

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of )  
the Sierra Club for Review of )  
Orders Nos. 79-04 and 79-27 of )  
the California Regional Water )  
Quality Control Board, Central )  
Coast Region. Our File No. A-236. )

Order No. WQ 80- 5

BY THE BOARD:

On April 20, 1979, the California Regional Water Quality Control Board, Central Coast Region, (Regional Board) adopted Order No. 79-27 (NPDES Permit No. CA0048216) prescribing waste discharge requirements for the City of Watsonville. The Regional Board also adopted Cease and Desist Order No. 79-04 requiring the City to cease and desist discharging wastes contrary to its waste discharge requirements. On May 21, 1979, the State Water Resources Control Board (State Board) received a petition from the Sierra Club seeking review of the permit and cease and desist order.

I. BACKGROUND

The City of Watsonville operates wastewater treatment facilities serving the City, Salispuedes Sanitary District, the Freedom and Pajaro County Sanitation Districts, and the Pajaro Dunes service area in Santa Cruz County. The facilities consist of a primary treatment plant with an ocean outfall located approximately 3,850 feet offshore in 40' deep waters. The plant's design capacity is 13.4 million gallons per day; the average dry

weather flow into the plant is approximately seven million gallons per day.

The Watsonville plant treats both domestic and industrial waste. A significant portion of the industrial contributors are food processing plants, which impose a high organic loading on the treatment plant.

In 1974 the City was first issued an NPDES permit, Order No. 74-37, establishing interim effluent limitations for the existing primary plant and requiring compliance with the State Board's Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and with federal secondary treatment standards by July 1, 1977. On the basis of the City's failure to comply with the time schedule contained in Order No. 74-37 for construction of secondary facilities and its violation of several effluent limitations, the Regional Board in December 1976, adopted Cease and Desist Order No. 76-02. This order established new interim effluent limitations, extended the deadline for implementation of secondary treatment requirements to September 1, 1980, and required adoption of a source control program by July 1, 1977.

On August 11, 1977, the Executive Officer of the Regional Board referred Watsonville's violations to the State Attorney General. No formal action was taken, however, by the Attorney General due apparently to the 1977 amendments to the federal Clean Water Act. These amendments allowed, under certain circumstances, time extensions to July 1, 1983, for secondary treatment as well as waivers from secondary treatment requirements for municipalities discharging into coastal marine waters.

In addition to changes in the Clean Water Act, in January 1978 a revised Ocean Plan was adopted by the State Board. The revised plan contains limits generally less stringent than those in Order No. 74-37 and Cease and Desist Order No. 76-02.

In February 1978 Watsonville made a formal application for a time extension and for a waiver from secondary treatment requirements. No decision is expected on the waiver request until 1981, and a determination on the time extension will be made some time after that.

Meanwhile, in June 1978 the City instituted a source control program. In addition, the City, because its existing treatment facilities cannot consistently meet 1978 Ocean Plan objectives, is participating in the Clean Water Grants program with the aim of either upgrading its present facilities or constructing a new plant. Watsonville is currently engaged in facilities planning in which alternatives for both secondary treatment and Ocean Plan discharge standards are being studied. A draft facilities plan was completed in November 1979. Oceanographic studies were commenced in September 1979.

On April 20, 1979, the Regional Board adopted Order No. 79-27 renewing Watsonville's NPDES permit. The order requires compliance with federal secondary treatment standards and the 1978 Ocean Plan. In addition, the Regional Board adopted Cease and Desist Order No. 79-04 rescinding Order No. 76-02. Order No. 79-04 establishes new interim effluent limits for some parameters and a new time schedule for compliance with the NPDES

permit. The time schedule requires Watsonville to proceed immediately with planning for new treatment facilities. However, in recognition of Watsonville's pending waiver request, the schedules for design and construction of treatment facilities and an ocean outfall do not start until a waiver decision is made by EPA.

## II. CONTENTIONS AND FINDINGS

1. Contention: Petitioner contends that the Regional Board exceeded its authority in issuing the NPDES permit and in adopting Cease and Desist Order No. 79-04.

Finding: In support of this contention, petitioner maintains that under these orders, as under Cease and Desist Order No. 76-02, Ocean Plan standards will not be met, and there will be little incentive for the City to make substantial efforts to meet those standards in the foreseeable future.

