Region 8

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

FEB 20 1973

SANTA ANA REGION

In the Matter of the Petition of Orange County Water District for Review of Order No. 72-16 of the California Regional Water Quality Control Board, Santa Ana Region, Prescribing Waste Discharge Requirements for Rancho Caballero Mobilehome Park

Order No. 73-4

On May 30, 1972, the Orange County Water District petitioned the State Water Resources Control Board (State Board) for review of Order No. 72-16 of the California Regional Water Quality Control Board, Santa Ana Region, (regional board) adopted on April 27, 1972, prescribing waste discharge requirements for Rancho Caballero Mobilehome Park (discharger).

The petition requests the State Board to review and find inappropriate and improper the regional board's action in adopting Order No. 72-16 on the basis that the regional board failed to implement basin plan comply with the provisions of California Water Code Section 13263(a) and failed to comply with the Environmental Quality Act, California Public Resources Code, Section 21000 et seq. by not receiving and/or considering an environmental impact report in conjunction with the adoption of Order No. 72-16.

The petition further requests the State Board to adopt new waste discharge requirements for the discharger and prepare an environmental impact report in conjunction therewith, or in the alternative, stay the effect of Santa Ana Regional Board Order

No. 72-16 and direct the regional board to reconsider waste discharge requirements for the discharger and prepare an environmental impact report in conjunction therewith.

Subsequent to May 30, 1972, the State Board determined that Order No. 72-16 should be reviewed to determine if the requirements contained therein were fully consistent with the water quality control plan for the region. By notice dated August 16, 1972 the State Board notified all known interested persons that a public hearing would commence on September 13 to consider the following issues raised by the petition:

1. Should Order No. 72-16 contain a waste discharge requirement for total dissolved solids, and if so, what should the requirement be;

2. Should Order No. 72-16 contain requirements on the chemical quality of the waste discharged which are limited to increments in excess of the concentration found for the same constituents in the water supply of the discharger;

3. Does Order No. 72-16 comply with the requirements of Water Code Section 13263 by implementing the water quality control plan for the region which contains a standard for total dissolved solids; and

4. Does Order No. 72-16 comply with the requirements of Water Code Section 13263 by considering the beneficial uses to be protected, the environmental characteristics of the affected hydrographic unit, the quality of the water available thereto, water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area and economic considerations?

Based upon the record before the regional board and the evidence received at the public hearing on September 13 and 14, 1972, the State Board finds and concludes as follows:

QUALITY OF WATER SUPPLY; WASTE DISCHARGE REQUIREMENTS; WATER QUALITY CONTROL PLAN; QUALITY OF GROUNDWATER BASIN

The discharger submitted to the regional board a report of waste discharge dated June 8, 1972, in which the discharger proposed to discharge approximately 50,000 gallons per day of domestic waste into the Arlington-Riverside Groundwater Basin.

The water supply to the discharger which is obtained from the Western Municipal Water District is unsoftened Colorado River water which, according to Metropolitan Water District of Southern California, Thirty-Third Annual Report, contains the following approximate average concentrations of chemical constituents:

Constituent	
Filterable Residue	755 mg/l
Sodium	114 mg/l
Sulfate	332 mg/l
Chloride	100 mg/l
Total Hardness (as CaCo3)	357 mg/l
Fluoride	0.4 mg/l
Boron	0.13 mg/l
Ammonium (as N)	None

The requirements for the discharger contained in Order No. 72-16 provide, in relevant part, as follows:

> "The chemical quality of the waste discharged shall be limited to the following increments in excess of the concentrations found for the same constituents in the water supply to the sewered area: [Emphasis added.]

Constituent	
Sodium	75 mg/l
Sulfate	30 mg/l
Chloride	40 mg/l
Total Hardness (as CaCo3)	25 mg/l
Fluoride	1.0 mg/l
Boron	0.2 mg/l
Ammonium (as N)	10 mg/l"

The water quality control plan for the Santa Ana River Basin was adopted in 1972 after numerous public hearings as required by Article 3, Chapter 4, Division 7 of the California Water Code. The plan contains the following water quality objectives for the Arlington-Riverside Groundwater Basin:

Constituent		
Filterable Residue (TDS)	700	mg/l
Total Hardness	350	mg/l
Sodium (as %)	45	%
Bicarbonate	300	mg/l
Chloride	125	mg/l
Nitrate	44	mg/l
Fluoride	0.9	mg/l
Boron	0.4	mg/l
Arsenic	0.05	mg/l
Chromium (hexavalent)	0.05	mg/l
Lead	0.1	mg/l
Phenol	0.001	mg/l
Selenium	0.05	mg/l

