State of California

STATE WATER RESOURCES CONTROL BOARD
`IFORNIA REGIONAL WATER QUALITY CONTROL BOARD

ADMINISTRATIVE PROCEDURES UPDATE

TO	SUBJECT	
REGIONAL BOARD STAFF WQ MANUAL HOLDERS WQ PROGRAM MANAGERS	ANTIDEGRADATION POLICY IMPLEMENTATION FOR NPDES PERMITTING	
	APU NUMBER 90-004	SUPERSEDES APU
APPROVED, EXECUTIVE DIRECTOR James F. Pedri		EFFECTIVE DATE 7-2-90

INTENT

This Administrative Procedures Update provides guidance for the Regional Boards for implementing State Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality of Waters in California" (Appendix I-1), and the Federal Antidegradation Policy, as set forth in 40 CFR 131.12 (Appendix I-2), as applied to the NPDES permitting process. Additional guidance for interpreting State Board Resolution No. 68-16 and the federal antidegradation regulation may be found in Appendices I-3 (EPA's Questions and Answers on Antidegradation), I-4 (State Board legal memo entitled "Federal Antidegradation Policy") and I-5 (EPA Region 9's Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12).

WHEN IS AN ANTIDEGRADATION ANALYSIS REQUIRED

To implement the antidegradation policy, the Regional Boards must consider the need to include a finding that specifies that water quality degradation is permissible when balanced against benefit to the public of the activity in question. The determination as to whether a finding is needed must be made when issuing, reissuing, amending, or revising an NPDES permit. The Regional Board should also make this finding when an existing discharge has reduced water quality, since the facility was last permitted and the reduction is not authorized by the permit. The findings should specifically state that the Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16 and finds that the permitted discharge is consistent with those provisions. If the Regional Board finds that lowering of water quality is consistent with the conditions established in the State policy and the federal regulation, the findings should indicate:

1. The pollutants that will lower water quality;

2. The socioeconomic and public benefits that result from lowered water quality; and

3. The beneficial uses that will be affected.

   Potential beneficial uses are not protected by the federal regulation. Regional Board staff should only apply the State policy when permitting a discharge that solely impacts potential beneficial uses.

ANTIDEGRADATION FINDING NOT REQUIRED

A Regional Board may decide that an antidegradation finding is not required because the proposed discharge is prohibited under either the State or federal policies. For example, if the proposed discharge would violate water quality objectives in the receiving water, no discharge will be allowed and therefore no antidegradation analysis is required. Alternatively, if the Regional Board has no reason to believe that existing water quality will be reduced due to the proposed action, no antidegradation analysis is required.

SIMPLE ANTIDEGRADATION ANALYSIS SUFFICIENT

A Regional Board may determine that it is not necessary to do a complete antidegradation analysis. The Regional Board may reach this determination if, using its best professional judgement and all available pertinent information, the Regional Board decides that the discharge will not be adverse to the intent and purpose of the State and federal antidegradation policies.

Based on information available to the Regional Board and any other background material the Regional Board believes is necessary, a complete antidegradation analysis will not be required if:

1. A Regional Board determines that the reduction of water quality will be spatially localized or limited with respect to the waterbody; e.g., confined to the mixing zone; or

2. A Regional Board determines the reduction in water quality is temporally limited and will not result in any long-term deleterious effects on water quality; e.g., will cease after a storm event is over; or

3. A Regional Board determines the proposed action will produce minor effects which will not result in a significant reduction of water quality; e.g., a POTW has a minor increase in the volume of discharge subject to secondary treatment; or

4. The Regional Board determines that the proposed activity, which may potentially reduce water quality, has been approved in the General Plan of a political subdivision and has been adequately subjected to the environmental and economic analyses in an environmental impact report (EIR) required under the California Environmental Quality Act (CEQA). If the Regional Board finds that the EIR is inadequate, the Regional Board must supplement this information to support the decision.

The above criteria may vary with the types of pollutants. Some pollutants are believed to elicit an effect at a certain concentration (threshold pollutants). Others (non-threshold pollutants) have no safe level. Non-threshold pollutants include carcinogens, mutagens, and teratogens. Regional Boards are urged to apply stricter scrutiny to non-threshold pollutants, and to note that repeated or

multiple small changes in water quality (which would otherwise not require detailed analysis) can result in significant water quality degradation if non-threshold pollutants are involved. The Regional Boards must still make the necessary findings regardless of the nature of pollutants involved, and summarize them in the Fact Sheet for major NPDES permits or in the Statement of Basis for minor NPDES permits.

COMPLETE ANTIDEGRADATION ANALYSIS REQUIRED

The Regional Board may determine that antidegradation provisions must be evaluated in making its decision. In general, an antidegradation analysis is needed to support all regulatory actions that, in the Regional Board's judgement, will result in a significant increase in pollutant loadings. The Regional Boards must consider antidegradation effects and conduct an antidegradation analysis when the proposed activity results in:

1. A substantial increase in mass emissions of a pollutant, even if there is no other indication that the receiving waters are polluted; or

2. Mortality or significant growth or reproductive impairment of resident species.

In particular, an antidegradation finding should be made and, if necessary, an analysis should be conducted when performing the following permit activities:

1. Issuance of a permit for any new discharge, including Section 401 certifications; or

2. Material and substantial alterations to the permitted facility, such as relocation of an existing discharge; or

3. Reissuance or modification of permits which would allow a significant increase in the concentration or mass emission of any pollutant in the discharge.

IMPLEMENTATION OF ANTIDEGRADATION POLICIES

If the Regional Board finds the proposed activity does not warrant a complete antidegradation analysis; e.g., one of the criteria listed above is satisfied, such findings should be documented in the Fact Sheet of the proposed permit action or Regional Board order, along with the basis for those findings.

If the Regional Board determines that a complete antidegradation analysis is necessary to support a finding under State or federal antidegradation policies, the Regional Board shall ensure that sufficient evidence is analyzed to support this decision and that this evidence is summarized in an appropriate finding. When a discharge is included in a project requiring CEQA documentation, the antidegradation analysis should be integrated in the environmental review process. If the Regional Board is not the lead agency on a project requiring an antidegradation finding, the Regional Board should ensure that the lead agency includes the antidegradation information in the EIR. The Regional Board shall make such a request to the lead agency no later than 30 days after the Regional Board receives a Notice of Preparation from the lead agency [CEQA, Section 15096(b)(2)].

PROCEDURE FOR COMPLETE ANTIDEGRADATION ANALYSIS

When undertaking an antidegradation analysis, the Regional Board should proceed as follows:

1. Compare receiving water quality to the water quality objectives established to protect designated beneficial uses.

   The baseline quality of the receiving water determines the level of water quality protection. Baseline quality is defined as the best quality of the receiving water that has existed since 1968 when considering Resolution No. 68-16, or since 1975 under the federal policy, unless subsequent lowering was due to regulatory action consistent with State and federal antidegradation policies. If poorer water quality was permitted, the most recent water quality resulting from permitted action is the baseline water quality to be considered in any antidegradation analysis. Baseline quality is pollutant specific, not waterbody specific. Baseline quality should be determined for each constituent in the discharge which is likely to degrade water quality. The baseline water quality should be representative of the water body, accounting for temporal and spatial variability. Water quality protection depends on the baseline receiving water, as follows:

   a. If baseline water quality is equal to or less than the quality as defined by the water quality objective, water quality shall be maintained or improved to a level that achieves the objectives. Baseline water quality should be compared to all numerical and narrative objectives that protect the actual and potential beneficial uses which would be affected by the proposed discharge. The discharge may be prohibited or allowed as described under 40 CFR 130.7.

   b. If baseline water quality is better than the water quality as defined by the water quality objective, the baseline water quality shall be maintained unless poorer water quality is necessary to accommodate important economic or social development and is considered to be of maximum benefit to the people of the State.

If the receiving water has been designated as an outstanding national resource water in the Region's Basin Plan, or if it can be argued that the waterbody in question deserves the same treatment (for example a wild and scenic river, an area of special biological significance, etc.), no discharge which will lower existing water quality shall be allowed. Lake Tahoe is the only water body in the State presently designated as an outstanding national resource water.

2. Balancing the proposed action against the public interest.

   Ensure that a discharge to high quality water, which is likely to reduce water quality, is not permitted unless the reduction in water quality is offset by maximum public benefit to the people of the State. This step should be performed if a finding of reduced water quality is made. Regional Board staff shall not recommend that the activity be permitted unless all of the following conditions are met:

   a. The proposed action is necessary to accommodate important economic or social development in the area. (Factors to be considered when determining important economic or social development follow.)

b. The reduction in water quality is consistent with maximum public benefit.

c. The reduction in water quality will not unreasonably affect actual or potential beneficial uses.

d. Water quality will not fall below water quality objectives prescribed in the Basin Plan.

The severity and extent of water quality reduction should be weighed when evaluating the benefits required to compensate for that degradation. The magnitude of the proposed project and potential reduction should also determine the scope of impact assessment. The Regional Board should ensure that a systematic impact assessment is conducted.

Factors that should be considered when determining whether the discharge is necessary to accommodate social or economic development and is consistent with maximum public benefit, include:

a. Past, present, and probable beneficial uses of the water.

b. Economic and social costs, tangible and intangible, of the proposed discharge compared to benefits. The economic impacts to be considered are those incurred in order to maintain existing water quality. The financial impact analysis should focus on the ability of the facility to pay for the necessary treatment. The ability to pay depends on the facility's source of funds. In addition to demonstrating a financial impact on the publicly-or privately-owned facility, the analysis must show a significant adverse impact on the community. The long-term and short-term socioeconomic impacts of maintaining existing water quality must be considered. Examples of social and economic parameters that could be affected are employment, housing, community services, income, tax revenues, and land value. To accurately assess the impact of the proposed project, the projected baseline socioeconomic profile of the affected community without the project should be compared to the projected profile with the project.

c. The environmental aspects of the proposed discharge must be evaluated. The proposed discharge--while actually causing a reduction in water quality in a given water body--may be simultaneously causing an increase in water quality in a more environmentally sensitive body of water from which the discharge in question is being diverted; e.g., changing the location of San Francisco's outfall from the Bay to the ocean.

d. The implementation of feasible alternative control measures which might reduce, eliminate, or compensate for negative impacts of the proposed action.

The Regional Board should encourage the participation of the public and appropriate government agencies in the public interest balancing process so that the environmental, social, and economic impacts of the project are accurately assessed. EPA's Water Quality Standards Handbook (Chapter 5) provides additional guidance in assessing financial and socioeconomic impacts.

3. Report on the antidegradation analysis.

The Regional Board must ensure full intergovernmental coordination and public participation in the permitting process. The antidegradation analysis should be summarized in the Fact Sheet for major NPDES permits or the Statement of Basis for minor NPDES permits.

The summary should include all the following information:

a. The water quality parameters and beneficial uses which will be affected by the proposed action and the extent of the impact.

b. The scientific rationale for determining that the proposed action will or will not lower water quality.

c. A description of the alternative measures that were considered.

d. A description of the socioeconomic evaluation.

e. The rationale for determining that the proposed action is or is not justified by socioeconomic considerations.

