

**A SPECIAL MEETING OF THE WATER RESOURCES COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CALIFORNIA 90712
12:00 P.M., THURSDAY, APRIL 10, 2008**

AGENDA

EACH ITEM ON THE AGENDA, NO MATTER HOW DESCRIBED, SHALL BE DEEMED TO INCLUDE ANY APPROPRIATE MOTION, WHETHER TO ADOPT A MINUTE MOTION, RESOLUTION, PAYMENT OF ANY BILL, APPROVAL OF ANY MATTER OR ACTION, OR ANY OTHER ACTION. ITEMS LISTED AS "FOR INFORMATION" MAY ALSO BE THE SUBJECT OF ANY "ACTION" TAKEN BY THE BOARD OR A COMMITTEE AT THE SAME MEETING.

- 1. DETERMINATION OF A QUORUM**
- 2. PUBLIC COMMENT**
- 3. ALAMITOS BARRIER WATER SUPPLY**
Staff Recommendation: That the District implement Option 2 and immediately switch from using banked water at the Alamitos Barrier to using non-interruptible water and that the District staff begin development of an agreement with LBWD to bank non-interruptible imported water in the second half of 2008.
- 4. ANALYZE WATER SUPPLY NEEDS FOR FY 08/09**
Staff Recommendation: For discussion.
- 5. DIRECTORS REPORTS, INQUIRIES, REVIEW OF DIRECTIONS TO STAFF**
- 6. ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, April 9, 2008.



MEMORANDUM

ITEM NO. 3

Prepared by: Jason Weeks

Reviewed by: Robert Siemak

Approved by:

DATE: APRIL 10, 2008

TO: SPECIAL WATER RESOURCES COMMITTEE

FROM: ROBB WHITAKER, GENERAL MANAGER

SUBJECT: ALAMITOS BARRIER WATER SUPPLY

BACKGROUND

WRD is permitted to use a 50 percent blend of imported and recycled water at the Alamitos Barrier. The recycled water is produced at the District's Leo J. Vander Lans Water Treatment Facility and the imported water has typically been Tier 1 non-interruptible water purchased from Long Beach Water Department (LBWD) at the MWD Commodity Rate plus a \$5 per acre-foot administrative surcharge. More recently, WRD has enjoyed the benefits of using less expensive seasonal imported water as a result of a groundwater storage agreement with LBWD. The recent lack of availability of MWD seasonal water has halted the District's ability to put more water into groundwater storage, resulting in decreased storage levels and the likely need to revert back to using Tier 1 non-interruptible water to meet Alamitos Barrier Imported Water Demands.

WRD/LBWD STORAGE AGREEMENT

In 2002, WRD and LBWD entered into a storage agreement which, among other things, provided a means for WRD to realize the benefits of banking less expensive seasonally available imported water for later delivery to the Alamitos Barrier. Specifically, LBWD agreed to purchase seasonal water on behalf of WRD and store it in the Central Basin for a period of one year. Per MWD terms for seasonal water use, after the water remains in storage for one year, LBWD is able to extract the water and deliver it to the Alamitos Barrier. This water directly offsets more expensive non-interruptible imported water. The cost to WRD of purchasing this seasonal water from LBWD is the MWD Commodity Rate plus 10%.

WRD began purchasing seasonal water from LBWD in March 2005 for the seasonal rate of \$335 per acre-foot plus 10%, or \$357.50 per acre-foot. The District purchased and stored 4,000 acre-feet of seasonal water at this rate throughout 2005. The District purchased an additional 1,275.30 acre-feet throughout 2006 for the seasonal rate plus 10%, or \$396 per acre-foot. No additional water has been put into storage since 2006 due to LBWD operational considerations and the MWD's lack of available seasonal water.

In August 2006, WRD began to fully realize the benefits of this storage program when water initially stored in 2005 for \$357.50 per acre-foot was extracted and delivered to the barrier.

This stored water directly offset non-interruptible water purchases, which at the time cost \$458 per acre-foot. This resulted in \$100 per acre-foot savings for imported water at the Alamitos Barrier.

The District continues to use this stored water to meet imported water demands at the barrier. To date, approximately 3,200 acre-feet has been extracted and delivered to the barrier, resulting in savings to the District of \$425,000.

FUTURE WATER SUPPLY TO ALAMITOS BARRIER

While the utilization of this stored water has benefited the District greatly, it was foreseen when entering into the agreement that future reduced availability of seasonal water may require the District to revert back to Tier 1 to meet imported barrier demands.

Since MWD has not had seasonal water available since March 2008, the District has not been able to replace stored water that has been extracted and delivered to the barrier. Further, it appears that MWD will not have seasonal water for the foreseeable future. As a result, it is estimated that the remaining 2,000 acre-feet of stored water will be exhausted by November 2008, at which time the District will resume paying the Tier 1 rate.

District staff has been evaluating alternatives to best manage this remaining 2,000 acre-feet. In order to evaluate various scenarios, the melded cost of this water was calculated. As noted above, this water was purchased throughout 2005 and 2006 at the MWD seasonal rate plus 10%, resulting in a melded unit cost of the remaining stored water of \$365 per acre-foot.

