STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of RIMMON C. FAY To Review Order No. 85-56 of the California Regional Water Quality Control Board, Los Angeles Region, NPDES Permit No. CA0054097. Our File No. A-411.	ORDER NO. WQ 86-17

BY THE BOARD:

Petitioner, Rimmon C. Fay, filed a timely petition to review Order No. 85-56 of the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).[1] Order No. 85-56 issues waste discharge requirements for the ocean discharge of treated effluent from the City of Oxnard's publicly owned treatment works. In issuing these waste discharge requirements, the Regional Board concurred in the issuance of a waiver of secondary treatment requirements by the Environmental Protection Agency. A waiver of secondary treatment requirements is authorized under Section 301(h) of the Clean Water Act. The petition contends that the requirements for a waiver of secondary treatment requirements have not been satisfied. The petition also contends that the waste discharge requirements are not consistent

[1] After being informed that the original petition was incomplete, the petitioner submitted an amendment to the petition. On January 13, 1986, the petitioner and interested parties were notified that the petition was complete. The petitioner has agreed in writing to extend the period for consideration of this petition to permit consideration of this order at the State Water Resources Control Board's November, 1986 workshop session and Board meeting. See 23 Cal. Admin. Code §2052(d).

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with state and federal requirements for the protection of high quality waters, and state requirements intended to encourage wastewater reclamation.

I. BACKGROUND

The federal Clean Water Act establishes programs to protect water quality through the application of nationwide, technology-based effluent limitations to point source discharges to surface waters. For publicly owned treatment works, the Clean Water Act established a requirement for achievement of effluent limitations based upon secondary treatment. Clean Water Act Section 301(b)(1)(B), 33 U.S.C. §1311(b)(1)(B). Environmental Protection Agency regulations implementing this requirement include requirements that, on a 30-day average, the discharge of suspended solids shall not exceed 30 mg/l, and at least 85 percent of the suspended solids in the influent shall be removed. 40 C.F.R. §132.102(b).

The requirements of the Clean Water Act for point source discharges to surface waters are applied through National Pollutant Discharge Elimination System (NPDES) permits. In addition to applying the nationwide, technology-based effluent limitations established under the Clean Water Act, NPDES permits must apply any more stringent limitations necessary to assure compliance with receiving water standards and other applicable state and federal requirements. Clean Water Act Section 301(b)(1)(C), 33 U.S.C. §1311(b)(1)(C). The water quality standards for ocean waters include a standard set by the State's Ocean Plan, which generally requires 75 percent suspended solids removal,[2] a level

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[2] State Water Resources Control Board, Water Quality Control Plan, Ocean Waters of California (Ocean Plan) at 5 (1983). If the concentration of

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of treatment which may be referred to as "advanced primary." The Ocean Plan also sets other applicable objectives.

NPDES permits may be issued by states with adequate authority to implement Clean Water Act requirements. In California, both point and non-point sources are subject to waste discnarge requirements, issued pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). Cal. Water Code §13000 et seq. In order to ensure that these requirements would be adequate for a state NPDES program, the Legislature added Chapter 5.5 (commencing with Water Code Section 13370 of the Water Code) to the Porter-Cologne Act in 1972. For point source discharges to surface waters, waste discharge requirements must apply and ensure compliance with all applicable requirements of the Clean Water Act and federal laws which amend or supplement the Clean Water Act, together with any more stringent requirements necessary to implement water quality control plans, for the protection of beneficial uses, or to prevent nuisance. Cal. Water Code §13377. California has an approved state NPDES program. NPDES permits are issued by the State Water Resources Control Board (State Board) and the nine California Regional Water Quality

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[2] (FOOTNOTE CONTINUED)

suspended solids in the influent is less than 240 mg/l, 75 percent removal is not required so long as the effluent does not exceed 60 mg/l. Id. The Environmental Protection Agency approved water quality standards for ocean waters include those established by the Ocean Plan, standards established in applicable regional water quality control plans which are not inconsistent with the Ocean Plan, and the requirements of State Water Resources Control Board Resolution No. 68-16 and the State Water Resources Control Board's Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California. Letter of May 2, 1984 from Judith E. Ayers, Regional Administrator, Environmental Protection Agency, Region IX, to Carole Onorato, Chairwoman, California State Water Resources Control Board.

Control Boards (Regional Boards), instead of by the federal Environmental Protection Agency.

As part of the 1977 amendments to the Clean Water Act, Congress added Section 301(h). 33 U.S.C. §1311(h). Section 301(h) authorizes a waiver of the technology-based requirement of secondary treatment, for publicly owned treatment works discharging into marine waters, if the applicant demonstrates that the following conditions are met:

> "(1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 304(a)(6) of this Act;
> (2) such modified requirements will not interfere with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, and allows recreational activities, in and on the water;
> (3) the applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable;
> (4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;
> (5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
> (6) to the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;
> (7) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit." Id.

If the Environmental Protection Agency approves a waiver of secondary treatment (301(h) waiver), the discharge still must comply with all other applicable state and federal water quality requirements, including water quality standards. See id.; Clean Water Act Sections 301(b)(1)(C), 510, 33 U.S.C. §§1311(b)(1)(C), 1370.

NPDES permits incorporating 301(h) waivers are issued by the Environmental Protection Agency, with the concurrence of the state. Thus, for 301(h) waivers, the discharger needs both waste discharge requirements issued by the Regional Board and an NPDES permit issued by the Environmental Protection Agency. In issuing waste discharge requirements, the Regional Board applies all applicable requirements of the Clean Water Act, together with any more stringent requirements established under the Porter-Cologne Act. See Cal. Water Code §§13372, 13377. Waste discharge requirements authorizing a discharge at less than secondary treatment constitute the State's concurrence in the issuance of a 301(h) waiver.