The findings should specifically state that the Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16 and finds that the permitted discharge is consistent with those provisions.

cc: All Regional Board Staff
WQ Program Managers

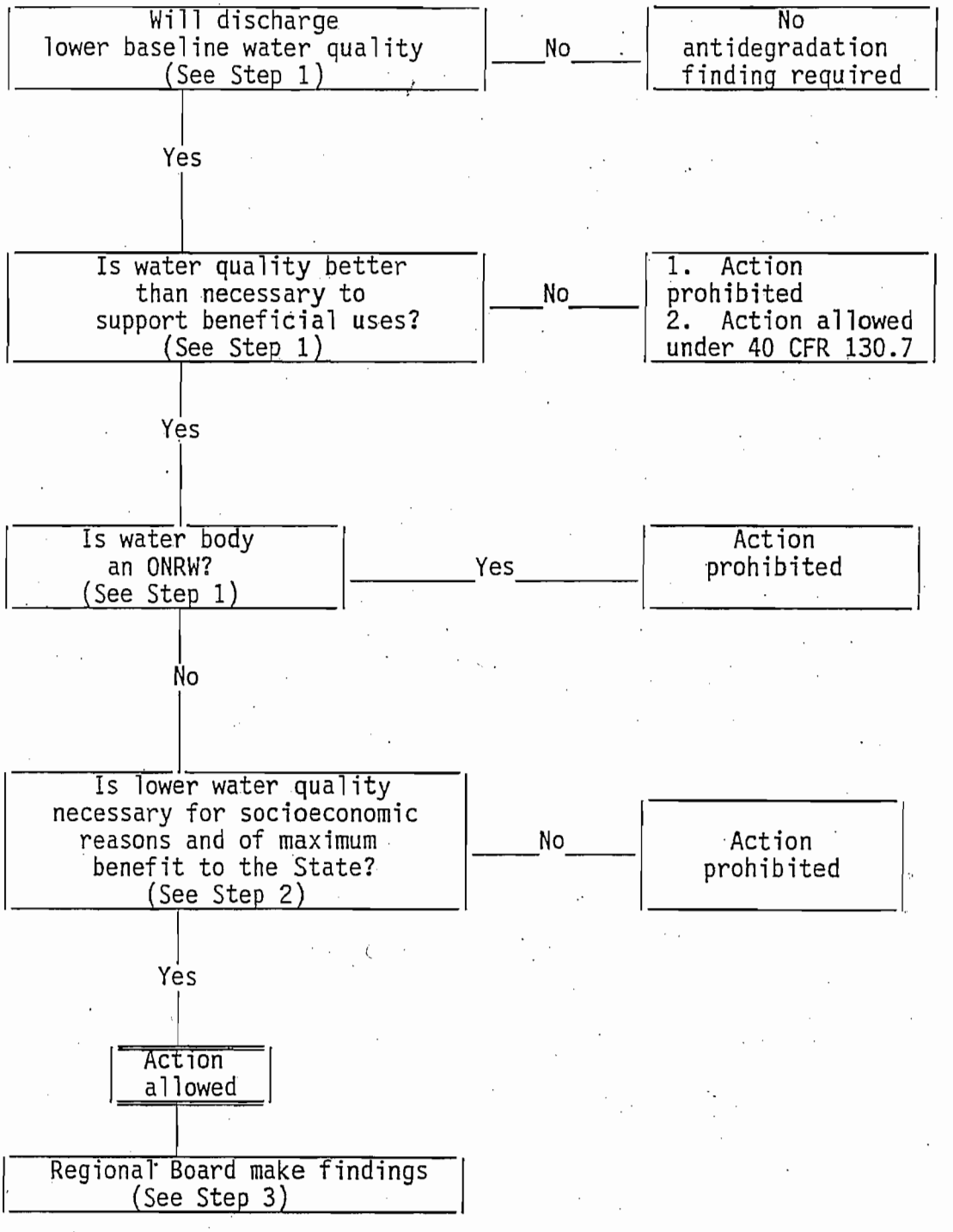


Figure 1 - Decision making flow chart.

STATE WATER RESOURCES CONTROL BOARD

RESOLUTION NO. 68-16

STATEMENT OF POLICY WITH RESPECT TO
MAINTAINING HIGH QUALITY OF WATERS IN CALIFORNIA

WHEREAS the California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the water of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety, and welfare of the people of the State; and

WHEREAS water quality control policies have been and are being adopted for waters of the State; and

WHEREAS the quality of some waters of the State is higher than that established by the adopted policies and it is the intent and purpose of this Board that such higher quality shall be maintained to the maximum extent possible consistent with the declaration of the Legislature;

NOW, THEREFORE, BE IT RESOLVED:

1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies.

2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

3. In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to the Secretary of the Interior as part of California's water quality control policy submission.

CERTIFICATION

The undersigned, Executive Officer of the State Water Resources Control Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 24, 1968.

Dated: October 28, 1968

/s/
Kerry W. Mulligan
Executive Officer
State Water Resources
Control Board

The federal antidegradation regulation 40 CFR 131.12, initially adopted in 1975, establishes requirements for protection of high quality waters. To wit:

"Section 131.12 Antidegradation Policy.

(a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation method shall, at a minimum, be consistent with the following:

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(2) Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

(3) Where high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

(4) In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with Section 316 of the Act.1/"

1/ Section 316(a) of the Clean Water Act states that the thermal component of an effluent limitation need only be stringent enough to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of the receiving water. Section 316(c), in effect, allows thermal discharges from a point source to meet standards imposed by Sections 301 or 303 (balanced indigenous populations) only for a fixed period as noted in Section 316(c). The federal antidegradation regulation is a more-stringent limitation and, thus, cannot be applied to these discharges.

From: Water Quality Standards Handbook, Second Draft, USEPA, June 1989

4.9 Questions and Answers on Antidegradation

This section uses a question and answer format to present information about the origin of the policy, the meaning of various terms, and its application in both general terms and in specific examples. A number of the questions and answers are closely related; the reader is advised to consider the section in its entirety ... rather than to focus on particular answers in isolation. While this section obviously does not address every question which could arise concerning the policy, we hope that the principles it set out will aid the reader in applying the policy in other situations.

These following questions and answers are substantially the same as those in the document entitled Questions and Answers on Antidegradation, August 1985, (designated as Appendix A to Chapter 2 of the Water Quality Standards Handbook, December 1983.) The questions have been renumbered and separated into sections. Minor changes in the answers to question #2 in 4.12.1 have been made to reflect the Clean Water Act Amendments of 1987 or changes in the reference document citations.

4.9.1 General Policy Questions

4.9.1.1 WHAT IS THE ORIGIN OF THE ANTIDEGRADATION POLICY?

The basic policy was established on February 8, 1968, by the Secretary of the U.S. Department of the Interior. It was included in EPA's first water quality standards regulation (40 CFR 130.17, 40 FR 55340-41, November 28, 1975). It was slightly refined and repromulgated as part of the current program regulation published on November 8, 1983 (48 FR 51400, 40 CFR 131.12). An antidegradation policy is one of the minimum elements required to be included in a state's water quality standards.

4.9.1.2 WHERE IN THE CLEAN WATER ACT (CWA) IS THERE A REQUIREMENT FOR ANTIDEGRADATION POLICY OR SUCH A POLICY EXPRESSED?

There is no explicit requirement for such a policy in the Act. However, the policy is consistent with the spirit, intent, and goals of the Act, especially the clause "... restore and maintain the chemical, physical and biological integrity of the Nation's waters" (Section 101(a)) and arguably is covered by the provision of Section 303(a) which made water quality standard requirements under prior law the "starting point" for CWA water quality requirements. In addition, Section 303(d)(4)(B) of the Clean Water Act Amendments of 1987 explicitly refers to satisfaction of the antidegradation requirements of 40 CFR 131.12 prior to taking various actions which would lower water quality. This demonstrates that the antidegradation policy is clearly recognized by Congress and is expected to be implemented to meet the goals of the Clean Water Act.

4.9.1.3 CAN A STATE JUSTIFY NOT HAVING AN ANTIDEGRADATION POLICY IN ITS WATER QUALITY STANDARDS?

EPA's water quality standards regulation requires each state to adopt an antidegradation policy and specifies the minimum requirements for a policy. If not included in the standards regulation of a state, the policy must be specifically referenced in the water quality standards so that the functional relationship between the policy and the standards is clear. Regardless of the location of the policy, it must meet all applicable requirements.

4.9.1.4 WHAT HAPPENS IF A STATE'S ANTIDEGRADATION POLICY DOES NOT MEET THE REGULATORY REQUIREMENTS?

If this occurs either through State action to revise its policy or through revised federal requirements, the state would be given an opportunity to make its policy consistent with the regulation. If this is not done, EPA has the authority to promulgate the policy for the state pursuant to Section 303(c)(4) of the Clean Water Act.

4.9.1.5 WHAT COULD HAPPEN IF A STATE FAILED TO IMPLEMENT ITS ANTIDEGRADATION POLICY PROPERLY?

If a state issues an NPDES permit which violates the required antidegradation policy, it would be subject to a discretionary EPA veto under Section 402(d) or to a citizen challenge. In addition to actions on permits, any wasteload allocations and total maximum daily loads violating the antidegradation policy are subject to EPA disapproval and EPA promulgation of a new wasteload allocation/total maximum daily load under Section 303(d) of the Act. If a significant pattern of violation was evident, EPA could constrain the award of grants or possibly revoke any federal permitting capability that had been delegated to the state. If the state issues a Section 401 certification (for an EPA issued NPDES permit) which fails to reflect the requirements of the antidegradation policy, EPA will, on its own initiative, add any additional or more stringent effluent limitations required to ensure compliance with Section 301(b)(1)(C). If the faulty Section 401 certification related to permits issued by other federal agencies (e.g., a Corp of Engineers Section 404 permit), EPA could comment unfavorably upon permit issuance. The public, of course, could bring pressure upon the permit issuing agency.

4.9.1.6 WILL THE APPLICATION OF THE ANTIDEGRADATION POLICY ADVERSELY IMPACT ECONOMIC DEVELOPMENT?

This concern has been raised since the inception of the antidegradation policy. The answer remains the same. The policy has been carefully structured to minimize adverse effects on economic development while protecting the water quality goals of the Act. As Secretary Udall put it in 1968, the policy serves "...the dual purpose of carrying out the letter and spirit of the Act without interfering unduly with further economic development" (Secretary Udall, February, 1968). Application of the policy could affect the levels and/or kinds of waste treatment necessary or result in the use of alternate sites where the environmental impact would be less damaging. These effects could have economic implications as do all other environmental controls.

4.9.1.7 HOW MAY THE PUBLIC PARTICIPATION REQUIREMENTS BE SATISFIED?

This requirement may be satisfied in several ways. The state may obviously hold a public hearing or hearings. The state may also satisfy the requirement by providing the opportunity for the public to request a hearing. Activities which may affect several water bodies in a river basin or sub-basin may be considered in a single hearing. To ease the resource burden on both the state and public, standards issues may be combined with hearings on environmental impact statements, water management plans, or permits. However, if this is done, the public must be clearly informed that possible changes in water quality standards are being considered along with other activities. In other words, it is inconsistent with the water quality standards regulation to "back-door" changes in standards through actions on EIS's wasteload allocations, plans, or permits.

4.9.1.8 IS POLLUTION RESULTING FROM NONPOINT SOURCE ACTIVITIES SUBJECT TO PROVISIONS OF THE ANTIDEGRADATION POLICY?

Nonpoint source activities are not exempt from the provisions of the antidegradation policy. The language of Section 131.12 (a)(2) of the regulation: "Further, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control" reflects statutory provisions of the Clean Water Act. While it is true that the Act does not establish a regulatory program for nonpoint sources, it clearly intends that the BMPs developed and approved under Sections 205(j), 208 and 303(e) be aggressively implemented by the states.

4.9.1.9 WHAT IS MEANT BY THE REQUIREMENT THAT WHERE A THERMAL DISCHARGE IS INCLUDED, THE ANTIDEGRADATION POLICY SHALL BE CONSISTENT WITH SECTION 316 OF THE ACT?

This requirement is contained in Section 131.12 (a)(4) of the regulation and is intended to coordinate the requirements and procedures of the antidegradation policy with those established in the Act for setting thermal discharge limitations. Regulations implementing Section 316 may be found at 40 CFR 124.66. The statutory scheme and legislative history indicate that limitations developed under Section 316 take precedence over other requirements of the Act.

4.9.1.10 WHAT IS THE RELATIONSHIP BETWEEN THE ANTIDEGRADATION POLICY, STATE WATER RIGHTS USE LAWS AND SECTION 101(g) OF THE CLEAN WATER ACT WHICH DEALS WITH STATE AUTHORITY TO ALLOCATE WATER QUANTITIES?

The exact limitations imposed by section 101(g) are unclear, however, the legislative history and the courts interpreting it do indicate that it does not nullify water quality measures authorized by CWA (such as water quality standards and their upgrading, and NPDES and 402 permits) even if such measures incidentally affect individual water rights. Those authorities also indicate that if there is a way to reconcile water quality needs and water quantity allocations, such accommodation should be pursued. In other words, where there are alternate ways

to meet the water quality requirements of the Act, the one with least disruption to water quantity allocations should be chosen. Where a planned diversion would lead to a violation of water quality standards (either the antidegradation policy or a criterion), a 404 permit associated with the diversion should be suitably conditioned if possible and/or additional nonpoint and/or point source controls should be imposed to compensate.

4.9.1.11 AFTER READING THE REGULATION, THE PREAMBLE, AND ALL THESE QUESTIONS AND ANSWERS, I STILL DON'T UNDERSTAND ANTIDEGRADATION, WHOM CAN I TALK TO?

Call Mr. Dave Sabeck at the Standards Branch at: (202) 475-7315, or Mr. Phil Woods, Water Quality Standards Coordinator, at EPA Region 9 at (415) 351-8653.

4.9.2 Protection of Existing Uses

4.9.2.1 WHAT IS THE PROPER INTERPRETATION OF THE TERM "AN EXISTING USE"?

An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow such uses to occur (unless there are physical problems which prevent the use regardless of water quality). An example of the latter is an area where shellfish are propagating and surviving in a biologically suitable habitat and are available and suitable for harvesting. Such facts clearly establish that shellfish harvesting is an "existing" use, not one dependent on improvements in water quality. To argue otherwise would be to say that the only time an aquatic protection use "exists" is if someone succeeds in catching fish.