WATER TYPE	UNIT COST (\$/AF)
Remaining 2,000 AF Stored Water	\$365
2008 Tier 1 Non-Interruptible Rate	\$513
2009 Tier 1 Non-Interruptible Rate	\$584
2009 Tier 2 Non-Interruptible Rate	\$700
2009 WSA Penalty (low)	\$1,395
2009 WSA Penalty (high)	\$2,785

Alternative 1 – Status Quo

Under this alternative, the District would:

- Continue using stored water until bank is depleted in November 2008.
 - \$365 per acre-foot for stored water (already purchased).
- After the bank is depleted, begin using non-interruptible water.
 - \$513 per acre-foot for Tier 1 non-interruptible through December 2008.
 - \$584 per acre-foot for Tier 1 non-interruptible in 2009
- Under this alternative, the District has no buffer against possible Tier 2 water purchases which will cost \$700 per acre-foot in January 2009.
- Under this alternative, the District has no buffer against possible penalties if MWD implements its Water Supply Allocation plan and supplies are reduced; with these penalties, water costs could range from \$1,395 per acre-foot to \$2,785 per acre-foot.

Alternative 2 – Conserve Banked Water

Under this alternative, the District would:

- Stop using banked water and immediately switch to Tier 1
 - \$513 per acre-foot for Tier 1 non-interruptible for 2008.
 - \$584 per acre-foot for Tier 1 non-interruptible for 2009.
- Under this option, the remaining 2,000 acre-feet of storage would to serve as buffer against Tier 2 charges or Water Supply Allocation plan penalties.
 - In this scenario, \$365 per acre-foot water could offset \$700 per acre-foot Tier 2 water or up to \$2,785 per acre-foot water for Water Supply Allocation plan penalties.

District staff further evaluated the two alternatives by projecting Alamitos Barrier imported water demands from April 2008 through December 2010 and comparing total imported water costs between the two alternatives. As described above, in Alternative 1, the 2,000 acre-feet of stored water is used from April 2008 through November 2008. In Alternative 2, the 2,000 acre-feet of stored water is used from May 2010 through December 2010. A summary of the results is shown in the table below:

ALAMITOS BARRIER IMPORTED WATER SUPPLY COSTS ESTIMATES APRIL 2008 THROUGH DECEMBER 2010				
	No Penalties	Tier 2 May-Dec. 2010	Water Supply Allocation (Low) May-Dec. 2010	Water Supply Allocation (High) May-Dec. 2010
Alternative 1	\$3.73M	\$3.96M	\$5.42M	\$8.33M
Alternative 2	\$3.52M	\$3.52M	\$3.52M	\$3.52M
Difference	\$0.21M	\$0.44M	\$1.90M	\$4.81M

As shown in the table above, Alternative 2 results in cost savings to the District compared to Alternative 1, even if no penalties are imposed. The benefits of Alternative 2 are further increased if Tier 2 or Water Supply Allocation penalties are imposed.

The District budgeted \$694,000 for seasonal imported water for the Alamitos Barrier in FY2007/08, however, since seasonal water has not been available, none of these funds have been expended. Based on current injection rates, under Alternative 2 the District will purchase 750 acre-feet of non-interruptible imported water at \$513 per acre-foot for the remainder of FY2007/08. The total cost of this non-interruptible water is \$388,500 or \$305,500 less than was budgeted in FY2007/08.

In addition to conserving remaining stored water as described in Option 2, District staff has been discussing the possibility of storing Tier 1 water in the second half of 2008. Preliminary discussions with LBWD indicate that they may have an additional 2,000 acre-feet of Tier 1 water available that could be purchased and stored by the District for \$518 per acre-foot. This

water, like the 2,000 acre-feet already in storage, could be used to offset possible future Tier 2 penalties or Water Supply Allocation plan penalties. Further, since this water is not seasonal water and therefore not subject to the one-year storage requirement, it could also be used to offset non-interruptible barrier purchases beginning in 2009.

The purchase of 2,000 acre-feet of non-interruptible storage water would cost the District \$1,036,000 and could offset a like amount of water in 2009 that would cost the District \$1,168,000, resulting in a savings of \$132,000.

STAFF RECOMMENDATION

That the District implement Alternative 2 and immediately switch from using stored water at the Alamitos Barrier to using non-interruptible water and that District staff begin development of an agreement with LBWD to bank non-interruptible imported water in the second half of 2008.

FISCAL IMPACT

Alternative 2 - shifting from banked water to non-interruptible water will cost \$305,500 less than was budgeted for FY2007/08. Future avoided penalties as a result of stored water range from \$116 to \$2,785 per acre-foot for the 2,000 acre-feet that will remain in storage.

Banking additional Tier 1 non-interruptible in the second half of 2008 will cost the District \$518 per acre-foot for up to 2,000 acre-feet. The total cost for this banked water is \$1,036,000 was not budgeted for FY2007/08.