The Oxnard Wastewater Treatment Plant has a design capacity of 25 million gallons per day. Average dry weather flow for 1984 was about 18.9 million gallons per day. In 1977, the Regional Board issued waste discharge requirements (serving as the City of Oxnard's NPDES permit) based upon secondary treatment. The plant, which had previously discharged primary effluent, was converted to secondary treatment in 1981. Existing secondary capacity at the Oxnard facility is 22.6 million gallons per day. The discharge was not in full compliance with secondary treatment requirements at the time the Regional Board issued Order No. 85-56. The outfall line extends approximately one mile offshore, discharging at a depth of about fifty feet.

The Ventura Regional Sanitation District, on behalf of the City of Oxnard, applied for a 301(h) waiver. The District submitted an application on August 23, 1979, and submitted a revised application on September 21, 1983. An Environmental Protection Agency 301(h) Review Team reviewed information submitted as part of the applications, retained a consultant, Tetra Tech, Inc., to prepare a Technical Review Report, and required some additional analysis by

the applicant. Based upon the 301(h) Review Team's recommendation, the Environmental Protection Agency tentatively approved the waiver on November 28, 1984.

On the basis of the Environmental Protection Agency's tentative approval of the 301(h) waiver, Regional Board staff and Environmental Protection Agency staff jointly prepared a draft permit, to serve as both the waste discharge requirements issued by the Regional Board and the NPDES permit issued by the Environmental Protection Agency. The Regional Board and the Environmental Protection Agency conducted a joint hearing on May 20, 1985. An order setting waste discharge requirements for the Oxnard Wastewater Treatment Plant was adopted by the Regional Board, as Order No. 85-56, on September 16, 1985, and by the Environmental Protection Agency, as NPDES Permit No. CA0054097, on September 27, 1985. The order waives secondary treatment requirements for two constituents of the effluent, suspended solids and biochemical oxygen demand. The effluent limitations set for these constituents are based upon the Ocean Plan standards for suspended solids and dissolved oxygen, in lieu of the limitations set by Environmental Protection Agency regulations for secondary treatment.

Regional Board Order No. 85-56 is the subject of this petition. The NPDES permit issued by the Environmental Protection Agency has been stayed pending the outcome of a separate appeal process within the Environmental Protection Agency. Any changes in the waste discharge requirements issued as Order No. 85-56 that are required by the State Board's decision upon review of this petition constitute a modification of the State's concurrence in the 301(h) waiver, and must be taken into account in the Environmental Protection Agency's final decision.

II. CONTENTIONS AND FINDINGS

1. Contention: Petitioner contends that Regional Board Order No. 85-56 will not assure the protection of a balanced, indigenous population of shellfish, fish and wildlife, and that marine waters will be degraded.

Finding: The Ocean Plan and Section 301(h) of the Clean Water Act set similar requirements for the protection of marine communities.

The Ocean Plan sets a water quality objectives requiring that:

> "Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.
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> . . . .
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> Degradation shall be determined by analysis of the effects of waste discharge on species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species." Ocean Plan at 3, 12.

Section 301(h) of the Clean Water Act requires that the applicant for a 301(h) waiver demonstrate to the satisfaction of the Environmental Protection Agency that the discharge will not interfere with the attainment and maintenance of a balanced, indigenous population of shellfish, fish and wildlife. 33 U.S.C. §1311(h)(2). Environmental Protection Agency regulations define a balanced indigenous population as an "ecological community" which:

> "(1) Exhibits characteristics similar to those of nearby, healthy communities existing under comparable but unpolluted environmental conditions; or
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> (2) May reasonably be expected to become re-established in the polluted water body segment from adjacent waters if sources of pollution were removed." 40 C.F.R. §125.58(f).

For a 301(h) waiver to be granted, a balanced indigenous population must exist, with the discharge as modified by the 301(h) waiver, immediately

beyond the discharge's zone of initial dilution and in all other areas outside the zone of initial dilution potentially affected by the discharge. Id. §125.61(c).

In the context of the City of Oxnard's request for waste discharge requirements authorizing a reduction in treatment levels to advanced primary, tne Ocean Plan objective and the 301(h) test establish essentially the same requirement for protection of marine communities.

Whether marine communities will be protected is a factual issue which must be decided by the Regional Board when it issues waste discharge requirements authorizing a reduction in treatment levels. See Cal. Water Code §§13263(a), 13377. This factual issue was clearly raised by the comments presented in the proceedings before the Regional Board. The Regional Board should have adopted findings setting forth the basis of its decision. See Topanga Association for a Scenic Community v. County of Los Angeles, 11 Cal.3d 506, 522 P.2d 12, 113 Cal.Rptr. 836 (1974). Regional Board Order No. 85-86 does not include any findings with respect to maintenance of marine communities. Adoption of the order, without findings applying the requirement for protection of marine communities, was improper.[3]

Where the State Board finds that a Regional Board's action was inappropriate or improper, the State Board may direct that the appropriate

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[3] Because the Ocean Plan objective and the Section 301(h) test establish essentially the same requirement, findings applying either test would have been adequate. But Order No. 85-56 contains no findings specifying whether the discharge is in compliance with the Ocean Plan objective, whether the 301(h) balanced indigenous population test has been satisfied, or otherwise setting forth a specific determination that protection of marine communities has been demonstrated.

action be taken by the Regional Board, or the State Board may take appropriate action itself. Cal. Water Code §13320(c). As set forth below, in the discussion of the 301(h) Review Team Conclusions, we are not convinced that protection of marine communities has been demonstrated. On the other hand, as set forth below in the discussion of Petitioner's Claims, we are not convinced the petitioner has demonstrated that marine communities will be degraded. Because the burden of proof is on the applicant, the Regional Board's action must be set aside, insofar as it authorizes a discharge at an advanced primary level of treatment.