4.9.2.2 THE WATER QUALITY STANDARDS REGULATION STATES THAT "EXISTING USES AND THE LEVEL OF WATER QUALITY NECESSARY TO PROTECT THE EXISTING USES SHALL BE MAINTAINED AND PROTECTED." HOW FULLY AND AT WHAT LEVEL OF PROTECTION IS AN EXISTING USE TO BE PROTECTED IN ORDER TO SATISFY THE ABOVE REQUIREMENT?

No activity is allowable under the antidegradation policy which would partially or completely eliminate any existing use whether or not that use is designated in a state's water quality standards. The aquatic protection use is a broad category requiring further explanation. Species that are in the water body and which are consistent with the designated use (i.e., not aberrational) must be protected, even if not prevalent in number or importance. Nor can activity be allowed which would render the species unfit for maintaining the use. Water quality should be such that it results in no mortality and no significant growth or reproductive impairment of resident species. (See Section 4.9.2.9 for situation where an aberrant sensitive species may exist.) Any lowering of water quality below this full level of protection is not allowed. A state may develop subcategories of aquatic protection uses but cannot choose different levels of protection for like uses. The fact that sport or commercial fish are not present does not mean that the water may not be supporting an aquatic life protection function. An existing aquatic community composed entirely of invertebrates and plants, such as may be found in a pristine alpine tributary stream should still be protected whether or not such a stream supports a fishery. Even though the

shorthand expression "fishable/swimmable" is often used, the actual objective of the act is to "restore and maintain the chemical, physical, and biological integrity of our Nation's waters" (Section 101(a)). The term "aquatic life" would more accurately reflect the protection of the aquatic community that was intended in Section 101(a)(2) of the Act.

4.9.2.3 IS THERE ANY SITUATION WHERE AN EXISTING USE CAN BE REMOVED?

In general, no. Water quality may sometimes be affected, but an existing use, and the level of water quality to protect it must be maintained (Section 131.12(a)(1) and (2) of the regulation). However, the state may limit or not designate such a use if the reason for such action is non-water quality related. For example, a state may wish to impose a temporary shellfishing ban to prevent over-harvesting and ensure an abundant population over the long run, or may wish to restrict swimming from heavily trafficked areas. If the state chooses, for non-water quality reasons, to limit use designations, it must still adopt criteria to protect the use if there is a reasonable likelihood it will actually occur (e.g., swimming in a prohibited water). However, if the state's action is based on a recognition that water quality is likely to be lowered to the point that it no longer is sufficient to protect and maintain an existing use, then such action is inconsistent with the antidegradation policy.

4.9.2.4 HOW DOES THE REQUIREMENT THAT THE LEVEL OF WATER QUALITY NECESSARY TO PROTECT THE EXISTING USE(S) BE MAINTAINED AND PROTECTED, WHICH APPEARS IN SECTIONS 131.12(a)(1), (2), AND (3) OF THE WATER QUALITY STANDARDS REGULATION, ACTUALLY WORK?

Section 131.12(a)(1), as described in the Preamble to the regulation, provides the absolute floor of water quality in all waters of the United States. This paragraph applies a minimum level of protection to all waters, however, it is most pertinent to waters having beneficial uses that are less than the Section 101(a)(2) goals of the Act. If it can be proven, in that situation, that water quality exceeds that necessary to fully protect the existing use(s) and exceeds water quality standards but is not of sufficient quality to cause a better use to be achieved, then that water quality may be lowered to the level required to fully protect the existing use as long as existing water quality standards and downstream water quality standards are not affected. If this does not involve a change in standards, no public hearing would be required under Section 303(c). However, public participation would still be provided in connection with the issuance of an NPDES permit or amendment of a 208 plan. If, however, analysis indicates that the higher water quality does result in a better use, even if not up to the Section 101(a)(2) goals, then the water quality standards must be upgraded to reflect the uses presently being attained (Section 131.10(i)). Section 131.12(a)(2) applies to waters whose quality exceeds that necessary to protect the Section 101(a)(2) goals of the Act. In this case, water quality may not be lowered to less than the level necessary to fully protect the "fishable /swimmable" uses and other existing uses and may be lowered even to those levels only after following all the provisions described in Section 131.12(a)(2). This requirement applies to individual water quality parameters. Section 131.12(a)(3) applies to Outstanding National Resource Waters (ONRW) where the ordinary use classifications and supporting criteria are not appropriate. As described in the Preamble to the water quality standards regulation "States may allow some limited

activities which result in temporary and short-term changes in water quality," but such changes in water quality should not alter the essential character or special use which makes the water an ONRW. Any one or a combination of several activities may trigger the antidegradation policy analysis as discussed above. Such activities include a scheduled water quality standards review, the establishment of new or revised wasteload allocations NPDES permits, the demonstration of need for advanced treatment or request by private or public agencies or individuals for a special study of the water body.

4.9.2.5 WILL AN ACTIVITY WHICH WILL DEGRADE WATER QUALITY, AND PRECLUDE AN EXISTING USE IN ONLY A PORTION OF A WATER BODY (BUT ALLOW IT TO REMAIN IN OTHER PARTS OF THE WATER BODY) SATISFY THE ANTIDEGRADATION REQUIREMENT THAT EXISTING USES SHALL BE MAINTAINED AND PROTECTED?

No. Existing uses must be maintained in all parts of the water body segment in question other than in restricted mixing zones. For example, an activity which lowers water quality such that a buffer zone must be established within a previous shellfish harvesting area is inconsistent with the antidegradation policy. (However, a slightly different approach is taken for fills in wetlands, as explained in Question 4.9.2.7.)

4.9.2.6 DOES ANTIDEGRADATION APPLY TO POTENTIAL USES?

No. The focus of the antidegradation policy is on protecting existing uses. Of course, insofar as existing uses and water quality are protected and maintained by the policy, the eventual improvement of water quality and attainment of new uses may be facilitated. The use attainability requirements of Section 131.10 also help ensure that attainable potential uses are actually attained. (See also sections 4.9.2.1 and 4.9.2.4)

4.9.2.7 FILL OPERATIONS IN WETLANDS AUTOMATICALLY ELIMINATE ANY EXISTING USE IN THE FILLED AREA. HOW IS THE ANTIDEGRADATION POLICY APPLIED IN THAT SITUATION?

Since a literal interpretation of the antidegradation policy could result in preventing the issuance of any wetland fill permit under Section 404 of the Clean Water Act, and it is logical to assume that Congress intended some such permits to be granted within the framework of the Act, EPA interprets Section 131.12 (a)(1) of the antidegradation policy to be satisfied with regard to fills in wetlands if the discharge did not result in "significant degradation" to the aquatic ecosystem as defined under Section 230.10(c) of the Section 404(b)(1) guidelines. If any wetlands were found to have better water quality than "fishable/swimmable", the state would be allowed to lower water quality to the no significant degradation level as long as the requirements of Section 131.12(a)(2) were followed. As for the ONRW provision of antidegradation (131.12(a)(3)), there is no difference in the way it applies to wetlands and other water bodies.

4.9.2.9 A STREAM, DESIGNATED AS A WARM WATER FISHERY, HAS BEEN FOUND TO CONTAIN A SMALL, APPARENTLY NATURALLY OCCURRING POPULATION OF A COLD-WATER GAME FISH. THESE FISH APPEAR TO HAVE ADAPTED TO THE NATURAL WARM WATER TEMPERATURES OF THE STREAM WHICH WOULD NOT NORMALLY ALLOW THEIR GROWTH AND REPRODUCTION. WHAT IS THE EXISTING USE WHICH MUST BE PROTECTED UNDER SECTION 131.12(a)(1)?

Section 131.12(a)(1) states that "Existing instream water uses and level of water quality necessary to protect the existing uses shall be maintained and protected." While sustaining a small cold-water fish population, the stream does not support an existing use of a "cold-water fishery." The existing stream temperatures are unsuitable for a thriving cold-water fishery. The small marginal population is an artifact and should not be employed to mandate a more stringent use (true cold-water fishery) where natural conditions are not suitable for that use. A use attainability analysis or other scientific assessment should be used to determine whether the aquatic life population is in fact an artifact or is a stable population requiring water quality protection. Where species appear in areas not normally expected, some adaptation may have occurred and site specific criteria may be appropriately developed. Should the cold-water fish population consist of a threatened or endangered species, it may require protection under the Endangered Species Act. Otherwise the stream need only be protected as a warm water fishery.

4.9.2.10 HOW DOES EPA'S ANTIDEGRADATION POLICY APPLY TO A WATERBODY WHERE A CHANGE IN MAN'S ACTIVITIES IN OR AROUND THAT WATERBODY WILL PRECLUDE AN EXISTING USE FROM BEING FULLY MAINTAINED?

If a planned activity will foreseeably lower water quality to the extent that it no longer is sufficient to protect and maintain the existing uses in that waterbody, such an activity is inconsistent with EPA's antidegradation policy which requires that existing uses are to be maintained. In such a circumstance, the planned activity must be avoided or adequate mitigation or preventive measures must be taken to ensure that the existing uses and the water quality to protect them will be maintained. In addition, in "high quality waters" under Section 131.12(a)(2), before any lowering of water quality occurs, there must be: 1) a finding that it is necessary in order to accommodate important economical or social development in the area in which the waters are located, (2) full satisfaction of all intergovernmental coordination and public participation provisions, and (3) assurance that the highest statutory and regulatory requirements and best management practices for pollutant controls are achieved. This provision can normally be satisfied by the completion of Water Quality Management Plan updates or by a similar process that allows for public participation and intergovernmental coordination. This provision is intended to provide relief only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for "fishable/swimmable" water, and the two cannot both be achieved. The burden of demonstration on the individual proposing such activity will be very high. In any case, moreover, the existing use must be maintained and the activity shall not preclude the maintenance of a "fishable/swimmable" level of water quality protection.

4.9.2.11 IF A WATER BODY WITH A PUBLIC WATER SUPPLY DESIGNATED USE IS, FOR NON-WATER QUALITY REASONS, NO LONGER USED FOR DRINKING WATER MUST THE STATE RETAIN THE PUBLIC WATER SUPPLY USE AND CRITERIA IN ITS STANDARDS?

Under 40 CFR 131.10(h)(1), the state may delete the public water supply use designation and criteria if the state adds or retains other use designations for the waterbodies which have more stringent criteria. The state may also delete the use and criteria if the public water supply is not an "existing use" as defined in Section 131.3 (i.e., achieved on or after November 1975), as long as one of the Section 131.10(g) justifications for removal is met. Otherwise, the state must maintain the criteria even if it restricts the actual use on non-water quality grounds, as long as there is any possibility the water could actually be used for drinking. (This is analogous to the swimming example in the preamble.)

4.9.3 Protection of Water Quality in High Quality Waters

4.9.3.1 IN HIGH QUALITY WATERS, ARE NEW DISCHARGERS OR EXPANSION OF EXISTING FACILITIES SUBJECT TO THE PROVISIONS OF ANTIDEGRADATION?

Yes. Since such activities would presumably lower water quality, they would not be permissible unless the state finds that it is necessary to accommodate important economic or social development (Section 131.12(a)(2)). In addition the minimum technology based requirements must be met, including new source performance standards. This standard would be implemented through the wasteload and NPDES permit process for such new or expanded sources.

4.9.3.2 WHAT DOES EPA MEAN BY "...THE STATE SHALL ENSURE THAT THERE SHALL BE ACHIEVED THE HIGHEST STATUTORY AND REGULATORY REQUIREMENTS FOR ALL NEW AND EXISTING POINT SOURCES AND ALL COST EFFECTIVE AND REASONABLE BEST MANAGEMENT PRACTICES FOR NONPOINT SOURCE CONTROL" (SECTION 131.12(a)(2)?

This requirement ensures that the limited provision for lowering water quality of high quality waters down to "fishable/swimmable" levels will not be used to undercut the Clean Water Act requirements for point source and nonpoint source pollution control. Furthermore, by ensuring compliance with such statutory and regulatory controls, there is less chance that a lowering of water quality will be sought in order to accommodate new economic and social development.

4.9.3.3 WHAT DOES EPA MEAN BY "...IMPORTANT ECONOMIC OR SOCIAL DEVELOPMENT IN THE AREA IN WHICH THE WATERS ARE LOCATED" IN SECTION 131.12(a)(2)?

This phrase is simply intended to convey a general concept regarding what level of social and economic development could be used to justify a change in high quality waters. Any more exact meaning will evolve through case-by-case application under the state's continuing planning process. Although EPA has issued suggestions on what might be considered in determining economic or social impacts, the Agency has no predetermined level of activity that is defined as "important" (see Section 4.4.3.3).

4.9.4 Wasteload Allocations

4.9.4.1 WHAT IS THE RELATIONSHIP BETWEEN WASTELOAD ALLOCATIONS, TOTAL MAXIMUM DAILY LOADS, AND THE ANTIDEGRADATION POLICY?

