

Marian Sales

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of)
Department of Fish and Game)
for Review of Order No. 75-53)
(NPDES Permit No. CA0105244),)
California Regional Water Quality)
Control Board, Santa Ana Region)

Order No. WQ 76-15

BY THE BOARD:

On April 8, 1975, the California Department of Fish and Game (petitioner) petitioned the State Water Resources Control Board (State Board) for review of Order No. 75-53 (NPDES Permit No. CA0105244), of the California Regional Water Quality Control Board, Santa Ana Region (Regional Board). Order No. 75-53 was adopted on March 14, 1975, and it prescribes waste discharge requirements for the Irvine Company, Agricultural Division, Orange County, (discharger).

I. BACKGROUND

The discharger farms about 15,000 acres of irrigated land in southwestern Orange County. From this operation, petitioner discharges approximately 2000 acre-feet/year of irrigation return flow into tributaries of San Diego Creek, and thence to Newport Bay, both of which are navigable waters of the United States.

As was extensively discussed in State Board Order No. WQ 75-53 the State Board is handling the issuance of NPDES permits for agricultural discharges differently from permits for municipal and industrial point sources because the technical solutions to the control of pollutants in irrigation return flows will probably involve non-structural solutions rather than application of more

traditional treatment processes. Presently the State Board and Regional Boards are implementing the recommendations of the Agricultural Water Quality Advisory Committee of the State Board. In September of 1974, this Committee recommended, among other things, that waste discharge requirements for irrigation return flow initially be limited to a duration of two years and that during this time a self-monitoring program be instituted to provide a data base upon which more informed judgments may be made in the future. The Committee recommended that an effluent monitoring program include monitoring of suspended solids, salinity and such other parameters as may be suspected of causing problems. A similar influent monitoring program was also recommended as an option.

On January 27, 1975, the Regional Board transmitted a copy of the tentative NPDES permit for the discharger to all interested persons for review and comment. In a letter dated February 5, 1975, the petitioner urged that sampling at more locations be required, that ammonia concentrations be reported as un-ionized ammonia, and that selected pesticides and heavy metals be monitored or a live car, in situ, bioassay program be established. An in situ bioassay would consist of suspending test fish in the agricultural drains or San Diego Creek at selected locations and observing the response of these test fish.

On March 14, 1975, the Regional Board held a public hearing for consideration of the adoption of the NPDES permit for the discharger. A representative for the petitioner presented a statement which summarized the petitioner's objections to the permit which were contained in its letter of February 5, 1975. The Regional Board adopted the proposed waste discharge requirements in Order No. 75-53,

which will remain in effect until March 14, 1977. Since the modifications suggested by petitioner were not included in the subject order, the petitioner petitioned the State Board on April 8, 1975, for review and revision of the subject order, as earlier indicated.

II. CONTENTIONS AND FINDINGS

The petitioner makes several factual contentions concerning the subject petition. These contentions and our findings relative thereto are as follows:

1. Contention: The Regional Board acted improperly because its order failed to recognize warm freshwater habitat and wildlife habitat as beneficial uses of the subject agricultural drains.¹

Findings: At the time when the Regional Board adopted the subject waste discharge requirements a revised Interim Water Quality Control Plan for the Santa Ana Basin, which was adopted on April 13, 1973, was in effect. This Interim Plan specified the beneficial uses of San Diego Creek and other lower watershed streams in Orange County as groundwater recharge, non-contact recreation and wildlife habitat, but the Interim Plan did not list warm freshwater habitat as a beneficial use of the subject areas nor did it designate any beneficial uses of the subject drains.²

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1. The petitioner makes the general contention that "all fresh, surface waters of the State should have 'freshwater habitat' and 'wildlife habitat' beneficial use designations." We do not address this broader question because each Regional Board should consider it in the first instance during the continuous planning process.
 2. We officially notice that the Regional Board adopted on April 10, 1975, a final Water Quality Control Plan for the Santa Ana Basin which became effective upon the State Board's approval on April 17, 1975. This Plan adds the beneficial use of warm freshwater habitat to the list of beneficial uses contained in the Interim Plan for San Diego Creek and other lower watershed streams in Orange County. This Plan did not designate any beneficial uses for the subject agricultural drains.

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) generally contemplates a two-step procedure in the adoption of waste discharge requirements. Under Article 3, Chapter 4, Division 7 of the Water Code, (Water Code Sections 13240 - 13247), each Regional Board is required to formulate and adopt water quality control plans for the surface and underground waters of its region. These plans are effective upon their approval by the State Board. (See Water Code Section 13245). Water Code Section 13241 requires each Regional Board to establish water quality objectives in each plan which in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance. It also requires each Regional Board in establishing such objectives to consider past, present, and probable future beneficial uses of water. Consequently, when a Regional Board adopts a water quality control plan and when it is approved by the State Board, the Regional Board has determined the beneficial uses for each water body.

When a person applies to a Regional Board for waste discharge requirements, Water Code Section 13263 requires the Regional Board to implement any relevant water quality control plan. As a practical matter, this means that the applicable beneficial uses and water quality objectives contained in the relevant water quality control plan are incorporated into the waste discharge requirements together with such other requirements as a Regional Board may deem necessary to protect the beneficial uses and achieve the water quality objectives involved. By determining beneficial uses and water quality objectives for a particular body of water at one time a Regional Board is able to treat similar situations in an equivalent manner and

a more even handed application of the Porter-Cologne Water Quality Control Act results.