Accordingly, we remand to the Regional Board, which should consider any additional evidence which may be offered. The Regional Board must issue waste discharge requirements based upon secondary treatment unless the Regional Board makes appropriate findings, based upon substantial evidence in the record, supporting a decision that the requirement for protection of marine communities has been satisfied.

a. 301(h) Review Team Conclusions

The evidence before the Regional Board concerning impacts on Marine Communities is reviewed in an analysis of the 301(h) waiver application for the Oxnard facility prepared by the Environmental Protection Agency's 301(h) Review Team.

The 301(h) Review Team analyzed potential impacts on plankton (floating microorganisms), benthic macrofauna (bottom dwelling larger than microscopic organisms), and demersal fish (bottom fish) species.

With respect to plankton, the 301(h) Review Team analysis points out that "no sampling has ever been conducted to directly evaluate discharge related effects around the outfall." (p. 19.) The analysis discusses a study

of the effects of the Hyperion outfall on Santa Monica Bay. The analysis does not indicate whether the plankton in Santa Monica Bay exhibit the characteristics of a marine community which has not been degraded. The Santa Monica Bay study shows no difference in phytoplankton (floating algae) abundance, distribution or composition related to the outfall location; zooplankton (floating microscopic animals) abundance increases near the outfall. The 301(h) Review Team analysis concludes that, taking into account the different sizes of the Oxnard and Los Angeles discharges "it appears likely that the natural plankton population will not be significantly affected" by the Oxnard discharge. In contrast, the Technical Review Report prepared for the 301(h) Review Team concludes that "it is impossible to evaluate whether a BIP [balanced indigenous population] of phytoplankton exists at the ZID [zone of initial dilution] boundary." Tetra Tech, Inc., Technical Evaluation of the Ventura Regional County Sanitation District, City of Oxnard Wastewater Treatment Plant Section 301(h) Application for Modification of Secondary Treatment Requirements for Discharge into Marine Waters [hereinafter cited as "Tetra Tech"] at 132 (1981).

The applicant performed field measurements and analyses of sediments and infauna community structure in 1984 indicating that there was no significant trend with respect to distance from the Oxnard outfall. These analyses support the 301(h) Review Team's conclusion that a balanced indigenous population exists for benthic infauna (organisms living in bottom sediments).

The applicant provided very little data with respect to demersal fish and epibenthic macroinvertibrates (larger than microscopic organisms, other than backboned animals such as fish, living on the bottom). The 301(h) Review Team concluded that there "is insufficient data upon which to directly

determine whether or not Oxnard's discharge is adversely affecting the local community of demersal fishes and epibenthic macroinvertibrates...." (page 27.)

The 301(h) Review Team also observed that "available data on bioaccumulation of toxic pollutants and pesticides by organisms in the vicinity of the Oxnard outfall are insufficient to draw definite conclusions" but concluded that the absence of water quality standards violations "suggests that adverse levels of bioaccumulation would not be expected." (p. 30.)

From the above, it appears that the protection of marine communities has been demonstrated for benthic infauna, but not for the other communities considered. In the absence of a demonstration that these marine communities have not been degraded by the existing discharge, it has not been demonstrated that the proposed discharge, at a lower level of treatment, would not degrade marine communities.

Nevertheless, the 301(h) Review Team concludes that, if infauna are not adversely affected, one may infer that other organisms will be protected:

> "It seems likely, therefore, that a balanced indigenous population of fish, shellfish, and wildlife exists at present and should be maintained with the proposed discharge." (pp. 30-31).

We are not prepared to assume that because one community apparently has not been affected, protection of the other communities has been demonstrated. Protection of marine communities has not been demonstrated, as is required to permit the reduced level of treatment allowable under Regional Board Order No. 85-56, absent adequate data on the impacts of the Oxnard discharge on plankton, epibenthic macroinvertibrates, and demersal fish species.

b. Petitioner's Claims

The petitioner claims that calculations submitted as part of the petition show that a balanced, indigenous population will not exist at the edge of the Oxnard outfall's zone of initial dilution. The calculations rely on published equations forecasting changes in benthic communities based upon suspended solids mass emissions.

As petitioner recognizes, the calculations submitted in the petition have not been verified by appropriate benthic surveys in the vicinity of the Oxnard discharge. The equations relied upon were based primarily on discharges of suspended solids an order of magnitude higher than the Oxnard discharge, and to much deeper waters.[4] As with the plankton study discussed in the previous section, we cannot determine the impacts of the Oxnard discharge, based upon extrapolation of results from other significantly different discharges, absent confirming data measuring the impacts of the Oxnard discharge.

2. Contention: Petitioner contends that the Oxnard discharge is not deep enough to permit a discharge at less than secondary treatment.

Finding: The Ocean Plan and Section 301(h) of the Clean Water Act do not set any specific minimum depth requirement, but the depth of outfall must be considered in determining whether requirements for protection of beneficial uses have been satisfied.[5]

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[4] Although the study included information from the Oxnard outfall, the authors recognize that the equations may not accurately reflect conditions at the Oxnard outfall because differences between the Oxnard discharge and other discharges studied. A. Mearns and J. Word, Forecasting Effects of Sewage Solids on Marine Benthic Communities, published in G. Mayer, ed., Ecological Stress and the New York Bight: Science and Management at 495, 509 (1982).

[5] Section 301(h) of the Clean Water Act authorizes a waiver of secondary treatment requirements for municipal discharges into "deep" offshore waters, or
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Considering the depth of the Oxnard discharge, and the circulation patterns in the area, the evidence in the record indicates that a relaxation of treatment requirements may add to violations of Ocean Plan objectives for bacteriological characteristics. Absent a demonstration that the discharge will not cause or contribute to these violations, issuance of waste discharge requirements authorizing a reduction in treatment is inappropriate.