The concentrations of chemical constituents in the waters of that portion of the Arlington-Riverside Groundwater Basin into which the waste is discharged, as measured in 1968 and set forth in Water Resources Engineers, Inc., Watershed Climate, Geohydrology and Water Quality, A final Report on Task II-3 to Santa Ana Watershed Planning Agency, November 1970, are as follows:

Constituent		
Filterable Residue (TDS)	900-1000	mg/l
Chloride	50-150	mg/l
Total Hardness	400-600	mg/l
Boron	0.1-0.5	mg/l

STATUTORY REQUIREMENTS FOR THE ADOPTION OF WASTE DISCHARGE REQUIREMENTS BY A REGIONAL WATER QUALITY CONTROL BOARD

The statutory requirements for the adoption of waste discharge requirements by a regional board are found in Water Code Section 13263. The relevant portion of this section reads as follows:

"The requirements shall implement relevant water quality control plans, if any have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

Section 13241 requires each regional board to establish water quality objectives in water quality control plans to ensure protection of beneficial uses and the prevention of nuisances. In establishing such objectives the boards must consider at least the following:

"(a) Past, present, and probably future beneficial uses of water.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

(d) Economic considerations."

In the instant case, a water quality control plan has been adopted for the Santa Ana River Basin. Included within that plan are water quality objectives for the Arlington-Riverside Groundwater Basin (see page 4). In adopting waste discharge requirements to implement the objectives contained in the plan, the regional board need not determine anew the beneficial uses to be protected, the water quality objectives reasonably required for that purpose or make findings regarding the provisions of Section 13241. The regional board in adopting the plan has already taken these factors

into consideration. The waste discharge requirements need only implement the provisions of the plan, reflect the fact that other discharges in the area will affect the quality of the receiving waters and ensure that the requirements will not result in the creation of a nuisance. The State Board finds, based upon the record before it, that the regional board failed to implement properly the plan and, therefore, Order No. 72-16 must be modified as discussed below.

ORDER NO. 72-16 MUST BE MODIFIED TO INCLUDE A REQUIREMENT FOR TOTAL DISSOLVED SOLIDS WHICH MUST NOT EXCEED 700 MG/L

The water quality control plan contains an objective for total dissolved solids (TDS) in the Arlington-Riverside Groundwater Basin of 700 mg/l (filterable residue). Order No. 72-16 contains no requirement implementing this objective.

Extensive testimony was given at the hearing before the State Board both for and against the appropriateness of a requirement for TDS in Order No. 72-16. Much of this testimony was based upon the assertion that TDS was a useful water quality parameter. While such testimony underscored the desirability for such a requirement, our decision requiring a limitation on TDS in Order No. 72-16 is based on the legal requirements of Water Code Section 13263 which requires waste discharge requirements to implement the provisions of the water quality control plan. We can find no more appropriate means of assisting the implementation of the TDS objective for the groundwater basin than by inclusion of a limit on TDS in waste discharge requirements. In reaching this decision,

we are aware that waste discharge requirements are only one of the means available to meet the TDS objectives in the plan and that other controls by other persons may be necessary to ensure that the TDS objectives will be met. However, to implement effectively the TDS objective of 700 mg/l in the plan, Order No. 72-16 must contain a limit on TDS of not more than 700 mg/l. The record indicates that the waters of that portion of the Arlington-Riverside Groundwater Basin into which the waste is discharged have no capacity to assimilate concentrations of filterable residues in excess of the concentrations set forth in the water quality control plan since the existing concentration of TDS in the basin already exceeds the concentration set forth in the plan (see numerical values for constituents on page 4).

We recognize that the quality of wastewater as discharged at the initial point of discharge may be of different quality than the quality of the discharge as it eventually reaches the groundwater due to a number of factors, including mixing with waters already in or subsequently recharged to the system and removal of waste constituents as the water percolates through the ground. However, no evidence was introduced into the record as to system mixing characteristics or the amount of or type of waste constituents which would be removed by reason of such percolation to support a higher limit on TDS.

