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Director

State of California—Health and Human Services Agency
California Department of Public Health

Mr. Richard Nagel



ARNOLD SCHWARZENEGGER
Governor

December 24, 2008

Ms. Tracey J. Egoscue
Executive Officer
California Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Dear Ms. Egoscue

**West Basin Barrier Project – Expansion
Independent Advisory Panel (IAP) Recommendations**

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The West Basin Municipal Water District (WBMWD) has proposed to the California Department of Public Health (CDPH) and the Regional Water Quality Control Board, Los Angeles Region (RWQCB) to increase the percentage of recycled water injected into the West Coast Basin seawater barrier from 75% to 100%. The WBMWD is operating under Order No. R4-2006-0009 from the California Regional Water Quality Control Board, Los Angeles Region. The Order, Section IV. 1, allows the WBMWD to increase the total volume of RO recycled water injected into the seawater barrier under certain conditions. Specifically, Condition F of Section IV. 1. requires the review and assessment of the increased RO RWC by a scientific peer advisory panel.

The Independent Advisory Panel (IAP) met initially in October 2007 and made their final Findings, Conclusions and Recommendations on September 12, 2008. A copy of the final report has been submitted to your office. The IAP unanimously supports the WBMWD proposal to increase the percentage of recycled water delivered to the seawater barrier from 75% to 100%. This increase would enhance utilization of limited local water supplies.

The IAP final report contains nine recommendations including the recommendation to allow WBMWD to increase the percentage of water to the seawater barrier from 75% to 100% but prior to the increase, the WBMWD must complete two recommendations. The CDPH concurs with the recommendations. The two recommendations that must be completed prior to moving to 100% RO RWC are:

1. **Travel Time** – The IAP recommends that the draft technical memorandum by Dr. Motzer on the intrinsic tracer study and travel time determination be finalized and continue the evaluation of the movement of the recharged water per the Board Order Section IV. 1. A.
2. **Industrial Waste Pretreatment** – The draft memorandum of agreement dated August 1, 2007, should be approved by WBMWD and the City of Los Angeles. Negotiations should begin immediately between the City of Los Angeles and WBMWD to provide a mechanism for WBMWD to develop with the City of Los Angeles prohibitions against discharge of non-treatable contaminants into the sewer system serving the Hyperion plant.

The IAP final report contains seven additional recommendations. WBMWD needs to develop a time schedule for implementation of each remaining recommendation and submit the schedule to the RWQCB and the CDPH by **March 31, 2009 for review and approval.**

1. **Seawater Barrier Integrity** – The IAP recommends a number of actions be taken so that further degradation of this groundwater resource is eliminated by providing a seawater barrier that is fully functional. The actions are listed in the final report.
2. **Basin Redox Conditions** – The IAP recommends that detailed assessment, monitoring and tracking of the redox condition of the West Basin be implemented immediately and that a report on the redox conditions of the West Basin be completed by September 2010.
3. **Trace Organic Monitoring** – The trace organic monitoring needs to be modified per the recommendation in the final IAP report and Appendix A of the report. The WBMWD needs begin by sampling for a variety of chemicals quarterly. Then, submit the findings to the RWQCB and the CDPH with a recommendation to reduce the number of chemicals monitored using the information listed in Appendix A. If accepted by the RWQCB and CDPH, the WBMWD permit monitoring requirements would be modified.
4. **Microbiological Monitoring** – The IAP recommends that WBMWD institute weekly monitoring for E.Coli in water sent to the seawater barrier.
5. **Calcium Carbonate Stability** – The RWQCB Order for the WBMWD should be revised to allow pH values in the treated water to increase from 8.5 to 9.0. WBMWD should then increase the lime dose to produce an LSI value closer to zero to preserve the integrity of the pipe materials.
6. **UV/AOP** – The IAP recommends WBMWD should continue to treat water from the West Basin plant with UV light to reduce the concentration of NDMA below the notification level. The WBMWD should also continue to add hydrogen peroxide at the current levels to provide a final barrier against trace organics. Any changes to this treatment procedure should be made only after a thorough treatment investigation and recommendation by an independent expert in this area.

7. **Formaldehyde** – Sources of formaldehyde in the West Basin plant effluent should be determined by WBMWD and opportunities for their control should be evaluated and reported to the RWQCB and CDPH by September 2010.

The CDPH recommends to the RWQCB approval of the IAP final report and recommendations. The CDPH also recommends to the RWQCB to modify the Order R4-2006-0009 to increase the pH within their operating permit from 8.5 to 9.0 to allow the WBMWD to produce an LSI value of treated water closer to zero. Following completion of additional IAP recommendations and WBMWD evaluations, additional modifications of the monitoring section of the Order may be requested.

The final recommendation for approval to increase from 75% to 100% cannot be made until the WBMWD has completed Section IV. 1. A. through G. Also, the WBMWD will need to complete the travel time and industrial waste pretreatment recommendations included in the IAP final report and this letter prior to moving to 100% RWC.

If you have any questions, please call this office at (805) 566-1326.

Sincerely,



Kurt Souza, P.E., Chief
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CDPH-DWFOB

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