

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of )  
Chino Basin Municipal Water District )  
for Review of Order No. 76-121 (NPDES )  
Permit No. CA0105279) of the )  
California Regional Water Quality )  
Control Board, Santa Ana Region. Our )  
File No. A-144. )

Order No. WQ 79-15

BY THE BOARD:

On June 11, 1976, the California Regional Water Quality Control Board, Santa Ana Region, adopted Order No. 76-121 (NPDES Permit No. CA0105279), containing waste discharge requirements for the Chino Basin Municipal Water District regional wastewater treatment plant, which is located south of Highway 60 and west of Archibald Avenue in Ontario, California. Chino Basin Municipal Water District submitted a petition dated July 8, 1976, requesting review of certain portions of Santa Ana Regional Board Order No. 76-121.

I. BACKGROUND

The petitioner, Chino Basin Municipal Water District, specifically requested review of the filterable residue requirements in Sections A.1.a. and A.1.d., the virus removal requirements in Section A.1.e., the time schedule in Section C.1., and the sodium and chloride concentration limitations in Section A.1.a., all of Santa Ana Regional Board Order No. 76-121. However, due to the

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actions of petitioner and others,<sup>1/</sup> the only items remaining for our review are the concentration limitations for sodium and chloride contained in Section A.1.a. of the subject order, and our discussion of these limitations is controlled by our recent decision concerning two petitions filed on behalf of the Pacific Water Conditioning Association. The primary issues raised by the Pacific Water Conditioning Association involved the limitations for sodium and chloride imposed by the Santa Ana Regional Board on the waste discharges of the cities of Corona and Redlands.

Petitioner was notified by letter of November 16, 1976, that the petition would be decided upon the record and that any additional comments which it wished the Board to consider should be submitted within 20 days of the date of the letter. Additional comments were received from both the petitioner and the Regional Board.

## II. CONTENTIONS AND FINDINGS

Petitioner contends that the total average concentration limits for the constituents sodium and chloride, contained in Section A.1.a. of Order No. 76-121, are arbitrary and unreasonable and requests relief therefrom. Section A.1.a. of Order No. 76-121

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1. Due to changes in the Department of Health regulations concerning reclaimed water, the petitioner has withdrawn the request that this Board review the filterable residue limitations of Sections A.1.a. and A.1.d. and the virus removal requirements of Section A.1.e. In addition, Provision C.1. of the subject order contains a time schedule for achieving compliance with certain terms of the order. The time schedule has been revised by the Regional Board since the filing of the petition herein and no objection to the revision has been presented.

contains three-month average concentration limitations for sodium and chloride of 80 mg/l and 75 mg/l, respectively.

Petitioner discharges to Mill Creek, a tributary to Reach 3 of the Santa Ana River, and to a golf course (for irrigation) overlying the groundwaters of the Chino II Groundwater Basin. The Water Quality Control Plan Report for the Santa Ana River Basin (Basin Plan) adopted by the Regional Board on April 11, 1975, contains water quality objectives and identifies beneficial uses for these receiving waters. The Basin Plan (see Table 4-3) provides the following objectives for Reach 3:

	<u>Chloride</u> mg/l	<u>Sodium</u> mg/l
Effective:		
July 1, 1975		
*Flow Weighted Base Flow	175	125
July 1, 1979		
*Flow Weighted Base Flow	160	110
**Flow Weighted Total Flow	150	100

\*Flow Weighted Base Flow is an annual average, including rising water and wastewater components.

\*\*Flow Weighted Total Flow is a five-year moving average, including rising water, wastewater, and total flow components.

The Basin Plan (see Table 4-4) provides the following objectives for the Chino II Groundwater Basin: chloride, 15 mg/l; sodium, 15 mg/l. The Basin Plan indicates that there is assimilative capacity in the Chino II Basin.

The Regional Board has indicated that the sodium and chloride concentration limitations in Order No. 76-121 (Section A.1.a.) were established by adding to the objectives in the Basin Plan for

Chino II Groundwater Basin a factor to represent "reasonable use" and by considering petitioner's water supply. However, it appears from the record that the increments added to the basin objectives in order to obtain these total limits were derived in substantial part from a roughly proportional reduction in sodium and chloride increments based upon the reduction in the permissible total filterable residue increment adopted by the Regional Board as a part of its Basin Plan. (See, e.g., paragraph 3, page 2 of the memo entitled "Material Pertaining to Petition of Chino Basin Municipal Water District for Review of Order No. 76-121", dated December 6, 1976, from James Anderson, Executive Officer of the Regional Board, to Bill B. Dendy, Executive Officer of the State Board.) In view of our decision concerning the Pacific Water Conditioning Association petitions (Order No. WQ 79-14), we must conclude that the sodium and chloride concentration limitations imposed in Regional Board Order No. 76-121 are not appropriate.

