



- Colorado River Management Report

## Summary

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This report provides a summary of the activities related to the Colorado River during April and a response to a request from the Water Planning and Stewardship Committee regarding water supply benefits from the Palo Verde Irrigation District fallowing program.

## Detailed Report

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### **United States and Mexico Reach Agreement on One-Year Operation of the Yuma Desalting Plant**

In April, representatives from the United States and Mexico reached conceptual agreement on joint cooperative actions related to the proposed pilot operation of the Yuma Desalting Plant (YDP) for 2010. Under the agreement, the United States would be operating the YDP for a one-year period at one-third capacity, conserving about 30,000 acre-feet of water for agencies funding the operation. The United States would deliver 10,000 acre-feet of non-storable Colorado River water (water that cannot be saved in the United States) to Mexico for the Santa Clara Wetland, and Mexico would be responsible for obtaining an additional 10,000 acre-feet of water that could be delivered to the Wetland. Provisions would be made to allow nongovernmental organizations the ability to obtain 10,000 acre-feet for additional delivery to the Wetland. The YDP pilot operation funding agencies would contribute up to \$250,000 to fund a monitoring program for the Santa Clara Wetland, and Reclamation would provide an additional \$100,000 to clear the bypass drain to allow water to more efficiently flow to the Wetland.

Reclamation has completed the draft Environmental Assessment for the pilot operation and has distributed it for a 30-day public review period. The current schedule is for Reclamation to complete the environmental review in August and move forward with a decision on upgrading the YDP for the pilot operation in September. The YDP operation would begin around February 2010 should the decision be to proceed.

### **All-American Canal Lining Dedication Recognizes Multi-Agency Cooperation**

On April 30, San Diego County Water Authority, Imperial Irrigation District, the Department of Water Resources, and the Bureau of Reclamation hosted an event dedicating the completion of the All-American Canal lining project. The lining project, which was funded by the state and Water Authority, conserves 67,700 acre-feet of water per year for urban Southern California. There were several obstacles to overcome and ultimately required federal legislation to move the project forward. The dedication highlighted the joint water management benefits from agencies working together through mutual agreement.

### **Drop 2 Reservoir Project Ahead of Schedule**

Construction of the Drop 2 Reservoir Project, located adjacent to the All-American Canal, is progressing and is currently ahead of schedule. Per the agreement with the three funding agencies (Metropolitan, Southern Nevada Water Authority, and Central Arizona Water Conservation District), construction is scheduled to be completed by December 2010. If the current pace continues, the project could be completed 6 months early. Metropolitan has already diverted 68,000 acre-feet of its storage credits as a result of funding the project, and will divert the remaining 34,000 acre-feet in 2010.

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### Summary of Water Supply Benefits from Palo Verde Irrigation District Following Program

#### Impact of Quantification Settlement Agreement

In 2003, Metropolitan, Imperial Irrigation District (IID), and the Coachella Valley Water District (CVWD) executed the Quantification Settlement Agreement (QSA), establishing water budgets for IID and CVWD. Previously, the amounts of water available to IID and CVWD under priority 3a and to Palo Verde Irrigation District (PVID) under priority 3b of the 1931 California Seven Party Agreement were equal to 3.85 million acre-feet (maf) per year, less the amount of water used by PVID under priority 1 and the Yuma Project Reservation Division under priority 2. The QSA quantified IID's and CVWD's share under priority 3a at 3.10 maf and 0.33 maf per year, respectively. The QSA further obligated IID to make conserved water available to CVWD, Metropolitan and San Diego County Water Authority. Deducting the IID and CVWD water budgets from 3.85 maf per year results in a quantity of 420,000 acre-feet per year. PVID, the Quechan Indian Tribe, and the Bard Water District, which were not parties to the QSA, do not have water budgets. Instead, their use of water is restricted to specific acreage. Long-term consumptive use under priorities 1, 2, and 3b averaged about 420,000 acre-feet and had ranged from a low of 315,000 acre-feet to a high of 533,000 acre-feet. In order to isolate IID's and CVWD's Priority 3a quantified entitlement, in executing the QSA, Metropolitan accepted liability for repayment of any overrun resulting from priority 1, 2, and 3b use that exceeds 420,000 acre-feet in a year. Conversely, the QSA also provided that any volume of the 420,000 acre-feet left unused under priorities 1, 2, and 3b would be available to Metropolitan, facilitating execution of a Forbearance and Following Program agreement with PVID.