The Oxnard plume can reach the ocean surface during the fall and winter months. Tetra Tech at 40. Onshore winds tend to move this waste towards shore. Id. at 60. In the late spring and summer a portion of the plume rises to a level sufficiently shallow to be transported by wind driven currents. Only during the spring is the discharge plume trapped deep enough not to be influenced by the wind caused currents. Id. at 40.

Data collected as part of the monitoring program for the Oxnard discharge show that Ocean Plan bacteriological standards for body contact sports and shellfish harvesting have been exceeded on a number of occasions. The 301(h) Review Team suggests that: "Many of these violations may be caused by non-point source pollution and urban runoff from storm drains near the outfall." (p. 31.) In view of the seasonal shoreward transport and surfacing

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5 (FOOTNOTE CONTINUED)

into estuarine waters with specified characteristics. 33 U.S.C. §1311(n). The legislative history of Section 301(h) indicates that depth is a key factor in determining whether a waiver of secondary treatment is appropriate. S. Rep. No. 95-370, 95th Cong. 1st Sess. 45, reprinted in [1977] U.S. Code Cong. & Ad. News 4326, 4370. There is no absolute minimum depth requirement. Rather, the depth of the discharge must be taken account in determining whether protection of fish, shellfish, wildlife and recreation will be assured. See 40 Fed. Reg. 34802 (June 15, 1979); Natural Resources Defense Council, Inc. v. Environmental Protection Agency, 565 F.2d 768, 777-78 (D.C. Cir. 1981).

of the Oxnard effluent plume, however, the relative contribution of the Oxnard discharge and other sources is unclear. (p. 32.)

Order No. 85-56 would allow a substantial increase in the discharge of suspended solids, with concurrent increases in bacteria concentrations, from the Oxnard outfall. Even assuming that the Oxnard discharge is only part of the problem, this increased discharge would contribute to further violations of Ocean Plan standards.

In issuing waste discharge requirements for the Oxnard discharge, the Regional Board must assure compliance with Ocean Plan standards set for the protection of body contact sports and shellfish harvesting. Cal. Water Code §§13263, 13377; see Cal. Water Code §13142.5(a). Arguably, compliance could be achieved through stricter controls on other discharges. Absent a demonstration of the relative contribution of the Oxnard discharge, however, it has not been demonstrated that the relaxation of treatment authorized by Regional Board Order No. 85-56 would not interfere with attainment of Ocean Plan standards.[6]

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[6] This does not necessarily require that the applicant demonstrate that any existing Ocean Plan violations are completely independent of the discharge in order to permit a waiver of secondary treatment requirements. For example, it may be possible to demonstrate that the proposed discharge will meet Ocean Plan requirements if the effluent will be disinfected.

The 301(h) Review Team concluded that the requirement of Section 301(h)(2) that the discharge attain the level of water quality which allows for recreational activities has been satisfied. The basis for this conclusion is not entirely clear, but appears to be based on the absence of any beach or shellfish closures. (p. 32) We do not believe that protection of recreational activities has been adequately demonstrated unless it is demonstrated that the discharge will not interfere with attainment of Ocean Plan bacteriological objectives. Moreover, a 301(h) waiver cannot be issued unless the waiver "will not result in any additional requirements on any other point or non-point source." Clean Water Act Section 301(h)(4), 33 U.S.C. §1311(h)(4). If suspended sediment and associated bacteria from the Oxnard discharge contribute to standards violations, in combination with non-point sources and urban

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3. Contention: Petitioner contends that Order No. 85-56 fails to establish an adequate system for monitoring impacts on aquatic biota.

Finding: The monitoring program for the Oxnard discharge, adopted by Regional Board Order No. 85-56, is adequate.

The monitoring program includes analysis of adequate numbers of influent and effluent samples to determine compliance with Ocean Plan water quality objectives and to measure the effectiveness of Oxnard's pretreatment program.

The monitoring program also provides a comprehensive system to observe receiving water impacts. Chemical analyses of sediments and important organisms to assess bioaccumulation, collection of benthic and mid-water organisms for community analysis, and measurement of coliform bacteria at several surfzone, nearshore and offshore sites will ensure that any large scale changes on the marine environment around the outfall will be observed.

The analysis of the marine community structure will be performed with adequate sample replication and representative sample locations. The sampling frequency limits the detection of short term or small impacts, but environmental changes that are substantially greater than natural variability should be observed.[7]

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[6] (FOOTNOTE CONTINUED)

runoff, allowing a 301(h) waiver would require additional controls on those other sources. In any event, the requirement for consistency with Ocean Plan standards applies independent of the statutory criteria for Section 301(h) waivers. See Clean Water Act Section 301(b)(1)(C), 33 U.S.C. §1311(b)(1)(C).

[7] The monitoring program is capable of identifying differences in communities from those at control stations if those differences are above the 95 percent (CONTINUED)

The monitoring program includes both reference sites unaffected by the Oxnard discharge and baseline monitoring, to provide comparisons that would indicate the effect of the proposed discharge.

In summary, the proposed monitoring program is sufficient to determine large scale, chronic impacts on biota. As such, it constitutes an adequate monitoring programs.

Had the monitoring program been conducted for a period before the Regional Board issued Order No. 85-56, it probably would have provided the information necessary to determine whether a balanced indigenous population of shellfish, fish and wildlife exists in the area of the Oxnard discharge. We recommend that, if the City of Oxnard chooses to continue to pursue its request for a waiver of secondary treatment requirements, the City should carry out the monitoring program established in Order No. 85-56 to help provide the Regional Board with the information necessary for the Regional Board's decision.