Wasteload allocations distribute the allowable pollutant loadings to a stream between dischargers. Such allocations also consider the contribution to pollutant loadings from nonpoint sources. Wasteload allocations must reflect applicable state water quality standards including the antidegradation policy. No wasteload allocation can be developed or NPDES permit issued that would result in a standard being violated, or, in the case of waters whose quality exceeds that necessary for the Section 101(a)(2) goals of the Act, can result in a lowering of water quality unless the applicable public participation, intergovernmental review and baseline control requirements of the antidegradation policy have been met.

4.9.4.2 DO THE INTERGOVERNMENTAL COORDINATION AND PUBLIC PARTICIPATION REQUIREMENTS WHICH ESTABLISH THE PROCEDURES FOR DETERMINING THAT WATER QUALITY WHICH EXCEEDS THAT NECESSARY TO SUPPORT THE SECTION 101(a)(2) GOAL OF THE ACT MAY BE LOWERED APPLY TO CONSIDERING ADJUSTMENTS TO THE WASTELOAD ALLOCATIONS DEVELOPED FOR THE DISCHARGERS IN THE AREA?

Yes. Section 131.12(a)(2) of the water quality standards regulation is directed towards changes in water quality per se, not just toward changes in standards. The intent is to ensure that no activity which will cause water quality to decline in existing high quality waters is undertaken without adequate public review. Therefore, if a change in wasteload allocation could alter water quality in high quality waters, the public participation and coordination requirements apply.

4.9.4.3 IS THE ANSWER TO THE ABOVE QUESTION DIFFERENT IF THE WATER QUALITY IS LESS THAN THAT NEEDED TO SUPPORT "FISHABLE/SWIMMABLE" USES?

Yes. Nothing in either the water quality standards or the wasteload allocation regulations requires the same degree of public participation or intergovernmental coordination for such waters as is required for high quality waters. However, as discussed in Section 4.9.1.7, public participation would still be provided in connection with the issuance of a NPDES permit or amendment of a 208 plan. Also, if the action which causes reconsideration of the existing wasteloads (such as dischargers withdrawing from the area) will result in an improvement in water quality which makes a better use attainable, even if not up to the "fishable/swimmable" goal, then the water quality standards must be upgraded and full public review is required for any action affecting changes in standards. Although not specifically required by the standards regulation between the triennial reviews, we recommend that the state conduct a use attainability analysis to determine if water quality improvement will result in attaining higher uses than currently designated in situations where significant changes in wasteloads are expected.

4.9.4.4 SEVERAL FACILITIES ON A STREAM SEGMENT DISCHARGE PHOSPHORUS CONTAINING WASTES. AMBIENT PHOSPHORUS CONCENTRATIONS MEET CLASS B STANDARDS, BUT BARELY. THREE DISCHARGERS ACHIEVE ELIMINATION OF DISCHARGE BY DEVELOPING A LAND TREATMENT SYSTEM. AS A RESULT, ACTUAL WATER QUALITY IMPROVES (I.E., PHOSPHORUS LEVELS DECLINE) BUT NOT QUITE TO THE LEVEL NEEDED TO MEET CLASS A (FISHABLE/S WIMMABLE) STANDARDS. CAN THE THREE REMAINING DISCHARGERS NOW INCREASE THEIR PHOSPHORUS DISCHARGE WITH THE RESULT THAT WATER QUALITY DECLINES (PHOSPHORUS LEVELS INCREASE) TO PREVIOUS LEVELS?

Nothing in the water quality standards regulation explicitly prohibits this (see Sections 4.9.2.4 and 4.9.4.3). Of course, changes in their NPDES permit limits may be subject to non-water quality constraints, such as BPT or BAT, which may restrict this.

4.9.4.5 SUPPOSE IN THE ABOVE SITUATION WATER QUALITY IMPROVES TO THE POINT THAT ACTUAL WATER QUALITY NOW MEETS CLASS A REQUIREMENTS. IS THE ANSWER DIFFERENT?

Yes. The standards must be upgraded (see Section 4.9.2.4).

4.9.4.6 AS AN ALTERNATIVE CASE, SUPPOSE PHOSPHORUS LOADINGS GO DOWN AND WATER QUALITY IMPROVES BECAUSE OF A CHANGE IN FARMING PRACTICES, E.G., INITIATION OF A SUCCESSFUL NONPOINT PROGRAM. ARE THE ABOVE ANSWERS THE SAME?

Yes. Whether the improvement results from a change in point or nonpoint source activity is immaterial to how any aspect of the standards regulation operates. Section 131.10(d) clearly indicates that uses are deemed attainable if they can be achieved by "... cost-effective and reasonable best management practices for nonpoint source control". Section 131.12(a)(2) of the antidegradation policy contains essentially the same wording.

4.9.4.7 WHEN A POLLUTANT DISCHARGE CEASES FOR ANY REASON, MAY THE WASTELOAD ALLOCATIONS FOR THE OTHER DISCHARGES IN THE AREA BE ADJUSTED TO REFLECT THE ADDITIONAL LOADING AVAILABLE?

This may be done consistent with the antidegradation policy only under two circumstances: (1) in "high quality waters" where after the full satisfaction of all public participation and intergovernmental review requirements, such adjustments are considered necessary to accommodate important economic or social development and the "threshold" level requirements are met; or (2) in less than "high quality waters", when the expected improvement in water quality will not cause a better use to be achieved, the adjusted loads still meet water quality standards, and the new wasteload allocations are at least as stringent as technology-based limitations. Of course, all applicable requirements of the Section 402 permit regulations would have to be satisfied before a permittee could increase its discharge.

U.S. ENVIRONMENTAL PROTECTION AGENCY

Region 9

Guidance on

Implementing the Antidegradation Provisions

of 40 CFR 131.12

/s/
RICHARD A. CODDINGTON
Acting Director
Water Management Division

June 3, 1987
Date

PURPOSE

This document provides general program guidance for the States of Region 9 on the development of procedures for implementing State antidegradation policies. The focus of this guidance is on 40 CFR 131.12 of the water quality standards regulation (promulgated in 48 FR 51407, dated November 8, 1983) which sets out requirements to be met before any action is taken that would lower the quality of the nation's waters.

BACKGROUND

Section 101(a) of the Clean Water Act defines the national goal of restoring and maintaining the chemical, physical and biological integrity of the Nation's waters. Section 303(a)(4) of the Clean Water Act explicitly refers to satisfaction of the antidegradation requirements of 40 CFR 131.12 prior to taking various actions which would lower water quality. 40 CFR 131.12 requires that antidegradation provisions at least as stringent as those specified in that regulation be adopted by States as part of their water quality standards.

This guidance identifies the tasks to be performed by States to implement Section 131.12 of the water quality standards regulation. Those tasks that need the development of decision criteria by the States are identified. Such criteria are necessary to define those actions which require detailed economic or water quality impact analyses. The Agency expects States to develop and document these criteria in their antidegradation implementation procedures, for review and approval by EPA regional offices. The Agency's objective is to achieve the goals of the Act through an integrated approach to eliminating water pollution which includes the consistent application of State antidegradation policies. Figure 1 lays out the decision making process of an antidegradation analysis.

Many of the procedures identified herein are already performed by States as part of their regulatory programs. Consequently, this document primarily serves to delineate, in a consistent manner, the criteria EPA Region 9 will be using to evaluate both State and EPA decisions, for compliance with 40 CFR 131.12.

TIER III WATERS - Outstanding National Resource Waters

40 CFR 131.12(a)(3) prohibits any action which would lower water quality in waters designated as Outstanding National Resource Waters (ONRWs). Examples of such waters include, but are not limited to, waters of National and State parks and wildlife refuges, and waters of exceptional recreational or ecological significance.

TIER I WATERS

40 CFR 131.12(a)(1) prohibits any action which would lower water quality below that necessary to maintain and protect existing uses. In cases where

water quality is just adequate to support the propagation of fish, shell fish and wildlife and recreation in and on the water, such water quality must be maintained and protected. In cases where water quality is lower than necessary to support these uses, the requirements in Section 303(d) of the Act, 40 CFR 131.10 and other pertinent regulations must be satisfied. Guidance concerning actions affecting these waters has been published elsewhere and will not be repeated here.

TIER II WATERS - High Quality Waters

Applicability

40 CFR 131.12 establishes certain minimum requirements for States to adopt regulating actions which would lower water quality in high quality waters. These waters are defined as those in which water quality exceeds that necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water. Any action which would result in, or which would permit, a lowering of water quality, must be addressed in State implementation procedures. Actions covered by antidegradation provisions include, but are not limited to the following:

Permit Actions

1. Issuance/Re-issuance/Modification of NPDES permits.
2. Issuance of variances (e.g. 301(h), 301(m), etc.).
3. Issuance of permits for urban runoff.
4. Issuance of Section 404 permits.
5. Adoption of or alteration of mixing zones.
6. Relocation of discharge.
7. Commencement of discharge from a new source.
8. Increases in the discharge of pollutants from point sources due to:
    a. Industrial production increases.
    b. Municipal growth.
    c. New sources.
    d. Etc.

Standards/Load Allocation Actions

1. Water quality standards revisions.
2. Revision of wasteload allocations.

3. Reallocation of abandoned loads.

4. Section 401 certifications (for example; concerning FERC licenses, Corps' actions, etc.).

5. Section 208 or Section 303(e) approvals.

6. WQM plan approvals.

"Nonpoint Source" Actions

1. Changes in BMPs.

2. Resource management plan approvals.

3. Land Management (e.g. Forest) plan adoptions, certifications or approvals.

4. Changes in regulated agricultural activities.

5. Changes in regulated silvicultural activities.

6. Changes in regulated mining activities.

7. Construction and operation of roads, dams, etc.

Other Actions

1. RCRA/CERCLA actions.

2. Construction grant activities.

3. Other "major Federal actions" (pursuant to NEPA and the Endangered Species Act).

4. Water quantity/water rights actions which affect water quality.

5. Federal actions regulated by Section 313 of the Clean Water Act.

Prior to proceeding with a detailed analysis of these or similar actions, the affected water body should be assessed to determine whether or not it falls into either Tier I or Tier III. If so, actions which would lower water quality in such waters are prohibited. Otherwise, the water body should be assessed to determine the adequacy of the beneficial uses and water quality criteria designated for that water body. Adequate water quality standards must be adopted and approved for an affected water body, pursuant to 40 CFR 131 prior to allowing any action to proceed which would lower water quality in that water body.

The first step in any antidegradation analysis is to determine whether or not the proposed action will lower water quality (see Figure 1). If the action will not lower water quality, no further analysis is needed and EPA

considers 40 CFR 131.12 to be satisfied. If the action could or will lower water quality, and the affected water is not a Tier I or Tier III water, then the steps to be followed to determine whether or not 40 CFR 131.12 is satisfied are described in the following sections of this guidance.

Both point and nonpoint sources of pollution are subject to antidegradation requirements. While point sources are generally well regulated, procedures for controlling nonpoint source pollution have not been as extensively defined. Cost-effective and reasonable best management practices for nonpoint source controls must be designed to meet water quality standards. EPA policy, first issued as SAM-32 on November 14, 1978, states that where applicable water quality standards are not met, revised or additional best management practices (BMPs) should be applied in an iterative process to improve water quality to the point that standards are attained, and that designated uses are maintained and protected. In Region 9, States generally have broad authority to regulate nonpoint sources. As part of their implementation methodologies, States must adopt procedures which adequately assure that nonpoint sources of water pollution will comply with the antidegradation requirements of 40 CFR 131.12.

Implementation Procedures

Four basic elements should be included in State implementation procedures to ensure that actions affecting water quality are consistent with the provisions of 40 CFR 131.12. They are:

- Task A - Identify Actions that Require Detailed Water Quality and Economic Impact Analyses
- Task B - Determine that Lower Water Quality Will Fully Protect Designated Uses
- Task C - Determine That Lower Water Quality is Necessary to Accommodate Important Economic or Social Development in the Area in which the Waters are Located
- Task D - Complete Intergovernmental Coordination and Public Participation

Task A - Identify Actions that Require Detailed Water Quality and Economic Impact Analyses

This task established the types of analyses required for all actions that lower water quality in Tier II waters and decision criteria that define the degree of water quality and economic analysis required.

State procedures should include three parts. First, the State should develop procedures to document the degree to which water quality exceeds that necessary to protect the uses. Ambient monitoring data can be used to provide this documentation. States must adopt procedures to assure that, where little or no data exists, adequate information will be available to determine the existing quality of the water body or bodies, which could be adversely affected by the proposed action. Such procedures should include

both an assessment of existing water quality and a determination of which water quality parameters and beneficial uses are likely to be affected. These assessments and determinations could be performed either by the State or the party proposing the action in question.

Second, the State should develop procedures that quantify the extent to which water quality will be lowered as a result of the proposed action. Simple mass balance calculations or more detailed mathematics modeling, such as that contained in wasteload allocations, can provide this information.

