

Agenda Number 7.

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AGENDA ITEM: Report on Proposed Yuma Desalting Plant Pilot Run

RELEVANT POLICY, STATUTE OR GUIDING PRINCIPLE:

Colorado River Reliability and Water Supply Augmentation

PREVIOUS BOARD ACTION/ACTIVITY:

Numerous briefings on the YDP and visits to YDP and Cienega de Santa Clara.

October 2007 – Board briefing on feasibility of operating YDP.

November 2007 – Board briefings on Reclamation’s 90-day demonstration run of YDP and on monitoring studies performed at the Cienega de Santa Clara.

January-April 2008 – Monthly updates on status of discussions regarding YDP.

August 2008 – Status report on discussions among Metropolitan Water District of Southern California (MWD), Southern Nevada Water Authority (SNWA), and CAP to fund a year-long pilot run of the Yuma Desalting Plant at one-third capacity.

October 2008 – Board briefing on potential agreement among Metropolitan Water District of Southern California (MWD), Southern Nevada Water Authority (SNWA), and CAP to conduct pilot operations of the Yuma Desalting Plant.

August 2009 – Board briefing on Yuma Desalting Plant Pilot Run and discussion of related agreements.

ISSUE SUMMARY/DESCRIPTION:

Since 2001, the CAWCD Board has directed staff to work to reduce system losses in the Lower Colorado River to reduce the probability of Colorado River shortages, with particular emphasis on operating the Yuma Desalting Plant (YDP). In 2006, the CAWCD Board adopted a strategic

objective to "manage the Colorado River to optimize existing supply." The desired outcome from the strategic objective stated, in part, the following; "CAP has a clearly identifiable collaborative leadership role on Colorado River management. The Yuma Desalting Plant is operating as part of a planned program."

Since 2004, CAP staff has been working in collaboration with the Bureau of Reclamation (BOR), Metropolitan Water District of Southern California (MWD), the Southern Nevada Water Authority (SNWA), and others to prepare to operate the YDP. The long-term approach to achieve the operation of YDP can be viewed as a seven step process:

1. Develop a stakeholder group to push for operation of YDP,
2. Demonstrate that YDP can operate,
3. Conduct a pilot run of YDP,
4. Prepare a retrofit plan for YDP,
5. Prepare a plan to manage the environmental issues related to the operation of YDP,
6. Develop a consensus plan and funding program,
7. Retrofit and operate YDP.

The first step in the process was completed in June 2005, when the Board adopted the YDP Working Group White Paper. The second step was completed in June, 2007 with the conclusion of the demonstration run of YDP. The demonstration run operated for 90 days at 10% of design capacity. The demonstration run proved that the plant could safely operate at a minimum capacity level.

The next step in the process to operate the YDP is to conduct a pilot run. The pilot run has been developed through the collaborative partnership of CAP, BOR, MWD, and SNWA. The pilot run will be at one-third of YDP capacity for 365 days of operation. The pilot run is expected to produce about 30,000 acre-feet of water for delivery to the Colorado River by desalting Wellton-Mohawk Irrigation and Drainage District (WMIDD) agricultural drainage water. This will result in the conservation of an equal amount of Colorado River water. For the pilot run, the conserved water will be available for use as Intentionally Created Surplus (ICS) credits by CAP, MWD, and SNWA. CAP's share of the conserved water is about 3,000 acre-feet.

CAP's primary goal for participating in the pilot run is to develop critical information to move forward with the long-term operation of YDP. The pilot run will generate key data to: prepare a retrofit plan for YDP (step four above) and prepare a plan to manage the environmental issues related to YDP operations (step five above). Secondary goals include: generating a modest amount of ICS credits for future delivery, and to continue the collaborative partnership among CAP, MWD, and SNWA to develop projects to reduce system losses in the Lower Colorado River.

The pilot run will be funded by contributions from CAP, BOR, MWD, and SNWA. In addition, the development of the pilot run has included input and participation from a wide-range of stakeholders including: ADWR, the International Boundary Waters Commission (IBWC), Mexico resource agencies, California and Nevada Colorado River contractors, and environmental organizations.

The pilot run requires six related agreements, principally among CAP, BOR, MWD, and SNWA. These six agreements govern the funding of YDP operations during the pilot run, water accounting, environmental monitoring, research to lead to a retrofit plan, and water deliveries for water produced by YDP. CAP staff has worked with our partners to craft agreements that meet our needs and maintain momentum to reach our long-term goal. Because of the multiple partners, these agreements include compromises among the States and BOR. When viewed as a package, the six agreements appear to meet CAP's goals and objectives. MWD and SNWA will consider action on these agreements in September. The six agreements are summarized in the following table.

Summary of YDP Pilot Run Agreements

Agreement Name	Parties	CAP's Funding Share	Key Action
YDP Pilot Funding	CAP, BOR, MWD, SNWA	\$1,400,000	Cost-sharing for pilot run operations
Delivery Agreement – AZ	CAP, BOR	NA	Delivery of ICS credits generated by the pilot run
Exhibit P to Forbearance Agreement	CAP, ADWR, BOR, CA & NV contractors	NA	Forbearance of diversions to create ICS credits
Cooperative Research and Development Agreement (CRADA)	CAP, BOR, MWD, SNWA	\$180,000	Research for YDP retrofit plan
In-kind Funding for CRADA	CAP, MWD, SNWA	\$136,000	Cost-sharing of in-kind contributions for research for YDP retrofit plan
Cienega Monitoring	CAP, MWD, SNWA	\$72,400	Monitoring of Cienega de Santa Clara and data control and sharing

The total estimated cost to CAP is \$1,788,400 to conduct the pilot run, while the total cost to conduct the pilot run is \$24,648,400. CAP's share is slightly more than 7% of the total cost of the pilot run. CAP is gaining the benefit of cost-share contributions from BOR, MWD, and SNWA. CAP is saving two-thirds of the costs to conduct research and monitoring, due to cost-sharing with MWD and SNWA. In addition, CAP is obtaining 3,000 af of ICS credits for future use. At the conclusion of the pilot run, CAP can take the next steps toward operating the YDP on a long-term basis.

Staff plans to bring the agreements to the Board for consideration and action at the October CAWCD Board meeting. If the parties complete and sign the agreements in early October, BOR reports that the pilot run can begin in April of 2010.