The Pacific Water Conditioning Association decision finds, in substance, that the application of concentration limitations for sodium and chloride not in excess of the applicable receiving water quality objectives established in the Basin Plan is appropriate when there is no assimilative capacity in the receiving water. That decision, however, also indicates that if there is assimilative capacity in the receiving water, sodium and chloride concentration limitations should not be applied unless the Regional Board has employed one of the approaches specified in that order. Until such time as the Regional Board has done so, the salt content of such waste discharges should be controlled by limitations on total filterable residue concentrations.

The petitioner discharges in part to receiving waters with no assimilative capacity, the Santa Ana River. The Basin Plan when adopted indicated no assimilative capacity in the River. There are no facts indicating there is presently any assimilative capacity for sodium and chloride. Therefore, according to the Pacific Water Conditioning Association decision, the maximum concentration limits for sodium and chloride which are appropriate for the discharge to the Santa Ana River are 125 mg/l and 175 mg/l, respectively.<sup>2/</sup> Sodium and chloride concentration limits for any discharge to the Chino II Groundwater Basin are not appropriate at the present time. Order No. 76-121 will expire on April 1, 1979; and the principles for future Regional Board action contained in our Pacific Water Conditioning Association decision will apply to the Regional Board's consideration of a renewal permit for Chino Basin Municipal Water District.

Chino Basin Municipal Water District discharges to two different receiving waters, each of differing quality and assimilative capacity. In addition, one of the discharges is to "surface waters" while the other is to groundwater. In view of

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2. These are the absolute maximum limitations which could be imposed on this discharge. The Basin Plan contains a waste load allocation for total filterable residue which the Regional Board claims is inconsistent with permitting sodium and chloride discharges at these maximum levels. (See paragraph 3, page 2 of the comments, dated February 8, 1979, by James Anderson, Executive Officer of the Santa Ana Regional Board, regarding the draft of this order.) The Regional Board may, of course, specify lower limits so long as it does not do so through use of a mere assumed proportional relationship between total filterable residue and sodium or chloride. The Pacific Water Conditioning Association decision contains a discussion of how such limitations may be established.

this situation, it is advisable but not mandatory to issue two NPDES permits for the discharges. The discharge to the Santa Ana River should be controlled through an NPDES permit; the discharge to the Chino II Groundwater Basin should be controlled through waste discharge requirements. The effluent limitations in each permit should be appropriate to the receiving water affected.

Finally, even though Chino Basin Municipal Water District did not seek review of the sodium and chloride incremental limitations in Section A.l.d. of Order No. 75-121, we must find these limitations inappropriate. With respect to Corona and Redlands, the Pacific Water Conditioning Association decision rescinded the automatic application of incremental limitations which had been derived initially from a 1964 study conducted by the Regional Board staff and which were developed in a manner substantially similar to the manner used to develop the sodium and chloride limits applied to the Chino Basin Municipal Water District in Order No. 76-121.

### III. CONCLUSIONS

After review of the record in this matter and for the reasons stated above, the limitations for sodium and chloride contained in Section A.l.d. of Order No. 76-121 of the California Regional Water Quality Control Board, Santa Ana Region, are inappropriate. The sodium and chloride limitations contained in Section A.l.a. are inappropriate as applied to the discharge affecting the Chino II Groundwater Basin. Since the limitations in provision A.l.a. were based upon groundwater objectives, they may not be appropriate to control the discharge to the Santa Ana River. However, the Regional Board may include in requirements for this

discharge affecting the Santa Ana River total average concentration limitations for sodium and chloride which do not exceed the water quality objectives established in the Basin Plan for Reach 3 of the Santa Ana River.

IV. ORDER

IT IS, THEREFORE, ORDERED that the petition of the Chino Basin Municipal Water District for review of Order No. 76-121 of the California Regional Water Quality Control Board, Santa Ana Region, is granted and Order No. 76-121 is remanded to the Regional Board for further proceedings consistent with this Order.

Dated: **MAR 15 1979**

/s/ W. Don Maughan  
W. Don Maughan, Chairman

/s/ William J. Miller  
William J. Miller, Member

/s/ L. L. Mitchell  
L. L. Mitchell, Member