Third, the State should develop decision criteria to define the degree of water quality change that warrants detailed water quality and economic impact analyses. Decision criteria could be based on direct measures, such as an absolute or percent change in ambient concentrations of the affected parameter or indirect measures such as changes in primary productivity caused by nutrients or changes in diurnal dissolved oxygen fluctuations.

Repeated or multiple small changes in water quality (such as those resulting from actions which do not require detailed analyses) can result in significant water quality degradation. To prevent such cumulative adverse impacts, a baseline of water quality must be established for each potentially affected water body, prior to allowing any action which would lower the quality of that water. This baseline should remain fixed unless some action improves water quality. At such time, the baseline should be adjusted accordingly.

Proposed actions to lower water quality should then be evaluated with respect to the baseline and the resultant water quality change should be determined. This determination should include the cumulative impacts of all previous and proposed actions and reasonably foreseeable actions which would lower water quality below the established baseline. Should the cumulative impact of actions significantly degrade water quality, more detailed water quality and economic impact analyses would be necessary.

In any case, whether or not water quality is significantly lowered (thus leading to an economic analysis), the State must find that any action which would lower water quality is necessary to accommodate important economic and social development. Such a finding must include, at a minimum, the following determinations:

1. That economic and social development will occur, e.g., there will be new or increased production of goods or services by the party proposing the change, population will grow in the service area of a sewage treatment plant, etc.

2. That this economic or social development requires the lowering of water quality which cannot be mitigated through reasonable means.

3. That the lower water quality does not result from inadequate wastewater treatment facilities, less-than-optimal operation of adequate treatment facilities, or failure to implement or comply with methodologies to reduce or eliminate nonpoint source pollution.

Task B - Determine that Lower Water Quality Will Fully Maintain and Protect Designated Uses

All actions that could lower water quality in Tier II waters require a determination that existing uses will be fully maintained and protected. States should develop methodologies for making this determination.

Tier II waters, by definition, are those in which the water quality is better than necessary to support and maintain the biota and beneficial uses of the water. In most cases, specific numerical standards do not exist to protect these uses. Where such standards do exist, they are generally established to provide the minimum acceptable quality to protect the beneficial uses of the water. Often, such standards are established on a statewide or drainage basin-wide basis and thus may not adequately protect the biota or the uses of specific reaches. Consequently, comparing existing or projected water quality with adopted standards may not adequately define whether or not beneficial uses will be fully maintained and protected.

Water quality must also meet any applicable public health standards as well as maintain and protect the existing growth and reproduction of resident species. The water quality criteria guidance developed by EPA per Section 304(a) of the Clean Water Act provides a basis for this assessment. However, national water quality criteria (such as those contained in the "Gold Book") may not fully protect resident species. The criteria may not protect locally occurring species that either may not have been tested, or that have been tested, but require greater protection than the criteria provide. This determination involves a comparison of the species upon which biological testing has been completed in the criteria development documents with the species resident to the water body where water quality may be lowered. If the resident species are not adequately represented in the database, additional testing should be completed before lower water quality is allowed. Implementation methods should include procedures for making this comparison and define the circumstances (e.g., in terms of water quality change or extent of the biological testing database) that would require additional biological testing before water quality can be lowered.

Water quality criteria for dissolved oxygen or conventional and non-conventional pollutants may be subject to the same limitations and should be considered in the same way. For parameters for which no criteria guidance has been developed, biological testing or acceptable site-specific criteria may be used to determine that lower water quality will fully maintain and protect designated uses.

The lowering of water quality through the discharge of conservative or persistent pollutants merits more intensive consideration by States, due to the bioaccumulative potential of these pollutants. These pollutants, particularly carcinogens, which are considered to have no safe "threshold" concentration, should have more stringent antidegradation requirements established for their analysis.

Other methods of determining whether or not beneficial uses are being maintained and protected include biological assessments, such as the aquatic ecoregions procedure, or ambient toxicity testing using standardized species. In some cases, assessing the quality of water bodies on a pollutant-specific basis could prove costly, particularly for waters in which a number of discharges are located or for complex effluents. EPA's recently developed acute and chronic toxicity methodologies for assessing the toxicity of effluents or receiving waters could provide a more comprehensive and affordable alternative.

Task C - Determine that Lower Water Quality is Necessary to Accommodate Important Economic or Social Development

Actions which the State determines in Task A to significantly lower water quality require a determination that such actions are necessary for important economic or social development. 40 CFR 131.12(a)(2) and the August 1985 "Questions and Answers on Antidegradation", give general guidance on how to make this determination. Explicit criteria defining "important economic or social development" have purposely not been developed by EPA headquarters, because of the varying environmental, economic and social conditions of localities throughout the country. Further explication of EPA Region 9's expectation concerning these determinations is appropriate and is presented below.

The fundamental requirement of this task is to establish a strong tie between the proposed lower water quality level and "important" economic or social development. If the party seeking the change in water quality cannot demonstrate the relationship between such development and water quality, then the proposed action is prohibited.

Demonstration of important economic or social development entails two steps. First, the party should describe and analyze the current state of economic and social development in the area that would be affected. The purpose of this step is to determine the "baseline" economic and social status of the affected community, i.e., the measure against which the effect of the water quality downgrade is judged. The area's use or dependence upon the water resource affected by the proposed action should be described in the analysis. The following factors should normally be included in the baseline analysis:

- Population;
- Area employment (numbers employed, earnings, major employers);
- Area income (earnings from employment and transfer payments, if known);
- Manufacturing profile: types, value, employment, trends;
- Government fiscal base: revenues by source (employment and sales taxes, etc.).

Second, the party seeking the change in water quality should then demonstrate the extent to which the sought for level of water quality would create an incremental increase in the rate of economic or social development and why the change in water quality is necessary to achieve such development. The party should provide analysis, along with the supporting data used in its preparation, showing the extent to which the factors listed above will benefit from the change in water quality requested. The analysis should demonstrate why such economic and social development requires the lower water quality. Other alternatives or changes in the project or other mitigation measures which would prevent degradation of water quality should be identified in this analysis. The following factors may be included in the analysis of incremental effects expected to result from the degradation in water quality:

- o Expected plant expansion;
- o Employment growth;
- o Direct and indirect income effects;
- o Increases in the community tax base.

Other components of this analysis could include an assessment of the overall environmental benefits to be achieved by the proposed action and the tradeoffs to be considered among the various media. The relative costs of various alternatives to the proposed action could also be analyzed.

The requirements for a given analysis will be site-specific, depending upon factors such as data availability, conditions specific to the relevant water body, the area of impact (city, county, State-wide), etc. The economic analysis may include estimation of the treatment costs necessary to maintain existing water quality; e.g. land treatment or advanced treatment. Staff of the EPA Regional office are available to assist States in determining the exact requirements of an analysis of specific proposals to lower water quality. In addition, the Economic Analysis Branch in EPA Headquarters' Office of Water can assist State and Regional staff, when necessary.

Task D - Complete Intergovernmental Coordination and Public Participation

Public notification pursuant to 40 CFR 131.12 is required for all actions that lower water quality in Tier II waters. EPA requires that proposed actions which degrade water quality be reviewed by other appropriate agencies and that the public be given an opportunity to comment.

Documentation and public notification under antidegradation need not be a lengthy process in many cases and can be combined with other actions that require public notification. The public participation requirement may be met by holding a public hearing, e.g., as part of the adoption of an NPDES permit, as long as proper notice of a standards action is provided to the public (see WQS Handbook). Intergovernmental coordination consists of requests for review of proposed actions by affected local, State and federal agencies, such as area-wide planning agencies, fish and wildlife agencies, etc.

The following is a summary of the public notification required to comply with the antidegradation provisions of the WQS regulation:

- o A statement that the action must comply with the State's antidegradation policy and a description of the policy.
- o A determination that existing uses will be maintained and protected. This will require an assessment and documentation for public review of (a) the amount the water quality currently exceeds that necessary to protect the existing and designated uses, and (b) the amount that water quality will be lowered as a result of the proposed action (see Task A).
- o A summary of other actions, if any, that have lowered water quality and a determination of any cumulative impacts.
- o A determination that lower water quality is necessary to accommodate important economic or social development. This will require a detailed analysis or the rationale used to determine that a detailed analysis is not required (see Tasks A and C).
- o A description of the intergovernmental coordination that has taken place.
- o A determination that there has been achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint sources.

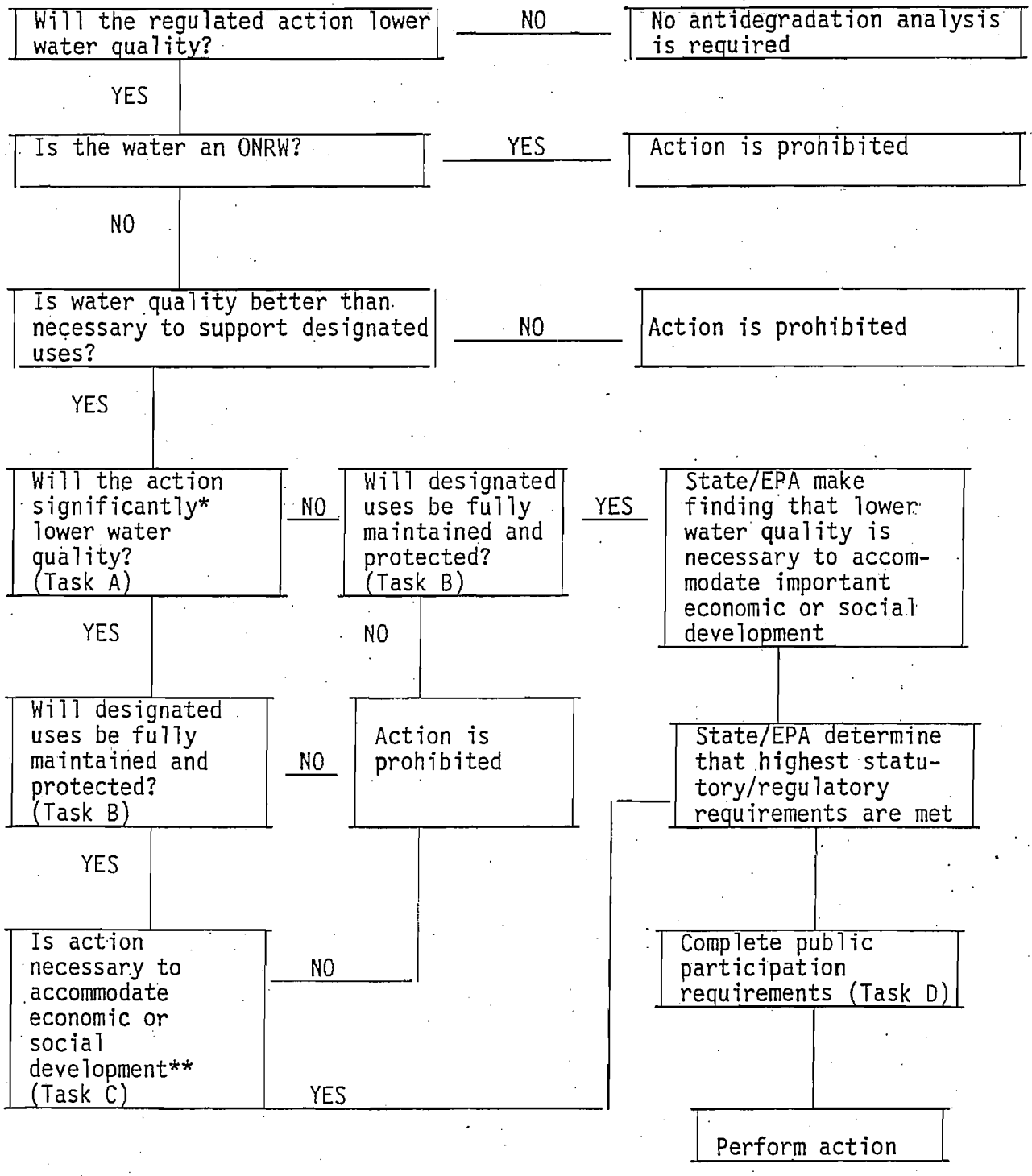
OTHER CONSIDERATIONS

1. The decision criteria for determining that detailed water quality and economic analyses are needed may vary with the types of chemical pollutants. Some chemicals are believed to elicit an effect at a certain concentration (i.e., threshold chemicals). Other chemicals (i.e., non-threshold chemicals) have no safe level. Non-threshold chemicals include carcinogens, mutagens and teratogens. States are urged to apply more stringent review procedures to non-threshold chemicals.

2. NPDES permits do not routinely contain numerical limits for all of the substances found in a discharger's effluent. Nevertheless, all substances are subject to antidegradation policy implementation, whether or not they are specifically limited in the permit. To apply antidegradation to substances not currently limited in the permit, the State can utilize the notification procedures specified in 40 CFR 122.42, requiring dischargers to notify the State pollution control agency of any actual or anticipated change in effluent characteristics, as compared with those existing at the time the permit was issued.