4. Contention: Petitioner contends that the Regional Board's action was not consistent with State Water Resources Control Board Resolution No. 68-16 and the federal "Antidegradation Policy."

Finding: The State Water Resources Control Board and the Environmental Protection Agency have adopted similar policies intended to protect the high quality of state and federal waters. The State Board has adopted Resolution No. 68-16, the "Statement of Policy with Respect to

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[7] (FOOTNOTE CONTINUED)

confidence limits of the control stations. The monitoring program should also identify any seasonal variations that might require modification of the monitoring program.

Maintaining High Quality of Waters in California," as part of state policy for water quality control. See Cal. Water Code §13140 et seq. Resolution No. 68-16 has also been adopted, as a general water quality objective, in all sixteen regional water quality control plans. The Environmental Protection Agency has adopted a federal antidegradation policy as part of the agency's water quality standards regulations. 40 C.F.R. §131.12. Before approving any reduction in water quality, or any activity that would result in a reduction in water quality, the Regional Board must first determine that the change in water quality would not be in violation of State Board Resolution No. 68-16 or the federal antidegradation policy. Because the Regional Board did not make the required determination, as part of waste discharge requirements permitting a significant increase in receiving water pollutant levels, the Regional Board's action was improper.

State Board Resolution No. 68-16 requires that:

> "...the existing quality of water...will be maintained until it is demonstrated to the State that any change will be consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of water and will not result in water quality less than that prescribed [by other applicable water quality objectives]."

In determining whether changes in water quality will be consistent with "the maximum benefit to the people of the State," the State and Regional Boards are guided by the policies of the Porter-Cologne Act. The Porter-Cologne Act evinces a policy of ensuring consistency with federal Clean Water Act requirements. To take maximum advantage of federal programs, and to avoid direct regulation by the Environmental Protection Agency of activities already subject to regulation by the State and Regional Boards, the state's standard setting and waste discharge control programs must ensure that, at a minimum,

all applicable Clean Water Act requirements are satisfied. See Cal. Water Code §§13160, 13170, 13370; Recommended Changes in Water Quality Control, Final Report of the Study Panel to the California State Water Resources Control Board, Study Project: Water Quality Control Program 31 (1969).

Clearly, it is in the maximum benefit of the people of the State that the State and Regional Boards ensure that the State's water quality programs are consistent with the federal antidegradation policy. The State and Regional Boards have routinely followed the federal antidegradation policy. See, e.g., State Water Resources Control Board, Lake Tahoe Basin Water Quality Plan 37 (1980).

The federal antidegradation policy requires that each state have a policy providing that changes in water quality will be consistent with the following three-part test:

> "(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
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> (2) Where the quality of the waters exceed levels necessary to support propogation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds...that allowing lower water quality is necessary to accommodate important economic or social development....
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> (3) Where high quality waters constitute an outstanding National resource...that water quality shall be maintained and protected." 40 C.F.R. §131.12.

Where this test is applicable under federal law, State Board Resolution No. 68-16 incorporates this test in determining whether changes in water quality are consistent with the maximum benefit to the people of the State.[8]

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[8] Independent of State Board Resolution No. 68-16, the Porter-Cologne Act requires the State and Regional Boards to apply the federal antidegradation policy when they issue waste discharge requirements for point source discharges (CONTINUED)

State Board Resolution No. 68-16 clearly applies to Regional Board Order No. 85-56, which permits both an increase in the volume of discharge and a reduction in the level of treatment. But State Board Resolution No. 68-16 incorporates the test set forth in the federal antidegradation policy only as applied to situations where the federal antidegradation policy is applicable. Where the federal antidegradation policy does not apply, the State and Regional Boards have applied the general test set forth in State Board Resolution No. 68-16, without addressing the specific, three-part test established by the federal antidegradation policy. See, e.g. State Board Order No. WQ 86-8 at 30-31. Accordingly, we must determine whether the federal antidegradation policy applies to 301(h) waivers.

On its face, the federal antidegradation policy is applicable. It is clearly intended to apply to individual permit decisions, not just changes in water quality control plan objectives. See 40 C.F.R. §131.12; Environmental Protection Agency, Questions and Answers on: Antidegradation 2, 6. The Environmental Protection Agency regulation setting out the antidegradation policy singles out thermal discharges for different treatment, consistent with the procedures established for thermal discharges under Section 316 of the Clean Water Act (40 C.F.R. §131.12(a)(4)). By implication, if the Environmental Protection Agency intended to exempt 301(h) waivers from the antidegradation policy, it would have done so expressly.

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8 (FOOTNOTE CONTINUED)

to surface waters, as the policy is an applicable requirement of the federal Clean Water Act and implementing regulations. See Cal. Water Code §§13370, 13377; 23 Cal. Admin. Code §§2235.1, 2235.2. See generally Clean Water Act Section 301(b)(1)(C), 33 U.S.C. §1311(b)(1)(C); 40 C.F.R. §§123.25(b); 130.5; 131.6.

Section 301(h) of the Clean Water Act provides that treatment works which already provide secondary treatment are eligible for 301(h) waivers. 33 U.S.C. §1311(h). This provision was enacted in response to an Environmental Protection Agency regulation which would have prohibited any discharger which had already achieved secondary treatment from applying for a 301(h) waiver. H.R. Rep. No. 97-270, 97th Cong., 1st Sess. 17, reprinted in [1981] U.S. Cong. & Ad. News 2629, 2645.