In connection with this conclusion the State Board notes that the petitioner contended in its petition for review of Order No. 72-16 that the regional board should have set a limit on TDS of not more than 1,000 micromhos, which is the 5-year average limit on TDS expressed in terms of electrical conductivity for the

Santa Ana River passing Prado Dam. The water quality control plan does contain an objective that TDS shall not exceed 1,000 micromhos for the Santa Ana River as it flows past Prado Dam and water from the Arlington-Riverside Groundwater Basin into which the discharger discharges its waste, flows into the Santa Ana River above Prado Dam and, therefore, does have an effect on the quality of the Santa Ana River flowing past Prado Dam. As stated earlier the TDS limit (expressed in terms of filterable residue) for the Arlington-Riverside Groundwater Basin is 700 mg/l which is approximately equivalent to an electrical conductivity of 1,167 micromhos. However in setting the objective on TDS for the basin, the regional board considered the effect of the discharge from the basin to the river. The State Board has no evidence to show that a TDS limit of 700 mg/l for the Arlington-Riverside Basin is inappropriate or improper.

THE USE OF INCREMENTAL LIMITS ON WATER QUALITY CONSTITUENTS WITHOUT THE USE OF MAXIMUM LIMITS IS IMPROPER

Order No. 72-16 contains requirements on the chemical quality of the waste discharged which are limited to increments in excess of the concentrations found for the same constituents in the water supply, with no maximum limits on such constituents. This is an inappropriate and improper method of implementing a water quality control plan and, therefore, Order No. 72-16 must be revised to include maximum limits on all constituents contained therein in accordance with the maximum limits in the water quality control plan. The incremental approach does not provide assurance that water quality objectives will be met and that the water quality control plan will be implemented. The inability of the incremental

limits to function adequately stems primarily from the fact that they do not provide a means of placing maximum limits on the quality of water discharged. As a result, the use of a poor quality water as a source of supply will result in an even poorer quality of waste discharge. In the instant case the increments used for total hardness, sodium, chloride, fluoride and boron when added to the same constituents in the water supply result in an allowable discharge in excess of the limits contained in the water quality control plan. It is also apparent that the waters of that portion of the Arlington-Riverside Groundwater Basin into which the waste is discharged have no capacity to assimilate concentrations of filterable residues, chlorides, total hardness and boron in excess of the concentrations for such chemical constituents set forth in the water quality control plan since the concentrations of such constituents existing in that portion of the basin already exceed the concentrations set forth in the plan.*

Time of Implementation

Pursuant to Water Code Section 13263(c) a time schedule may be prescribed by the regional board for compliance with the directions contained in this order. Any time schedule prescribed shall require compliance by the earliest date possible and may take into consideration the need to obtain an improved water supply.

Environmental Impact Report

Public Resources Code Sections 21169 and 21171 provide in relevant part as follows:

*Of course, even if the basin did have some assimilative capacity the Board need not allow its full use. [Water Code § 13263(b)].

"21169. Any project defined in subdivision (c) of Section 21065 undertaken, carried out or approved on or before the effective date of this section and the issuance by any public agency of any lease, permit, license, certificate or other entitlement for use executed or issued on or before the effective date of this section notwithstanding a failure to comply with this division, if otherwise legal and valid, is hereby confirmed, validated and declared legally effective. Any project undertaken by a person which was supported in whole or part through contracts with one or more public agencies on or before the effective date of this section, notwithstanding a failure to comply with this division, if otherwise legal and valid, is hereby confirmed, validated and declared legally effective.

21171. This division, except for Section 21169, shall not apply to the issuance of any lease, permit, license, certificate or other entitlement for use for any project defined in subdivision (c) of Section 21065 ... until the 121st day after the effective date of this section."

Based upon the above legislative mandate, the State Board finds that the regional board is not required to prepare an environmental impact report on the discharge covered by Order No. 72-16 if such order is amended in accordance with the conclusions and order below prior to April 5, 1973.

Conclusions

Based upon the record and subject to such further evidence as may be presented to the regional board concerning the assimilative capacities of the receiving waters and any change in quality of the wastewater between the point of discharge and the receiving waters, the State Board concludes as follows: the regional board must revise Order No. 72-16 to limit the discharge of TDS to not more than 700 mg/l (filterable residue) and to place maximum limits on all water quality

constituents compatible with the limits for those constituents in the water quality control plan for the Arlington-Riverside Groundwater Basin. The regional board may adopt a time schedule for compliance with Order No. 72-16, however, any such schedule must require compliance by the earliest date possible.

IT IS HEREBY ORDERED that the California Regional Water Quality Control Board, Santa Ana Region, revise Order No. 72-16 consistent with the conclusions of this order.

Adopted as the order of the State Water Resources Control Board at a meeting duly called and held at Sacramento, California.

Dated: February 1, 1973

W. W. Adams, Chairman

Ronald B. Robie, Vice Chairman

Voted No
E. F. Dibble, Member

Roy E. Dodson, Member

Mrs. Carl H. Auer, Member