The City of Watsonville's NPDES permit was due to expire on May 1, 1979. The City was legally prohibited from discharging wastes to surface waters without obtaining a renewed NPDES permit, and the Regional Board was clearly authorized to issue a renewed permit. (See 40 CFR §122.10; Cal. Water Code §§ 13376, 13377, 13264.) While the permit requires compliance with the Ocean Plan as well as federal secondary treatment standards, it recognizes the fact that the existing Watsonville treatment facilities cannot meet secondary requirements nor all of the Ocean Plan standards. Therefore, Cease and Desist Order No. 79-04 was adopted by the Regional Board. The order establishes interim effluent limitations

and a time schedule for compliance with secondary and Ocean Plan standards. Adoption of such an order was clearly within the Regional Board's statutory authority. (See Water Code §13301.)

Cease and Desist Order No. 79-04 requires compliance with all Ocean Plan standards except those for suspended solids, settleable solids and turbidity in Table A of the Ocean Plan and for chlorine residual in Table B of the Plan.<sup>1/</sup> In the opinion of State and Regional Board staff and the City, to achieve compliance with the Table A requirements, the City will have to

1. The Ocean Plan contains the following limits for these constituents:

TABLE A

	Unit of measurement	Limiting Concentrations		Maximum at any time
		Monthly (30 day Average)	Weekly (7 day Average)	
Suspended Solids	mg/l	75 Percent Removal		
Settleable Solids	ml/l	1.0	1.5	3.0
Turbidity	mg/l	75	100	225

TABLE B

TOXIC MATERIALS LIMITATIONS

Effluent limitations shall be imposed in a manner prescribed by the State Board such that the concentrations set forth below as water quality objectives, shall not be exceeded in the receiving water upon the completion of initial dilution, except that limitations indicated for total chlorinated pesticides and PCB's and Radioactivity shall apply directly to the undiluted waste effluent.

	Unit of measurement	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Chlorine Residual	mg/l	0.002		

made improvements to its primary treatment system or construct a secondary plant. To achieve the Table B limitation on chlorine residual, Watsonville could either upgrade its present facilities to include new chlorination and dechlorination facilities, construct dechlorination facilities at the end of the existing outfall, or design and construct an improved outfall and diffuser. The City is presently undertaking oceanographic studies, which, under Order No. 79-04, must be completed by March of 1981 and which will provide data on the most cost-effective alternative to achieve compliance with the chlorine residual limitation.

Cease and Desist Order No. 79-04, thus requires virtually immediate compliance with all Ocean Plan limitations, except for a few parameters which will be met when new facilities and

1. (continued)

Cease and Desist Order No. 79-04 contains the following interim limits for the above constituents:

b. Comply with interim limits prescribed below by April 30, 1979:

<u>Constituent</u>	<u>Units</u>	<u>Monthly (30-Day) Average</u>	<u>Weekly (7-Day) Average</u>	<u>Maximum</u>
Settleable Solids	ml/l	1.0	---	3.0*
Suspended Solids	mg/l	(65 percent removal at all times)**		
Turbidity	NTU	90	110	225

\* Not to be exceeded more than 10% of the time.

\*\* The arithmetic average of suspended solids for effluent samples collected in a period of 30 consecutive days shall not exceed 35% of the arithmetic average of suspended solids for influent samples using only influent and effluent samples collected at approximately the same time, during the same 30-day period.

<u>Constituent</u>	<u>Units</u>	<u>6-Month Median</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
Total Chlorine Residual	mg/l	4.5	---	9.0

an improved outfall are constructed. Under the time schedule in Order No. 79-04, however, design and construction of these improvements will not commence until an EPA decision on waiver from secondary treatment requirements. Completion of construction could be as late as 52 months after a decision by EPA on waiver.

We note that Watsonville recently held a hearing on the draft facilities plan and EIR for the treatment plant improvements and that these documents should be finalized shortly.<sup>2/</sup> We see no need to completely delay design of new treatment facilities until a waiver decision by EPA, which could be another year from now. Under the EPA regulations applicable to waiver requests, waiver applicants who need to plan, design, and construct facilities to meet less than secondary requirements must proceed, to the greatest extent possible, with such improvements pending a waiver decision, where the systems are compatible with secondary treatment.