Viewed in the above context there is nothing improper in the Regional Board's action in adopting the subject order without including the findings suggested by petitioner. The Regional Board implemented the water quality control plan in effect at the time its order was adopted.

We would also like to point out that these agricultural drains are substantially different from the agricultural drains in the Coachella Valley, Palo Verde Valley, and Imperial Valley which were the subject of State Board's Order No. WQ 75-23. These latter drains contain water during most of the year and are permanent structures. The agricultural drains on the discharger's property only contain intermittent flow and most of the drains are dry at some time each day; therefore it is not conceivable that these drains could support fish life and these drains would at best provide a very limited wildlife habitat. Furthermore, these drains are not permanent structures and may be moved in accordance with the desires of the discharger.

2. Contention: The petitioner generally contends that the action of the Regional Board in adopting Order No. 75-53 was improper because the monitoring program is inadequate to protect fish and wildlife. More specifically, the contentions of petitioner are: (1) the order fails to recognize the need for monitoring of extremely toxic constituents which have been proven to be in irrigation return flow discharged to state waters and which are

demonstrated to be deleterious to fish and wildlife and their use and (2) the sampling regime proposed in the order to gather base-line information for establishment of future requirements is inadequate.

Findings: In State Board Order No. WQ 75-23 the State Board extensively considered the above issues with regard to irrigation drains in the Coachella Valley, Imperial Valley, and Palo Verde Valley. In that order the State Board concluded:

"The investigations suggested by the petitioner, if the petitioner's contentions were found to be correct, would be investigations which should logically be made of all areas in the State where intensive irrigation occurs and wastewaters from such irrigation practices are returned to the surface waters of the State and, therefore, the problems suggested by the petitioner would be of state-wide concern rather than solely of a local nature."

Furthermore, the State Board in Order No. WQ 75-53 concluded that state-wide studies may be desirable and the Colorado Regional Board has proceeded with comprehensive studies of water quality and aquatic and wildlife resources in agricultural drains in the Imperial Valley, Coachella Valley, Palo Verde Valley, and Bard Valley. These studies will include a detailed monitoring program for agricultural fertilizers and toxicants.³ The results of these studies will assist all the Regional Boards and the State Board in determining what additional

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3. We officially notice that the State Board by motion at the regular board meeting on May 20, 1976, did approve the State's revised Continuing Planning Process Program Statement/Grant Application and authorized the Chairman to submit the document to the U.S. Environmental Protection Agency (EPA) Regional Administrator. This document presents a detailed work plan on these studies which are proposed to be undertaken over about a four-year period. (See PROGRAM for WATER QUALITY CONTROL PLANNING in CALIFORNIA, 1976-1981, INCLUDING an APPLICATION by the STATE for SECTION 208 PLANNING GRANT ASSISTANCE, pages 254-275).

field studies may be desirable. While we do not believe that detailed field studies presently need to be commenced on the agricultural drains of the discharger at this time, such studies will be undertaken in the future if needed. However, in assessing those areas where limited research monies should be allocated, we believe that initial studies should center on those agricultural drains which support a substantial freshwater and wildlife habitat. As earlier indicated, the agricultural drains on the discharger's property only contain intermittent flow and most of the drains are dry at sometime each day. It is not conceivable that these drains could support fish life and these drains would at best provide a very limited wildlife habitat. Unless the nature of these agricultural drains changes substantially, research monies should not be expended on such studies of them at the present time.⁴

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4. We should point out that the Regional Board does not specifically adopt the monitoring program in waste discharge requirements. Rather, the Regional Board Executive Officer has been delegated the authority to prescribe and modify the monitoring program as water quality conditions may require. The monitoring program prescribed by the Regional Board Executive Officer in this case more than adequately implemented the recommendation of the Agricultural Water Quality Advisory Committee made in September of 1974. In the subject order, the Regional Board Executive Officer, in addition to the recommended parameters, prescribed effluent monitoring for temperature, total kjeldahl nitrogen, nitrate, ammonia, total phosphate, orthophosphate, total coliform, fecal coliform, and pH, influent monitoring for total kjeldahl nitrogen, nitrate, ammonia, total phosphate, orthophosphate, and, if the influent originated from local well water, the influent was also required to be analyzed for total hardness, potassium, carbonate, bicarbonate, sulfate, chloride, and boron. Aside from the parameters to be monitored, the petitioner requests additional monitoring stations in San Diego Creek whenever at least 75 percent of the surface flow is due to irrigation return flow from the discharger's operations. The monitoring stations prescribed by the Regional Board Executive Officer are located in several major agricultural return flow drains and we believe that the monitoring results from these stations will provide an adequate record of the constituents in the discharger's return flow waters. The additional monitoring stations proposed by petitioner are located in a portion of San Diego Creek, which is owned by the Orange County Flood Control District and which contains large amounts of urban runoff and perched groundwater flows. Monitoring at these points would not provide an adequate description of the discharger's agricultural return flows.

III. CONCLUSION AND ORDER

After review of the entire record, and for the reasons heretofore expressed, we conclude that the action of the Regional Board in adopting Order No. 75-53 was appropriate and proper.

IT IS HEREBY ORDERED that the petition for review of Order No. 75-53 is denied.

Dated: September 16, 1976

/s/ John E. Bryson, Chairman
John E. Bryson, Chairman

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

/s/ W. W. Adams, Member
W. W. Adams, Member

/s/ Roy E. Dason, Member
Roy E. Dodson, Member

/s/ Jean Auer, Member
Jean Auer, Member