While long-term historical use averaged 420,000 acre-feet, from 1996 through 2002 the average annual use under priorities 1, 2, and 3b reached nearly 470,000 acre-feet. Since the QSA was executed in 2003, demands under these priorities in the absence of following averaged 483,000 acre-feet per year, which would have resulted in an average reduction of Metropolitan's supplies of about 63,000 acre-feet. There are a number of reasons why the water use in the Palo Verde Valley and other areas has increased. The price of agricultural commodities were relatively high in recent years, making it profitable for farmers to double and even triple crop their land. Additionally, the weather has been relatively hotter and drier over the past several years, increasing water demands.

The impact of high consumptive use under priorities 1, 2, and 3b to Metropolitan's QSA supplies, has been offset by water unused by IID and CVWD. Under the QSA, if either IID or CVWD do not use all of the water available to them-that water is made available to Metropolitan. Since 2003, the amount of water unused by IID and CVWD has averaged nearly 80,000 acre-feet per year. Without the QSA, much of this water would have been used under priority 3, leaving little or no unused water for Metropolitan, as IID and CVWD would not have had to payback overruns or reduce their water orders to permit the Secretary of the Interior to satisfy 14,500 acre-feet of Indian and miscellaneous present perfected rights use. **Figure 1** shows the annual water budget adjustments to Metropolitan's supplies resulting from water unused by the California agricultural agencies.

#### Water Supplies Received from Palo Verde Irrigation District Forebearance and Following Program

In 2005, Metropolitan began its long-term following program with PVID. Under the program, enrolled Palo Verde Valley farmers are required to fallow up to 35 percent of their land at Metropolitan's call. Program performance is measured by the removal of lands from irrigation and a reduction in water use. As water use within PVID declines, Metropolitan's water supplies increase accordingly. At the maximum following call, 29 percent of the Palo Verde Valley could be fallowed in any one year (although that figure was increased to 44 percent during the current one-year emergency following program). A general rule of thumb for projecting water savings from the PVID program is about 5 acre-feet per acre of land fallowed. If PVID would have used 445,000 acre-feet of water before the fallowing call, a 44 percent fallowing level and corresponding water use decrease would provide Metropolitan with about 196,500 acre-feet of additional supplies during that year. Some of that water may be considered as offsetting any use by priorities 1, 2, and 3b that would otherwise be in excess of 420,000 acre-feet in a year, but the absolute benefit to Metropolitan would be 196,500 acre-feet of additional supplies beyond those it otherwise would have received during that year. **Figure 2** shows the historic PVID annual use, along with the savings generated from current and past land fallowing programs.

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This year, under the long-term program 25,947 acres are being fallowed, providing a reduction in demand of about 129,750 acre-feet. Under the emergency program, in which farmers will fallow land for one year beginning this spring, an additional 13,350 acres will be fallowed, saving an additional 66,750 acre-feet over a year. These numbers are estimates; at the end of each year, the U.S. Bureau of Reclamation jointly with Metropolitan and PVID reviews the water use and makes a determination as to the actual amount of water saved by the program each year.

In summary, the PVID program has been a success. Metropolitan can increase and decrease its call as needed, and has been able to quickly amend the agreement for a one-year emergency transfer. There are no conveyance issues associated with delivering the water from PVID to Metropolitan, as the water is made available for diversion directly out of Lake Havasu. The conserved PVID water also qualifies as Intentionally Created Surplus water, making it eligible for storage in Lake Mead under the 2007 Interim Guidelines for Lower Basin Shortages. In fact, Metropolitan currently has over 25,000 acre-feet of conserved PVID water from 2006 that it plans to take delivery of this year. The cooperation between Metropolitan and PVID is a positive example that can be the model for future agricultural and urban partnerships.