We do not read this provision to exempt 301(h) waivers from the federal antidegradation policy, a policy which does not absolutely prohibit relaxation of treatment levels, but requires that any reductions in water quality be justified. Section 301(h) provides a basis for waiver of the technology-based requirements of Section 301(b)(1)(B) of the Clean Water Act. See 33 U.S.C. §§1311(b)(1)(B), 1311(h). It does not provide a basis for waiver of the water quality based requirements of Section 301(b)(1)(C). See 33 U.S.C. §1311(b)(1)(C). The federal antidegradation policy is part of the Environmental Protection Agency's water quality standards regulations, and has been incorporated into the state's water quality protection requirements. "The purpose of section [301(h)] is to permit some coastal municipal sewage treatment plants to avoid costs associated with secondary treatment so long as environmental standards can be maintained." Natural Resources Defense Council, Inc. v. Environmental Protection Agency, 656 F.2d 768, 784 (D.C. Cir. 1981). The requirements of state and federal water quality standards, including the requirements of the federal antidegradation policy and State Board Resolution No. 68-16, are among the environmental standards that must be maintained.

If the level of treatment at the Oxnard facility is reduced, as allowed by Regional Board Order No. 85-56, there will be a substantial increase

in mass emission rates of suspended solids. For the period from 1982 through 1984, the plant discharged approximately 900 metric tons per year of suspended solids. With an increase in the volume of the discharge from 18.3 to 25 million gallons per day, mass emissions would increase to approximately 1,000 metric tons per year. Regional Board Order No. 85-56 would allow this discharge to more than double, to over over 2,400 metric tons per year. This increase in suspended solids will be accompanied by an increase in associated bacteria in the receiving waters. To permit these changes in water quality, it must be demonstrated that the change is justified in accordance with the three-part test established by the federal antidegradation policy.

The Regional Board made no finding with respect to either the federal antidegradation policy or State Board Resolution No. 68-16. On the record before us, we cannot make the required findings.

As discussed earlier, it has not been demonstrated that advanced primary treatment will assure protection of marine communities. The increase in suspended solids and associated bacteria may also contribute to a violation of water quality objectives for bacteriological characteristics in an area used for body-contact sports. As such, the increase in suspended solids and associated bacteria is inconsistent with the requirement that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." 40 C.F.R. §131.12(a)(1).

Even assuming that instream beneficial uses will be maintained and protected, it must be demonstrated, under the second part of the federal antidegradation policy, that any reduction in water quality is "necessary to

accommodate important economic or social development." 40 C.F.R. §131.12(a)(2).[9] The record is devoid of any evidence that would support such a determination.

The record does indicate that the waiver of secondary treatment requirements will reduce treatment costs, and will therefore reduce charges for sewer service.[10] But there is no evidence as to how much, if any additional development would be attracted to the area by lower sewer service costs, or how important that development would be to the community.

The only testimony presented to the Regional Board concerning impacts on economic or social development was testimony by the Oxnard Port District that an Environmental Protection Agency grant for a utility project would not be released unless the Oxnard treatment plant achieved compliance with its requirements, either by improving its treatment or obtaining a 301(h) waiver. This testimony is insufficient to establish that the waiver is necessary to

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[9] The third part of the federal antidegradation policy, which applies only to outstanding National resource waters, is not at issue in this case.

[10] The staff report prepared for the May 20, 1985 hearing stated that current residential service charges are $13.64 per month, and that service charges at full secondary treatment would be $14.55 per month. The waiver of secondary treatment requirements would reduce service charges to $13.41 per month. There was conflicting testimony as to how much charges would be at secondary treatment. The supplemental staff report, prepared before the Regional Board adopted Order No. 85-86, estimates residential service charges at $15.61 per month will full secondary treatment and $13.41 with the 301(h) waiver. Savings for commercial and industrial users would be considerably greater. The supplemental staff report lists the impact on service fees, and the absence of an assurance that there will not be significant impacts resulting from an increase in suspended solids, as bases for the alternative of denying a 301(h) waiver. The supplemental staff report does not list the impact on service fees as a basis for granting a 301(h) waiver. We need not decide whether we would assign greater economic importance to the savings in service fees than did the supplemental staff report. Cost savings alone, absent any demonstration as to how these cost savings are necessary to accommodate important social and economic development, are not a sufficient basis for determining consistency with the federal antidegradation policy.

accommodate important economic or social development. First, there was no testimony concerning the economic or social importance of the utility project. Second, the full waiver was not necessary for the utility project. The grant would be released upon achievement of secondary treatment standards. At most, all that would be necessary was a partial waiver, to the level of treatment currently being achieved, and then only for as long as it would take to upgrade the treatment facilities to fully comply with secondary treatment requirements.

Third, we do not believe that the potential adverse economic impacts of sanctions are a valid basis for determining that a reduction in water quality is justified. The determination should be based upon the economic and social costs of achieving compliance, not on the sanctions for violation. Otherwise, the sanctions provided for under the Clean Water Act and the Porter-Cologne Act would be self-defeating; instead of ensuring compliance with applicable water quality objectives the threat of sanctions would provide a basis for their relaxation.

In summary, the record before us does not provide an adequate basis for determining whether the changes in water quality resulting from Order No. 85-56 are consistent with the federal antidegradation policy or State Board Resolution No. 68-16.[11] We also believe that the Regional Board is better situated to determine, in the first instance, whether changes in water quality

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[11] For waters subject to the federal antidegradation policy, both the requirements of the federal antidegradation policy and the express requirements of State Board Resolution No. 68-16 should be satisfied. Because we conclude that the requirements of the federal antidegradation policy have not been satisfied, we need not address what State Board Resolution No. 68-16 might require, independent of the incorporation of the federal antidegradation policy into State Board Resolution No. 68-16.

are necessary to accommodate important social and economic development in the area. We therefore conclude that, independent of the requirements of Section 301(h) of the Clean Water Act, Order No. 85-56 must be remanded to the Regional Board for the consideration of additional evidence concerning the necessity for any reduction in receiving water quality. Before approving waste discharge requirements which would result in a reduction in receiving water quality, the Regional Board must make appropriate findings applying the requirements of State Board Resolution No. 68-16 and the federal antidegradation policy.