FIGURE 1

Antidegradation Flow Chart



* Significance level and effect of cumulative impacts as defined by State.

** Based on criteria defined by State.

ATTACHMENT 3

State of California

Memorandum

To : Regional Board Executive Officers
Jim Baetge
Ray Walsh

Date : OCT 07 1987

/s/ W. R. Attwater
William R. Attwater
Chief Counsel

From : STATE WATER RESOURCES CONTROL BOARD

Subject: FEDERAL ANTIDEGRADATION POLICY

This memorandum is intended to provide guidance on the application of the federal antidegradation policy to actions by the State Water Resources Control Board (State Board) and the California Regional Water Quality Control Boards (Regional Boards).

OVERVIEW

Environmental Protection Agency (EPA) Water Quality Standards regulations require that each state have an "antidegradation policy." 40 C.F.R. §§131.6(d), 131.12. Each state's policy must, at a minimum, be consistent with the principles set forth in 40 C.F.R. §131.12 (hereinafter referred to as the "federal antidegradation policy"). This regulation establishes a three-part test for determining when increases in pollutant loadings or other adverse changes in surface water quality may be permitted:

> "(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
> (2) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Furtner, the State shall assure that there shall be achieved the highest statutory and

regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

(3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected." 40 C.F.R. §131.12(a).

State Board Resolution No. 68-16, the "Statement of Policy with Respect to Maintaining High Quality of Waters in California", satisfies the requirement that the State have a policy which, at a minimum, is consistent with the federal antidegradation policy. The State Board has interpreted State Board Resolution No. 68-16 to incorporate the federal antidegradation policy in situations where the federal antidegradation policy is applicable. State Board Order No. WQ 86-17 at 16-19. State Board Resolution No. 68-16 is part of state policy for water quality control, which guides the regulatory programs for the State and Regional Boards and is binding on all state agencies. See Cal. Water Code §13140 et seq.

The State Board has interpreted State Board Resolution No. 68-16 to incorporate the federal antidegradation policy in order to ensure consistency with federal Clean Water Act requirements. See State Board Order No. WQ 86-17 at 17-18.

Attached are copies of EPA's Questions and Answers on: Antidegradation and EPA Region 9's Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12. These documents can be used as guidance in applying the federal antidegradation policy.

Also attached is a copy of State Board Order No. WQ 86-17. The order discusses the federal antidegradation policy at pages 16-24. EPA provided comments on the proposed order, stating that EPA concurred in the State Board's analysis.

As indicated by the attached material, application of the federal antidegradation policy often will hinge on the specific facts of the case. Thus, it is not possible to provide a definitive exposition as to how the policy should be applied.

The federal antidegradation policy serves as a "catchall" water quality standard, to be applied where other water quality standards are not specific enough for a particular water body or portion of that water body, or where other water quality standards do not address a particular pollutant. The test also serves to provide guidance for standard setting and for other regulatory decisions, to determine when additional control measures should be required to maintain instream beneficial uses or to maintain high quality waters.

The federal antidegradation policy emphasizes protection of instream beneficial uses, especially protection of aquatic organisms. In most cases, where instream beneficial uses will not be impaired and no outstanding National

resource waters will be affected, the federal antidegradation policy is not an absolute bar to reductions in water quality. Rather, the policy requires that reductions in water quality be justified as necessary to accommodate important social and economic development. The outcome will often depend upon a balancing of competing interests, the decision resting in the sound judgment of the State and Regional Boards.

This memorandum provides general guidance as to where the federal antidegradation policy applies, and how the three-part test established by the antidegradation policy should be applied.

I. Applicability of the Federal Antidegradation Policy

The three-part test set forth in the federal antidegradation policy is triggered by reduction in surface water quality. The first step in analyzing the requirements of the federal antidegradation policy as applied to a particular activity is to determine if the activity will lower surface water quality; only if there is reduction in water quality must the three-part test be applied to determine if the activity may be permitted. See EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 at 4.

A. Waters of the United States

The federal antidegradation policy is part of EPA's Water Quality Standards regulations. Each State's water quality standards must include a policy consistent with the federal antidegradation policy. 40 C.F.R. §131.6(d). Thus, the State and Regional Boards must apply the federal antidegradation policy to all "waters of the United States" within the State of California. See generally Clean Water Act §§303(e)(3), 502(7), 33 U.S.C. §1313(e)(3), 1362(7); Kentucky v. Train, 9 E.R.C. 1281 (E.D. Ky. 1976).

The term "waters of the United States" is broadly defined, to include essentially all surface waters. See, e.g., Quivara Mining Co. v. United States Environmental Protection Agency, 765 F.2d 126 (10th Cir. 1985) cert. denied ___ U.S. ___, 106 S.Ct. 761 (1986). "Waters of the United States" do not include ground waters. See Exxon v. Train, 554 F.2d 1310 (5th Cir. 1977). Where only ground waters are affected, State Board Resolution No. 68-16 still applies, but does not incorporate the federal antidegradation policy; the State and Regional Boards must apply the general policies set for the State Board Resolution No. 68-16 to changes in ground water quality, but need not address the specific, three-part test established by the federal antidegradation policy. See State Board Order No. WQ 86-17 at 19.

The boundaries of the State of California extend three miles seaward from the coast line. People v. Weeren, 26 Cal.3d 654, 660-61, 607 P.2d 1279, 1281-82, 163 Cal.Rptr. 255, 257-258, cert. denied 440

U.S. 839, 101 S.Ct. 115 (1980); see id. at 622, 607 P.2d 1282-83, 183 Cal.Rptr. at 258-59 (coast line is defined as the ordinary low water mark or the seaward limit of inland waters). See generally United States v. California, 381 U.S. 139, 164, 169-70, 85 S.Ct. 1401, 1415, 1418 (1965) (establishing test for identifying inland waters, a test satisfied by Monterey Bay but not by the Santa Barbara Channel, Santa Monica Bay, or San Pedro Bay); 44 Ops.Cal.Atty.Gen. 135 (1966). Compare Cal. Water Code §13200 with Clean Water Act §502, 33 U.S.C.A. §1362 ("boundaries of the state," for purposes of defining those areas for which water quality standards are required under the Porter-Cologne Water Quality Control Act, include the waters of the "territorial sea," as defined in the Clean Water Act, but do not include waters beyond the three-mile limit, defined as waters of the "contiguous zone" and the "ocean" under the Clean Water Act).

The State may exercise authority over activities beyond its boundaries in order to protect the State's legitimate interests. People v. Weeren, 26 Cal.3d at 666, 607 P.2d at 1285, 163 Cal.Rptr. at 261; see Cal. Water Code §13260(a)(2). But the State's water quality standards, including the state policy incorporating the federal antidegradation policy, extend only to waters within the boundaries of the State. See Clean Water Act §§303(e)(3), 507(7), 507(8), 33 U.S.C. §§1313(e)(3), 1367(7), 1367(8); Cal. Water Code §§13050(e); 13200.

Thus, for offshore discharges, application of the federal antidegradation policy by the State and Regional Boards is triggered only by changes in water quality within the three-mile limit. If there is a change within the three-mile limit triggering application of the federal antidegradation policy by the State and Regional Boards, however, the State and Regional Boards should take into consideration changes in water quality beyond the three-mile limit as part of the public interest balancing required to determine if the three-part test established by the federal antidegradation policy has been satisfied. Cf. State Board Resolution No. 68-16 (requiring that changes in water quality be consistent with the "maximum benefit to the people of the State." In determining what constitutes the maximum benefit to the people of the State, when regulating activities within their jurisdiction, the State and Regional Boards may take into consideration associated impacts on water quality outside the State's boundaries, and how those changes in water quality may affect the legitimate interests of the State.)

Of course, EPA may apply the federal antidegradation policy to offshore discharges, even where there is no change in water quality within the State's boundaries triggering application of the federal antidegradation policy by the State and Regional Boards. See generally Clean Water Act §402(a), 33 U.S.C. §1342(a). When EPA issues a permit for a discharge to the contiguous zone or ocean waters, the permit must apply "the same terms, conditions, and

requirements as apply to a State permit program and permits issued thereunder...." Id. §402(a)(3), 33 U.S.C. §1342(a)(3). States assuming responsibility for the National Pollutant Discharge Elimination System (NPDES) permit program must have and apply a policy consistent with the federal antidegradation policy. See 40 C.F.R. §§122.44(d), 123.25(b), 130.5(b)(1), 130.5(b)(6), 131.6(d). Accordingly, EPA should apply the federal antidegradation policy to any change in surface water quality resulting from any EPA issued NPDES permit.

B. Changes in Water Quality

Application of the federal antidegradation policy is triggered by a lowering of surface water quality. The critical issue in determining whether the three-part test established by the policy must be applied is not the level of treatment provided, but whether receiving waters will be affected.

Thus, the federal antidegradation policy ordinarily is triggered by new discharges or expansion of existing facilities, "[s]ince such activities would presumably lower water quality." EPA, Questions & Answers on: Antidegradation, 6. But an increase in the volume of discharge would not trigger application of the federal antidegradation policy where the increased volume is offset by an increase in the level of treatment, so that there is no lowering of receiving water quality.

Similarly, application of the federal antidegradation policy would be triggered by a reduction in the level of treatment of an existing discharge. See State Board Order No. WQ 86-17 at 20-21.

Substantial relocation of an existing outfall would also trigger application of the federal antidegradation policy since, like a new discharge, water quality presumably will be lowered in the vicinity of the new outfall. See EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 at 3.

The requirement that the federal antidegradation policy be applied does not depend upon identification of any discernible impact on beneficial uses. It may be most convenient to think in terms of mass emissions. A substantial increase in mass emissions of a pollutant ordinarily triggers application of the federal antidegradation policy, even if there is no other indication that the waters are polluted. See State Board Order No. WQ 86-17 at 21.

The federal antidegradation policy was promulgated on November 28, 1975. It does not apply to reductions in water quality which occurred before that date. Thus, the federal antidegradation policy ordinarily does not apply to continuation of existing discharges, even if exceptions or variances from other applicable water quality

objectives or effluent guidelines are required to permit the discharge to continue.

The federal antidegradation policy is applicable to changes in water quality resulting from either point source or nonpoint source discharges. EPA, Questions & Answers on: Antidegradation 6.

In general, the federal antidegradation policy will also apply to changes in water quality resulting from water diversions. See id. at 11; EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 at 4. EPA guidance suggests that in the case of an irreconcilable conflict between a State's water quantity allocations and the federal antidegradation policy, the State's water rights law would prevail. But the two should be reconciled where possible. EPA, Questions & Answers on: Antidegradation 11. For example, it may be possible to offset decreases in water quality resulting from decreases in instream flows by imposing stricter controls on other factors affecting water quality. Id.

Under California water rights law, flow requirements for insteam beneficial uses and effects on water quality are considered as part of water right decisions. See Cal. Water Code §§174, 1243, 1243.5. See generally United States v. State Water Resources Control Board, 182 Cal.App.3d 82, 227 Cal.Rptr. 161 (1986). In particular, the federal antidegradation policy, which has been incorporated into the State's water quality objectives, should be considered as part of water right decisions. See Cal. Water Code §1258; State Board Order No. WQ 86-17 at 17-18 (State Board Resolution No. 68-16, which incorporates federal antidegradation policy, has been adopted as a water quality objective in all sixteen regional water quality control plans.) The public trust doctrine, with its emphasis on protection of instream beneficial uses and public interest balancing, also requires consideration of factors like those set forth in the federal antidegradation policy. See generally National Audubon Society v. Superior Court, 33 Cal.3d 419, 658 P.2d 709, 189 Cal.Rptr. 346, cert. denied, 464 U.S. 977, 104 S.Ct. 413 (1983). In some respects, the public trust doctrine may require even greater protection of instream beneficial uses than would be required to satisfy the federal antidegradation policy. The federal antidegradation policy does not apply to changes in water quality which occurred before the policy took effect in 1975; such changes in water quality can be considered in applying the public trust doctrine.

Thus, it should be possible to harmonize California water rights law and the federal antidegradation policy. State water rights law would prevail if achieving the requirements of the federal antidegradation policy would require a waste or unreasonable use of water. Cf. United States v. State Water Resources Control Board, 182 Cal.App.3d 82, 143-44, 227 Cal.Rptr. 161, 197 (1986) (State Board need not set

standards to maintain the water quality of a water body at a level sufficient for existing offstream use where substitute water supply is provided and maintaining that level of water quality in the water body would require a waste of water.) See generally Cal. Const. Art. X, §2. But California water rights law assigns a high value to protection of water quality and instream beneficial uses. See Cal. Water Code §§243, 1243.5, 1258. Indeed, a diversion may itself be unreasonable, in violation of constitutional prohibition of waste, unreasonable use, or unreasonable method of diversion, if it results in an impairment of instream beneficial uses. See Environmental Defense Fund v. East Bay Municipal Utility District, 26 Cal.3d 183, 605 P.2d 1, 161 Cal.Rptr. 466 (1983). The social and economic benefits of water development may be taken into account as part of the balancing of interests contemplated by the federal antidegradation policy. See 40 C.F.R. §130.12(a)(2).

