California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2002-0008-A02

Amending Order No. 00-1, NPDES No. CA8000027
Waste Discharge and Producer/User Reclamation Requirements

for the

Elsinore Valley Municipal Water District
Regional Water Reclamation Facility
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter, Board), finds that:

1. On February 25, 2000, the Board adopted Order No. 00-1, NPDES No. CA8000027, prescribing Waste Discharge and Producer/User Reclamation Requirements for Elsinore Valley Municipal Water District's (EVMWD) Regional Water Reclamation Facility for the discharge of tertiary treated wastewater to Temescal Creek. Order No. 00-1 was amended by Order No. 01-70 on July 20, 2001.

2. On September 19, 2001, EVMWD requested that the Regional Board revise Order No. 00-1 to authorize the implementation of a project that would include the discharge of tertiary treated wastewater from EVMWD's Regional Water Reclamation Facility to Lake Elsinore, and the discharge of groundwater to the Lake from three island wells located at the east end of the Lake. The intent of this project is to provide additional water to Lake Elsinore to increase and help stabilize water levels in the Lake.

3. Lake Elsinore has an annual water deficit of about 7,500 acre-feet, and about 15,000 acre-feet in dry years. The Lake typically experiences a 4-5 foot elevation drop in normal years. The Lake has dried up completely in certain years. These elevation changes have resulted in significant adverse impacts on the quality and beneficial uses of the Lake, including contact and non-contact recreation, warm water aquatic habitat, and wildlife habitat.

4. The surface elevation of the Lake is currently below 1,239 feet. The critical Lake level is 1,240 feet, below which recreational use is adversely impacted, the concentrations of dissolved solids and nutrients increase, and aquatic life impacts occur, including fish kills.

5. EVMWD proposes to discharge recycled water from its Regional Water Reclamation facility and to discharge groundwater from the three island wells located at the east end of the Lake. The volume of recycled water available for supplementing the Lake level is estimated to be 2.0 to 4.0 mgd (2,240 to 4,480 acre-feet per year). When EVMWD is unable to provide this volume of recycled water, the deficit can be filled by the discharge of recycled water by Eastern Municipal Water District (EMWD), if and as authorized under EMWD's waste discharge requirements. The island wells have a production capacity sufficient to provide 3,000 to 5,000 acre-feet of water per year. The wells are not currently in operation. These combined sources would provide up to 9,400 acre-feet of additional Lake water per year. The combined water sources would be sufficient to offset estimated yearly evaporation losses.

6. This project is a two-year pilot project intended to address Lake stabilization problems and to test the effects of the discharge of recycled water on the quality and beneficial uses of the Lake. This amendment requires the discharger to propose a suitable monitoring program for approval by the Executive Officer, and to implement that program upon approval. In considering whether to approve or modify this monitoring program, the Executive Officer will seek the input of interested parties.

7. Lake Elsinore is included on the Regional Board's Clean Water Act Section 303(d) list of impaired waters. In part, the impairment is caused by excessive levels of nutrients. Work is underway by Regional Board staff, in concert with interested parties, to develop a Total Maximum Daily Load (TMDL) to address this nutrient problem. Numerous studies have been conducted, and are being conducted as part of this TMDL effort, to identify the sources of nutrient inputs to the Lake and appropriate control measures. It is evident from these studies that creative methods will need to be employed to address the nutrient problem, since the Lake sediments themselves constitute the most significant source of nutrients. Controls on watershed sources of nutrients will not suffice; one or more programs for Lake remediation will also be necessary.

8. Discharges of recycled water constitute a new source of nutrient input to the Lake. Appropriate limitations on such discharges will be developed through the TMDL process. Since a TMDL has not yet been developed and approved, the discharges should be required to comply with the nutrient objectives specified in the Basin Plan for the Lake. The quality of these discharges does not now comply with these objectives. The discharger cannot achieve immediate compliance with these objectives since additional treatment facilities would need to be constructed. However, given the declining levels in the Lake, the potential that the Lake could dry up completely, and the significant adverse impacts that changes in Lake level (or complete drying of the Lake) are known to have on the Lake's beneficial uses, there is an immediate need to take steps to increase and stabilize the water level of the Lake. The water quality and beneficial use benefits of increasing and stabilizing the Lake level outweigh the adverse consequences, if any, of allowing the short term, pilot scale discharge of recycled water with nutrients in excess of applicable objectives.

9. The discharger and the City of Lake Elsinore are well aware of the facts delineated in Findings 7 and 8, above, and agree that the pilot project is in the best interest of Lake Elsinore, its inhabitants, and its users.

10. EVMWD will divert recycled water from its Reclamation facility discharges to Temescal Creek to the outlet channel of Lake Elsinore. This Order amends Order No. 00-1 to include this discharge location to Lake Elsinore.

11. In accordance with Water Code Section 13389, amending the waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

12. The Board has notified the discharger and other interested agencies and persons of its intent to amend waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.