5. Contention: Petitioner contends that the Regional Board failed to consider the alternative of wastewater reclamation.

Finding: The Regional Board did not consider potential impacts on wastewater reclamation. Water Code Section 13510 declares:

> "...that the people of the state have a primary interest in the development of facilities to reclaim water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state."

By reducing the level of treatment required before discharge to the ocean, a waiver of secondary treatment requirements may significantly increase the incremental cost of providing the level of treatment required for wastewater reclamation. This has the potential to reduce incentives for wastewater reclamation. Accordingly, potential impacts on wastewater reclamation should be considered when waste discharge requirements are issued based upon a waiver of secondary treatment requirements. See Cal. Water Code §§174; 13142.5(e).

On the record before us, we cannot determine what impact, if any, Regional Board Order No. 85-56 will have on wastewater reclamation. We cannot make this determination without additional information concerning the realistic

market for reclaimed water in the area and tne economic feasibility of additional wastewater reclamation. See State Water Resources Control Board Order No. WQ 84-7 at 11.

Recognizing the need for the Regional Board to have sufficient information before it concerning impacts on wastewater reclamation, State Board Order No. 84-7 provides:

> "...in this case and in all cases where an applicant in a water-short area proposes a discharge of once-used wastewater to the ocean, the report of waste discharge should include an explanation as to why the effluent is not being reclaimed for further beneficial use." Id. at 11-12.

Oxnard is in a water-short area. See, e.g. State Board Resolution No. 81-17 at 11; State Board Resolution No. 78-35.

The application for a 301(h) waiver for the Oxnard discharge was pending when State Water Resources Control Board Order No. WQ 84-7 was decided. For projects which had reports of waste discharge already pending when the State Board issued Order No. 84-7 was decided, the Regional Boards should have some flexibility in determining when the discharger should be required to submit a report on wastewater reclamation. Where possible without delaying action on the project, the report on wastewater reclamation should be submitted before the Regional Board acts on waste discharge requirements.

In other cases, requiring preparation and submission of a report on wastewater reclamation, before the Regional Board issues waste discharge requirements, would delay project approval. We do not believe such delays are necessary. In appropriate cases, where the report of waste discharge was submitted before State Board Order No. 84-7, and issuance of waste discharge requirements would not result in any irreversible commitments of resources that

would hinder later efforts to promote wastewater reclamation, the Regional Boards may require submission of a report on wastewater reclamation within a reasonable period after the waste discharge requirements are issued. If the Regional Board determines, after review of the reclamation report, that the waste discharge requirements should be modified or conditions imposed to promote wastewater reclamation, the waste discharge requirements may be amended at that time.

The Oxnard facility has been previously converted to a secondary treatment facility. If secondary treatment requirements are waived for the facility, a portion of the effluent would be given secondary treatment, and blended with primary effluent, to meet the Ocean Plan objective for suspended solids. When the total discharge reaches 25 million gallons per day, which is not projected to occur until 1990, the facility would still have about 10 million gallons per day of reserve secondary treatment capacity which would not be needed to meet the Ocean Plan suspended solids objective and could be used for reclamation. Thus, it does not appear that authorizing a waiver of secondary treatment requirements at this time would result in any irreversible commitments of resources that would prevent the Regional Board from modifying treatment requirements, or imposing other conditions to promote wastewater reclamation, within a reasonable period after a 301(h) waiver is issued.

The Regional Board will be required to reissue waste discharge requirements for the Oxnard facility, to address the issues discussed in other portions of this order. If possible, the Regional Board should require submission of a report on wastewater reclamation early enough to permit the Regional Board to review the report and consider impacts on reclamation when the waste discharge requirements are reissued. If the report cannot be

completed within that period, however, the Regional Board may require submission of the report as a condition of waste discharge requirements. If such a condition is imposed, the waste discharge requirements should also specify that the waste discharge requirements may be amended, based upon information provided in the report or which becomes available as part of the Regional Board's review of the report.

In its response to the petition, the City of Oxnard states that it prepared a report on the feasibility of wastewater reclamation in 1979. This report may well provide information necessary to satisfy State Board Order No. WQ 84-7. But analyses on wastewater reclamation must be periodically updated, not just provided on a one-time basis. State Water Resources Control Board Order No. WQ 84-7 at 11. We also believe that, in the context of a proposed 301(h) waiver, the impacts of allowing a discharge at less than secondary treatment should be specifically addressed.

Although it is arguable that adequate information was available, the Regional Board did not adequately consider that information when it issued Order No. 85-56. The Regional Board did not address impacts on wastewater reclamation, or consider alternatives or mitigation measures that would avoid or reduce any impacts on reclamation. Issuing waste discharge requirements for the Oxnard discharge, without adequate consideration of wastewater reclamation alternatives, was improper. On remand, the Regional Board should require submission of the information it needs to review impacts on wastewater reclamation, and take that information into consideration as part of its decisions affecting the Oxnard discharge, consistent with the direction provided by this Order.

III. SUMMARY AND CONCLUSIONS

1. The Regional Board's issuance of waste discharge requirements authorizing a relaxation of treatment requirements to advanced primary was inappropriate and improper for the following reasons:

a. It has not been demonstrated that the modified discharge will be consistent with the Ocean Plan requirement for protection of marine communities.

b. It has not been demonstrated that the modified discharge will be consistent with Ocean Plan objectives set to protect shellfish harvesting and body-contact recreation.

c. It has not been demonstrated that changes in water quality resulting from the proposed discharge will be consistent with the federal antidegradation policy.