A conflict between the federal antidegradation policy and the State's proscription of waste or unreasonable use, or between the federal policy and other requirements of California water rights law, appears unlikely. The State Board should apply the federal antidegradation policy as part of its water right decisions.

In summary, the applicability of the federal antidegradation test depends upon whether there is a change in surface water quality. If there is a lowering of water quality, the antidegradation policy applies to all factors which are affecting that water quality. On the other hand, the federal antidegradation policy has no applicability, no matter how degraded a body of water may be, absent some lowering of water quality after the effective date of the policy.

C. Proceedings

The federal antidegradation policy has the potential to be applied to virtually every kind of proceeding where water quality standards are established or where activities which affect receiving water quality are permitted. The policy may apply to either planning activities or to actions on permits for individual discharges. See EPA, Questions & Answers on: Antidegradation 4-5. The federal antidegradation policy is intended to serve both as a guideline for the preparation of water quality standards and as a general water quality standard applicable to other regulatory decisions. See State Board Order No. WQ 86-17 at 19.

1. Planning

The State and Regional Boards have followed the federal antidegradation policy in establishing water quality objectives as part of adoption or approval of water quality control plans. See, e.g., State Board, Lake Tahoe Basin Water Quality Control Plan 37 (1980).

Because the federal antidegradation policy focuses on changes in water quality, applicability of the test may not necessarily be triggered by a proposed relaxation of water quality objectives. For example, if a water quality objective adopted in 1975 has never been achieved, and a new standard is proposed based upon the highest level of water quality actually achieved since 1975, the federal antidegradation policy would not apply. No actual reduction in water quality would be authorized.

On the other hand, if water quality has declined since 1975, and a new water quality objective is based upon the existing, lower level of water quality, the federal antidegradation policy would be applicable. Applicability of the federal antidegradation policy does not depend upon the type of proceeding involved, and therefore does not depend upon whether changes in water quality are authorized beforehand or accepted after the fact.

Basin planning decisions may trigger the applicability of the federal antidegradation policy, even if no change in water quality objectives is proposed. For example, changes in discharge prohibitions or other changes in implementation measures may cause a reduction in water quality. EPA guidance on the federal antidegradation policy indicates that the requirements of the policy must be satisfied if changes in wasteload allocations would result in a lowering of water quality. EPA, Questions & Answers on: Antidegradation 8.

EPA regulations do not specify the precise method by which a state must implement the federal antidegradation policy. See 40 C.F.R. §131.12(a). The State should seek to integrate the policy into its own procedures. In California, where state law emphasizes comprehensive planning and coordination of all factors that affect water quality, the federal antidegradation policy should be considered as part of planning decisions to the extent possible. See generally, 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 4-5 (1969). In many cases, however, it would not be possible to apply the federal antidegradation policy, except as the most general guidance, as part of basin planning decisions.

Water quality control plans must establish water quality objectives which are generally applicable to a body of water or to segments of that body of water. For large bodies of water such as the waters of the Pacific Ocean within the boundaries of the State, or for streams with numerous tributaries, it is not possible to identify, as part of water quality planning, all

areas where existing water quality may be higher than a proposed water quality objective. Moveover, the potential social and economic benefits of discharges which might reduce water quality often will be too speculative to be given consideration as part of water quality planning for large areas. The State and Regional Boards can and should focus their attention on establishing objectives for those situations where objectives are most needed to assure protection of beneficial uses, postponing until later site-specific approvals the determination whether discharges in a particular area should be allowed to reduce water quality to the level set by these objectives. For example, new objectives could be adopted for toxic pollutants that apply throughout a region, or even statewide, even though many areas will have better water quality than that required by those objectives. The new objectives would establish a floor, but water quality would not be permitted to be reduced to the level set by the new objectives without a site-specific application of the federal antidegradation policy.

If the State and Regional Boards are aware that a change in water quality standards or implementation measures would permit specific projects, the applicability of the federal antidegradation policy to the changes in water quality caused by those projects should be considered. The State and Regional Boards should pay particularly close attention to the requirements of the federal antidegradation policy when water quality control plan amendments are sought in order to permit a particular discharge, a reduced level of treatment, or development within a particular area.

2. Permitting

The federal antidegradation policy will most frequently be applied in individual permitting decisions, including issuance of waste discharge requirements and NPDES permits. A proposed waiver of waste discharge requirements would also be subject to the federal antidegradation policy if the waiver would result in a lowering of surface water quality.

For example, waste discharge requirements for new discharges or expansion of existing discharges ordinarily will require preparation of an anlysis applying the federal antidegradation policy. EPA, Questions & Answers on: Antidegradation 6. Of course, if the issures have already been analyzed in detail as part of a water quality control plan amendment, it will not be necessary to prepare a new analysis for issuance of waste discharge requirements.

The federal antidegradation policy will also apply to some cleanup and abatement orders and remedial action plans. Where

cleanup order is issued in response to changes in surface water quality, which occurred after the 1975 effective date of the federal antidegradation policy, but the board issuing the order decides not to require a return to the preexisting water quality, the decision to allow lower cleanup levels should be justified in accordance with the federal antidegradation policy. Where a cleanup order is directed towards immediate or short-term cleanup operations, postponing until later any determination of the ultimate cleanup level required, application of the federal antidegradation policy may also be postponed.

The federal antidegradation policy should also be addressed in water right proceedings, including issuance of water right permits, if the result of those proceedings would be to allow a lowering of surface water quality which existed after the 1975 effective date of tne federal antidegradation policy. See EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 at 4.

3. Waivers and Exceptions

The federal antidegradation policy is also applicable to special proceedings concerning proposed waivers or exceptions from otherwise applicable water quality objectives or control measures. Examples include proposed Ocean Plan exceptions. See generally, State Board, Water Quality Control Plan, Ocean Waters of California 11 (1983).

Ordinarily, provisions of the Clean Water Act which allow for variances of treatment requirements should not be interpreted to exempt the discharge from the federal antidegradation policy. See, e.g., State Board Order No. WQ 86-17 at 19-20; EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 at 2. The only exception is for waivers of effluent limitations for thermal discharges, pursuant to Section 316(a) of the Clean Water Act. 33 U.S.C. §1326(a). EPA guidance indicates that limitations developed under Section 316 of the Clean Water Act take precedence over any requirements of the federal antidegradation policy that would otherwise apply. EPA, Questions & Answers on: Antidegradation 11; see 40 C.F.R. §131.12(a)(4).

II. The Three-Part Test

Where the federal antidegradation policy applies, it does not absolutely prohibit any changes in water quality. The policy requires that any reductions in water quality be justified consistent with the three-part test established by the policy. State Board Order No. WQ 86-17 at 20.

Whether reductions in receiving water quality may be permitted consistent with the federal antidegradation policy often will depend upon the conditions existing in the specific waters affected, and the benefits of the proposed discharge. This site-specific balancing is consistent with the scheme established under the Porter-Cologne Water Quality Control Act for setting water quality objectives in issuing waste discharge requirements, or setting cleanup levels in cleanup and abatement orders. See Cal. Water Code §§13263, 13304. "Judicious action by the regional boards, based on the facts of different cases and different areas, is the key to establishment of water quality objectives and waste discharge requirements." 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, Appendix A at 30. Similar considerations govern when pollution is established and hence govern determination of appropriate cleanup levels. See id. (note on definition of "pollution").

A. Instream Uses

The first part of the test established by the federal antidegradation policy requires that: "Existing 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). This part of the test is intended to establish an "absolute requirement that uses attained must be maintained." 48 Fed. Reg. 51409 (Nov. 8, 1983).

EPA has provided more guidance on the requirement for protection of instream beneficial uses than on any other aspect of the federal antidegradation policy. See EPA, Questions & Answers on: Antidegradation 2-7. In large measure, this part of the federal antidegradation policy serves to reinforce the requirements of other applicable EPA Water Quality Standards regulations. See 40 C.F.R. §§131.2, 131.10, 131.11.

In general, the State must assure full protection of existing instream beneficial uses, including the health and diversity of aquatic life. Reductions in water quality should not be permitted if the change in water quality would seriously harm any species found in the water, other than a species whose presence is aberrational. EPA, Questions & Answers on: Antidegradation 3.

In general, the requirement that existing instream uses be protected is not satisfied if existing instream beneficial uses will be impaired, even for a portion of a water body. Id. at 5. EPA recognizes an exception for fill operations, which necessarily will preclude continued use of the filled area by aquatic species. The other two parts of the three-part test established by the federal antidegradation policy still apply to fill operations. Id. Similar considerations may require some flexibility in applying the federal antidegradation policy to areas flooded by new reservoirs. While it may be possible to protect a cold water fishery in a portion of the

reservoir, maintaining conditions for a cold water fishery throughout the reservoir, including its snallowest waters, may not be feasible. The water quality necessary to fully protect instream beneficial uses should still be protected in other portions of the waterway downstream of the reservoir.

B. Public Interest Balancing

Where water quality is higher than necessary to protect existing instream beneficial uses, the second part of the test applies. This part of the test allows reductions in water quality, so long as existing instream uses are protected, if the State finds "that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 40 C.F.R. §131.12(a)(2).

EPA has provided relatively little guidance on how this part of the test should be applied, except to indicate that the meaning of the test "will evolve through case-by-case application" by the State. EPA, Questions & Answers on: Antidegradation 8.

This part of the federal antidegradation policy may best be viewed as a balancing test. The greater the impact on water quality, the greater the justification in terms of economic or social development necessary to justify the change. The burden of proof, to demonstrate that the change in water quality is justified, should be on the project proponent. See State Board Resolution No. 68-16; EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. §131.12 at 9.

The requirement that the change be justified based upon "important economic or social development in the area" is intended to convey the level of justification required. EPA, Questions & Answers on: Antidegradation 8. Cost savings to the discharger, standing alone, absent a demonstration of how these savings are necessary to accommodate important social and economic development, are not adequate justification. State Board Order No. WQ 86-17 at 22 n. 10.

The requirement that the development accommodated by a change in water quality be important "in the area in which the waters are located" is intended to assure that development be important within the general area, not just to a small segment of the local population. The analysis used to determine whether the change in water quality is justified therefore should focus on impacts on the community; if the justification offered for a change in water quality is that it makes a particular development proposal feasible, the importance of that development within the general area should also be analyzed. The reference to economic development "in the area" should not be read to preclude consideration of important development at locations that are far away from the affected waters, so long as it

is demonstrated that the change in water quality is in fact necessary to accommodate that development.

The State has some flexibility to determine what kinds of impacts constitute "important economic or social development" that may justify changes in water quality. For example:

- Accommodating existing development may be used as a justification for changes in water quality. If major employer within the community could not afford to keep its plant in operation without a relaxation of treatment requirements, that may justify a lowering of receiving water quality.

- Important water development and water conservation projects may be considered to be important social and economic development that justify a lowering of water quality. See generally Cal. Water Code §13000.

- Environmental protection may constitute important social development, justifying a change in water quality, even if no other social or economic benefits to the community are demonstrated. If a discharge point is moved to less sensitive waters, the improvement in water quality at the original discharge point may justify the reduction in water quality at the new discharge point.

Of course, the degree to which development must be important in order to justify a change in water quality will depend on the extent to which water quality will be lowered. Thus, even where a new, expanded or relocated discharge is clearly justified, the balancing required by the second part of the federal antidegradation policy's three-part test may require a higher level of treatment than would otherwise be required by applicable Clean Water Act requirements. Conversely, relatively small changes in water quality should not require the level of justification needed for greater changes. EPA intends that the federal antidegradation policy be applied so as to require that development have a relatively high level of importance in order to justify a lowering of water quality. But the policy should not be interpreted to require that a project provide a major source of new housing or employment if only a very small discharge or a minor increase in an existing discharge is proposed.