13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED THAT Order No. 00-1 as amended by Order 01-70, shall be amended as follows:

1. Add Findings No. 2. and 10., as follows:

    2. The discharger proposes to implement a pilot project that includes the discharge of up to 4480 acre-feet per year of recycled water to Lake Elsinore, and the discharge of up to 5,000 acre-feet per year of groundwater pumped from three island wells located at the east end of the Lake. The pilot project would take place for a period of two years. The intent is to provide water to increase and stabilize the level of the Lake and to test the effects of the discharge of recycled water on the water quality and beneficial uses of the Lake.

    10. The discharge point is located at latitude 33°40'50" and longitude 117°19'15". The discharge is to Lake Elsinore, the beneficial uses of which include:

        a. Water contact recreation,
        b. Non-contact water recreation,
        c. Warm freshwater habitat, and
        d. Wildlife habitat.

2. Renumber affected Finding paragraph numbers accordingly.

3. Required Notices and Reports Section of Order No. 00-1, add Required Notices and Reports I.12 as follows:

    12. The discharger shall submit a proposed Lake monitoring and reporting program for approval by the Executive Officer of the Regional Board prior to any discharge of recycled water into the Lake. The monitoring program proposed shall include but not be limited to the parameters to be monitored, the frequency of monitoring, and specific locations in the Lake where monitoring will be done.

4. Provisions Section of Order No. 00-1, add Provision K.26. as follows:

    26. There shall be no discharge of recycled water into Lake Elsinore until such time that the Executive Officer of the Regional Board has approved a Lake monitoring and reporting program. (see also Required Notices and Reports I.12)

5. Provisions Section of Order No. 00-1, add Provision K.27. as follows:

    27. The discharger shall implement the Lake Elsinore monitoring and reporting program approved by the Regional Board Executive Officer. The approved Lake Elsinore monitoring and reporting program shall be a part of Monitoring and Reporting Program No. 00-1, as amended.

6. Provisions Section of Order No. 00-1, add Provision K.28. as follows:

    28. This Order authorizes the implementation of a two year pilot project that includes the discharge of up to 4,480 acre-feet per year of recycled water, to be provided by the discharger and/or Eastern Municipal Water District (if and as authorized by EMWD's waste discharge requirements), and the discharge of up to 5,000 acre-feet of groundwater from wells located at the east end of the Lake.

7. Provisions Section of Order No. 00-1, add Provision K.29. as follows:

    29. This Pilot Project terminates on February 1, 2004.

8. Provisions Section of Order No. 00-1, add Provision K.30. as follows:

    30. The discharger shall release a total of 10,000 acre-feet of groundwater from the "island wells" into Lake Elsinore per a schedule approved by the Regional Board Executive Officer. The discharger shall submit the proposed schedule by April 1, 2002.

9. Provisions Section of Order No. 00-1, add Provision K.31. as follows:

    31. By April 1, 2002, the discharger shall submit to the Regional Board and the Department of Health Services the following:

        a. A Use Site Engineering Report, per Article 4, Section 60310 of Title 22, California Code of Regulations,

        b. Source Water Assessment Protection Program for all municipal and domestic water supply wells within a 100 foot perimeter of the highest recorded surface water elevation of the Lake, and

        c. Water balance study to assess, over the long run, what will be the percentage of recycled water contribution, natural storm runoff, and local groundwater wells (the so called "island wells").

10. Monitoring and Reporting Program No. 00-1, add new Section I. "Lake Elsinore Recycled Water Discharge Monitoring and Reporting:" as follows and re-letter subsequent sections accordingly:

    I. Lake Elsinore Recycled Water Discharge Monitoring and Reporting:

    1. Whenever recycled water is discharged into Lake Elsinore, the volume of recycled water, and the date at which recycled water is supplied shall be recorded on a permanent log. A copy of the log of recycled wastewater discharged into Lake Elsinore shall be submitted every month. If no discharge occurs, a letter to that effect shall be submitted.

    2. The discharger shall implement the Lake Elsinore monitoring and reporting program approved by the Regional Board Executive Officer.

11. All other conditions and provisions of Order No. 00-1, as amended, shall remain unchanged.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the forgoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on January 23, 2002.

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Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

January 23, 2002

ITEM: 6

SUBJECT: Amending Order No. 00-1, NPDES No. CA8000027, Waste Discharge Producer/User Water Reclamation Requirements for Elsinore Valley Municipal Water District – Regional Water Reclamation Facility, Order No. R8-2002-0008-A02.

DISCUSSION:

On February 25, 2000, the Regional Board adopted Order No. 00-1, NPDES No. CA8000027 prescribing waste discharge requirements for Elsinore Valley Municipal Water District's Regional Water Reclamation Facility, for the discharge of tertiary treated wastewater to Temescal Creek. Order No. 00-1 was amended by Order No. 01-70.

On September 19, 2001, Elsinore Valley Municipal Water District (EVMWD) requested that the Regional Board revise Order No. 00-1 to authorize the implementation of a project that would include the discharge of tertiary treated wastewater from EVMWD's Regional Water Reclamation Facility to Lake Elsinore, and the discharge of groundwater to the Lake from three island wells located at the east end of the Lake. The intent of this project is to provide additional water to increase and help stabilize water levels in the Lake.