44 F.R. 34794 (June 15, 1979); 40 CFR Section 125.59(a)(2). The Division of Water Quality of the State Board and EPA have implemented a "staged design" approach for such municipalities. Under this concept, waiver applicants are required to proceed with the complete, functional design of facilities which are necessary to meet the State Board's Ocean Plan, but which are fully compatible with facilities which may ultimately be required to meet federal secondary requirements. The actual complete design of facilities to meet secondary requirements, however, would not commence until there is a clear indication from EPA that such facilities are required.

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2. The facilities plan and EIR will be supplemented at the conclusion of the oceanographic studies, referred to herein on page 6, to include the results and recommendations of the studies.

We, therefore, conclude that the Regional Board should revise the time schedule in Order No. 79-04 to require the City to proceed with the staged design of its treatment plant improvements, upon the finalization of the facilities plan and EIR. We are hopeful that by the time the City has completed the design of such plant improvements and the City is ready to commence construction, a waiver decision will have been made by EPA. In the event that this is not the case, the Regional Board should also revise the time schedule for construction of treatment plant improvements to require the City to proceed with the construction of those facilities which are necessary to meet the Ocean Plan, but which are also necessary and fully compatible with federal secondary requirements.<sup>3/</sup>

Petitioner asserts that the permit and cease and desist order provide little incentive for the City to make substantial efforts to meet Ocean Plan requirements in the foreseeable future. In reviewing the progress of the City, the staff believes

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3. We note that EPA's 301(b) regulations specify that, if a waiver application is based on an improved discharge into marine waters, the applicant must submit a proposed schedule for the planning, design, and staged construction of secondary treatment facilities and other improvements, which will provide for the maximum amount of planning, design, and construction which can be completed by the applicant pending a final decision on the waiver application. 40 CFR Section 125.59. Our interpretation of "maximum amount of construction" would not extend to the construction of major capital improvements to facilities which may be abandoned after the waiver decision is made.

We also note that the time schedule in Order No. 79-04 extends beyond July 1, 1983. EPA policy requires that time schedules in such cease and desist orders be truncated at July 1, 1983. The Regional Board should revise the time schedule accordingly.



that the City has not moved very expeditiously. This lack of progress cannot be attributed solely to the City, however. The lack of certainty regarding the Ocean Plan revisions, the expected changes to federal secondary treatment requirements for marine discharges, and the slowness of promulgation of regulations all can be considered factors influencing the City's delay in constructing treatment facilities. Nevertheless, the City is in compliance with the time schedule in Order No. 79-04 for completion of facilities planning. Further, we feel that revising the schedule, as discussed above, to require the City to commence design immediately upon completion of facilities planning will provide an added incentive for the City to proceed with improvements to its treatment facilities and outfall.

2. Contention: Secondly, petitioner contends that in the absence of evidence that the City has made conscientious efforts to meet Ocean Plan standards and given that the earliest date these standards could be met under the time schedule in Order No. 79-04 would be 1985, tighter interim standards should be imposed, the time schedule for construction of the outfall should be advanced, and the City should be prohibited from making additional sewer connections until the new facilities are fully meeting Ocean Plan standards.

Finding: a. Tighter Interim Standards. Petitioner has given its approval to the interim standards for settleable solids, suspended solids, and turbidity in Order No. 79-04,<sup>4/</sup>

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4. See Footnote 1 above.

provided that the City can demonstrate through aerial photography that there is no discoloration of the receiving waters. The Regional Board, on the other hand, contends that the present monitoring program is sufficient and that the effect of wind and wave at the outfall's location would limit the usefulness of aerial surveillance.

We agree with the Regional Board. Aerial surveillance might show some discoloration in the discharge zone of the outfall due to increased turbidity. However, the outfall and diffuser are located near the mouth of the Pajaro River which, during times of high flow and increased sediment loading, could affect any aerial view of the outfall site.

Further, a review of the record indicates that, although the City is not meeting the Ocean Plan's limitations for turbidity, the water quality problems created by this violation are more of an aesthetic nature than of the type which would affect the biota of the area. In staff's judgment, the appropriate solution to this violation is the construction of improved treatment facilities.

In addition to the Table A Ocean Plan standards, the City is in violation of the chlorine residual limitation from Table B of the Plan. Petitioner contends that Watsonville should be required to comply immediately with the Ocean Plan limitation of 0.002 mg/l six-month median, rather than the interim limit in Order No. 79-04 of 4.5 mg/l six-month median.