Obviously, the information needed to apply this part of the federal antidegradation policy will vary according to the particular case. See EPA Region 9, Guidance on Implementing the Antidegradation Provisions of 40 C.F.R. 131.12 at 10. Detailed water quality and economic analyses should be required only if the degree of water quality change is significant. Id. at 6. EPA Region 9 has issued guidance indicating the information it expects to be provided in cases requiring detailed analyses, but the information requirements

will vary according to the type of project, receiving water impacts, and the nature of the social or economic development made possible by the project. Id. at 9-11. The analyses should include consideration of alternatives that would reduce water quality impacts. Id. at 10. Ordinarily, the information necessary to apply the federal antidegradation policy will be provided as part of the environmental documentation prepared for a project. See generally 14 Cal. Admin. Code §§ 15064, 15125, 15126, 15252. Where the State and Regional Boards participate in determining the scope of environmental documentation, and the federal antidegradation policy applies to a project, the Boards should seek to ensure that the requirements of the federal antidegradation policy will be analyzed. See, e.g., id. §15082(b)(1). Where changes in water quality are proposed to accommodate changes in land use, the State and Regional Boards should take into consideration the policies established under the appliable general plan, prepared by the local city or county pursuant to the State Planning and Zoning Law, Cal. Gov't Code §65000 et seq., and the plans of any regional, state or interstate agency with responsibility for land use planning in the area.

The federal antidegradation policy specifies that reductions in water quality may be permitted only after compliance with all applicable requirements for public participation and intergovernmental coordination. 40 C.F.R. §131.12(a)(2). The policy also specifies that all other applicable Clean Water Act requirements for point source discharges, and "all cost-effective and reasonable best management practices for nonpoint source control" shall be achieved. Id. These requirements are implicit in the requirement that changes in water quality must be "necessary to accommodate important economic or social development." Id. The necessity for a change in water quality has not been demonstrated to the extent that other applicable Clean Water Act requirements have not been followed. Nor has the necessity for a change in water quality been demonstrated to the extent that reductions in water quality could be avoided by reasonable and cost-effective control measures.

C. Outstanding National Resource Waters

The third part of the test established by the federal antidegradation policy requires that the water quality of waters which constitute an outstanding National resource be maintained and protected. 40 C.F.R. §131.12(a)(3). This part of the test has only limited applicability, but where it is applicable, it is very restrictive. No permanent or long-term reduction in water quality is allowable in areas given special protection as outstanding National resource waters. 48 Fed. Reg. 51402 (Nov. 8, 1983).

To date, only a small number of water bodies have been formally designated as outstanding National resource waters. The only California water so designated is Lake Tahoe. But other California waters almost certainly qualify.

Outstanding National resource waters are "waters of exceptional recreational or ecological significance." Id. The category may include waters of exceptionally high quality. 48 Fed. Reg. 51402 (Nov. 8, 1983). Outstanding National resource waters may also include:

> "water bodies which are important, unique, or sensitive ecologically, but whose water quality as measured by traditional parameters (dissolved oxygen, pH, etc.) may not be particularly high or whose character cannot be adequately described by these parameters." Id.

The most obvious candidates for designation as outstanding National resource waters are Pacific Ocean waters designated as areas of special biological significance. The Ocean Plan already sets requirements for protection of these areas that are consistent with the strict requirements for protection of outstanding National resource waters. See State Board, Water Quality Control Plan, Ocean Waters of California 9 (1983).

Other possible candidates for designation as outstanding National resource waters include state and federally designated wild and scenic rivers, and the waters of state and federal wilderness areas, parks, and wildlife refuges. Waters are not necessarily outstanding National resource waters simply because they are in one of these categories. Nor should waters outside these areas be excluded from consideration. But waters in these areas should be given special consideration to determine whether they should be designated as outstanding National resource waters.

Outstanding National resource waters may be designated as part of adoption or amendment of water quality control plans. See, e.g., State Board, Lake Tahoe Basin Water Quality Plan 37. See generally Cal. Water Code §13241(b).

Even if no formal designation has been made, individual permit decisions should not allow any lowering of water quality for waters which, because of the exceptional recreational and ecological significance, should be given the special protection assigned to outstanding National resource waters. See generally id. §13263(a) (water quality standards may be set when waste discharge requirements are issued, so long as those standards are no less stringent than any standards set by the applicable water quality control plan). Accordingly, the State and Regional Boards should consider, as part

of individual permit decisions, whether the affected waters should be designated as outstanding National resource waters.

III. Related Doctrines

The federal antidegradation policy applies in addition to any other applicable requirements of state and federal law. Even where a lower level of treatment would be consistent with the federal antidegradation policy, all other applicable regulatory requirements still must be satisfied. See, EPA, Questions & Answers on: Antidegradation 7-9.

In particular, the anti-backsliding requirements of the federal Clean Water Act often will apply in cases where the federal antidegradation policy is applicable.

State Board Resolution No. 68-16, which incorporates the federal antidegradation policy, may provide the basis for additional requirements in specific cases.

A. Anti-backsliding

"Backsliding" refers to reductions in treatment levels required by NPDES permits. EPA regulations limit the circumstances under which modified or reissued permits may set less stringent effluent limitations than required by previous permits. 40 C.F.R. §§122.44(l), 122.62. The Water Quality Act of 1987 includes provisions intended to clarify the Clean Water Act's anti-backsliding requirements. See Clean Water Act §402(o), 33 U.S.C. §1342(o).

The new anti-backsliding provisions generally prohibit relaxation of effluent limitations previously established on the basis of best professional judgment. Id. §402(o)(1), 33 U.S.C. §1342(o)(1). But the prohibition does not apply if any of five listed exceptions is applicable. Id. §402(o)(2), 33 U.S.C. §1342(o)(2).

The anti-backsliding requirements of the Clean Water Act are triggered by changes in the effluent limitations required by the discharger's NPDES permit, not by changes in the level of treatment actually achieved or by changes in receiving water quality. For example, an industrial discharger who failed to install and operate treatment systems required by the discharger's NPDES permit ordinarily could not obtain a relaxation of effluent limitations, even though the federal antidegradation policy would not apply. See id. §402(o)(2)(E), 33 U.S.C. §1342(o)(2)(E). On the other hand, new or expanded discharges ordinarily will not be subject to the anti-backsliding provisions.

The new anti-backsliding provisions also specify limitations on when water quality based effluent limitations may be relaxed. See id. §402(o), 33 U.S.C. §1342(o). If applicable water standards are not being achieved, a relaxation of water quality based effluent

limitations may be permitted if the new effluent limitations are consistent with a revised waste load allocation which will achieve water quality standards. See id. §303(d)(4)(A), 33 U.S.C. §1313(d)(4)(A). If all other applicable water quality standards are being achieved, water quality based effluent limitations may be relaxed if the relaxation is consistent with the federal antidegradation policy. Id. §303(d)(4)(B), 33 U.S.C. §1313(d)(4)(B).

B. State Board Resolution No. 68-16

State Board Resolution No. 68-16 establishes similar requirements to the federal antidegradation policy. The State Board adopted Resolution No. 68-16, as part of state policy for water quality control, in response to a 1968 Department of Interior directive calling for adoption of state policies. See generally Zener, The Federal Law of Water Pollution Control, published in E. Dolgin & T. Guilbert, Federal Environmental Law 721-23 (1974). That Interior Department directive later became the basis of the federal antidegradation policy promulgated by EPA in 1975. EPA, Questions & Answers on: Antidegradation 1.

Like the federal antidegradation policy, State Board Resolution No. 68-16 is triggered by changes in water quality. But the state policy has broader applicability. It applies to all waters of the State, not just waters of the United States. See State Board Resolution No. 68-16; State Board Order No. WQ 86-8. State Board Resolution No. 68-16 also applies to changes in water quality which occurred after its 1968 adoption date, not just to changes which occurred after the federal antidegradation policy took effect in 1975.

Where the federal antidegradation policy does not apply, the requirements of State Board Order No. 68-16 are less specific than the three-part test set by the federal antidegradation policy. See State Board Order No. WQ 86-17 at 19.

Where the federal antidegradation policy does apply, both the three-part test established by the federal antidegradation policy and the express requirements of State Board Resolution No. 68-16 should be considered. Id. at 23 n. 11. In some cases, application of the three-part test established by the federal policy may not fully satisfy the requirements of State Board Resolution No. 68-16. For example, the State's policy expressly provides for reasonable protection of potential beneficial uses; the federal antidegradation policy does not. See State Board Resolution No. 68-16; EPA, Questions & Answers on: Antidegradation 12. But cf. 40 C.F.R. §131.10(j) (requirement, independent of the federal antidegradation policy, for analysis of the attainability of instream beneficial uses). In all cases where the federal antidegradation policy is applicable, State Board Resolution No. 68-16 requires that, at a minimum, the three-part test established by the federal

antidegradation policy must be satisfied. State Board Order No. WQ 86-17 at 17-18.

Attachments

cc: Fresno, Redding and Victorville
Regional Board Offices

Dale Claypoole,
Program Control Unit

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).

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

(CONTINUED)

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 discharge 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(n) 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.
>
> . . . .
>
> 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
>
> (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, the 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 epibentnic 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 (CONTINUED)

Considering tne depth of tne 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 tnese violations, issuance of waste discharge requirements authorizing a reduction in treatment is inappropriate.

The Oxnard plume can reach the ocean surface during tne 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 snallow 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 cnaracteristics. 33 U.S.C. §1311(n). Tne legislative history of Section 301(h) indicates that depth is a key factor in determining wnetner 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, tne 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

(CONTINUED)

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

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

Tne 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 bentnic 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(n) 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.
> (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....
> (3) Where hign 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(n). 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 the 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.

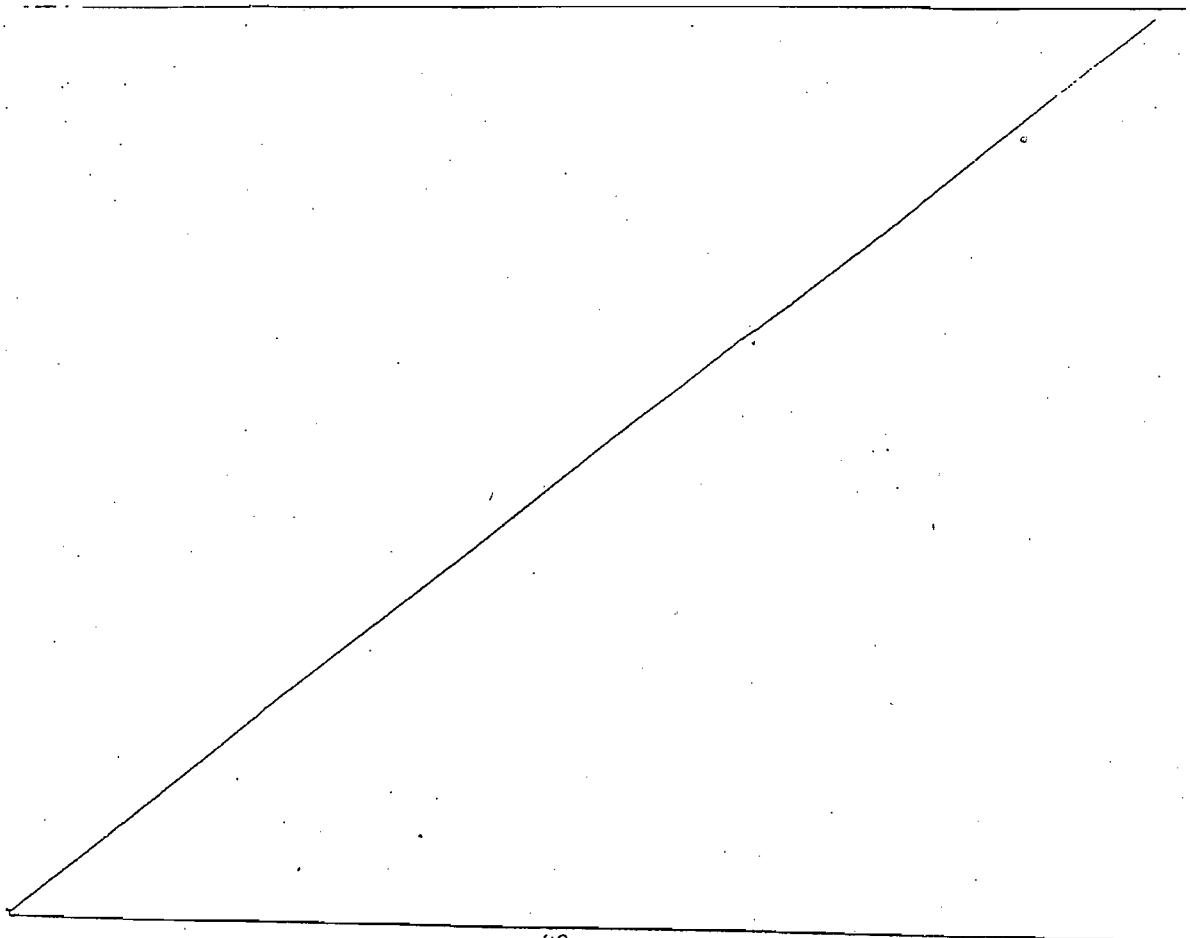
3. The Regional Board should consider the potential for wastewater reclamation, based upon a report submitted by the discharger and any other information which becomes available to the Regional Board, as part of the waste discharge requirements for the Oxnard facility.

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