Unless and until the facts necessary to support issuance of waste discharge requirements authorizing a reduced level of treatment are demonstrated, the State cannot concur in the proposed waiver of secondary treatment requirements.

2. The monitoring program adopted by the Regional Board as part of the waste discharge requirements for the Oxnard facility is adequate.

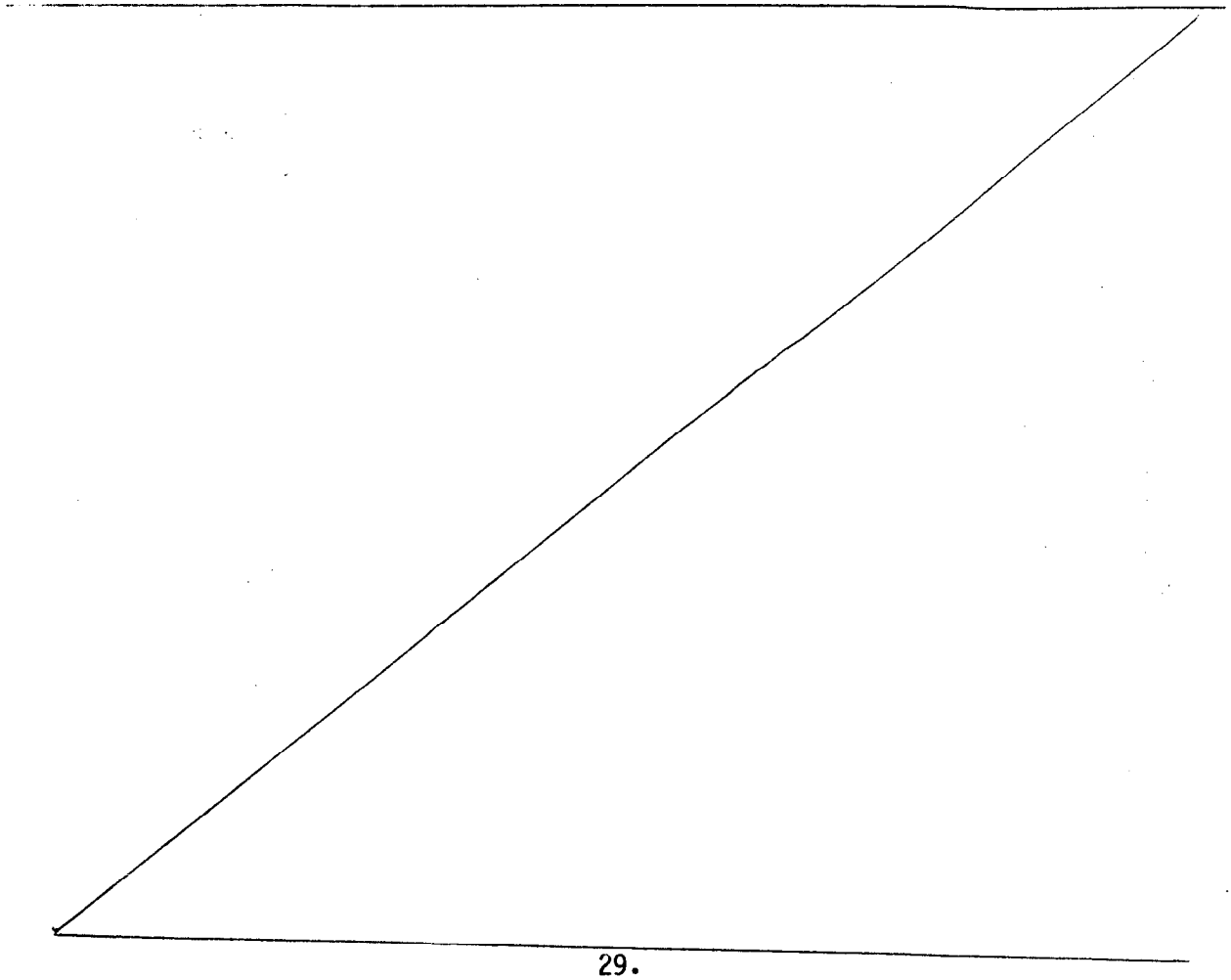
3. The Regional Board should consider the potential for wastewater reclamation, based upon a report submitted by the discharger and any other information which becomes available to the Regional Board, as part of the waste discharge requirements for the Oxnard facility.

IV. ORDER

IT IS HEREBY ORDERED THAT the California Regional Water Quality Control Board, Los Angeles Region, shall issue new waste discharge require-

ments, or amend Order No. 85-56, for the Oxnard facility. The waste discharge requirements shall include effluent limitations based upon secondary treatment unless it is demonstrated, consistent with this Order, that the requirements for authorization of a reduced level of treatment have been satisfied. The Regional Board shall take into consideration potential impacts on wastewater reclamation.

IT IS FURTHER ORDERED THAT pending issuance of new waste discharge requirements or amendment of Order No. 85-56, the discharger shall comply with the previously issued waste discharge requirements for the facility, together with any more stringent requirements necessary to comply with the 1983 Ocean Plan and the pretreatment requirements adopted as part of Regional Board Order



No. 85-56. The previously issued waste discharge requirements, Regional Board Order No. 77-82, shall be deemed to have been amended by this Order to include the requirements of the 1983 Ocean Plan and the pretreatment program adopted as part of Regional Board Order No. 85-56.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on November 20, 1986.

AYE: W.D. Maughan, Chairman
Darlene E. Ruiz, Vice Chairwoman
Eliseo M. Samaniego, Member

NO: Edwin H. Finster, Member

ABSENT: Danny Walsh, Member

ABSTAIN: None

Maureen Marche
Administrative Assistant to the Board