorado Region  
Yuma Area Office

## ***WATER CONSERVATION UPDATE***

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Construction of a diversion channel by the Wellton-Mohawk Irrigation and Drainage District on the Gila Gravity Main Canal at the canal heading. This channel will temporarily divert water around the construction site while a water measurement structure is built.

### **Water Conservation Projects in “High Gear” in the Yuma Area**

Two programs that cost-share on water conservation with local districts have resulted in an acceleration of water conservation work in the Yuma Area. The North American Development (NAD) Bank and the Bureau of Reclamation’s “Water 2025 Challenge Grant” programs both have contributed to more conservation “on the ground.”

NAD Bank has funded canal lining projects in Imperial Irrigation District (IID), Yuma County Water Users’ Association (YCWUA), and the Bard Water District, as well as a canal modernization project for the Gila Gravity Main Canal (GGMC).

Reclamation’s Water 2025 Challenge Grant program has accelerated work on three projects: water measurement improvements on the All-American Canal (AAC) with the IID, and canal modernization projects with the YCWUA and the GGMC Administrative Board.

The IID project will install state-of-the-art acoustical water measurement equipment at four critical points on the AAC. This new equipment will improve the accuracy of water measurement for

the efficient management of water deliveries to the Imperial and Coachella valleys.

The YCWUA project will expand their currently ongoing canal modernization project. Critical water control structures on the main canals will be modernized for remote and automatic control and improved water measurement. A modernized water delivery and tracking system will automate the tracking of water deliveries in the field with a state-of-the-art system.

The GGMC project will consist of a water measurement structure at the heading of the GGMC; implement a Supervisory Control and Data Acquisition (SCADA) system; automation of water control structures; and canal sealing at critical locations along the canal. In addition, a canal dredging project which was cost-shared by NAD Bank will improve efficiency of water deliveries and reduce canal seepage.

Reclamation-Yuma Area Office (YAO) is also making a contribution towards the completion of the Bard Water District’s canal lining project by cost-sharing on the lining of the Papago Canal, which serves both Indian and non-Indian units.



U.S. Department of the Interior  
Bureau of Reclamation



New check structure on the Cocopah Canal in the Bard Water District. Note the overshoot gates and long-crested weirs for improved water level control. All newly lined canals in this project include new water measurement structures also.

## Initiatives on the Yuma Mesa Plateau

We have started several new projects in cooperation with local water-user entities on the Yuma mesa plateau this summer.

Water measurement programs have been initiated in cooperation with the Unit B Irrigation and Drainage District (UBIDD); the Marine Corps Air Station (MCAS), Range Department; and the Yuma Mesa Irrigation and Drainage District (YMIDD). YMIDD will administer both a district canal and on-farm water measurement program. The UBIDD will have a district water measurement program. MCAS will have a farm delivery measurement program and irrigation system plan.

Due to the frequent lack of elevation in water delivery on the Yuma mesa plateau, these programs will feature increased use of acoustic velocity flow meters (AVFMs). The technology and the commercial products available with AVFMs have improved dramatically in recent years.



AVFMs can be used in canals that flow full with little freeboard such as this one at Fort Mohave.

## Increasing Our Assistance in the Field with Additions to Our Conservation Staff

Our new, full-time Agricultural Engineer on the Water Conservation Team at the YAO is Ty Mull. Ty transferred to YAO from Reclamation's Technical Services Center in Denver, Colorado. In Denver, he worked on consumptive use analysis for water budgets as well as development of water conservation plans.

Ty grew up in Sidney, Nebraska. He graduated from Colorado State University with a B.S. in Bioresource and Agricultural Engineering, and a M.S. in Civil Engineering. His wife, Phen, is a science teacher with the Yuma Private Industries Council. They have a 4-year-old son, Avery.



**The YAO Water Conservation Team.** From left, Mark Niblack Team Leader), Patrick Crawford, Matthew Jennings, Joe Espinoza, Ty Mull, Patrick Riley, Stan Salamon, and Jack Simes (External Coordination Group Manager)

Our team has also increased in numbers this summer with student and temporary employees. Students include Patrick Crawford (a Junior, University of Arizona, mechanical engineering); Patrick Riley (a Senior, University of Arizona, crop production); and Stan Salamon (A sophomore, Arizona Western College, engineering). Matthew Jennings is a temporary employee this year as one of our hydrologic technicians.

Patrick Crawford has returned to school in Tucson but will return next summer to work with the Technical Services Office at YAO. Pat Riley will continue to work part time until spring semester. Stan will continue to work part time while studying at Arizona Western College in Yuma.