At present, the City does not have dechlorination facilities. Chlorine is added to the effluent to disinfect it prior to discharge. The City relies on the long contact time

from the plant to the outfall diffuser (3.75 hours at 8 mgd) which allows chlorine residual dissipation to occur prior to the initial dilution in the receiving waters. The City's present initial dilution is approximately 40 to 1, resulting in a chlorine receiving water concentration of approximately 0.04 mg/l. The discharge is located near shellfishing beds and Sunset State Beach, and chlorination has been appropriately deemed necessary to provide adequate disinfection for the protection of human health.

In order to meet the chlorine residual limitation in the Ocean Plan, the City has several options, which include the construction of new chlorination and dechlorination facilities as a part of the treatment plant improvements, the construction of dechlorination facilities at the end of the existing outfall, or the lengthening of the outfall and the construction of an improved diffuser. Construction of dechlorination facilities at the end of the outfall would be difficult and expensive. Further, until the City has completed the oceanographic studies, the City will be unable to determine which of the remaining two alternatives is more cost-effective.

In assessing the interim benefits of dechlorination facilities, staff believes that these benefits do not justify a dechlorination system which may be used for only a brief period of time. In the absence of water quality problems, we have concluded that the interim chlorine residual limitation in Order No. 79-04 is appropriate.

b. Advancing the Time Schedule for the Ocean Outfall.

The only Ocean Plan requirement which will be affected by construction of an improved outfall and diffuser is the chlorine residual

requirement of Table B. However, as noted previously, it is uncertain at this point whether the City will choose to construct an improved outfall and diffuser to meet the chlorine residual limitation or will select some other alternative. The City's oceanographic studies, which are scheduled to be completed in March 1981, should provide the data necessary to select the cost-effective alternative and to properly design the outfall and diffuser improvements, if this option is chosen.

If the latter alternative is selected, we are of the opinion that the City should be required to commence the staged design of the outfall improvements immediately upon the completion of the studies. The Regional Board should, therefore, revise the time schedule for the outfall improvements, accordingly.

c. Imposition of a Connection Ban. Petitioner has cited statistics which indicate that the population of the area served by the Watsonville treatment facility is growing at a rate much higher than the statewide rate of growth. Further, petitioner notes that the Regional Board has indicated that flows are approaching the plant's hydraulic capacity of 13.4 million gallons per day, and that this will cause the suspended solids removal rates to drop to a level close to the reported design rate of 61 percent removal.

Effluent Limitation B.7 of Watsonville's NPDES permit, Order No. 79-27, provides that the monthly average of the daily dry weather flow shall not exceed 13.4 million gallons per day. Further, under C.7 of the "Standard Provisions and Reporting Requirements", which were incorporated into Order No. 79-27, the

City is required to notify the Regional Board within 90 days after the average dry weather flow for any month equals or exceeds 75 percent of the plant's design capacity. In any case, Cease and Desist Order No. 79-04 requires the City to comply with a 65 percent suspended solids removal rate at all times.

At present, the highest flows at the plant are the result of industrial flows during the canning season, when flows reach approximately 9 million gallons per day on a monthly average. The maximum instantaneous flows have slightly exceeded 12 million gallons per day. The City's initial experience with the source control program, started in June 1978, has indicated that some reduction in industrial flows has occurred due to enforcement of the source control ordinance.

In view of the provisions in Watsonville's NPDES permit and cease and desist order and the City's progress in complying with the time schedule in the cease and desist order for facilities planning, it is our conclusion that a connection ban is not warranted at the present time.

### III. CONCLUSIONS

The Regional Board should revise the time schedule in Cease and Desist Order No. 79-04 for design and construction of treatment facilities and the ocean outfall in accordance with Part II of this order. The Regional Board's actions in adopting Orders Nos. 79-47 and 79-04 were otherwise appropriate and proper.

IV. ORDER

IT IS, THEREFORE, ORDERED that the Regional Board revise the time schedules for design and construction of treatment facilities and an ocean outfall in accordance with Part II of this order.

IT IS FURTHER ORDERED that the petition of the Sierra Club is otherwise denied.

Dated: March 20, 1980

ABSENT

Carla M. Bard, Chairwoman

ABSENT

William J. Miller, Vice Chairman

/s/ L. L. Mitchell

L. L. Mitchell, Member

/s/ Jill B. Dunlap

Jill B. Dunlap, Member

/s/ F. K. Aljibury

F. K. Aljibury, Member