Lake Elsinore experiences substantial water level variation and, in certain years, dries completely. These changes in water level result in significant adverse effects on the water quality and beneficial uses of the Lake, including recreational opportunities and fish and wildlife habitat. The Lake has experienced a number of massive fish kills. These impacts in turn result in significant adverse impacts on the economy of the surrounding community. Currently, the Lake has an annual water deficit of about 7,500 acre-feet, and about 15,000 acre-feet in dry years. That is, more water is lost from the Lake through evaporation than comes into the Lake from precipitation and other sources. The Lake typically experiences a 4 -5 foot elevation drop in normal years.

EVMWD proposes to implement a two-year pilot project that includes the discharge to the Lake of up to 4480 acre-feet per year of tertiary treated recycled water, and the discharge of up to 5000 acre-feet per year of groundwater pumped from three wells located at the east end of the Lake (the so-called "island wells"). EVMWD would provide the recycled water from its Regional Water Reclamation Facility. If EVMWD is unable to provide the 4480 acre-feet per year, any deficit could be made up with the discharge of recycled water by Eastern Municipal Water District (EMWD), if such discharge is authorized by waste discharge requirements. (In a separate item on the Board's agenda, the Board will be asked to consider amendment of EMWD's waste discharge requirements to authorize such discharge.) The combined discharges of recycled water and groundwater would provide up to 9,400 acre-feet of additional Lake water per year. These discharges would be sufficient to offset estimated yearly evaporation losses.

Lake Elsinore is included on the Regional Board's Clean Water Act Section 303(d) list of impaired waters. In part, the impairment is caused by eutrophication, or excessive levels of nutrients. Regional Board staff, in concert with other interested parties, are now working to develop a Total Maximum Daily Load (TMDL) to address this nutrient problem. Numerous studies have been conducted, and are being conducted as part of this TMDL effort, to identify the sources of nutrient inputs to the Lake and appropriate control measures. These studies demonstrate that some innovative approaches will need to be employed to address the nutrient problem, since the Lake sediments themselves constitute the most significant source of nutrients. Controls on watershed sources of nutrients will not suffice; one or more programs for Lake remediation will also be necessary. (Board staff presented a Problem Statement concerning the nutrient problem in Lake Elsinore at a Regional Board workshop on November 16, 2000. This Problem Statement included a discussion of some of the Lake remediation options that are being considered.)

Discharges of recycled water would constitute a new source of nutrient input to the Lake. Appropriate limitations on these discharges will be developed through the TMDL process. Since a TMDL has not yet been developed and approved, the discharges should be required to comply with the applicable nutrient objectives specified in the Basin Plan for the Lake. The quality of these discharges does not now comply with these objectives, and it would take time to construct and implement the additional treatment facilities necessary to achieve compliance. However, there is an immediate need to take steps to increase and stabilize the water level of the Lake given the declining Lake level, the potential that the Lake could dry up completely, and the significant adverse impacts that changes in Lake level (or complete drying of the Lake) are known to have on the Lake's quality and beneficial uses. The water quality and beneficial use benefits of increasing and stabilizing the Lake level appear to outweigh the adverse consequences, if any, of allowing the short term, pilot scale discharge of recycled water with nutrients in excess of applicable objectives.

Regional Board staff have had extensive discussions with the City of Lake Elsinore staff and EVMWD concerning the merits and potential adverse consequences of implementing this pilot project. Clearly, these parties have long-standing knowledge and concern about the eutrophication problem in the Lake, and are conversant with the TMDL and permitting issues discussed above. The parties agree that the pilot project is in the best interest of Lake Elsinore, its inhabitants, and its users. Accordingly, Order No. R8-2002-0008-A02 is being proposed to amend Order No. 00-1 to authorize the implementation of the pilot project. Order No. R8-2002-0008-A02 requires the discharger to submit a Lake monitoring program for approval by the Executive Officer of the Regional Board prior to any discharge of recycled water to the Lake. In considering approval of this monitoring program, the Executive Officer will seek the input of interested parties.

RECOMMENDATION:

Adopt Order No. R8-2002-0008-A02, as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) - Terry Oda
U.S. Army District, Los Angeles, Corps of Engineers, Regulatory Branch
U.S. Fish and Wildlife Service - Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
State Water Resources Control Board, Division of Water Quality- James Kassel
State Water Resources Control Board, Division of Clean Water Programs - Lynn E. Johnson
State Department of Health Services, Santa Ana – Frank Hamamura
State Department of Health Services, Santa Barbara - Jeff Stone
State Department of Health Services, San Diego – Steve Williams
State Department of Water Resources - Glendale
State Department of Fish and Game - Long Beach
Orange County Water District - Nira Yamachika
City of Lake Elsinore – City Manager
City of Canyon Lake – City Manager
Riverside County Flood Control and Water Conservation District
Riverside County Department of Environmental Health Services
Santa Ana River Dischargers Association
Santa Ana Watershed Project Authority – Joseph Grindstaff
Montgomery Watson – Jeff Mohr
Best Best & Krieger LLP - Arthur L. Littleworth
County of Riverside – Supervisor Bob Buster
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper